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A SYNOVA ASSOCIATES WHITE PAPER

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

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About Synova

Synova Associates LLC is a nurse leader education company whose mission is to deliver exceptional experiences that educate, empower, and transform nurse leaders. Synova's leadership forums and educational classes provide neonatal and perinatal nurse leaders with innovative information, which can provide solutions-based action items to help them achieve their goals and find more joy in their work. Synova programs help nurse leaders understand the importance of leading and building a positive, progressive culture focused on team development, along with broadening their professional networks. Synova has two co-owners, wonderful staff who support all operations of the company, an advisory board of executive nurse leaders, multiple clinical advisors, and a community of longtime supporters and sponsors. Synova is dedicated to creating an environment where the leadership experience is both rewarding, and desirable.

National Perinatal Information Center

About NPIC (National Perinatal Information Center)

NPIC's mission is dedicated to the improvement of perinatal and neonatal outcomes through best-in-class comparative data analysis, program evaluation, health services research, and professional continuing education. NPIC is recognized as a national leader in comparative data analysis which advances value, quality, safety, and best practices in perinatal health. Since its inception in 1985, NPIC's dedication and engagement to advance improvements in perinatal health have differentiated the organization as a cornerstone of the perinatal community. Early on, NPIC became nationally recognized for its unique expertise in the organization of perinatal care and contributions in the regionalization of perinatal care. This early work served as the foundation by which NPIC would broaden its reach and impact over the next three decades. To this day, NPIC's mission remains the constant and driving force that guides the organization, motivates the team, and defines its purpose.

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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.

INTRODUCTION

Looking back at the roles and responsibilities of nurse leaders in a pre-COVID world it was obvious that, even then, the demands being placed on these individuals were extraordinarily high and increasingly rigorous. These demands included 24/7 responsibility, increasing levels of accountability, increasing spans of control, and competing priorities created an incomprehensible level of stress for those in leadership positions (Uhl-Bien, Meyer, & Smith, 2020; Kelly, Lefton & Fischer, 2019; Shirey, 2004). The additional stressors of the pandemic, combined with a pre-existing staffing crisis, put nursing leaders at even greater risk for burnout from chronic stress (Carter & Turner, 2021; Miller & Hemberg, 2021; Remegio, Rivera, Griffin, & Fitzpatrick, 2021; Squellati & Zangaro, 2021; Seguin, 2019).

It should be noted that the term "nurse leader" encompasses many roles and titles, which can vary across the country and within hospitals and health care systems. For the purpose of this white paper, "nurse leader" refers to nursing managers (non-service line leaders), directors (service line leaders), and nursing executives (Associate/Assistant Chief Nursing Officers and Chief Nursing Officers) with direct oversight to perinatal and neonatal service lines.

Regardless of their role within their healthcare organization, nurse leaders have a demanding job. They are expected to 1) cultivate a healthy work environment that creates and supports an engaged team, 2) promote safe, high-quality patient care, and 3) provide the best patient care experience all while meeting the financial, operational and quality requirements set within an institution. Nurse leaders fall into a hierarchy within their organization, and their span of control (number of direct reports) adds to the complexity of their role, what type of support system they have within the work environment, all of which contribute to the level of chronic stress they may be experiencing.

CHRONIC STRESS

What is **chronic stress**? Chronic stress has been defined in many ways. Wheaton (1997) defined it as "problems and issues that are either so regular in the enactment of daily roles and activities, or so defined by the nature of the daily role enactments or activities, that they behave as if they are continuous for the individual." The American Psychological Association (APA Dictionary, n.d.) defines chronic stress as "the physiological or psychological response to a prolonged internal or external stressful event (i.e., a stressor). The stressor need not remain physically present to have its effects; recollections of it can substitute for its presence and sustain chronic stress."

Consider nurse leaders and the stressors they encounter in their daily lives, both at work and in their personal lives. With the constant demands of 24/7 accountability at work, when does an individual get to "turn off" or "unplug" from that responsibility? When do they not check their phone for missed calls, texts, or emails for status updates and vital information? How can someone truly disconnect themselves long enough for the daily stressors to not be considered continuous, or prolonged? If there is no ability to disconnect, what resources can be provided that offer just-in-time support aimed at preventing nurse leader burnout?

It's important to emphasize that **burnout** is a result of chronic stress. (Guixia 2020). The APA (APA Dictionary, n.d.) defines burnout as "physical, emotional, or mental exhaustion accompanied by decreased motivation, lowered performance, and negative attitudes toward oneself and others. It results from performing at a high level until stress and tension, especially from extreme and prolonged physical or mental exertion or an overburdening workload, take their toll."

Squellati & Zangaro (Squellati & Zangaro, 2021) reported that of the 50,273 registered nurses in the United States 31.5% had left their job because of burnout. Smith & Wolf (Smith & Wolf, 2018) reported that nearly half of neonatal intensive care (NICU) healthcare professionals experience burnout, including frontline nurses and nurse leaders. These statistics are alarming, considering the number of nurse leaders who are also leaving their jobs. A 2021 study conducted by Warden & colleagues (Warden, D.H., Hughes, Probst, Warden, D.N, & Adams, 2021) found that over 50% of nurse managers, directors, and executive respondents intended to leave their current positions within the next five years. Reasons for leaving varied among the three roles, but job dissatisfaction was one of the top two most frequently reported reasons overall. Interestingly, burnout was reported as a primary reason among managers for turnover intention, but was not in the top three reasons for directors or nurse executives. This could imply that nurse managers, who work more directly with frontline staff, experience more work-related stressors.

The current literature has demonstrated that if chronic stress is not addressed and mitigated, more nurse leaders are at risk for burnout and turnover (Carter 2022). In its current state, the nursing profession and healthcare in general cannot risk further nurse leader burnout. With the recent COVID-19 pandemic the issues of burnout, turnover, and nurse leader readiness have become even more urgent. As this study took place towards the end of the second full year of the COVID-19 pandemic, it is even more essential to understand the impacts of chronic stress on nursing leadership.

COVID-19 PANDEMIC

COVID-19 was declared a worldwide pandemic by the World Health Organization on March 11, 2020. As the pandemic extended into 2021, frontline nursing teams were experiencing unprecedented challenges including lack of adequate supplies such as personal protective equipment (PPE), staffing challenges as it related to COVID-exposed team members, caregiver strain, and fear for their own health and that of their families. Nurse leaders were called upon to support their teams while attempting to preserve the physical and psychological safety of those under their charge (Ostrowski, n.d.; Fitzpatrick & Valentine, 2021; Bergstedt & Wei, 2020; Hofmeyer & Taylor 2020).

A scan of the literature from the years spanning the COVID-19 pandemic (2020 - 2022) revealed key descriptive terms related to nursing. Terms such as resilience, coping, agility, and competency were associated with nurse leaders. Terms such as burnout, work stress, underappreciated, and understaffed were associated with frontline nursing. The difference in terms is a stark contrast between the roles and expectations of the nurse leader and frontline staff nurse and offers a deeper understanding of the needs and performance expectations of the two roles. There is no argument that frontline nurses suffered, and experienced significant emotional and physical strain during the pandemic. However, the nurse leader was expected to be resilient, to cope, be agile, support their teams, and remain not only competent but continue to excel despite the increasing stressors they faced.

While perhaps unintentional, nurse leader support during the pandemic did not garner the same amount of national attention as frontline nurses. As the pandemic wore on and as support for frontline nurses began to wane, the burden of supporting their teams and frontline workers weighed more heavily on already overwhelmed nurse leaders. As the world became divided on multiple issues ranging from COVID-19 vaccines, racial injustices, and political unrest, tensions between frontline nurses ("us"), and nurse leaders ("them") grew. The "us" versus "them" mentality further added to the chronic stressors nurse leaders were facing as the discussion was amplified as issues impacting the nursing profession were publicly debated on social media and other platforms.

Synova Community: Nursing Leader Experiences within the Pandemic

In the early days of the pandemic, Synova heard from perinatal and neonatal nurse leaders about the ever-growing stressors and responsibilities of their jobs through a multitude of forums including informal conversations, virtual conferences, and virtual debriefing calls held to support nurse leaders during the pandemic. Specifically, debriefing calls were introduced early in the pandemic and served as an intimate way for these leaders to not only discuss the challenges of COVID-19 but also work-related issues. Nurse leaders struggled with other critical issues occurring simultaneously in the world, such as political unrest, systemic racism, and rules and regulations to maintain safety outside of the hospital environment. The calls also highlighted the enormity of the stress leaders were experiencing on the job and at home.

With the priority of supporting nurse leaders being a tenet of the Synova mission, Synova leadership sought to further explore and learn from nurse leaders about the causes of stress, levels of stress, and how that stress is impacting nurse leader livelihood at home and at work. In June 2021, Synova partnered with the National Perinatal Information Center to survey and explore information from perinatal and neonatal nurse leaders currently practicing in the field.

To assess how perinatal and neonatal nurse leaders have been impacted by the COVID pandemic, Synova & NPIC wanted to build upon previous validated data by using a pre-existing tool to gather feedback. In 2013, Kath & colleagues (Kath, 2013) studied predictors and outcomes of nurse leader job stress reported by members of the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN). At that time job satisfaction, intent to quit, and mental health symptoms were the most significant outcomes of stress. Synova and NPIC replicated this quantitative study, with permission of the original research team, with a focus on perinatal and neonatal nurse leaders and the survey was launched in November 2021. The overarching goal was to better understand the chronic stress that perinatal and neonatal nurse leaders have experienced since the onset of the COVID pandemic and to identify possible interventions.

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).

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