LEADERSHIP FOR INNOVATION IN NURSING CARE DELIVERY

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Introduction

► Healthcare is experiencing a need for bold, transformative changes in care delivery (ANA, 2018; HIMSS, 2020)

► Contributing factors include:

— Existing forces challenging current strategies
  — reimbursement structures, hospital consolidation, failed acceptance of technology (Buntin, 2021)
  — Patient related issues (AHA 2019; Emanuel, 2018; Herzlinger, 2014; Huber et al., 2019)

— Unplanned challenges
  — Financial implications and revenue occurring in near to mid term (AHA, 2021; Lagasse 2020)
  — Crisis in healthcare workforce (Brooks Cathon et al., 2020; Galanis 2021)

Introduction

► Nurses are natural innovators (Cianelli, et. Al 2016; Debono et al., 2013; White et al., 2016)

► Barriers to innovation in healthcare exist (Bush, 2014; Dixon-Woods et al., 2016)
  — Status quo preservation (Clavelle et al., 2012)
  — Biases (Harrison et al., 2021)

► The practice of innovation includes leadership

► Identifying and defining skills, competencies and expertise for innovation leaders in nursing care delivery is essential to optimal nursing practice in complex environments of healthcare

Problem Statement

► Traditional leadership standards may not prioritize innovation (ANA, 2018; AONL, 2019) and may not support innovativeness (Huber et al., 2019)

— individual, team, and organizational level of healthcare (Luz, 2019)

— Traditional approach for leader as primary source of knowledge, decision-making, and guidance for the team

— Task-based, process-driven approach to well-defined activities and structured roles (Porter-O'Grady, 2017)

► Body of knowledge in nursing innovation focuses primarily upon human centered design and early phases of innovation (Albert, 2018; Cianelli et al. 2016, Weberg, 2019)

Purpose and Objectives

► Purpose: Establish a thematic framework for the development of competencies supporting innovation leaders in nursing care delivery

► Objectives:

1. Identify the prevalence of reported leadership for innovation competencies among a convenience sample of nurse leaders

2. Describe the utilization of leadership skills practiced by nurse leaders that support innovation through the lens of complexity leadership theory

3. Develop a set of critical themes and competencies based on identified themes that can be used to create a framework for knowledge attainment with innovation leaders of nursing care delivery

Background

► Current leadership practices
- — Leadership is a process of the interactions and dynamics of systems (Maxwell, 2012)
- — Culture and climate are dynamics influenced by and leveraged in leadership (Schneider et al. 2013)
- — Alignment, organizing, and execution produces a collective accomplishment by the team (Bandura & Locke, 2003)
- — In supporting broad, bold and sustainable changes in business, transformation cannot be achieved unless the execution of the strategy is well understood by the leaders involved (Shirey, 2006)

Concepts

| Concept	Description
Leadership	Phenomenon that occurs in an unplanned manner within the events and circumstances of a work environment (Marion &Uhl-Bien, 2001)
Leader	Exists within the context of leadership action; members of the team that act as orchestrators and producers within the interaction and collaboration of other team members. Responsibilities include directing action towards the attainment of an intentional result, but does not always occur within a framework that fits existing activity plans (Marion &Uhl-Bien, 2001)
Entrepreneurial leadership (EL)	A means for leaders to identify novelty and usefulness via exploration of tensions that drive the opportunity or necessity for change in an organization. Serves as a generator of creativity and growth (Uhl-Bien & Arena, 2017).
Adaptive/ Enabling leadership (EN)	Serves as a catalyst for innovation to emerge from the connectedness and complexity of organizational networks. Facilitates actions that allow for problem solving, experimentation and learning that generate new solutions of value in response to the current needs of the organization (Uhl-Bien, 2006; Bohle Carbonell et al. 2015),
Administrative/ Operational leadership (OL)	Fortifies the goals, mission, structural organization, and planning that occurs within the system. For leadership, coordination of complex dynamics streamlines efforts to identify and respond to new conditions (Baltaci & Balcı, 2017).

Concepts

Concept	Description
Adaptability	Coping effectively with change and uncertainty to address the needs of shifting environments. For leadership, adaptability positions organizations, systems, teams, and individuals to be flexible and agile in the planning and delivery of work (Uhl-Bien & Arena, 2018).
Connectedness	The formal and informal relationships that exist among the components of the system. The parameters influencing creativity and innovation occur through influence and behaviors that occur in connections and relationships, which is facilitated by the process of leadership in CLT (Lord, 2008).
Emergence	The outcome of interactions among parts of the system. Leadership is the sum of interaction that occurs in emergence to the intersect of skills and interactive exchanges (Bradbury & Lichenstein, 2000).
Organizational Context	"The location of a system in a landscape that is evidenced by the interplay of physical, structural, social, economic, political, relational, behavioral, and emergent forces…which act with and upon each other to influence continuous movement and change" (Porter-O'Grady, 2020)
Tension	Tension reflects the core driver of change in complex systems, representative of the pressures and challenges that occur towards existing knowledge within systems of an organization (Carley & Hill, 2001). Tension can create unexpected yet novel information and opportunities in the form of ideas, innovation and frameworks (Uhl-Bien, 2006).

Framework

► Complexity Leadership Theory (Marion and Uhl-Bien, 2001)

— The sophistication of interactions, impact of business tensions introduces new complexities

— Actions of teams have effects among and within systems

— Optimizes creativity, adaptability, diffusion of innovations, inter-professional engagements

— Work constantly evolves
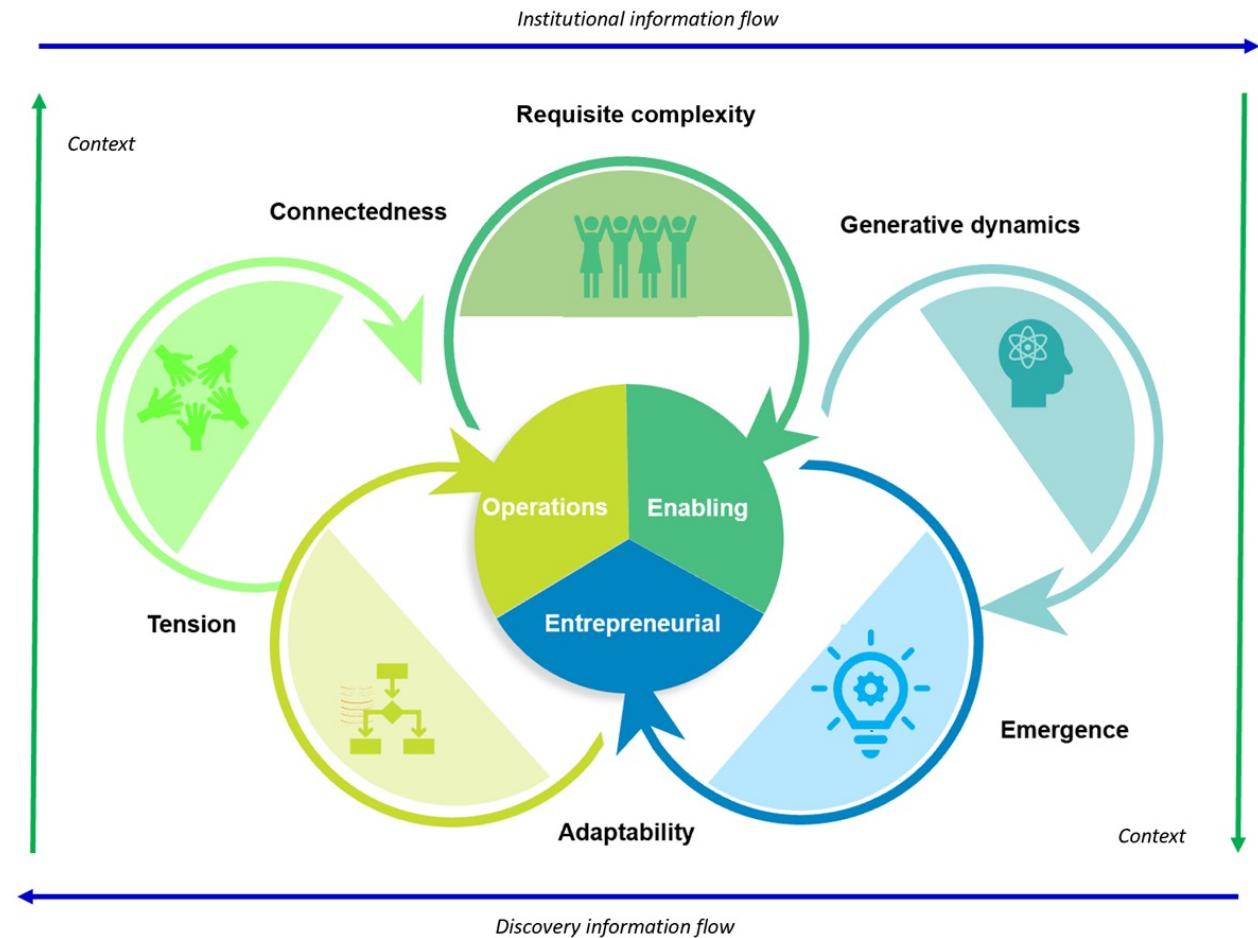
Framework 2

➤ Thematic analysis

➤ Process included specification, validation of themes to interview approach, identification of subject themes, identifying frequency of themes, reporting results
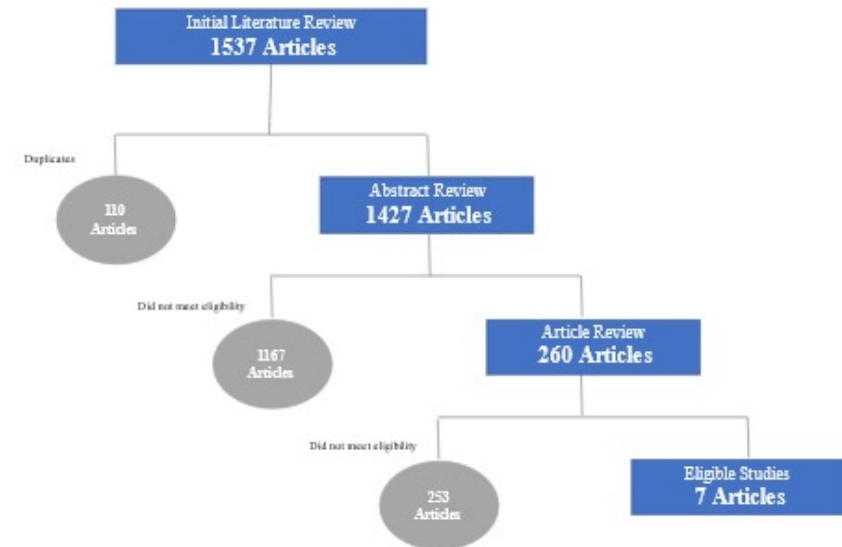
➤ Deductive approach use in themes to categorize data

Synthesis of the Evidence: Evidence Search

► PICOT Question serving as basis for literature review:

— "Among executive nursing leaders, what are the perceived skill sets required for leading innovation required beyond those of traditional leadership that positively impact innovation used in the complex environment of healthcare transformation"

— Population: Nurse leaders (director level and higher)

— Intervention: Semi-Structured interview supporting themes of complexity leadership theory and innovation

— Outcome: frequency of identified themes

Synthesis of the Evidence

- Search terms: "innovation," "innovativeness," "nursing innovation," "innovation leadership," and "nursing innovation leadership"

- Publications focusing upon adaptive change or innovation were included

- Practice settings included hospitals, academia, simulation centers or were not described in publication

- A variety of executive participant roles and practice settings were included

- Data collection occurred from both interviews and surveys

Literature Search Matrix

Initial Literature Review
1537 Articles

Duplicates — 110 Articles

Abstract Review
1427 Articles

Did not meet eligibility — 1167 Articles

Article Review
260 Articles

Did not meet eligibility — 253 Articles

Eligible Studies
7 Articles

Synthesis of the Evidence

► Select publications and alignment to CLT

Publication	Description	Operational Themes	Enabling Themes	Entrepreneurial Themes
Clavelle et al. (2012)	Innovation for CNOs and ANCC Magnet	X		
Herzlinger et al. (2014)	Innovation education needs of healthcare leaders	X		
Nelson &Pilon (2015)	CNOs leading *transitions of change*	X	X	
Porter-O Grady (2009)	Innovation between Magnet CNOs and Non-Magnet CNOs	X		
Spillay & Morris (2016)	Innovation skills for healthcare leaders			X
Weberg, 2013	Leaders and teams managing innovation simulation			X
White et al., 2016	Innovativeness of CNOs			X

Methods

► Project Design

— Leadership attributes identified by nurse executives aligning with complexity leadership, theory

— Descriptive, semi-structured interview technique

— Practice-based design, qualitative in nature

► Setting

— Videoconference interviews of Nurse Executives from the United States

— Practice or specialty focus can include nursing operations, informatics, research, education, innovation, strategy, innovation, education, value analysis, quality

— Innovation experiences should include evidence of novelty and value (Gliddon, 2017; Hamel & Tennant, 2015)

Methods

- ► Participants (N=25)
  - — Invited nurse leaders from a convenience sample population (N=82)
  - — Participants received email invitation to participate (RedCap)
    - — Completion of linked survey served as consent
      - — Thirty-four percent response rate (n=28)
    - — Inclusion criteria:
      - — Registered Nurse with Master's Degree or higher
      - — Experienced as leader and employed full time in designated practice setting
    - — Twenty-five percent enrollment rate (N=25)
      - — No response (N=54)
      - — Three subjects excluded
        - — one subjects lost to follow up
        - — two subjects could not schedule interview prior to project deadline

Methods

► Plan for Implementation

— Implementation of project upon approval of submitted proposal

— Institutional Review Board approval received 31 August 31, 2021

— Questions generated perspectives related to EL, EN, OL themes reflecting complexity leadership theory and innovation (Marion & Uhl-Bien, 2001)

— Seventeen themes reflective of CLT were topics for discussion

— Recorded videoconference technology used for interviews (Zoom)

— Interviews transcribed and captured using electronic documentation format in preparation for coding and analysis (Rev, PDF)
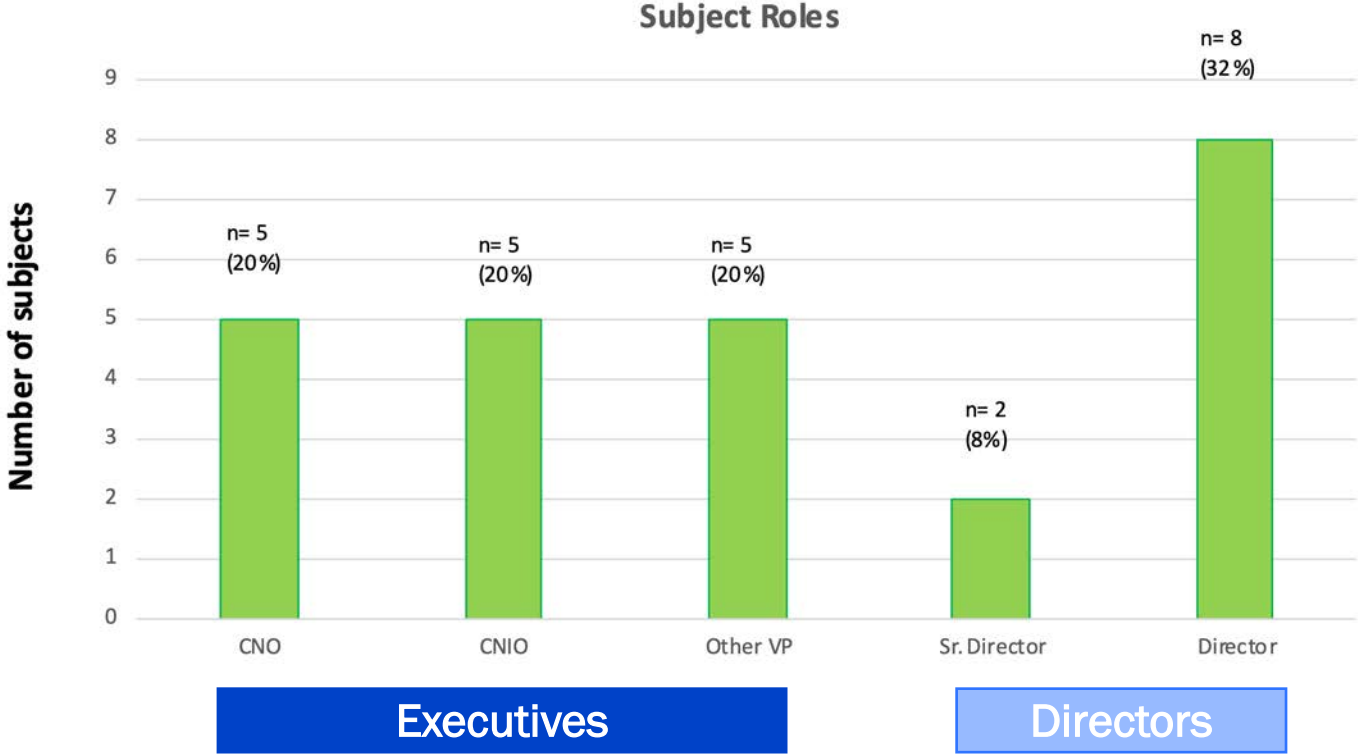
Methods

- ► Data Collection
  - — Validation of coding (nVivo)
  - — Frequency of themes captured by investigator per subject (Microsoft Office 365 Excel)
  - — All data stored electronically in secure, encrypted files
  - — Completion of thematic coding identification November 30, 2021

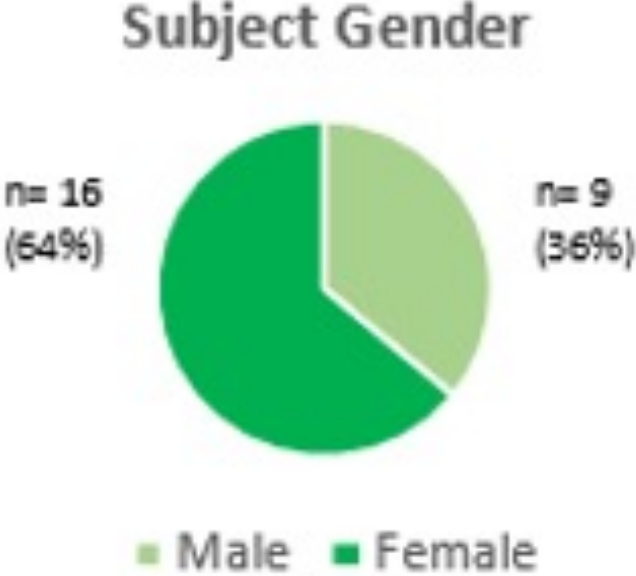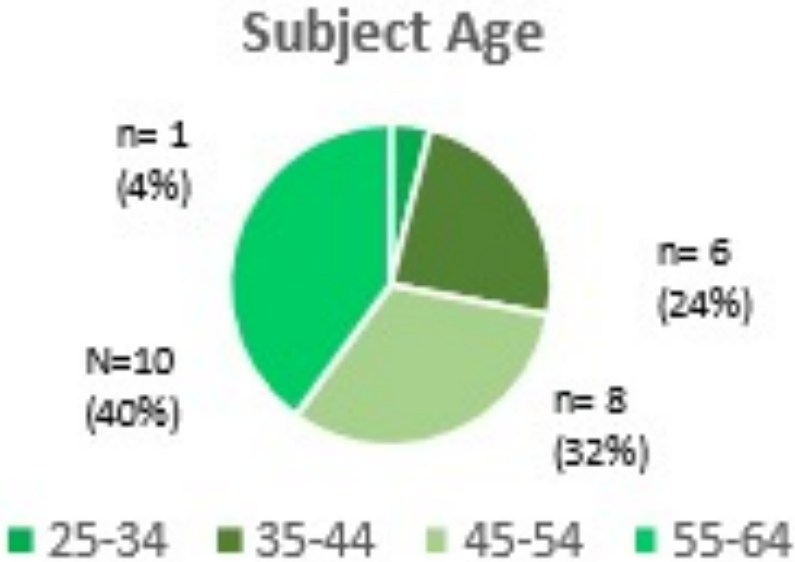*Insert Photo/Illustration credits here*

Analysis

- ► Data Analysis
  - — Validation of coding (nVivo)
  - — Frequency of themes captured by investigator per subject (.xls)
  - — Statistics calculated for demographics and data analysis (Microsoft Office 365 Excel)
  - — Results reported by descriptive statistics (frequency and percentages)
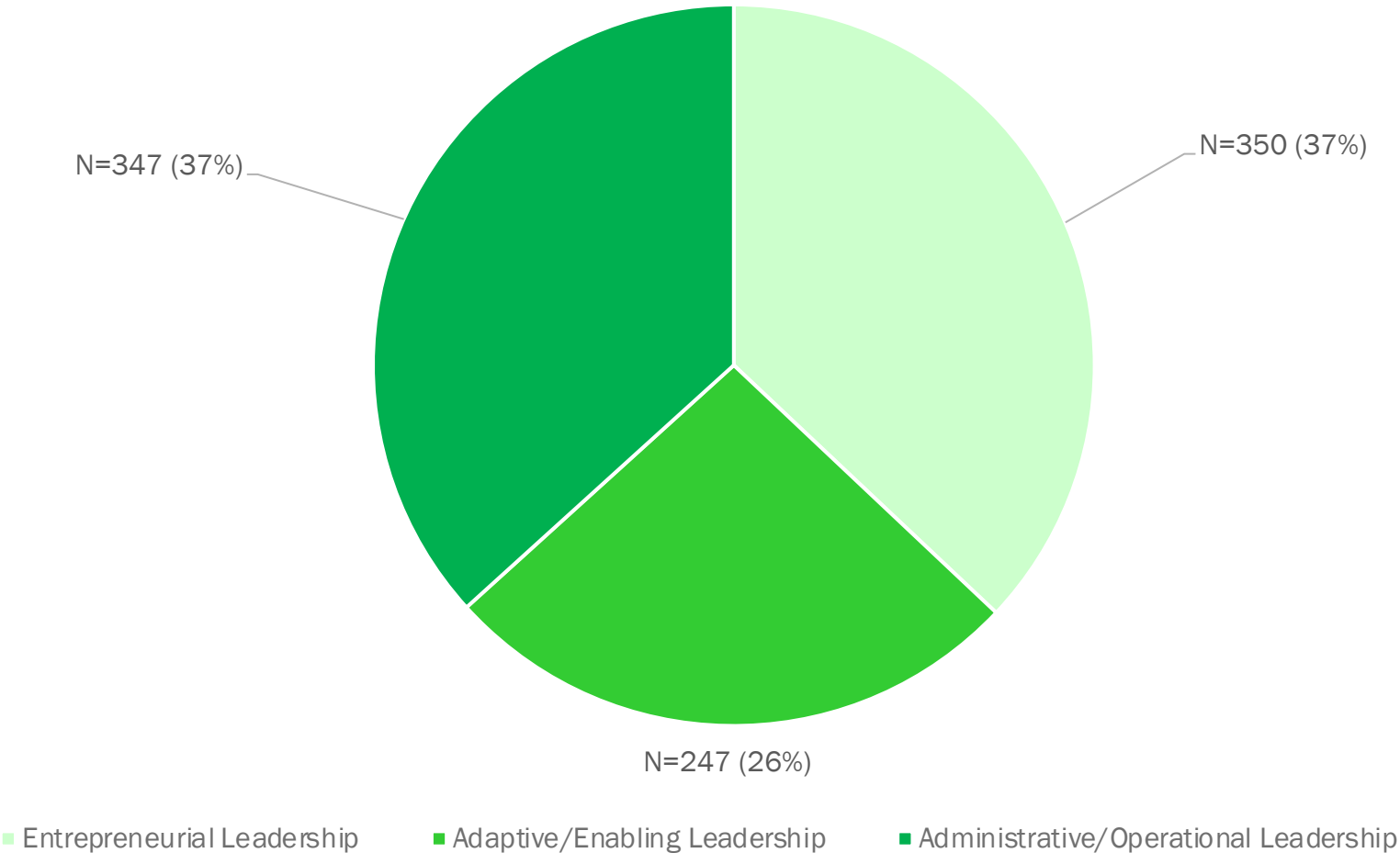
Results-Demographics

Results-Demographics

Subject Age

- n= 1 (4%)
- n= 6 (24%)
- N=10 (40%)
- n= 8 (32%)

■ 25-34 ■ 35-44 ■ 45-54 ■ 55-64

Subject Gender

- n= 16 (64%)
- n= 9 (36%)

■ Male ■ Female

CLT categories by tenet (n=945)

CLT Themes (N=25)

N=347 (37%)

N=350 (37%)

N=247 (26%)

■ Entrepreneurial Leadership   ■ Adaptive/Enabling Leadership   ■ Administrative/Operational Leadership

Entrepreneurial Leadership (EL) Themes (n=350)

Frequency of themes identified

Theme	n
Knowledge activation	n=44
Innovativeness	n=194
Receive Communication	n=8
Send Communication	n=23
Methods of Communication	n=25
Learning	n=0
Communication	n=74
Ambiguity/Risk	n=4

n=
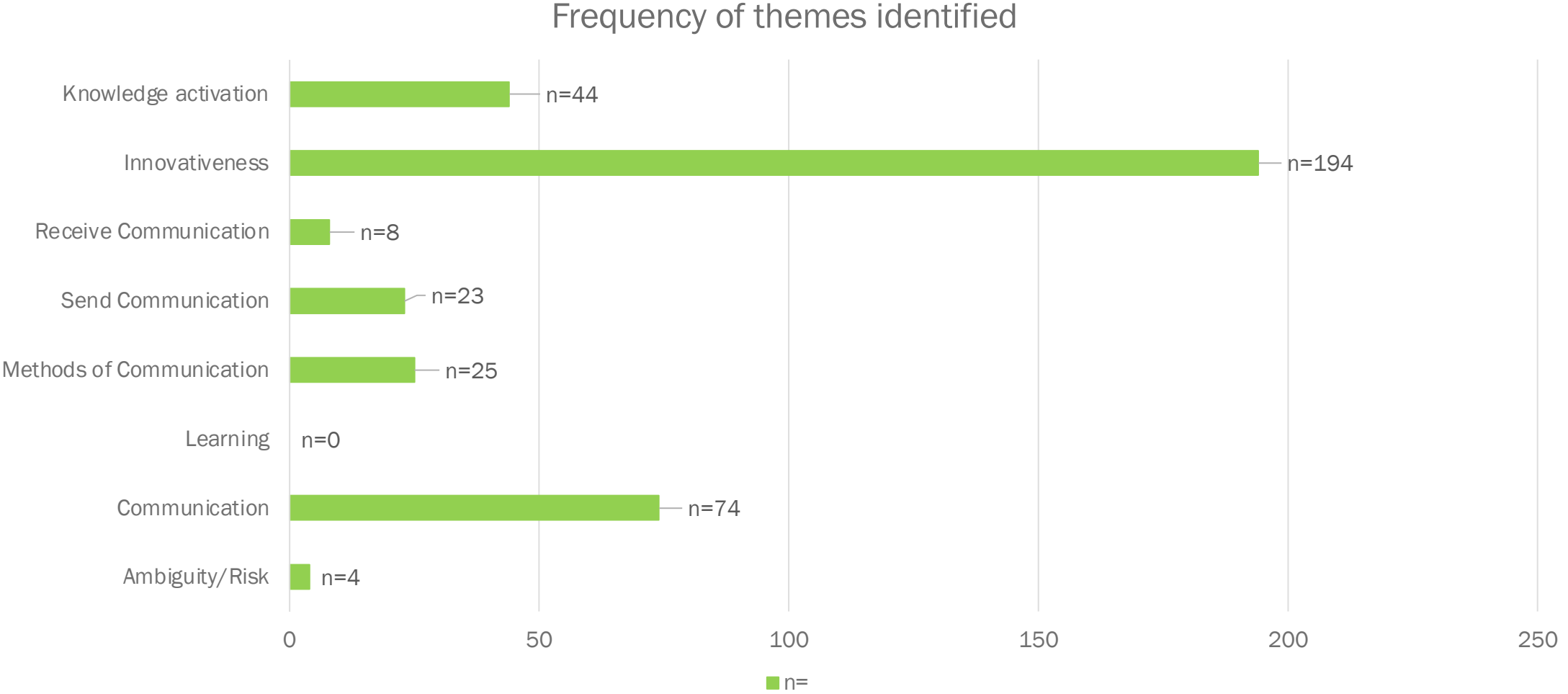
Results-EL Themes (n=350)

► Knowledge activation (n=45)

Theme Considerations	Quotation
Innovation lifecycle considerations	*You cannot achieve your goals with a small amount of human, supply chain, and technology resources. You have to* **plan for the difficulties you will experience during implementation.** *Those resource needs will also morph into educational needs and support desk capabilities. By the time you realize you should have planned for it earlier, it's too late". (Facility CNO)*

Results-EL Themes (n=350)

► Innovativeness (n=194)

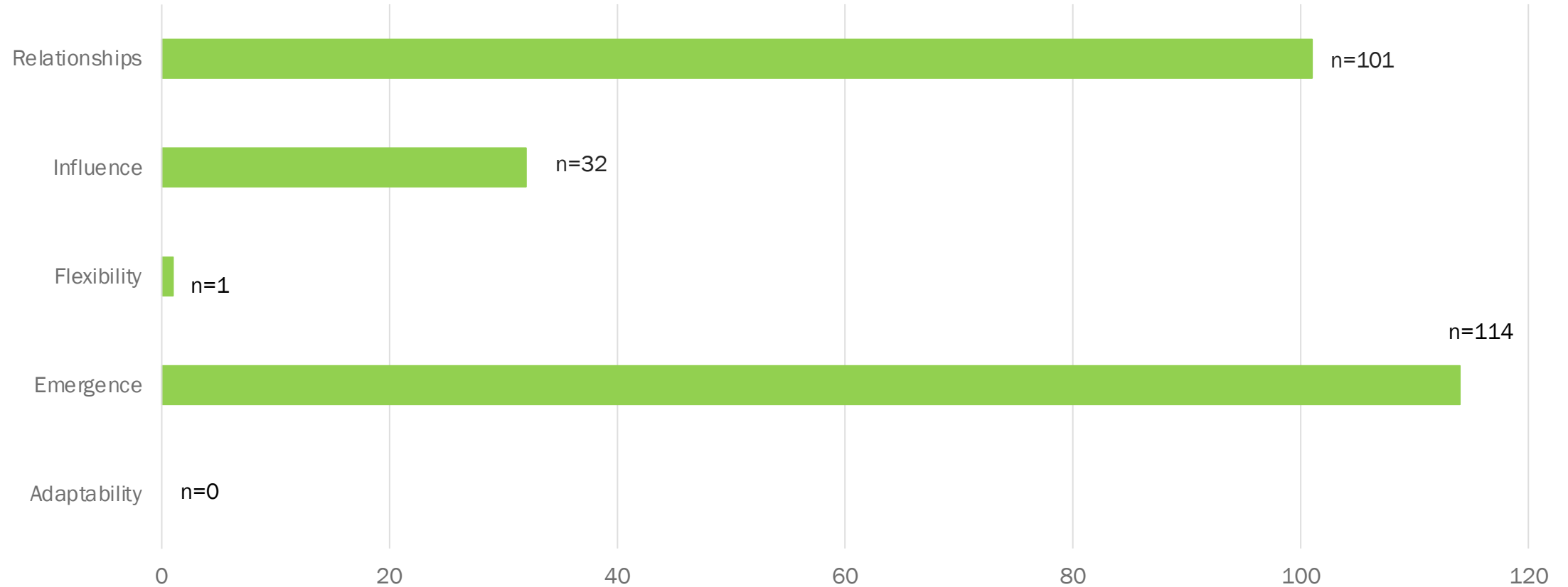| Representation	Quotation
Creative Resource Access	"I scheduled a series of meetings with the finance team to say 'here's the overall plan and here's what I'm doing with all of your managers **to help get them ready.** I have spent so much **time with our finance people to see the business rationale and the reasoning** and ensured **I could talk to how to cover the fully burdened costs for the initiative with other groups** like legal, like quality, like information technology. All of this required those relationships to be there." (System Chief Nursing Informatics Officer)
Inspiration	It's really about finding inspiration through **aiding those patients and families at one of the most vulnerable points in their lives.** Given the challenges that we've been working through, we also **extend that compassion towards one another** more so than ever by making our jobs easier. **Doing things in new ways. For the better."** (System CNO)

Results-EL Themes (n=350)

— Communication (n=74)

Theme Considerations	Quotation
Dissemination	*"One of my prime responsibilities is to make sure **that nursing understands why we're taking on technology**. People from the CNO level up understand that, but **you start getting to the front lines, communication needs to be very targeted**. It's a **challenge to go from the top of the organization**, clear down through the front lines." (System CNO)*
Support process	*"We identify well in advance, when possible, **who supports the communication, and who will be disseminating the information and when**, and who will be receiving the information, and when...Communications also always include a **constantly revisited FAQ** that goes with the information. Our communication department **monitors and escalates feedback, positive and negative as needed**, which also informs our FAQ." (System CNO)*

Adaptive/Enabling Themes (n=248)

Frequency of themes identified

Theme	Value
Relationships	n=101
Influence	n=32
Flexibility	n=1
Emergence	n=114
Adaptability	n=0

Results-EN Theme (n=248)

► Emergence (n=114)

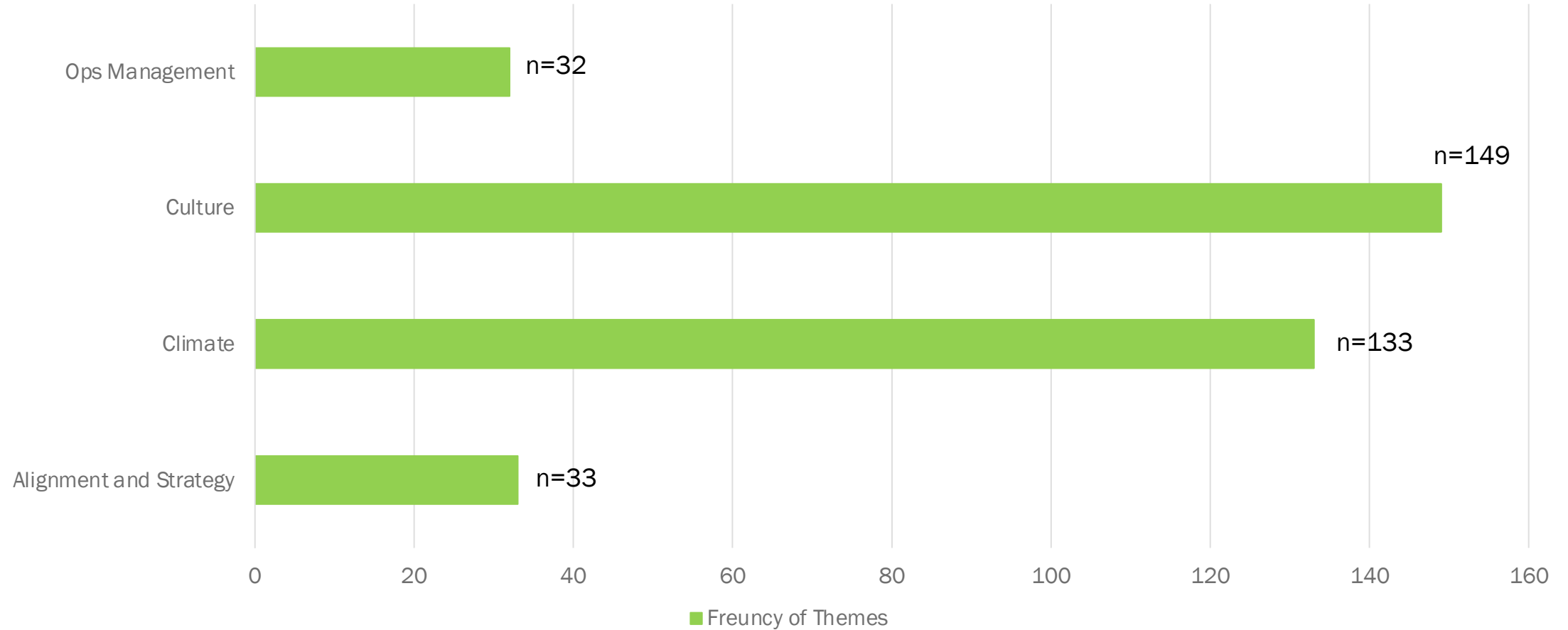| Representation	Quotation
Inter-professionalism and Intra-professionalism	*"And the **broader team took an idea and developed it** to something beyond what the original idea was about...So expanding it to others got interprofessional people, without regard to title, **working together about making each other's ideas better**. And it, I don't think it was an intentional thing that we did, and it just grew up organically as a space that was not hierarchical." (System CNO)*
Value Determination	*"When I look at innovation, I **find out the biggest problem** people are suffering from. That's the **origin of value**. Then I keep reminding them of that pain point and how we can continue to help the pain point and move forward, or you can keep the pain point and stay where you are." (System CNIO)*

Results-EN Themes (n=248)

► Relationship (n=101)

Theme Considerations	Quotation
Mentoring	*"I've had a collaboration with surgeons, a mentorship of some sort throughout my career...I think we think about things in a very linear fashion. Surgeons think differently. ...Training teaches Surgeons to basically cut out the problem for lack of a better right. When they practice leadership, they ask, 'What's the end goal? What are the steps to get there? Let's not waste our time on anything else.' And when I think about it, that aligns with the innovation approach I use." (System CNO)*

Administrative/Operational Themes (n=347)

Frequency of themes identified

Ops Management	n=32
Culture	n=149
Climate	n=133
Alignment and Strategy	n=33

■ Freuncy of Themes

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Results-OL Themes (n=347)

► Administrative/Operational Leadership Themes
  — Culture (n=149)

Theme Representation	Quotation
Guardrails	*"We have to lay down the guardrails. Teams can play around in this space, but **we can't go over this boundary** because we'll lose accreditation or cause some safety issue, or it's a compliance concern. I've said, 'well, this is the way we have to do it. This is what the joint commission says.' Teams can get frustrated with that. There's not enough room to play. I adapted my approach and now frame it as '**We can't compromise on this** set of things, **but you can do whatever else you want within it.**' That approach has worked well." (Vice President, Clinical Innovation)*
Alignment of mindset	*I think my take on diversity arises from my differences in race and gender in nursing, but also in how living in society, in general, **has led to how I envision things, how I bring things forward,** how I do my work. I think that's important to innovation in that **representation matters**. And **when people see people who look like them or come from similar backgrounds as them, that gives a level of trust.** That comes from seeing leadership in innovation that has risen to this rank in the company, but also that cultural or that diversity tie that helps them see or envision it in their space or community that they probably **would not have seen if we always did things the way we always have, with the people that we always use."** (Senior Vice President, Health and Wellness)*

Results-OL Themes (n=347)

► Administrative/Operational Leadership Themes
  — Climate (n=133)

Theme Representation	Quotation
Productivity impact	*"Nurses can be very creative and very innovative; however, we stifle that innovation because we say it's outside of the policy and procedure, or there's a risk issue, or our equipment wasn't intended to do that. A lot of times, we shut it down in nursing. And whether you talk about standards of care or whether you talk about innovating the way we create, we use excuses not to do it. We say we need more research; we need more data; we need more evidence. And then nothing happens, and we keep doing things the same inefficient ways we did before." (Vice President, Chief Clinical Officer)*
Loyalty	*"With a diversity of perspectives, we get different ideas. If the same people are looking at the problems targeted by innovation, things will stay the same. If different, diverse viewpoints are incorporated, that creates a sense of progress." (Senior Director)*

Discussion-Forces and Factors

► Innovation in response to challenging environment of healthcare business (n=24)
— Cost of doing business
— Continued negative operating markets
— Cost of maintaining operations during Covid-19
— Supply chain concerns
— Reactive awareness campaigns
(American Hospital Association, 2021).

► Innovation in response to workforce crisis (n=25)
— Historical shortages
— Nursing compensation issues
— Stressful work environment
— Retirement of experienced nurses
— Contract positions
(Brooks Carthon et al., 2020; Galanis et al., 2021).

Discussion

► Strengths

— Insights representing diverse leadership roles and experience

— Use of leadership theory to guide insights

— Key suggested practice framework competencies

► Limitations

— Convenience sample

— Leader only perspective

— Positive or negative correlations of themes not analyzed

— No objective ability to prioritize value of themes

Discussion-EL Themes (n=350)

► Innovativeness implications (n=194)

Employ creative approaches to resource access	*Identify **key influencers** in the organization and within committees and councils of power, **Cultivate and strengthen mutually beneficial relationships** across organizational systems to gain alignment and **empower other leaders to advocate on behalf of innovation**. Build mutually beneficial relationships with **multiple channels for exchange information** and alignment of shared goals.*
Effective approaches to resource utilization	*Demonstrate **ability to use existing resources to extend value of** innovation. Effectively access and use **channels to access resources and share resources**, when possible. **Accurately plan for resourcing needs** across the innovation lifecycle.*
Access sources of inspiration	*Allow individuals and teams to **look outside of familiar environments to unfamiliar places that may create tensions that inform creative thought**. Channel non-traditional inspiration mechanisms for novel capabilities in knowledge interpretation, experimentation, workflow re-design in support of innovation efforts.*

Discussion-EL Themes (n=350)

► Communication implications(n=74)

Support optimized communication
Explore how to **create and prioritize the dissemination of information quickly and accurately.**
Create and monitor communication **feedback** to access information the front lines.

Discussion-EL Themes (n=350)

► Knowledge Activation implications (n=74)

Disseminate information and build knowledge
Deliver an overarching **alignment in the understanding** of the actions of investigation and experimentation, that **foster positive behaviors.** Act to deliver thorough **prioritization and reinforcement the meaning and value** of actions and information on behalf of the innovation team.

Discussion-EN Themes (n=248)

► Emergence implications(n=114)

Facilitate interprofessional collaboration	Convene **interprofessional teams to support and engage nurses** in ideation and feedback Engage other interprofessional leaders and influencers among a diverse group of professionals aligned in support of innovation through the theme of emergence.
Determine and describe innovation value	Identify the **biggest problems to address with innovation and aligning on where value will be derived** from and provided to as benefit to individuals, stakeholders, organization.

Discussion-EN Themes (n=248)

► Relationship implications (n=101)

Cultivate internal relationships in support of innovation	**Develop relationships with other innovators.** Provide information on sources, experts, events, and education related to innovation guidance.
Identify known barriers to innovation within the organization	Identify **formal and informal barriers** to innovation and work to mitigate, **Committees and councils** to circumvent barriers to innovation
Practice bidirectional mentoring	Seek and **establish leader mentors for innovation; mentor others** and serve as thought leader for innovation.

Discussion-OL Themes (n=347)

► Culture implications (n=133)

Motivate teams and systems	Nurse leaders may facilitate efforts to address fear as a preservation method for the status quo through making time for nurses to understand innovation through communication, training and feedback mechanisms that can monitor and allow for informed responses and clarification.
Embrace challenges and constructive criticism	Create safety and support for individuals and teams to challenge innovation is an activity that leaders of innovation for nursing care delivery can employ and model in ensuring alignment, fostering trust, and creating positive meaning in innovation work.

Discussion-EN Themes (n=347)

► Climate implications (n=133)

Motivate teams and systems	Nurse leaders may facilitate efforts to **address fear as a preservation method for the status quo** through **making time for nurses to understand innovation** through communication, training and **feedback mechanisms** that can monitor and allow for informed responses and clarification.
Embrace challenges and constructive criticism	Create **safety and support for individuals and teams** to challenge innovation is an activity that leaders of innovation for nursing care delivery can employ and model in **ensuring alignment, fostering trust, and creating positive meaning** in innovation work.

Conclusion

► Nurse leaders prioritized innovativeness, culture, climate and relationships as key themes associated with innovation

► Challenges exist in the themes of communication and relationships as nurse leaders examine how to extend connectedness and networks for use with innovation

► Areas key to innovation supported by CLT that were not frequently identified include adaptability and ambiguity/risk

► Diversity is an area of concern and interest for nurse leaders

Discussion

- ► Future directions:
  - — leaders <u>and</u> teams' perspectives on the value of innovation leadership skills and expertise
  - — Understanding how leaders shift from hierarchal leadership model skills to complexity leadership skills when innovation is one of several responsibilities
  - — Differences in innovation leadership skills and perceived value among emerging leaders and executive leaders in nursing
  - — Nursing leadership for innovation on interdisciplinary teams

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Timeline of Project

Committee Approval (August 2021) → Institutional Review Board Approval (September 2021) → Participant Interviews (September-October 2021) → Data Coding (October-November 2021) → Data Analysis (November 2021)

Budget

Item	Cost
Transcription Service	$0.00 (trial period)
Software for data analysis	$0.00 (employer benefit access)
Investigator time	103 hours