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ALSN Conference

Nurses' work experiences with change from nurse-patient ratios to workload intensity staffing.



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CONE HEALTH

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Funding

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THE DUKE ENDOWMENT

Bacon, C., McCoy, T. & Jenkins, M. "Improving quality and safety using the workload intensity staffing delivery model," *Duke Endowment Grant #6814-SP*, \$240,000, May 2019-June 2022.

 **Learning Objectives**

1. Discuss nurses' attitudes and perceptions regarding the change from nurse-patient ratios to workload intensity staffing (WIS).
2. Explain the facilitators and barriers facing nurse leaders in implementing a workload intensity tool (WIT).
3. Determine strategies nurse leaders can use to address challenges to the change process and ensure long term success of the change.

 **Problem & Background**

With rising pressure to contain U.S. healthcare costs and increased demand for complex nursing care of an aging population (Avalere Health LLC, 2015), establishing the opportune balance between nursing workload and care quality has never been more important.

Higher nursing workloads are predictive of an increase in adverse patient events and mortality (Fagerström, et al., 2018).

Tools have been developed and used to more effectively predict patient needs and distribute workload.

However, it is not known how nurses perceive a change from staffing via nurse-patient ratios and geographic assignment to staffing using a workload intensity tool.

 **Problem & Background**

Workload intensity refers to the total time and resources consumed by the hospital patient during an episode of care (Welton and Harper, 2016).

Despite multiple workload tools developed and implemented worldwide, there remains a need to better understand the experience of nurses during the changeover process to workload intensity staffing inpatient units.

In a southeastern health system in the United States, a workload intensity tool was developed with a point-based system for use across all adult inpatient units, excluding maternity, to determine a patient's level of care.

- The higher the level of care, the more points assigned.
- On the nursing unit, points for all patients are summed and divided by the total number of nurses to get the mean workload intensity per nurse.
- Patient assignments are made with the goal of equal distribution of workload

UNC GREENSBORO School of Nursing		Workload Intensity Levels and Criteria for Scoring.	
Workload Intensity Level	Patient Needs		
Level 1	Patients with basic nursing needs that require care on a medical-surgical unit.		
Level 2	Patients with basic nursing needs that require care on a medical-surgical or telemetry unit.		
Level 3	Patients with more complex needs that require care on a medical-surgical, telemetry or step-down unit.		
Level 4	Patients with nursing needs beyond care in a medical-surgical, telemetry or step-down unit usually requiring transfer to critical care.		
Level 5	Patients with needs requiring care in a critical care unit.		
Level 10	Patients requiring 1:1 nursing care in a critical care unit.		
Level 20	Patients requiring intense care in a critical care unit, typically with 2 nurses per patient.		

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WI Manuscripts

Ellis, W. M. & Dark, T. (2020). Developing a tool to measure workload intensity. *Nursing Management*, 51(2): 10-12.

Dark, T. & Ellis, W. M. (2020). Level loading nurse assignments based on the work intensity: An innovative approach to creating equitable nursing assignments increases nurse satisfaction. *American Nurse Journal*, 15(1): 46+.

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Study Purpose

The purpose of this research study was twofold:

- 1) Exploring nurses' attitudes and perceptions regarding the change from nurse-patient ratios to workload intensity staffing (WIS)
- 2) Exploring the facilitators and barriers in implementing a workload intensity (WI) tool.

There are many articles discussing nurses and change and barriers and facilitators to change, including:

- the influence of effective communication (Bourne, 2015)
- leadership (Bakari, Hunjra & Niazi, 2017)
- individual and organizational readiness (Obeidat & Norcio, 2019)
- emotions (Giæver & Smollan, 2015)
- change fatigue (McMillan & Perron, 2020).

The literature lacks research studies that focus on the change process to WIS and the barriers and facilitators encountered during the change process.

The aim of this study was to address this gap in the literature.

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Method/Design

The theory of planned behavior (Ajzen, 1991) guided this inquiry. Suggests that social norms affect individuals' beliefs and behavior about a change and change resistance can be lowered if perceptions of a new system are favorable.

Exploring nurses' perceptions of WIS and its ensuing changes required a qualitative approach to understand nurses' experiences.

A descriptive phenomenology design was used to conduct semi-structured interviews.

Grand Tour Question:
What were your experiences with implementing the change to workload intensity on your nursing unit?

Follow-up Questions:

- Describe the change process and describe how long it took to be comfortable with the change and why.
- What were the factors that helped/hindered the transition to WIS?

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Method/Design

IRB approval was obtained and nurses from the adult inpatient units were invited to participate.

Snowball sampling was also used as this study was conducted in the COVID-19 pandemic and researchers had restricted access to participants.

Sixteen (16) nurses comprised the final sample after data saturation was reached. Informed consent was obtained from all participants.

Interviews were conducted by the principal investigator (PI) via video conferencing and telephone. The interviews lasted 25-35 minutes, were recorded for transcription and transcribed verbatim. Subject responses were repeated back and clarified by the PI.

Data analysis was completed through thematic analysis which focuses on identifying patterned meaning across a dataset (Braun and Clarke, 2006). Patterns are identified through a rigorous six step process of data familiarization, coding, theme generation, theme review, defining themes and writing up.

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Findings - Change From Nurse-Patient-Ratios to WIS

Theme 1: Experiencing the Change
Nurses were receptive to the change. Required a shift in mindset.

Adjusting...

- "It was getting used to not only having a number, but also the reason why they are that number. That's what shifted and changed how we did assignments." (Charge B, 4 years)
- "It was a big adjustment. As time progressed, we got better at it." (Charge F, 10 years)
- "It gave us more of a system to use, and...doing things for [a] reason. It's taking the staff a little longer to get accustomed to using that score instead of a ratio" (Charge D, 6 years)

Hesitant at first but perspective changed over time...

- "Not everyone will be on board from the beginning. But now, I think everybody is onboard." (Champion A, 6.5 years)
- "It was definitely a learning curve for people but...has gotten better." (Champion B, 5 years)

 **Findings - Change From Nurse-Patient-Ratios to WIS**

Theme 2: Balancing Nurses' Workload

Workloads were more balanced...

- "We now have a level playing field of patients, not all heavy or all light load of patients. They are kind of in the middle now. You are evened out." (Champion F, 5 years)
- "The work intensity scale is better than what we've had before ... as far as scoring the patients. It gives us a better guideline of where they should fit" (Champion C, 33 years)
- "Trying to level out some of the work intensity is a benefit." (Staff A, 45 years)

Initially more challenging for charge nurses...

Learning the new system in addition to making assignments for the next shift, temporarily increased charge nurse workload and they had to track down nurses to get scores..

- "I didn't find it to be a big deal at all...At the end of my shift... I go around and talk to everybody; make sure everybody's scores are in. Sometimes, I have to remind people ... They give me their scores I total them up I make the assignments." (Champion E, 16 years)

 **Findings - Change From Nurse-Patient-Ratios to WIS**

Theme 3: Standard Work

The transition to WIS was smooth after it became part of standard work...

- "Workload intensity] was kind of a seamless transition, at least for me, and... the senior charge nurses ... [Workload Intensity] was just a different way of doing the numbers and pairing assignments." (Champion E, 16 years)
- "Having it built into the assessment that we do for our patients every shift, it...flowed right into our standard work." (Champion A, 6.5 years)

 **Findings - Change From Nurse-Patient-Ratios to WIS**

Theme 4: Challenges of the Change Process

Some concerns about lack of supervision and inconsistent use of the tool...

- "On the first day, our manager was there...but there was no supervision after that...so everybody does it differently...And so, it fell down in our unit..." (Charge C, 24 years)

Some felt more feedback to the nurses was needed...

- "They're not doing any follow up... there has to be more feedback." (Charge C, 24 years)

Environmental challenges...

- "We are extremely short staffed compared to normal ... So, they're having a really hard time thinking about workload intensity...they get frustrated." (Champion D, 27 years)

 **Findings - Change From Nurse-Patient-Ratios to WIS**

Theme 5: Workload Intensity Tool Effective

There is quantifiable data for making patient assignments instead of simply subjective nurse feedback...

- "We had a very clear way that we were going to show people how we were going to use it. So, when someone said, why are we doing this? I can say, it's because it's going to help me make a better assignment and this is how." (Charge B, 4 years)
- "[Nurses] see a number and see what's going on a little better. I think they take an assignment easier knowing that their assignment is around the same number as someone else's. I don't hear them complain as much as they did before." (Charge E, 8 years)

Provided clear evidence to hospital leadership of work demands...

- "I [was in] a meeting with hospital leadership. I [used] the workload intensity scores...[to say] this is what our floor looks like...we have really sick people." Champion A, 6.5 years)

 **Findings - Change From Nurse-Patient-Ratios to WIS**

Theme 6: Influences on Change

Peer leader support..

Nurse champions were noted to be particularly helpful with tool use and scoring..

- "Having the champions there ...helped because we were able to...make sure that we could communicate how they [patients] should probably be scored, or getting their feedback with the way that they did score the patient." (Champion C, 33 years)

More control over workload...

- "It's been positive. I think ... overall... the majority feel that it's been positive because it has allowed us to better make assignments as a charge nurse." (Champion C, 33 years)

 **Findings - Change From Nurse-Patient-Ratios to WIS**

Theme 6: Influences on Change...continued

Perceived younger nurses had an easier adaptation to the change...

- "Older nurses...took a lot longer to deal with the change...they are...more stuck in their ways and...think that that's just one more thing they have to do." (Champion F, 5 years)
- "The newer nurses...all they know is the work intensity, where...I've been making assignments for years... and now I'm having to switch" (Charge F, 10 years)
- "There are some nurses...[who] will never grasp the idea that we're not doing ratios just because they've been nursing for so long. It's going to take them a while to get off of that way of thinking onto this new way." (Charge D, 6 years)

 **Findings - Facilitators & Barriers to the Change**

Theme 1: Resistance to Change

Resistance to change was an initial barrier...

- “Just the change, you know, changing the way we’ve been doing things, I think is an obstacle itself.” (Charge 6, 10 years)
- “In the beginning, ... people were doing it, but it just seemed like some people were hesitant to change.” (Champion 2, 5 years)
- “I think at first, there was a lot of resistance to it just because it was a change, and we like to resist that.” (Charge 2, 4 years)

One unit with a unique physical layout and a recently developed patient assignment system based on geography was resistant to the change due to change fatigue...

- “We were ... doing ... zones where we assign[ed] nurses based on [where] patients [were] ...located [geographically by room].”
- “So...when we heard about work intensity, everybody was very exhausted from change, and they didn’t want any new change.” (Charge 3, 24 years)

 **Findings - Facilitators & Barriers to the Change**

Theme 2: Intense Workloads

Patient churn was an ongoing concern...

- “It’s so rare that we hold on to our patients all day. We can have two to three discharges in a shift. And then we have nurses leaving early, so we pick up their patients. And we’re still getting admissions ...that’s especially hard [for making patient assignments] ...you can’t judge what that new patient is going to be like.” (Staff 2, 7 years)

COVID increased workload

Theme 3: Supportive Organizational Culture

WIS well supported by nurse leaders, peer champions and overall organizational culture.

- “We really lean on each other and [everyone is] extremely supportive...we transitioned and made that change by not being afraid to say...I need some help or [ask] can you explain that to me again or going to our director and ...[having] another meeting just so we can work through this again.”(Charge 6, 10 years)

 **Findings - Facilitators & Barriers to the Change**

Theme 4: Resources/Training

Mandatory, standardized training and nurse champions facilitated WIS adoption...

- “ [Champions] really wanting to help, I think, is a key that they’re around at least for several weeks to help out with assignment making and making sure everybody is looking at it from the right perspective.” (Champion 4, 27 years)
- “Making it mandatory and having the classes, and making the nurses come to the classes, and then having the charge nurses go over it with certain nurses helps a lot.” (Charge 5, 8 years)

Theme 5: Evaluation

Nurses had expert assistance and gave one another feedback...

- “[The health system WIT expert] helped really the most, because she had already gone through it, so she could give real-life examples and just help with change. (Champion 6, 5 years)
- “You’re coaching them. I see you...gave this nurse these, and this nurse these patients. Did you consider maybe doing this? ... What would you do better next time? You know, trying to get people to actively look at what they’re doing, and, and actively going through the process. (Charge 3, 24 years)

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Conclusions

- Nurse workloads were more balanced after WIS implementation.
- WIS is perceived as a positive change from nurse-patient ratios.

Implications for Nurse Leaders:

- Understanding barriers and facilitators to change are important for successful implementation of WIS.

Leaders should provide support by:

- Facilitating training and sessions for staff
- Encouraging use of tool and practice sessions prior to implementation
- Providing feedback and ensuring adequate resources
- Delegating oversight of the process to staff nurses who are involved in day-to-day direct patient care
- Providing consistent leader support and ongoing check-ins once WI implemented

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References

Ajzen I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Process*, 50(2);179–211.

Avalere Health LLC. (September 2015). Optimal nurse staffing to improve quality of care and patient outcomes: Executive summary. Retrieved on July 29, 2021, from <https://www.nursingworld.org/practice-policy/nurse-staffing/nurse-staffing-crisis/>

Bacon, C.T., Gontarz, J. & Jenkins, M. (In Press). Nurses’ experiences with change from nurse-patient ratios to workload intensity staffing. *Nursing Management*

Bacon, C.T., Gontarz, J. & Jenkins, M. (2022). Nurse-patient ratios to workload intensity staffing: What helps and hinders the change. July/August 2022. *The Journal of Nursing Administration*

Bakari H, Hunjra AI, Niazi, GSK. (2017). How does authentic leadership influence planned organizational change? The role of employees’ perceptions: integration of theory of planned behavior and Lewin’s three step model. *J. Chang. Manag.* 17(2):155-187. doi:10.1080/14697017.2017.1299370

Bourne B. (2015). Phenomenological study of generational response to organizational change. *JMI*. 2015;27(1-4):141–159.

Braun V, Clarke V. Using thematic analysis in psychology. *Qual. Res. Psychol.* 2006;3(2):77-101.

DiClemente K. (2018). Standardizing patient acuity: a project on a medical-surgical/cancer care unit. *MedSurg Nurs.* 27(6):355-355.

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References

Fagerström, L., Kinnunen, M., & Saarela, J. (2018). Nursing workload, patient safety incidents and mortality: An observational study from Finland. *BMJ Open*, 8(4). doi:10.1136/bmjopen-2017-016367

Gjaever F, Smollan RK. (2015). Evolving emotional experiences following organizational change: a longitudinal qualitative study. *Qual. Res. Organ. Manag.* 10(2):105-133. doi:10.1108/QROM-11-2013-1185

McMillan, K., & Perron, A. (2020). Nurses’ engagement with power, voice and politics amidst restructuring efforts. *Nursing Inquiry*, 27(3), e12345. doi:10.1111/nin.12345

Obeidat, R. & Norcio, A. (2019). Nurses’ attitudes toward implementing disruptive change: Does change management matter? *Journal of Informatics Nursing*, 4(3), 14-20.

O’Connell AL, Nettleton RM, Bunting DR, Eichar S. (2020). What works: equitable nurse-patient assignments using a workload tool. *Am. Nurse Today*; 15(3):7–1.

Welton, J.M. & Harper, E.M. (2016). Measuring nursing care value. *Nursing EconomicS*, 34(1), 7-15.

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Questions?

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