SYNOVA
ADVANCING NURSE LEADERSHIP

A SYNOVA ASSOCIATES WHITE PAPER

CHRONIC STRESS IN PERINATAL AND NEONATAL NURSE LEADERS:
SUPPORTING NURSE LEADERS OF TODAY AND THE FUTURE
EXECUTIVE SUMMARY AND RECOMMENDATIONS

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BACKGROUND

Throughout the COVID-19 pandemic, a great deal of intentional and much-needed focus was placed on highlighting the fatigue, stress, and burnout of frontline nurses caring for patients at the bedside. A vast number of articles, stories, and news releases came forward from academics, scholars, and administrators and centered on how leaders could support their frontline nurses during the COVID-19 pandemic. Meanwhile, nurse leaders were struggling to meet the ever-growing list of responsibilities and all the while dealing with their own fatigue, stress, and burnout from the COVID-19 pandemic.

Synova Associates, a nurse leadership company with a 25-year history of providing educational content to neonatal and perinatal nurse leaders, heard from their community about the stress and burnout they were experiencing. Little attention was being given to the fatigue and stress that nursing leadership was experiencing, or the subsequent consequences for them as individuals, the nursing profession, and the healthcare organizations they serve. Synova prioritized gathering feedback directly from nurse leaders on how stress was impacting their lives, health, and livelihood.

In November 2021, Synova Associates partnered with the National Perinatal Information Center (NPIC) on a research study to better understand and explore chronic stress among perinatal and neonatal nurse leaders. This study included the survey instruments utilized by Kath and colleagues (Kath et al, 2013) to replicate their study model. During the time period of November 14 - December 13, 2021, 441 perinatal and neonatal nurse leaders from across the United States participated in the survey. The results demonstrated concerning stress findings, and the immense influence it has on nurse leaders across the country. Overall, this study found significant differences, including differences within diverse nursing leaders, span of control, and turnover intention which create new insight into the physical and emotional stressors that impact nurse leaders on a frequent basis.
This white paper is not meant to confirm causality, but to share concerning themes and statistically significant relationships that have emerged from the survey data, including chronic stressors identified by our ethnically diverse nurse leaders. There is a need for further research, analysis, and discussion for the development of innovative new support structures for all nursing leaders within perinatal and neonatal nursing leadership.

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METHODOLOGY

This study was launched on November 14, 2021 at the Synova Perinatal Leadership Forum. IRB approval was obtained through WCG IRB (#1321780). Nursing leaders were invited to participate through direct Synova email invitation and LinkedIn social media channels (Synova and NPIC). To qualify, a nursing leader was defined as a nurse manager, director or chief nursing officer that has 24/7 responsibilities (operational/financial) for a unit or units within a perinatal or neonatal inpatient care setting. Also, invitations were shared on the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) State Chapter Facebook pages. The survey was open between November 14 - December 13, 2021 and consisted of 35 Likert-scale questions that assessed attributes and attitudes of stress, environment, and leadership. All responses were anonymous, and responses were unable to be tracked to a participant. Through a separate portal, participants were offered a $5 Starbucks gift card upon completion of the survey as a token of appreciation for participating. Based upon the potential pool of participants nationwide, a minimum of 500 participants was sought to participate. 539 nursing leaders started the survey, and 441 completed all questions.

Questions Survey Sought to Address

1. What are the relationships among stressors (work location, tenure of role, personal factors), job stress and outcomes (physical/emotional) experienced by perinatal and neonatal nurse leaders?

2. What are the relationships among stressors (work location, tenure of role, personal factors) and predictors of stress experienced by perinatal and neonatal nurse leaders?

3. What is the relationship between overall experienced stress, race and work location?

Notes About the Analysis

SPSS v 28.0.1.1 was utilized for the statistical analysis, with the use of crosstabs and chi-square (χ^2) analysis. Based on the demographics and characteristics of participants, there were occasional models whereby the sample size (n) was low for a particular population, such as race/ethnicity, education, etc. Groups or categories may have been combined for better power and analysis. When helpful, groupings may have then been expanded to offer more granular detail, but resulted in a lower *n*.

FINDINGS & THEMES

Demographics and Leadership/Hospital Characteristics

Participant Demographics and Leadership/Hospital Attributes

Demographics	Percent (%)
Age	
18-24	2
25-34	11.6
35-44	46.3
45-54	25.4
55-64	12.9
65+	1.8
Education	
Diploma	4.8
Associates	15.4
Bachelor's	42.9
Master's	31.5
Doctorate	5.4
Gender	
Male	134.
Female	85.0
Non-Binary	1.6
Race	
Black/African American	15.4
Asian/Asian American	7.3
Native Hawaiian/Pacific Islander	8.6
American Indian/Alaska Native	5.7
White or Caucasian	61.5
Some other race	0.2
Two or more races	1.4

Leadership/Hospital Attributes	Percent (%)
Current Role	
Nursing Manager (non-service line leader)	48
Nursing Director (service line leader)	35.1
Associate Chief Nursing Officer	7.4
Chief Nursing Officer	7.0
Primary Work Location	
Antepartum/Pretesting	7.7
Labor and Delivery	24.1
Postpartum	13.3
Well-Baby Nursery	4.3
Lactation Services	6.8
OR/PACU	6.8
NICU/Special Care Nursery	18.7
Administrative Role (multiple units)	10.8
Tenure (Total Years as a Leader)	
Less than 6 months	3.8
6 months to 1 year	6.8
1 year to 2 years	11.7
2 years to 4 years	28.2
5 years to 10 years	32.9
Greater than 10 years	16.0
Tenure (Current Role)	
Less than 6 months	8.3
6 months to 1 year	11.9
1 year to 2 years	18.7
2 years to 4 years	34.5

Participant Demographics and Leadership/Hospital Attributes

Demographics	Percent (%)
Ethnicity	
Hispanic	13.6
Non-Hispanic	86.4
Marital Status	
Single, never married	7.3
Married/Partner	78.7
Separated/Divorced	10.2
Widowed	2.7
Other	0.9
Prefer not to say	0.2

Leadership/Hospital Attributes	Percent (%)
5 years to 10 years	19.6
Greater than 10 years	7.0
How Many Departments	
1	24.8
2	30.4
3	24.8
4 or more	20.0
For Profit/Not for Profit	
For-profit	36.3
Not-for-profit	63.1
I don't know	0.7
Hospital Type	
Academic/Affiliated with SON/SOM	38.5
Non-Academic/Not affiliated with SON/SOM	27.7
Community Hospital	24.5
Critical Access	5.6
Military Treatment Facility/Hospital	3.4
Direct Reports/Span of Control	
5 or less than 5	12.6
6-15	26.8
16-30	24.5
31-45	10.8
46-60	6.3
More than 60	18.9

Question 1: Relationships between stressors, job stress and outcomes

Possible outcomes of stress include a detrimental impact on physical health, general job satisfaction, turnover intentions, and psychological health with increased risk for burnout. For the purpose of this white paper, the focus is on the impact of chronic stress on the physical health and turnover intention of perinatal and neonatal nurse leaders.

Stress can manifest as the following **physical symptoms**: *headaches, stomach aches or stomach problems, sleeplessness, tight chest or chest pain, palpitations, shortness of breath, dizziness, muscle tension, and sweating.* Symptoms can be minor (a simple annoyance) or present as more severe and negatively impact one's overall health and ability to function. Survey participants were asked how often they experienced these symptoms over the previous 4-week timeframe. Answer choices included: 1) never/hardly ever, 2) seldom, 3) sometimes, 4) often, or 5) always. Statistically significant relationships were found between the following variables of work unit, job tenure and race:

- Postpartum unit (PP) leaders reported higher frequency of tight chest/shortness of breath symptoms ($p < 0.001$) when compared to leaders of other units (labor & delivery (L&D), operating room (OR), post-anesthesia care unit (PACU), well-baby nursery, lactation, neonatal intensive care unit (NICU), or leaders with multiple units.

- NICU leaders & leaders of multiple units reported higher frequency of headaches (p= 0.007) and muscle tension (p< 0.001) than other leaders.
- Leaders with one year or less experience in their role reported higher frequency of tight chest/chest pain (p< 0.001), palpitations (p=0.007), shortness of breath (p= 0.002), and sweating (p< 0.001) than any other tenure group (2-4 years, 5-10 years, 10+ years).
- **BIPOC** (Black, Indigenous, People of Color) nurse leaders reported higher rates of tight chest/chest pain (p< 0.001), palpitations (p< 0.001), shortness of breath (p< 0.001), dizziness (p< 0.001), and sweating (p< 0.001) than their white colleagues.
- Other statistical significance in frequency related to race

Symptom	Race & *p value*
Headaches (always)	No significance
Stomach aches/ stomach problems (always)	Black/African American (p< 0.001)
Tight chest/ chest pain (always)	Asian/Asian American & Native Hawaiian/ Pacific Islander (p< 0.001)
Palpitations (always)	Native Hawaiian/Pacific Islander (p< 0.001)
Shortness of breath (always)	Asian/Asian American (p<0.001)
Dizziness (never/hardly ever)	All Races (p<0.001)
Muscle tension	White (p<0.001)
Sweating	BIPOC (p<0.001)

Turnover intention (intention to leave their job) is also a possible outcome of unaddressed chronic stress in nurse leaders. Nurse leaders participating in the survey were asked to rate the following statements: 1) I have seriously thought about leaving this hospital, 2) I would prefer another job to the one I have now, 3) If I have my way, I won't be working for this hospital a year from now. Participants were asked to rate using the scale of strongly disagree, disagree, neither agree or disagree, agree, strongly agree. Statistically significant relationships were found between the following variables of work unit, job tenure and race:

- NICU leaders reported strongly agreeing to "seriously thinking about leaving the hospital" (p<0.001) and "I would prefer another job to the one I have now" (p =0.023).
- L&D leaders were similar to NICU leaders in that they more often reported preferring another job but more often strongly agreed with "not working for their hospital a year from now" (p<0.001).
- Nurse leaders with < 1 year total nursing experience were much more likely to report thinking about leaving the hospital (p<0.001) than any other tenure group. Other responses including preferring another job and not working at the hospital in one year were not significant.
- For nurse leaders with more overall nursing experience but less than 1 year in their current leadership role, they were much more likely to report preferring another job to the one they have now (p= 0.035) and not working at this hospital one year from now (p= 0.013).
- When stratified for race, BIPOC leaders reported higher levels of turnover intention than their white peers. BIPOC leaders were more likely to strongly agree with "I would prefer another job to the one I have now" (p = 0.014) and "I won't be working here one year from now" (p<0.001).

Question #2: Relationship between stressors and predictors of stress

Nurse leader perceptions of role overload, role conflict, role ambiguity, predictability, non-participation, job control, organizational constraints, interpersonal conflict at work, social support, leader-member exchange, transformational leadership and negative affectivity can be viewed as predictors of stress (Kelly, Lefton & Fischer, 2019; Montgomery & Patrician, 2022; Remegio, Rivera, Griffin, & Fitzpatrick, 2021). For the purpose of this white paper, we'll examine role overload, job control and interpersonal conflict at work.

To evaluate perception of **role overload**, nurse leaders were asked the following questions: 1) I never seem to have enough time to get everything done, 2) I have too much work to do to do everything well, 3) I'm rushed in doing my work. Participants were asked to rate their perceptions using the scale of strongly disagree, disagree, neither agree or disagree, agree, strongly agree. Statistically significant relationships were found between the following variables:

- NICU nurse leaders, those with multiple units and white leaders reported strongly agreeing to "I never seem to have enough time to get everything done" ($p<0.001$; BIPOC 7.2%, White 29.2%) and "I have too much work to do to do everything well" ($p<0.001$; BIPOC 10.8%, White 23.6%).
- White & BIPOC leaders reported strongly agreeing to "I'm rushed in doing my work" ($p= 0.003$; BIPOC 10.8%, White 19.3%).

To evaluate the perception of **job control**, nurse leaders were asked the following questions: 1) my job allows me to make a lot of decisions on my own, 2) on my job, I have very little freedom to decide how I work, 3) I have a lot of say about what happens on my job. Participants were asked to rate their perceptions using the scale of strongly disagree, disagree, neither agree or disagree, agree, strongly agree. Statistically significant relationships were found between the following variables:

- NICU leaders reported strongly disagreeing with "my job allows me to make a lot of decisions on my own" ($p= 0.032$). BIPOC leaders reported strongly disagreeing ($p < 0.001$; BIPOC 12.8%, White 3.8%).
- Nurse leaders with multiple units reported agreeing to "on my job, I have very little freedom to decide how I work ($p= 0.019$). BIPOC leaders reported strongly agreeing ($p < 0.001$; BIPOC 17%, White 6.35%).
- NICU leaders reported disagreeing with "I have a lot of say about what happens on my job" ($p= 0.011$). BIPOC leaders reported strongly disagreeing (p,0.001; BIPOC 10.9%, White 4.2%).

To evaluate the perception of **interpersonal conflict at work**, nurse leaders were asked the following questions: 1) how often do other people yell at you at work, 2) how often are people rude to you at work, 3) how often do you get into arguments with others at your work. Participants were asked to rate their perceptions using the scale of never, monthly, weekly, or daily. Statistically significant relationships were found between the following variables:

- Post-Partum (PP) and Labor and Delivery (L&D) nurse leaders reported a daily occurrence of being yelled at while at work ($p= 0.001$; PPU 17.3%, L&D 14.6%). When stratified by race there was also a statistically significant relationship with a daily occurrence ($p<0.001$; BIPOC 17.3%, White 7.3%).
- PP and L&D leaders also reported a higher daily occurrence of people being rude to them at work ($p= 0.003$; PP 34.6%, L&D 32.7%). This daily occurrence was also higher when stratified by race ($p<0.001$; BIPOC 44.4%, White 16.2%).
- L&D leaders reported a higher daily occurrence of getting into arguments with others at work ($p<0.001$; 24.8%). This daily occurrence was also higher when stratified by race ($p<0.001$; BIPOC 28.4%, White 12.5%).

Job control *and* ***interpersonal conflict*** *at work are areas requiring more research and exploration. Differences in experience, particularly of BIPOC nursing leaders, should be a priority for qualitative research for additional depth and meaning to positively impact those areas.*

Question #3: Relationship between overall experienced stress, race, and work location

To gauge overall experienced stress, nurse leaders were asked "what is your job like MOST of the time?" and response options to the following descriptors were "no", "undecided" or "yes": demanding, pressured, hectic, calm, relaxed, many things stressful, pushed, irritating, under control, nerve-wracking, hassled, comfortable, more stressful than I'd like, smooth running, overwhelming. These descriptors were designed to evaluate perceptions of time pressure and negative work experience.

- Both work location (nurse leaders with multiple units) and race were shown to have a strong relationship between measures of perceived/experienced stress, particularly surrounding the area of time pressure. White nurse leaders reported a greater frequency of feeling rushed and pressured for time, but BIPOC leaders described less time-pressure experiences that contributed to overall stress.
- The specific descriptors tied to negative work experience did not show a strong relationship to either work location or race.

Additional Findings Related to Burnout

To evaluate for burnout, nurse leaders were asked to complete the Maslach Burnout Inventory by rating the following statements: 1) I feel emotionally drained from my work, 2) I feel used up at the end of the workday, 3) I feel tired when I get up in the morning and have to face another day on the job, 4) Working all day is really a strain for me, 5) I can effectively solve the problems that arise in my work, 6) I feel burned out from my work. Response options were never, yearly, monthly, weekly, or daily:

- Leaders with greater than 10 years tenure were much more likely to report being emotionally drained from their work ($p<0.001$), feeling used up at the end of the day ($p<0.001$), however, they reported being able to solve more problems that arise ($p<0.001$). **There were no significant findings for reports of burnout within nurse leadership tenure regardless of current role or total tenure**
- Racial diversity provided additional details surrounding burnout. White nurse leaders were much more likely to report "always" in response to "feeling emotionally drained from work" ($p<0.001$), "feeling used up at the end of the day" ($p=0.016$), and "feeling tired when facing another day on the job" ($p<0.001$) than their BIPOC colleagues. BIPOC nursing leaders were the least likely to report being able to "effectively solve the problems that arise in my work" ($p<0.001$), with Black/African American and Native Hawaiian/Pacific Islanders expressing the least ability to solve problems. **There was no significant relationship between race and "feeling burned out from my work".**
- Overwhelmingly, nurse leaders who lead multiple units were significantly more likely to respond that they were emotionally drained from work ($p<0.001$), feel used up at the end of the day ($p=0.042$), and feel tired when waking and having to face another day ($p=0.018$). However, effectively solving problems was statistically significant for these same leaders ($p<0.001$) which may reflect more autonomy and decision-making ability in roles that have greater bandwidth. In addition, the ability to make independent decisions without relying on others for feedback may also prove helpful in problem-solving. There was no significant relationship between work unit and "working all day is a strain", **but even more interesting was that "I feel burned out from my work" was not a significant finding.**
- While frontline nurses may use the term "burned out" in the literature, the following are considerations as to why nurse leaders may not have identified burnout within this study:
    - Are there other terms that nurse leaders use to describe the same phenomena?
    - Is the term "burnout" over-utilized and therefore not recognized as what nurse leaders are experiencing?
    - Do nurse leaders fear a perceived stigma or negative consequences if they do identify feeling "burned out"? A recent publication by Rushton and Boston-Leary (Rushton & Boston-Leary, 2022) sheds light on the fact that as many as 45% to 55% of nurses are suffering from burnout in silence due to the stigma related to seeking help for mental health issues.

The most acute physical outcomes of stress were found within certain races and were associated with the type of work unit. With regard to race, physical responses to stress were higher in BIPOC nurse leaders while emotional/intrinsic stress responses were found to be higher in white leaders. Work location has a strong relationship with predictors of stress, particularly PPU and L&D units. NICU leaders and leaders overseeing multiple units have a lower frequency of predictive stressors. Leaders responsible for multiple units had higher burnout scales but also had higher effectiveness scores. There was some relationship between leadership tenure and physical outcome of stress with more novice leaders experiencing more frequent physical symptoms.

IMPLICATIONS FOR NURSING & HEALTHCARE

A better understanding of chronic stress and its causes can be used to develop a framework for the daily work of nurse leaders and identify strategies for reducing stress and risk for burnout (Miller & Hemberg, 2022). This includes addressing nurse leader fatigue (mental, physical, and emotional) resulting from long work hours, repeated exposure to stressors, and multiple competing and complex priorities that are difficult to address due to frequent interruptions. Even prior to the COVID pandemic, nurse leaders were found to have relatively high chronic fatigue levels indicating systemic issues and a significant need for healthcare organizations to re-evaluate and redesign nursing leadership structures and workload (Hill & Cherry, 2022; Steege, Pinkenstein, Knudsen, & Rainbow, 2017). The findings of this survey also demonstrate that there is more to be learned about the additional stressors that BIPOC nurse leaders face in their daily lives and how they can be supported. The authors conducted an integrative systematic review and found little in this area. There is no exploration of this in the perinatal and neonatal nursing literature. There are a few in JOGNN but they are specific to how nurse leaders can support social considerations, and not support of the leaders themselves.

Key Findings

Health care organizations should take action to ensure that their nurse leaders have the support, resources, and infrastructure they need to mitigate the risks for burnout, and to create a healthier balance between work and home life..

- BIPOC nurse leaders experience greater physical symptoms of stress is a key finding in this study and supports previously reported population health research in this area. The findings within this cohort warrants additional research, including turnover intention within ethnically diverse leaders. In the literature that expands beyond nursing and includes the workplace, Black scholars and researchers describe racism and discrimination within their work environments, and associated job stress, dissatisfaction, and turnover (Blackshear & Hollis, 2021; Byers, Fitzpatrick, McDonald & Nelson, 2021; Goosby, Cheadle, & Mitchell, 2018; Thomas-Hawkins, Flynn, Zha, & Ando, 2022).
- BIPOC nursing leaders experience structural and interpersonal stressors at higher frequencies.
- There is an assumption within perinatal nursing that postpartum units do not have the same acuity levels as L&D, NICU, and OR/PACU. Signs of nurse leader stress should not be overlooked because of their work unit. Nurse leaders need the same level of support regardless of unit type.
- Based upon previous focus group feedback and additional analysis of the data, stressors surrounding span of control were evaluated. Based upon varied factors (physical, emotional, leadership $p < .001$), the span of control that has the least negative and most positive impact related to stressors is **no more than 60 direct reports.**

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SYNOVA RECOMMENDATIONS

Based on the over 25 years of experience working with neonatal and perinatal nurse leaders, Synova recommends the following to support nurse leaders in their pursuit of clinical excellence, transformational leadership, and as champions of quality and safety:

- Work time designated as "protected time" should be allocated for nurse leaders to interact with and mentor their teams, and to help address feelings of burnout. Protected time could include time for activities such as "no meeting Fridays." We recommend 4 – 8 hours of protected time per week.
- Organizations should require mandatory implicit bias or Diversity Equity and Inclusion (DEI) training geared towards leadership creating safe and equitable work environments (Completed internally through the hospital or externally through another source)
- A systems approach should be taken to create a schedule in which there is a leader(s) on-call with unit-specific knowledge during evenings and weekends to reduce leader fatigue and to reduce the 24/7 on-call schedule currently experienced by nurse leaders. We recommend creating a system or process to support leaders to cross-train to other areas.
- Organizations should require a mandatory minimum amount of paid time off (PTO) taken each year to reduce burnout and ensure that leaders are required to take a break from working. We recommend a minimum of 4 weeks per year, or at least 1 week per quarter.
- Due to the high rates of nurse leaders reporting being harassed or yelled at in the workplace, a comprehensive review of safety and security measures for all staff should be reviewed quarterly by human resources and administration. Action plans to protect employees should be shared with nursing leaders and their staff. An active, collaborative approach including Nursing, Protective Services, Human Resources, and Administration to eliminate workplace violence and harassment is critical to supporting nursing leaders and their teams.
- Based upon previous focus group feedback and additional analysis of the data, stressors surrounding span of control were evaluated. Based upon varied factors (physical, emotional, leadership $p < .001$), the span of control that has the least negative and most positive impact related to stressors is less than **60 direct reports.** If a nurse leader has 60 or more direct reports, additional resources such as an Assistant Nurse Manager should be considered to reduce workload burden and promote role satisfaction and joy.
- Nurse leaders should have time and opportunity for quality improvement and have funding for educational development.
- Nurse leaders should have access to a mentor or coach to support their professional development.
- New nurse leaders (<1 year tenure) should be routinely assessed for signs and symptoms of stress. Adequate training, support and mentoring should be provided to assure a quality onboarding experience for the new nurse leader and that expected leadership outcomes are achieved. Ideally, new nurse leaders should be assigned to an experienced mentor for 12 months with periodic assessments to evaluate progress.
- Nurse leaders, those supervising them, and the healthcare organizations for which they serve should be educated on the impact of stressors and how they impact physical health (Warshawsky, 2022).