Background
There is a long history of research addressing the relationship between personality and effective leadership in organizations (e.g., Judge, Bono, Ilies, & Gerhardt, 2002; Hambrick & Mason, 1984; House, Spangler, & Woyche, 1991). Compelling evidence has emerged from a number of recent studies that suggest personality is a strong indicator of the types of individuals who ascend to executive levels and that personality helps explain how these individuals lead their organizations once they are established in these positions (Resick, Whitman, Weingarden, & Hiller, 2009). In recent years, Caliper has conducted a number of studies that investigated the relationship between effective leadership and personality traits. One such study included a sample of 293 successful corporate leaders across multiple industries. The findings suggested a very distinct model of executive level leadership personality. In general, this group of successful leaders exhibited dynamics that are consistent with being adept at influencing and directing others, skillful at building relationships and masterful at solving problems and making decisions. In essence, these leaders were extremely bright, assertive, driven to persuade, empathic and resilient. Having a need to get things accomplished, they are willing to take risks. They are also moderately sociable, demonstrating a healthy level of skepticism, and are motivated to come up with new ideas.

In another leadership-related study, Caliper (2005) conducted research on the unique personality traits of successful women leaders. Among the findings from this study of 59 successful women leaders were that women leaders score significantly higher than male leaders in ego-drive (persuasive motivation), assertiveness, willingness to risk, empathy, urgency, flexibility and sociability. The strong people skills possessed by women leaders enable them to read situations accurately and take in information from all sides. This willingness to see all sides of a situation enhances their persuasive ability. They can zero in on someone's objections or concerns, weigh them appropriately, address them effectively and incorporate them into the grander scheme of things when appropriate. These women leaders are able to bring others around to their point of view or alter their own point of view—
depending upon the circumstances and information they uncover. They can do this because they genuinely understand and care about where others are coming from. This allows them to come at a subject from their audience’s perspective, so that the people they are leading feel more understood, supported and valued.

In conjunction with Amrop Battalia Winston, Caliper has conducted a study to understand the leadership profile of top Chief Nursing Executives in the hospital and healthcare industry. The purpose of this research is to identify if there are particular **personality traits** in these high level nurse leaders that lead to behaviors that are consistent across the industry that demonstrate success. These **personality traits** can also potentially link into **competencies** already developed by individual organizations regarding their unique leadership definitions.

**Method**

**Use of the Caliper Assessment**

The Caliper Profile is a robust assessment tool that measures 23 different personality traits and motivational factors that have been found to be highly predictive of job performance. In working with over 30,000 companies over the past 40 years, Caliper has consistently found that the employees who perform at high levels are those who are in work environments and positions that are congruent with their personality and motivational strengths.

One’s personality and set of motivational dynamics provides the psychological mechanism that gives rise to the observable behaviors that will lead to success in a job. In short, Caliper assesses the congruence between an individual’s personality and the tasks, work environment, management style, culture, and expected outcomes the individual will experience on the job. The more congruency observed, the more likely the individual will prove to be a success.

**Participants**

Seventy-one individuals, deemed by their respective companies or Amrop Battalia Winston as being successful or high-potential nurse leaders, were identified as participants of this study. These individuals had all completed the Caliper Profile during the process of being considered for employment or during their tenure with their employer.

The participants came from a number of organizations within the hospital and healthcare industries. Most of these organizations were multi-facility hospitals and/or healthcare systems, and many were affiliated with nationally-recognized academic institutions.

**The positions held by these individuals represent the highest level nurse leader at their respective hospital or healthcare system, and included such titles as:**

- Chief Nursing Officer
- Chief Nursing Executive
- Senior Vice President
- Vice President
Assessment Criteria
This group of nurse leaders was evaluated in comparison to a Senior Leader model based on Caliper’s extensive research in this area. Senior Leaders develop and manage an organization’s strategic and operational goals. They set up structure within assigned locations and establish plans and programs to achieve revenue and profitability objectives or to meet other significant organizational goals.

Some position features that are consistent with senior leadership include:
- Possess knowledge of administration and management: Senior Leaders possess knowledge of the business and management principles involved in strategic planning, human resources, and staff and material resource coordination as well as leadership techniques and production methods.
- Develop objectives and strategies: They also establish long-range objectives and specify the strategies and actions needed to achieve them. The objectives typically focus on sustaining and assisting growth.
- Create vision: Senior Leaders create or promote an idea or vision that people can identify with and believe in.
- Make high-impact decisions: They make strategic decisions that have significant impact on the organization and its employees.
- Build high-performance teams: They create teams capable of executing strategies and accomplishing objectives.
- Allocate resources: Senior Leaders ensure the distribution of people and material resources that enable others to do their jobs.

Composite Analysis – Process
The first step to analyzing the dynamics of a team is to view the personality attributes as a composite. To interpret the composite analysis, it is important to understand what the graph represents. The study sample included 71 individuals. The bars on the graphs represent one standard deviation around the mean, or average, of each of the personality dynamics of the executives included in the group. Given that the 50% mark is the average of the general population for each attribute, the mean scores that fall well above or below 50% are attributes that warrant consideration. Wider bars indicate a greater degree of variance between the scores of the members of the group, whereas narrower bars indicate a lesser degree of variance between the individual scores. Therefore, scales with the smallest standard deviations are those that suggest the most similarity between members of the group.

Trait Dynamics
A trait or attribute can either be a Driver, which pushes performance in a positive direction, or an Inhibitor, which interferes with performance. The traits that drive strong performance in a senior leader role include:
- Abstract Reasoning Ability: Potential to solve problems and understand the logical relationships among concepts
- Aggressiveness: Inclination to push forcefully
- Assertiveness: Potential to communicate information and ideas in a direct manner
- Ego-Drive: Degree of satisfaction gained from persuading others
- Risk-Taking: Willingness to take chances
- Urgency: Tendency to take quick action in order to obtain immediate results
The traits that inhibit strong performance in a leadership role are:
- Accommodation: Desire to help others
- External Structure: Sensitivity to imposed rules

Behavioral Dynamics
It is important to understand the traits measured by the Caliper Profile in the context of key workplace behaviors. As senior leaders, they are expected to:
- Take action that challenges the status quo
- Think strategically to promote growth, improve financial performance, or gain competitive advantage
- Motivate others to perform their best
- Recognize problems, issues, and opportunities
- Be willing to make tough decisions
- Be persistent

Results
Trait Dynamics
As can be seen in Figure 1, this group of successful nurse leaders scored above average in:
- Aggressiveness
- Flexibility
- Assertiveness
- Idea Orientation
- Ego-Drive
- Risk Taking
- Empathy
- Urgency

This group scored below average in:
- External Structure
- Skepticism
- Thoroughness

When comparing this group of successful nurse leaders to successful senior leaders from across all industries (Figure 2), the patterns of trait dynamics appear quite similar. However, there are some significant differences to note. In particular, this group of successful nurse leaders scored significantly higher than senior leaders from across all industries in:
- Accommodation
- Cautiousness
- Empathy
- External Structure
- Flexibility
- Gregariousness
- Idea Orientation
- Thoroughness

This group scored significantly lower than senior leaders from across all industries in:
- Abstract Reasoning
- Aggressiveness
- Risk Taking
- Urgency

The nursing profession in the US tends to be a female dominated profession. In fact, this study sample was 85% female. Therefore, it seemed appropriate to compare this group of successful nurse leaders to studies examining the traits of successful women leaders. Compared to the trait dynamics of women leaders (Figure 3), this group of successful nurse leaders showed many similarities, including:
- Abstract Reasoning
- Ego-Drive
- Flexibility
- Sociability
- Aggressiveness
- Ego-Strength/Resilience
- Self-Structure
- Thoroughness
- Assertiveness
- Empathy
- Skepticism
At the same time, there were some differences between this group of successful nurse leaders and women leaders in general. In particular, this group of successful nurse leaders scored significantly higher than women leaders in Accommodation and Cautiousness, and trended higher in External Structure, Idea Orientation and Gregariousness. They scored significantly lower than women leaders in Risk Taking and Urgency.

** Behavioral Dynamics

**Leadership**

This group of senior-level nurse leaders displays generally strong leadership dynamics. They are likely to sell their initiatives and not merely issue orders, and they are inclined to inspire staff members to undertake new programs. They display the dynamics of take-charge leaders who operate from a position of strength. They are apt to influence team members to follow their direction by speaking with conviction and using active persuasion. They also tend to take the suggestions of others into account when making decisions. Furthermore, they are apt to handle customary setbacks and take a hard line when needed. While they may not be as aggressive or forceful as senior leaders from other industries, their higher level of empathy should enable them to anticipate disagreement or resistance and find creative ways to overcome it.

**Interpersonal**

These nurse leaders should have little difficulty engaging others in small talk and establishing rapport. They appear to be trusting, empathic, and willing to provide assistance on request. They seem to be attentive listeners who can identify other people’s subtle feelings and reactions and are willing to consider perspectives that differ from her own. Furthermore, they are likely to help others achieve their goals. They are apt to relate to other people’s viewpoints, work collaboratively, and focus their behavior to reflect present needs. In general, they display stronger interpersonal dynamics than leaders from other industries. Even when compared with other women leaders, they seem to be more accommodating and service oriented, which is likely related to their choice to pursue a “helping” profession such as healthcare. While this can sometimes make it more challenging for them to deliver bad news or hold staff members accountable, their generally strong leadership dynamics discussed above should help them to appropriately balance a tendency to nurture people.

**Problem Solving/Decision Making**

Overall, these nurse leaders appear to be reliable decision makers and problem-solving resources. They have the abstract reasoning ability to understand most problems that arise, and show an interest in conceptual issues. Also, they would tend to address situations in a timely way. They seem willing to consider new ideas or different approaches and to take some risks to produce the desired outcome. Without being overly deliberative, they are likely to analyze the factors involved in a situation, look for cause and effect, and take responsibility for their recommendations. Compared to leaders from other industries, they are apt to be more open to a creative and collaborative decision-making process. They are also
somewhat more risk-averse than leaders in general, and even other women leaders. Again, this may be reflective of the practice of healthcare where people’s lives are at stake, and thus quality and attention to detail are more critical. Even so, they are still more action oriented than detail oriented in their decision-making style, and are unlikely to experience much “analysis paralysis”.

**Personal Organization/Time Management**

These nurse leaders seem able to multitask and juggle priorities, and they are likely to push themselves and others to achieve timely results. Given their sense of urgency, they are apt to take the initiative rather than wait for tasks or projects to be assigned. To help balance their urgency, they show some degree of caution and sufficient sensitivity to external guidelines to stay on track. To their additional credit, they appear able to organize their own work while factoring organizational policies and procedures into their plans. While they do not appear to be highly detail-oriented, they are likely to handle critical matters according to the established standards in order to accomplish the desired result. However, if they are required to deal with a large volume of administrative matters on a regular basis, they may need assistance.
SUCCESSFUL NURSE LEADERS IN THE HOSPITAL AND HEALTH CARE INDUSTRY

Figure 1 - Group Composite Profile

Leadership
- Assertiveness
- Aggressiveness
- Ego-Drive
- Empathy
- Ego Strength/Resilience
- Risk Taking
- Urgency
- Cautiousness

Interpersonal
- Empathy
- Sociability
- Gregariousness
- Accommodation
- Skepticism

Problem Solving/Decision Making
- Abstract Reasoning
- Idea Orientation
- Thoroughness
- Flexibility
- Cautiousness
- Risk Taking
- Urgency

Personal Organization/Time Management
- Self-Structure
- External Structure
- Urgency
- Thoroughness
- Risk Taking
- Cautiousness
Figure 2 - Nurse Leaders vs. Corporate Leaders from the Caliper Database

Leadership
- Assertiveness
- Aggressiveness
- Ego-Drive
- Empathy
- Ego Strength/Resilience
- Risk Taking
- Urgency
- Cautiousness

Interpersonal
- Empathy
- Sociability
- Gregariousness
- Accommodation
- Skepticism

Problem Solving/Decision Making
- Abstract Reasoning
- Idea Orientation
- Thoroughness
- Flexibility
- Cautiousness
- Risk Taking
- Urgency

Personal Organization/Time Management
- Self-Structure
- External Structure
- Urgency
- Thoroughness
- Risk Taking
- Cautiousness

Bars represent plus and minus one-half standard deviation from the group mean.
* Denotes a statistical difference (p < .05) and † denotes a statistical trend (.05 < p < .10) between the means of the two groups.
Figure 3 - Nurse Leaders vs. Women Leaders from the Caliper Database

Leadership
- Assertiveness
- Aggressiveness
- Ego-Drive
- Empathy
- Ego Strength/Resilience
- Risk Taking
- Urgency
- Cautiousness

Interpersonal
- Empathy
- Sociability
- Gregariousness
- Accommodation
- Skepticism

Problem Solving/Decision Making
- Abstract Reasoning
- Idea Orientation
- Thoroughness
- Flexibility
- Cautiousness
- Risk Taking
- Urgency

Personal Organization/Time Management
- Self-Structure
- External Structure
- Urgency
- Thoroughness
- Risk Taking
- Cautiousness
Conclusions and Recommendations

Strengths
The results of this study suggest that successful nurse leaders exhibit the following job-related strengths that can be applied to a variety of opportunities to further their team and organization objectives. These are qualities that they are likely to bring to virtually any situation or environment.

Creating Strategies
They seem to have a big-picture orientation that allows them to develop new ideas and concepts that can affect and improve the organization.

Communicating Directly
They are apt to be assertive in providing advice and expressing their points of view.

Identifying Problems
They are apt to understand how things work and insightfully recognize ways to make them better. They show the capacity to see angles that others do not.

Influencing and Persuading Others
They are apt to enjoy the challenge of convincing others. They may welcome the opportunity to overcome resistance and build support to move forward with their ideas.

Negotiating Acceptable Outcomes
In their negotiations with others, they tend to be effective in asserting their position and understanding the other party’s point of view in order to gain agreement.

Motivational Strategies
The following activities and work environments are ones that successful senior nurse leaders are likely to find enjoyable and rewarding. Factoring these strategies into the team and organizational processes may help them to stay engaged and produce consistent results.

Persuasion
Convincing others to accept one’s point of view, even if they are reluctant to do so, may serve as a motivator for these leaders:
• Tasks that give them the opportunity to convince others of the merits of their arguments are likely to be highly enjoyable.
• They are apt to do well in environments that encourage and require them to actively persuade people in order to achieve their objectives.
• Rewards and recognition for consistently gaining others’ agreement are likely to be good incentives for them.
Competition
These leaders seem competitive and motivated to prove that they perform better or more effectively than others:
• Tasks that are likely to satisfy them the most include activities where they are in direct competition with themselves and others.
• They tend to do well in environments where productivity and performance are measured and compared with prior performance or the performance of others.
• Besides winning, valuable incentives for them may include commissions, bonuses, and other prizes.

Problem Solving
Finding solutions to problems is likely to be satisfying for these leaders:
• They tend to enjoy creating strategies, conducting research, or performing other analytical activities where obtaining a solution is key to success.
• Environments that encourage independent thinking and problem solving are likely to suit them well.
• Important incentives for them may include having sufficient resources, tools, and time to implement and see the results of their solutions.

Authority
For these leaders, possessing and exercising authority and influence over people tend to serve as motivation.
• Their role should include tasks where they have an opportunity to provide direction to others.
• They are likely to enjoy a hierarchical environment that encourages and rewards individual leadership.
• Incentives that include status, a wide span of control, and individual authority may inspire them.

Ultimately, the goal of this study was to gain a deeper understanding of what traits are most relevant to, and support successful leadership behaviors for Chief Nursing Executives and similar senior-level nurse leaders in the hospital and healthcare industry. These data reflect a clear omnibus model of personal attributes that are most related to nursing leadership success in the industry. A comparison of job candidates’ personality dynamics to this model of success, along with consideration of role-specific, company, and culture-fit factors, will result in more accurate assessment of job fit, professional development needs, and overall potential for success. This information provides the industry as a whole with data to improve selection, onboarding, retention and development of their nurse leader population.
References

Caliper Corporation (2005). The qualities that distinguish women leaders.


Appendix: Glossary of Terms

**Abstract Reasoning:** Potential to solve problems and understand the logical relationships among concepts. People who show a high level of Abstract Reasoning should be capable of understanding complex issues and integrating information. Individuals with low levels tend to be most effective when handling issues that have straightforward solutions.

**Accommodation:** Desire to help others. Individuals who have high scores on this trait tend to be motivated to help people. Those with low scores might be uninterested in providing assistance. In certain Job Families, Accommodation can be a Performance Inhibitor. In such cases, people who are highly accommodating are apt to be motivated to assist others, which may detract from fulfilling position requirements. Individuals with low scores are unlikely to let the need to help people interfere with their job performance.

**Aggressiveness:** Inclination to push forcefully. People who have high scores in Aggressiveness tend to be forceful when defending their ideas or actions. Individuals with low scores would be unlikely to take a firm approach.

**Assertiveness:** Potential to communicate information and ideas in a direct manner. Individuals scoring high on this quality should be willing to communicate their ideas and opinions. People with low Assertiveness scores may be uncomfortable expressing their viewpoints.

**Cautiousness:** Inclination to make decisions carefully and think through relevant facts and alternatives. High scorers tend to be careful when deliberating options and calculating outcomes. By contrast, low scores on this attribute suggest a tendency to act without thinking things through.

**Composite:** A composite refers to statistical analyses that are performed on a sample of Caliper scores on no less than five individuals. Specifically, the mean and variability are calculated for each trait measured by Caliper. The results of these analyses, which are performed on Caliper raw scores, are converted to percentiles for purposes of graphic illustration and interpretation. A composite can be performed on the scores of individuals with different job titles, and at different performance levels on the same job. Because performance metrics are not used to define or characterize the sample of individuals in the composite, a composite should not be confused with the results of a Caliper Benchmark and Validation Study. Its value lies in presenting a snapshot of the Caliper results of a group of individuals in a particular sample.

**Ego-Drive:** Degree of satisfaction gained from persuading others. Highly ego-driven individuals should be motivated to win others’ commitment. People with low scores on this trait are unlikely to invest much effort into gaining consensus. According to Caliper’s Performance Models, Ego-Drive can sometimes inhibit performance. In those Job Families, individuals with strong Ego Drive could overemphasize gaining people’s agreement at the expense of accomplishing work.
goals. Those with low scores would be unlikely to allow the need to convince others to interfere with their job performance.

**Ego-Strength/Resilience:** Capacity to handle rejection and criticism. Individuals with high scores on Ego-Strength tend to be unconcerned by setbacks. On the other hand, people who score low on this scale may be sensitive to criticism or rejection.

**Empathy:** Potential to perceive others’ feelings and to adapt as needed. An empathic individual should be capable of understanding others and adjusting accordingly. Low scorers are inclined to misinterpret people’s needs or feelings.

**External Structure:** Degree to which a person is sensitive to existing rules. Individuals who show a high level of External Structure are likely to be receptive to a structured environment with rules. People with low scores could be unresponsive to authority. Caliper’s research shows that high scores in External Structure can derail performance in certain Job Families. In such cases, high scorers are apt to allow following rules to detract from achieving objectives. By contrast, low scorers are unlikely to let rules interfere with accomplishing work goals.

**Flexibility:** Willingness to modify an approach and to adapt to changing circumstances. Individuals who score high on this measure should be adaptable to change. Those who show low scores are likely to be reluctant to change their approach.

**Gregariousness:** Comfort with meeting new people and initiating conversations. Highly gregarious people would likely be comfortable establishing contact and networking. Those who have low scores on this trait may be uneasy about taking the initiative in social situations. Caliper’s Performance Models indicate that Gregariousness can hinder performance in some Job Families. When this trait is a Performance Inhibitor, people with high scores could be motivated to network, which may detract from fulfilling position requirements. By contrast low scorers are unlikely to let the desire to meet people interfere with job performance.

**Idea Orientation:** Preference for thinking creatively and generating new ways to solve problems. Individuals with high Idea Orientation are likely to be motivated to develop creative, original solutions, while low scorers are inclined to use well-established methods. In certain Job Families, high Idea Orientation can inhibit performance. In these Job Families, people who show high scores are apt to be distracted by their need to generate new ideas. Those with low scores are unlikely to allow the desire to innovate to become a disruption.

**N:** The total number of scores, or values, in a sample (or population).

**Percentile:** A value indicating the percentage of cases falling at or below that score. For example, the 50th percentile indicates that half of the scores fell at or below that score.
Population (N): Consists of all members of a group of individuals who are alike on at least one specified characteristic. For example, all employees at Company XYZ are the population of employees at Company XYZ.

Risk Taking: Willingness to take chances. Individuals scoring high on this trait are likely to take chances on untested initiatives. People with low scores tend to be reluctant to risk failure.

SD (standard deviation): Measures the spread or dispersion of scores around the mean in a distribution of scores (sample or population). The larger the standard deviation, the more the scores in the distribution vary around the mean. The smaller the standard deviation, the less the scores vary around the mean.

Self-Structure: Preference for independently determining work methods. Individuals with high scores are apt to be motivated to independently determine their work approach, while those who show low Self-Structure scores are unlikely to define their own work methods.

Skepticism: Inclination to doubt or question others’ motives. Caliper’s research has shown that this trait is a Performance Inhibitor in some Job Families. Highly skeptical individuals tend to be guarded and wary of others’ intentions. People with low levels on this scale are likely to be trusting and willing to give others the benefit of the doubt.

Sociability: The enjoyment of being around people and working with others. Individuals who score high on Sociability are likely to be motivated to interact with others. Low scorers on this trait could be uninterested in having frequent social interaction. Caliper’s Performance Models show that Sociability can detract from job performance in some Job Families. In those circumstances, a highly sociable person would be apt to socialize with others, perhaps at the expense of producing results, while those with low scores would be unlikely to allow socializing to become a distraction.

Thoroughness: The tendency to pay attention to detail. Individuals who show high scores on this trait tend to be attentive when handling detail-intensive tasks. Those who score low may be uninterested in focusing on fine points.

Urgency: The tendency to take quick action in order to obtain immediate results. High scorers on this trait tend to be driven to act quickly. Individuals with low levels of Urgency are inclined to take time when handling tasks.
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