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Future of Leadership in Healthcare: Enabling Complexity Dynamics Across Levels

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FUTURE OF LEADERSHIP IN HEALTHCARE:
ENABLING COMPLEXITY DYNAMICS ACROSS LEVELS

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Potential Sponsor Divisions: Health Care Management (HCM); Organization Development and Change (ODC); Strategizing Activities and Practices (SAP)

The symposium organizers, Stefan Maric, Ivana Milosevic, and Erin Bass, have received acknowledgment from participants that they are not in violation of the Rule of Three + Three.

ABSTRACT

Healthcare is one of the world's fastest-growing industries with over $10 trillion in projected spending by 2022 (Deloitte, 2019). Despite this growth, the industry faces several challenges including rising costs, care delivery outside urban areas and to marginalized populations, digital transformation, and regulatory compliance. To navigate these challenges and capitalize on growth opportunities, leaders must build and manage complex dynamics occurring in the space between the organization and a wide range of internal and external stakeholders. In this symposium, we address this issue by assembling a group of scholars trained in healthcare management, strategy, leadership, and organizational theory to discuss the role of leaders in the future of healthcare. Through a series of presentations, we will illustrate how leaders in healthcare enable complexity dynamics across organizational levels to drive desired outcomes. In doing so, we bring to the forefront the multilevel and complex nature of healthcare leadership and invite innovative thinking about leadership for the future of healthcare.

Health Care Management Keywords: complex adaptive systems, leadership, organizational culture, organizational performance, patient safety.

Organization Development and Change Keywords: culture change, leadership, multi-stakeholder evolvement, systems and complexity theory of change.

Strategizing Activities and Practices Keywords: leadership, new agendas, public & non-profit organizations, top managers.

OVERVIEW OF SYMPOSIUM

In the healthcare context, leaders are responsible for not only the financial viability of their organizations but also for the viability of their patients and providers, care delivery outside urban areas and to marginalized populations, digital transformation, and regulatory compliance (Braithwaite & Travaglia, 2008; Hillman & Dalziel, 2003; Grigoroudis, Orfanoudaki, & Zopounidis, 2012). Yet how they navigate these complexities drive positive outcomes for their institutions is less clear. There are several reasons for this. First, non-profit entities comprise a large part of the healthcare industry, which inherently complicates the analysis using standard performance metrics and value maximization assumptions (Alexander & Weiner, 1998; Brickley, Van Horn, & Wedig, 2010). Second, due to a heterogeneous nature of the healthcare sector, the strength and diversity of stakeholders, and the varying national regulations and public policy objectives, the generalizability of findings from other academic research remains questionable (Jamali et al., 2010). Finally, the difficulty of sourcing data may have prevented scholars from executing a wider variety of studies on leadership in the healthcare setting (Eeckloo, Van Herck, Van Hulle, & Vleugels, 2004).

Given this, the field may be ripe for new insight into leadership models for the future of healthcare. In a recent review, Belrhiti, Giralt, and Marchal (2018) argued that due to its growing complexity, the healthcare management field would benefit from stronger insights from complexity science and particularly work by Uhl-Bien and colleagues in the realm of complexity leadership theory (CLT) (Lichtenstein, Uhl-Bien, Marion, Seers, Orton, & Schreiber, 2006; Marion & Uhl-Bien, 2001; Uhl-Bien, Marion, & McKelvey, 2007; Uhl-Bien & Arena, 2018). CLT brings to the forefront a new set of assumptions and approaches to leadership—ones that recognize that organizations today are complex systems that require leaders to complexify their

activities to be able to manage them. Complexity in these systems stems from "nonlinearity, sensitivity to initial conditions, iteration, feedback loops, novelty, unpredictability, process and emergence" that traditional views tend to overlook (Tsoukas, 1998: 305). This renders the current management paradigm of viewing organizations as highly specialized and machine-like entities sorely inadequate (Plsek & Wilson, 2001).

To this end, Uhl-Bien and Arena (2018) argue that leaders must develop new capacities (as discussed in the paper by Groves and Feyerherm) and focus on creating conditions for others to be adaptive in the face of challenges (see the paper by Bass & Milosevic below). This requires researchers to embrace a context- sensitive approach (see paper by Lord) to designing adaptive organizations that enable network interactions (see paper by Funk, Hollingsworth, Owen-Smith, Kim & Twyman) and focus on multiple individual and collective outcomes (see paper by Silvera, Vogus & O. Currey, Jr.). In other words, leaders must operate across organizational levels – from developing their capacities to managing networks outside the organization – to navigate the complexities of the healthcare industry and lead for the future.

The focus of this symposium will be on how leaders manage these complexities across and beyond organizational levels. The first presentation, ***Building Extra-Organizational Adaptive Networks: Complexity Leadership in Healthcare***, by Erin Bass will begin with describing how leaders in healthcare build adaptive networks to reach and provide care to marginalized stakeholders. This study uses insights from CLT and emergent qualitative data to build a theoretical model of leadership beyond organizational boundaries through adaptive networks that include provider, partners, and underserved populations.

Crossing the levels, the second presentation, ***Physician CEOs & Patient Safety***, by Geoffrey Silvera, will describe how strategic leadership in healthcare influences patient safety

outcomes using the Upper Echelon's Perspective (UEP). UEP contends that CEO characteristics and attributes have a significant impact on firm-level decision making. In this sense, the paper integrates insights from UEP to explore how functional background of the hospital CEO influences patient safety outcomes, an important indicator of hospital performance.

The third presentation, ***Management Practices of Under-resourced Nursing Homes***, by Justin Lord, will elaborate on how cultural transformation in a complex, resource-deprived environment, influences the heterogeneity of nursing home performance. Even though nursing homes operate in an environment of increasing financial distress, there is a significant variance in their performance. The paper's findings are that cultural change positively influences the performance of nursing homes in a complex and dynamic environment.

Moving to the networks within the organization, the fourth presentation, ***Stitching Ties: Team Performance in the Connected Organization***, by Dennie Kim, will introduce insights into how team familiarity influences team performance in complex organizations. Intuitively, team familiarity helps with team performance since members are better able to work with each other from the start. However, after a certain point, overly familiar teams will isolate themselves from information flows across networks causing degradation of team performance.

The fifth presentation, ***Identifying Healthcare's Future Leaders: Development of a Leadership Potential Model for Healthcare Organizations***, by Kevin Groves will present a dynamic two-dimensional model of leadership potential that comprises both cognitive and behavioral competencies operating across micro- and macro-levels of analysis. The resulting model can be helpful for a variety of healthcare organizations faced with seismic shifts in the external environment and rise in demand for healthcare talent that makes HR planning difficult.

Finally, the discussant, Mary Uhl-Bien will connect insights from the five papers. An expert in the field who introduced complexity science to leadership research, Mary will discuss the unique challenges experienced by healthcare organizations and how researchers and practitioners alike my leverage CLT to not only understand these challenges but also create space for its application in the future of leadership in healthcare. Uhl-Bien's research and consulting experience in healthcare leadership will offer participants and attendees the platform for engaged discussion that is relevant to theory and practice.

RELEVANCE OF SYMPOSIUM TO SPONSORS

Health Care Management Division (HCM)

The topic of leadership in the future of healthcare tackles key practices professionals engage in providing care to different stakeholders in complex and volatile environments. In particular, this symposium explores how leaders tackle issues related to delivering care to marginalized populations, managing to maximize patient safety, building culture in nursing homes, developing new leadership competencies, and advancing team dynamics for optimal performance. This is symposium further significant, as it may open up new research avenues, particularly with regard to the complex nature of leadership, as well as advance theoretical models and empirical methods capable of capturing complex leadership dynamics inherent to healthcare.

Organization Development and Change Division (ODC)

The topic of leadership healthcare is fundamentally about developing new organizational practices relevant to highly complex and dynamic contexts, such as modern healthcare institutions. The multilevel approach to leadership put forth in this symposium highlights the need for leaders to embrace change as a new reality and build organizational cultures and structures to allow for the change as conduit of organizational performance. In doing so, this

symposium will provide managers and consultants in healthcare new ways to lead change while providing those outside of healthcare a better understanding of how leaders manage complexities across and beyond the organization.

Strategizing Activities and Practices Interest Group (SAP)

In explicating strategic practices across organizational levels, this symposium has high relevance to the Strategizing Activities and Practice interest group. We explore leadership practices across organizational levels–from how they build networks to reach marginalized communities to how they develop competencies to lead in a complex context. Although our primary focus is on leadership practices, the multi-level approach allows us to theorize strategy-related practices in healthcare as a dynamic process that includes individuals across the organizational hierarchy. Thus, presentations in this symposium fit with SAP's focus on the activities and practices of leaders, and how these in turn influence organizational outcomes.

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PROPOSED FORMAT OF SYMPOSIUM

Length: 90 minutes

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Minutes 0-5: Welcome and introduction to the symposium
- Organizer: *Stefan Maric*

Minutes 5-65: Paper presentations (10-12 minutes each)
- Building Extra-Organizational Adaptive Networks: Complexity Leadership in Healthcare
Presented by A. Erin Bass
- Physician CEOs & Patient Safety
Presented by Geoffrey Silvera
- Management Practices of Under-resourced Nursing Homes
Presented by Justin Lord
- Stitching Ties: Team Performance in the Connected Organization
Presented by Dennie Kim
- Identifying Healthcare's Future Leaders: Development of a Leadership Potential Model for Healthcare Organizations
Presented by Kevin Groves

Minutes 65-90: Group Discussion
- Discussant: *Mary Uhl-Bien*

BUILDING EXTRA-ORGANIZATIONAL ADAPTIVE NETWORKS: COMPLEXITY LEADERSHIP IN HEALTHCARE

Erin Bass & Ivana Milosevic

The healthcare industry is becoming increasingly more complex for leaders to navigate. These complexities exist largely due to the interplay of high stakeholder fragmentation (Cairns et al., 2006), rising costs (Popescu, 2014), and changing institutional environments (Savino & Latifi, 2019). In 2017, healthcare spending in the US reached $3.5 trillion (approximately $11,000 per person) and is projected to increase to $6 trillion (approximately $17,000 per person) by 2027 (Centers for Medicare & Medicaid Services, 2019). Stakeholder fragmentation is a large contributor to both the costs and complexities in healthcare. More specifically, many consumers of healthcare do not have access to preventive care and only consider care in most dire circumstances. This is particularly true for marginalized, underserved populations that often do not have financial means to afford preventive care or understanding of its importance (Elrod & Fortenberry, 2017). The lack of preventive care often results in full medical treatments that tend to be more complex and expensive.

The challenge for leaders of healthcare organizations, then, is to reach underserved population—despite diminishing financial resources—while addressing the rising costs. In this context, traditional notions of strategic leadership as leadership of the organization (Boal & Hooijberg, 2000; Vera & Crossan, 2004) working to envision, plan and execute strategy within the organization's boundaries—carefully crafting and creating the future of the firm (Ireland & Hitt, 1999; Rowe, 2001) may be less useful. Indeed, the complexity of the environments requires these leaders to similarly complexify their practices (Boisot & McKelvey, 2010) by providing linkages to "emergent structures" while appreciating the role of bureaucratic organizing, what Uhl-Bien et al. (2007) term complexity leadership. In this view, primacy is placed on leaders

enabling adaptive networks within and beyond their organizational boundaries to nurture novelty

and foster both collaboration and performance of diverse actors (Davis & Eisenhardt, 2011;

Gibney, Copeland, Murie, 2009; Uhl-Bien & Arena, 2017).

In this paper, we embrace insights from complexity leadership theory (Uhl-Bien &

Arena, 2018; Uhl-Bien et al., 2007) and emergent qualitative data to build our theoretical model.

In this paper, we focus on one challenge faced by healthcare leaders: stakeholder fragmentation.

In particular, we explore how healthcare leaders work to access underserved stakeholders in the

light of growing financial constraints on one hand and further marginalization of these

populations on the other.

METHODS

The setting for our research is a healthcare brokering provider, "CIG," located in the US

Midwest. CIG connects healthcare organizations to underserved populations through free

community health clinics. At the time of the study, CIG operated 12 free community healthcare

clinics and had more than 40 partners that consisted of healthcare providers, public health

experts, educators, and funders. Given its networked nature, this context provided a uniquely

appropriate setting for understanding complexity leadership dynamics in healthcare. The specific

focus of our research was to understand how CIG created and navigated these networks in doing

so, explicate complexity leadership dynamics.

Our data collection included interview, observational, and archival data. The research

team completed a total of 28 interviews with CIG employees and partners ranging from 30

minutes to 1.5 hours in length. Observational data included observations from 6 CIG and

community meetings. Finally, we collected archival data such as process flow maps, strategic

plans, organizational charts, and annual reports that provided additional insight into the nature

and the activities of the organization. We adopted a categorical aggregation approach to data analysis (Creswell, 2007; Stake, 1995) allowing the higher-order themes to emerge. We utilized MAXQDA software and relied on available literature to identify expected, surprising, and unusual codes (Creswell & Creswell, 2017). This process allowed us insight into where our findings affirm extant theorizing (expected codes) as well as insight into how we extend it (surprising and unusual codes). Our findings are presented below.

FINDINGS

Healthcare leaders face complex challenges. On one hand, they face rising costs and dwindling financial resources. On the other, the demand for the services of their organizations is continuously increasing while the access to their services remains limited particularly among underserved populations. To navigate this reality, leaders must complexify their practices (Boisot & McKelvey, 2010) and build extra-organizational adaptive networks—networks that enable both collaboration and individual performance (Uhl-Bien & Arena, 2018). Our analysis uncovers that leaders build and leverage extra-organizational adaptive networks to reach and provide access to their services for underserved populations. Our findings highlight four themes of extra-organizational adaptive networks: *structuring backbones*—a small number of imperfectly connected professionals; *converting opponents*—activities leaders engage in to build a tipping point, *establishing brokers*—to broaden the link among diverse stakeholders and manage opposing ideologies; and *building flexible hierarchies*—vertical multilayered interconnection. Due to space constraints, we present our findings of the *structuring backbones* theme below.

Structuring Backbones

Networks of diverse agents within and outside the organization are critical as they enable leaders to better comprehend their complex environments and move their organizations out of

siloed equilibriums. Indeed, the competition for financial resources coupled with lack of interaction kept healthcare institutions at arm's length—deepening the divide and fracturing their access to underserved populations. As one of the partners explained: "We're not a charitable organization. We made the point earlier, we have other imperatives of why we exist…If I go out of the local and back to the global, the real battle is much more difficult." In other words, because of the multitude of local demands they face in their daily work, such as providing regular care, educating health providers, and navigating financial struggles; their attentions are divided at best. In this complex context, the leader cannot afford to fully leave their "local" to commit to the "global" issues, such as lack of access to care for underserved populations.

Our findings indicate that, in response to this reality, leaders began *structuring backbones*. Backbones are flexible groupings of individuals who devote parts of their time to building and coordinating networks of partners, thereby linking up independent agents into a coherent whole. They represent a complex system behind the network that focuses on creating initial conditions necessary for extra-organizational adaptive networks to develop. As one of the participants explained, "we walk in-between worlds" to create spaces for interactions and move individual organizations outside of their silos. Aligned with extant research, our findings suggest that individuals in these backbones rely on shared visions from leaders to link up others: "it's [reaching underserved populations] a way to get it addressed in a community by bringing partners together, creating a shared vision, and then around that vision making sure that each of the partners that are in place are aligning in their activities." This shared vision creates a space between independent actors thereby bringing them into the same realm.

However, our findings also indicate that these connections are intentionally incomplete. This incompleteness manifests in three ways. First, backbones bring together only a subset of

professionals who are ultimately involved in the extra-organizational adaptive networks. Second, each of these professionals brings a particular perspective—not unlike a piece of the puzzle—to contribute to structuring backbones. For example, one of the participants discussed that the backbones are systems "where you are not just getting the decision makers, because sometimes you end up with impractical things or practical things that just aren't going to work, but you also want to keep not just working with practitioners because again you might come up with great ideas that the organizations are not going to afford or have the resources."

Finally, and most surprisingly, individuals in the backbone receive only partial information. Multiple participants indicated frustration with the lack of full understanding. For example, one participant shared that: "I know that with my current narrow niche is, but as you can see I can't reach more beyond that." On the surface, this seems to be a drawback – however, deeper analysis indicates that partial information enables flexibility of the backbones and protects agents who experience multiple demands from disconnecting.

CONCLUSIONS

Our study provides a unique understanding of how healthcare leaders must reach beyond their organizational boundaries to create extra-organizational adaptive networks to address some of the most compelling challenges facing their organizations. We offer that one such challenge—stakeholder fragmentation—can be addressed through these extra-organizational adaptive networks. We highlight the role of leaders in structuring backbones to create these networks. Thus, in addition to leading the organization, the strategic leader is in a unique position to build partnerships and construct networks that will enable higher performance for the organization (Boal & Schultz, 2007).

PHYSICIAN CEOS & PATIENT SAFETY

Geoffrey Silvera, Timothy Vogus & Jonathan Clark

An influential perspective in strategic management—the Upper Echelon's Perspective (UEP)—suggests that organizational strategy and strategic decisions are a reflection of the characteristics of the chief executive officers (CEOs) (Hambrick and Mason, 1984). According to UEP, a CEO and top-management team's decision-making schema can be inferred from their demographic, educational, and professional backgrounds. This perspective has been key to understanding the impact of CEO characteristics on all manner of decision-making (e.g., strategic focus, strategic speed) as well as many aspects of organizational performance.

Healthcare also presents an ideal context due to the consequential nature of the work mentioned above as well as the heterogeneity in CEO backgrounds. These backgrounds range from clinical and caregiving backgrounds, such as medicine and nursing, while others come from health administration (a profession specific to running healthcare organizations), and others come from more general business/finance or law. The unique variety in this context offers an opportunity to understand the (dis)advantage of particular backgrounds on a highly important and persistently problematic organizational outcome.

Medical errors continue to be an epidemic in healthcare delivery with estimates ranging from 98,000 to 440,000 people dying per year from medical error. Consequently, there have been consistent calls regarding the importance of CEO leadership on safety issues. However, to date, there has been scant exploration of the role of CEO background on patient safety outcomes. To understand the role of CEO characteristics on hospital performance outcomes, a database of ~ 400 hospital CEO's demographics, education, and experiential/professional background has been developed. This database will be combined with hospital quality performance data from *the Leapfrog group* to determine the influence of hospital leaders on care quality outcomes.

In this study, we will examine the relationship between physician CEOs and patient safety outcomes. Patient safety relies on clinician ability and system support for delivering healthcare in a harm-free manner. We posit that physician CEOs, having received extensive technical training in the practice of medicine, are most likely to prioritize clinical excellence and harm free care relative to other strategic priorities. They are also likely to be especially skilled in knowing how to deliver such performance. Consequently, we expect a positive relationship between physician CEOs and patient safety.

BACKGROUND

In an attempt to further understand and improve patient outcomes, academics have begun to examine the effect of hospital management on the quality of care provided. Such studies have directed attention toward the relationship between hospital leadership, cost efficiency, and quality of care. One important contribution to this line of inquiry is the theory of expert leadership, popularized by Goodall (2012), which posits that success in service industries is most likely for organizations in which the senior managers whom have the most relevant experience to the direct delivery of the main service of the organization. In the context of the healthcare industry, this theory posits that managers who were previously clinical physicians would be the aptest to succeed in running a hospital. Drawing on the theory of expert leadership, several studies have found that hospitals with physicians as CEOs are most likely to be ranked on the *U.S. News Rankings* (Tasi, Keswani, & Bozic, 2019).

While these findings have been encouraging for advocates of the theory of expert leadership, there are several valid criticisms of the generalizability of these findings. The hospitals that make up the *U.S. News World Report Rankings* primarily consists of academic medical centers. While academic medical centers may legitimately and objectively be the best

hospitals in terms of quality of care, operational efficiency, and profitability, they are also more likely to be run by a physician because of the dual mission of academic medical centers. Academic medical centers are organizations that must focus on both the delivery of healthcare services and the education of future physicians. It is because of these dual foci that physicians are more often tapped to be CEOs of these organizations. Because of this, examinations based on the theory of expert leadership in healthcare that use these rankings to determine managerial effectiveness are doing so with a biased sample. An examination that includes a wide array of hospital types, both teaching, and non-teaching, for example, would be better able to determine the effectiveness of the hospital managers based on their previous background and experience.

To this end, the Upper Echelons perspective offers an intuitive theoretical lens as it suggests that organizational strategy and strategic decisions are a reflection of the characteristics of the chief executive officers (CEOs) (Hambrick & Mason, 1984, 2007). Contrasting the theory of expert leadership, UEP accounts for senior executives' professional backgrounds as well as their demographic and educational backgrounds and previous experiences. This perspective has been key to understanding the impact of CEO characteristics on all manner of decision-making (e.g., strategic focus, strategic speed) as well as many aspects of organizational performance across a variety of industries. In healthcare, CEO background has been shown to have a direct influence on patient experience outcomes (Silvera & Clark, 2019). A central feature of UEP is the connection to a specific background to a decision and a performance outcome measure that aligns with that decision or decision-making schema.

Our study focuses on the influence of physician CEOs on patient safety outcomes. In this examination, we hypothesize that hospital CEOs that have a direct influence in leading medical

care teams will be best equipped to influence the organizational changes required to improve

patient safety outcome measures and to avoid, so-called, "never events".

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MANAGEMENT PRACTICES OF UNDER-RESOURCED NURSING HOMES

Justin Lord

One of the pillars of organizational success is having an adequate level of resources (Pfeffer & Salancik, 1978). However, not all organizations are created equal. Nursing homes with a high-level of Medicaid residents often have a dearth of resources, primarily due to their pay-mix. These under-resourced or high-Medicaid nursing homes are characterized by lower professional staffing and occupancy rates, and worse quality (Mor, Zinn, Angelelli, Teno, & Miller, 2004). The "culture change" movement has attempted to address some of the challenges faced by nursing homes. However, there is often the misperception that culture change initiatives are costly or resource-intensive endeavors. Under-resourced nursing homes may not adopt culture change initiatives due to this misperception, yet, they could benefit greatly from these practices as they struggle with poor quality. Therefore, our study examines the impact that culture change initiatives have on the bottom line of high-Medicaid nursing homes, to assess if a "business case" for culture change can be made (Weech-Maldonado, Pradhan, Dayama, Lord & Gupta, 2019). This is one of the first national studies to examine culture changes effect on financial performance in high-Medicaid or under-resourced nursing homes.

CONCEPTUAL FRAMEWORK

The culture change movement attempts to improve the quality of care and life of its nursing home residents through person-centered care and improved staff work conditions (Chisholm, Zhang, Hyer, Pradhan, Unruh, & Lin, 2018; Koren, 2010). Bowman (2006) defined culture as the "beliefs and values, basic underlying assumptions, and behaviors and artifacts." Artifacts are the physical evidence of a culture that can be readily observed (Shein, 1992). The

Artifacts of Culture Change instrument identified several domains of culture adoption; however, for this study, we will only examine two domains – leadership and workplace.

Leadership artifacts include management practices that attempt to engage the staff and residents in person-centered care. These leadership artifacts deal with increased emphasis on teamwork, feedback, quality improvement, and engagement. These are high-performing management actions that may require nursing home resources and management commitment (Chisholm *et al.*, 2018). It is expected that these actions will have a positive effect on quality which been found to result in fewer defects and lower amounts of waste, thereby reducing production costs (Weech-Maldonado, Neff, & Mor, 2003). Therefore, it is hypothesized that:

H1: The presence of leadership artifacts will be associated with higher financial performance.

Workplace artifacts reflect efforts by management to create a consistent and supportive work environment for staff. Workplace artifacts include items such as a consistent resident work schedule. Consistency allows staff to understand the needs and preferences of their residents but also helps recognize changes in resident's condition (Rahman, Straker, & Manning, 2009). It is expected that these high-quality practices reflected in workplace artifacts will improve the delivery of care and decrease unnecessary spending and waste. Therefore, it is hypothesized that:

H2: *The presence of workplace artifacts will be associated with higher financial performance.*

METHODS

Data

The study uses primary and secondary data sources for the years 2017-2018. Brown University's Long-Term Care Focus (LTCFocus) data set, Area Health Resource File, and Medicare Cost Reports. The primary survey data was collected through a national mailer to

Directors of Nursing in high-Medicaid nursing homes. For our purposes, culture change artifacts, workplace, and leadership were measured using the Artifacts of Culture Change instrument. Primary survey data of nursing home administrators were collected through three rounds of mailed and online surveys. The first round of surveys was sent to all nursing homes (n=1,518) who had a 70% or higher Medicaid census. Additional criteria were applied to the sample size that excluded nursing homes with more than 10% of private pay and greater than 8% supported by Medicare (Mor *et al,* 2004), which led to a sample size of 1,050. In the end, we had received 391 responses for a response rate of 37%.

Variables

The main dependent variable is financial performance which is conceptualized by total profit margin. *Financial performance (total profit margin)* is a measure of overall profitability. The main independent variables are the *leadership* and *workplace artifacts* from The Artifacts of Culture Change instrument (Schoeneman & Bowman, 2006). For the two domains assessed, we used five questions from the *leadership artifacts* (for a total of 25 possible points) and three questions from the *workplace artifacts* (for a total of 15 points). Points were assigned to each artifact to indicate whether "a facility has a certain thing, is making progress toward it, or does not have it at all. Organizational and market control variables that can impact organizational financial performance were also included. A full list can be found in Table 1.

Insert Table 1 about here

Analysis

Univariate analyses were conducted to describe the characteristics of high Medicaid nursing homes. A multivariate regression modeled the relationship between cultural change

artifacts and financial performance. Stata 14 was utilized, and statistical tests were evaluated at

the 0.1, 0.05, and the 0.01 level of significance.

RESULTS

Table 1 provides a comparison of the respondents versus the non-respondents. When

examining the secondary data of the non-respondents, we found no significant difference as it

related to total margin, payer-mix, resident race/ethnicity, or county level factors. Table 2 is the

results of the OLS regression examining the impact of culture change on the financial

performance of high-Medicaid nursing homes. There was no statistically significant relationship

between leadership artifacts (H1) and total margin; however, workplace artifacts (H2) were

marginally associated with higher financial performance ($\beta = 0.295$, $p < 0.10$). For the

organizational control variables, there were no significant relationships as it related to financial

performance except for occupancy ($\beta = 0.147$, $p < 0.01$). For the county level control variables,

only poverty was marginally significant as it related to higher total margin ($\beta = 0.365$, $p < 0.10$).

Insert Table 2 about here

DISCUSSION

Leadership artifacts were not associated with higher financial performance in high-

Medicaid nursing homes. According to the Complexity Science Leadership Theory, there are

technical and adaptive challenges to effective leadership changes in an organization

(Lichtenstein *et al.,* 2006). Some of the technical challenges are as simple as lacking specific

expertise, resources, or concrete technical skills (Corazzini *et al.,* 2014). Since the leadership

artifacts utilize resources, it may explain why these practices did not contribute to higher

financial performance. On the other hand, workplace artifacts were found to be associated with

higher financial performance. These artifacts had to do with consistent scheduling of RNs, LPNs, or CNAs with the residents of the same neighborhood/household/ unit. When examining these workplace artifacts, these efforts only required agreement among a small number of individuals. This process is less complex than other culture change initiatives (Sterns, Miller, & Allen, 2010).

Occupancy was associated with higher financial performance. Prior research has shown that higher occupancy rate is associated with both higher financial performance and better quality (Weech-Maldonado *et al.*, 2003). Interestingly, a higher level of poverty at the county level was marginally associated with better financial performance. This may be because individuals who are below the poverty line may not have access to private-pay long-term care options, thus leaving nursing homes, the institutional care provider the only option.

Due to the nature of this study and the cross-sectional nature of the data, the findings from this study are limited to providing associations between nursing home financial performance and culture change artifacts. The information collected for the Artifacts of Culture Change measure was self-reported by the DONs, therefore it may have been subject to social desirability bias.

CONCLUSION

Culture change initiatives do not have to be a complex, costly endeavor. Even resource-constrained nursing homes can adopt best-practices in an attempt to change their culture. This paper illustrated that less complex practices, such as consistent scheduling can have positive effects on nursing homes. Over time, these under-resourced nursing homes may choose to engage more complex and resource-intensive culture change practices (Sterns *et al.,*2010). Providers and policymakers will need to consider strategies that ensure culture change adoption is promoted across a wider distribution of all nursing homes (Chisholm *et al.,* 2018).

TABLE 1

Descriptive Table and Comparison of Respondents Versus Non-Respondents

Variables	Respondents	Non-respondents	p-value	
	Mean (SD) / Frequency (percent)	Mean (SD) / Frequency (percent)		
Total margin	1.04 (10.4)	-0.45 (11.4)	0.079	
Organizational Control				
For-Profit Status	68.5%	78.7%	<0.000	***
Chain Affiliation	42.4%	49.6%	0.011	*
Size (# of beds)	103.3 (70.0)	111.4 (77.1)	0.018	*
Occupancy Rate	85.3 (13.1)	81.6 (16.0)	<0.000	***
Payer-Mix: Medicaid	88.3 (7.2)	87.8 (6.9)	0.399	
Payer-Mix: Medicare	4.7 (4.4)	5.3 (4.7)	0.239	
Presence of Physician Extender	39.3%	43.9	0.098	
Acuity Index	11.8 (2.4)	12.0 (2.4)	0.907	
RN Staffing Mix	0.3 (0.2)	0.3 (0.2)	0.003	**
RN Hours per Resident Day	0.4 (0.5)	0.4 (0.8)	<0.000	***
LPN Hours per Resident Day	0.8 (0.4)	0.9 (0.6)	<0.000	***
CNA Hours per Resident Day	2.3 (0.9)	2.3 (0.9)	0.281	
Percent Black Residents	19.3 (26.4)	21.6 (26.6)	0.895	
Percent Hispanic Residents	5.3 (15.1)	6.1 (15.0)	0.963	
Percent Other Races	14.1 (21.0)	13.9 (20.7)	0.741	
County Level Control				
Medicare Advantage Penetration	29.4 (14.9)	30.0 (13.9)	0.093	
Per Capita Income	$43,332 (13,800)	43,483 (13,447)	0.542	
Educational Level (with HS)	84.6 (6.4)	83.9 (6.4)	0.972	
Unemployment Rate	5.8 (1.8)	18.1 (6.2)	0.975	
Poverty Level	17.8 (6.5)	18.1 (6.2)	0.338	
Competition (HHI)	0.2 (0.3)	0.2 (0.3)	0.888	
Location (Urban)	93.9%	95.6%	0.199	
Percent of Population Over 65	15.1 (3.3)	14.9 (3.3)	0.612	

* $p<0.05$, ** $p<0.01$, *** $p<0.001$

TABLE 2

Total Margin – OLS Regression – Examination of Culture Change on Financial Performance

Variables	Coefficients	
Main Independent Variables		
Leadership Artifacts	-0.0113	
Workplace Artifacts	**0.2951**	*
Organizational Control		
For-profit status	-2.2686	
Chain Affiliation	-0.3989	
Size (total beds)	0.0134	
Occupancy rate	0.1473	***
Payer-Mix: Medicaid	-0.1046	
Pay-Mix: Medicare	0.1759	
Presence of Physician Extender	-0.3611	
Acuity Index	0.0232	
RN Staffing Mix	5.8702	
RN Hours per Resident Day	-7.1030	
LPN Hours per Resident Day	-1.5291	
CNA Hours per Resident Day	-1.6817	
Percent of Black Residents	-0.0370	
Percent of Hispanic Residents	0.0126	
Percent of Other Races	0.0038	
County Level Control		
Medicare Advantage Penetration	-0.0242	
Per Capita Income	-0.0000	
Educational Level (with HS)	0.1116	
Unemployment Rate	-0.9178	
Poverty Level	0.3659	*
Competition (HHI)	4.1921	
Location (Urban)	2.7356	
Percent of Population Over 65	-0.2294	

* $p<0.1$, ** $p<0.05$, *** $p<0.01$

STITCHING TIES: TEAM PERFORMANCE IN THE CONNECTED ORGANIZATION

Russell J. Funk, John M. Hollingsworth, Jason Owen-Smith, K. Dennie Kim & Marlon Twyman

Teams are integral to the landscape of contemporary knowledge work. As scientific and technological problems become more complex and specialization continues to increase, creating and applying knowledge requires that experts work together in close coordination (Hargadon & Sutton, 1997). The importance of forming and deploying effective teams is particularly well-known in the practice of healthcare. In healthcare, policy reforms encourage multidisciplinary care teams as a strategy for reducing provider shortages and boosting healthcare quality (Hoff et al., 2012; Holmes et al., 2013; Rittenhouse et al., 2009). Patients seen by multidisciplinary teams may experience better outcomes than those cared for only by physicians (Kim et al., 2010). Repeat surgical teams that have greater internal familiarity may be more efficient in the operating, contributing to better patient outcomes and lower medical costs (Xu et al., 2013).

The belief that teams have better outcomes when their members have prior experience working together is certainly not unique to healthcare (e.g., Espinosa et al., 2007; Harrison et al., 2003; Huckman et al., 2009; Reagans et al., 2005). However, the nature of patient care in larger organizations, such as hospitals, makes it more difficult for clinical and administrative leaders to deploy fixed teams. Instead, the balancing act of different types of skillsets, shift restrictions, employment contracts, and labor regulations results in a model that often more closely resembles airline crews where teams comprise necessary roles, which are occupied by a revolving cast of personnel. To combat this, some hospitals have begun experimenting with operating room schedules that minimize turnover among surgical care teams. Other institutions have also worked to assure high levels of familiarity by allocating star surgeons their own operating rooms and surgical teams or creating dedicated operating room teams for particular procedures (Huckman & Staats, 2013; Kenyon et al., 1997; Stepaniak et al., 2010). Changes like these have been linked

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with improved performance, including shorter operative times (Xu et al., 2013) and fewer

surgical complications (Kurmann et al., 2014). Similarly, some have called for greater

regionalization of complex surgeries to hospitals with specialized teams that perform a high

volume and tend to have better outcomes than facilities that see fewer patients (Luft et al., 1979;

Showstack et al., 1987; Wilson et al., 2007). Further supporting this push is evidence that

substantial variation in surgical outcomes is driven by experience at the hospital level, even for

highly skilled surgeons (Birkmeyer, 2000; Harmon et al., 1999; Huckman & Pisano, 2006).

Despite these potential benefits, and the general perception that prior experience working

together would be beneficial for patient outcomes and organizational performance, there is also

research that suggests that familiarity may be harmful to performance. As people work together,

growing familiarity may have the effect of isolating group members from outsiders. Over time,

team members may slowly become less receptive to external knowledge (Pelz &Andrews, 1966)

and more resistance to changing behaviors since there is difficulty and uncertainty associated

with newness (Katz, 1982; Ingram & Morris, 2007). Aversion to outside communications is

likely particularly problematic for groups working in medicine, a knowledge intensive domain

where new products, procedures, and research are constantly influencing treatment options. A

greater tendency to look inward may make it less likely for these teams to adopt novel techniques

or challenge existing methods (Allen, 1977; Ancona & Caldwell, 1992).

Perhaps more importantly and practically, we suggest that from an organizational

perspective, policies that try to boost team familiarity by establishing fixed groups may also be

logistically difficult and costly to maintain, thereby hurting overall organizational performance.

Teams with greater familiarity may be better able to perform quickly and effectively in complex

situations that require fast decision making. However, for many organizations, it is in precisely

these kinds of situations that familiar teams are likely most difficult to assemble. For example, in healthcare, when a patient requires emergency surgery, identifying providers who have worked together in the past, particularly for less common procedures, may take valuable time away from treating the patient. Most likely, whatever providers are on call when the patient arrives at the hospital will be the ones to begin care. Because the organization's members have less experience working with others outside their teams, they are likely less adaptable when new circumstances arise. For hospitals, these considerations would suggest that increases in overall team familiarity may lead to decreases in emergency response (e.g., code) team performance. Finally, supporting high levels of team familiarity may also be difficult for operational reasons. Again, using the example of healthcare, due to scheduling complexities, hospitals that want to maximize team repetition and minimize team member substitutions may have periods of time when resources (e.g., operating rooms) are left unused because a full team cannot be assembled.

Building on the above considerations, we argue that to understand how familiarity influences performance, existing theory must be extended to account for larger context. We propose that the benefits (or costs) of prior experience working together depend on the structure of the informal network of ties connecting the members of a team's broader organization. Familiarity benefits teams by improving communication, creating shared routines, and fostering supportive social environments. However, some of these benefits may also come from outside the team. Theories of social capital, for instance, suggest that when members of a community have many dense, overlapping ties, they also tend to trust one another more readily, even when they are not previously acquainted (Coleman, 1988; Putnam, 2000). When the members of an organization are more highly connected internally, teams may depend less on familiarity for helping to establish a positive social environment. Moreover, as connections among an

organization's members increase, so too should their homogeneity (Granovetter, 1992; Lazer & Friedman, 2007; Lorenz et al., 2011). Familiarity should matter less in a more connected organization because the barriers to working with an unfamiliar person will likely be lower.

To extend existing theory, we develop three hypotheses. First, we propose that, at baseline, teams with more prior experience working together will have higher performance than teams that have worked less together. However, we also suggest that beyond a point, too much prior experience together will have a negative association with performance. Although prior research does consider the potentially negative effects of familiarity, many recent studies do not consider this possibility and do not systematically test for a curvilinear relationship. Existing research on the benefits of familiarity also reports conflicting results (Harrison et al., 2003) and findings on the moderators of familiarity do not always align with theoretical expectations (Espinosa et al., 2007; Huckman and Staats, 2011). Second, we propose that as familiarity at the organizational level increases, so too will individual teams' performance. Finally, we propose that high organizational familiarity and team familiarity will interact, such that high organizational familiarity will compensate for low team familiarity levels, thereby allowing teams with less prior experience working together to achieve better performance than would be expected based on their low familiarity alone.

We test these hypotheses using data from insurance claims on more than 21 million relationships among 238,004 providers caring for patients undergoing coronary artery bypass grafting at 1,186 hospitals across the United States. Using Medicare records, we obtain detailed, dynamic maps of physician networks within these hospitals that are updated immediately before each sample patient's treatment for CABG. Within this context, our findings offer strong support for all three hypotheses.

Our study makes several contributions. We build a conceptual link between foundational theories of organizations (Barnard, 1968; Burns and Stalker, 1961; Coleman, 1988; March and Simon, 1958; Stinchcombe, 1965)—which address how overall structure of relationships internally influences many core processes and outcomes for organizations—with more contemporary work on networks, which focuses on relationships and outcomes of individual actors, including teams or people (Burt, 1992; Dahlander and McFarland, 2013; Hargadon and Sutton, 1997; Oh et al., 2004). We also respond to calls from the literature for the context in which teams work to be theorized more systematically (Edmondson et al., 2007, 298). We argue and offer evidence that the importance and effects of team familiarity varies by organization. In particular, prior experience working together may be less essential for teams in organizations where members of the organization are more connected internally.

Moreover, when organizations promote familiarity to a high degree, they may create the conditions for a "team familiarity trap," such that it becomes harder for teams with unfamiliar members to succeed, and therefore creating an informal organizational structure that constrains the organization's adaptability in emergencies and rapidly changing environments. This research contributes to the literature on teams and organizations, as well as to network performance by examining an interaction between global and local informal networks within hospitals. With regard to practice, our research speaks to the difficult balancing act that often exists between nurturing high-performing teams while also pursuing desirable organizational characteristics, such as agility and cohesiveness. As staffing and deployment within hospitals is a complex and often political process, a better understanding of the relationship between team and organizational performance may help managers determine the best policies to pursue.

IDENTIFYING HEALTHCARE'S FUTURE LEADERS: DEVELOPMENT OF A LEADERSHIP POTENTIAL MODEL FOR HEALTHCARE ORGANIZATIONS

Kevin S. Groves & Ann Feyerherm

Hospitals and health systems competing in the turbulent healthcare industry are facing what many scholars and practitioners describe as a 'leadership succession crisis' (American College of Healthcare Executives [ACHE], 2014; Groves, 2017). At the same time that the demand for healthcare services continues to surge, the workforce and talent pools charged with meeting these increasing expectations is shrinking. Healthcare organizations are confronted with numerous related workforce and leadership talent challenges such as elevated CEO turnover (ACHE, 2018), diminishing supply and increasing demand for nursing, physician, and other clinical leaders in executive roles (Darnell & Noland, 2017), and insufficient gender and ethnic diversity (Institute for Diversity in Health Management, 2013). Despite these challenges, the healthcare industry executes fewer talent management and succession planning best practices compared to most other industries (Schweyer, 2009). According to a recent American Hospital Association survey (Meyer, 2019), nearly half of hospital boards lack a formal CEO succession plan while 59% of subsidiary boards fail to conduct succession planning at any level.

Healthcare organizations face myriad barriers to conducting sound succession planning practices, including competing board priorities, underdeveloped human resource departments, and misconceptions concerning the long-term value of investing in robust executive succession capabilities (ACHE, 2014; Groves, 2017). Irrespective of industry, one of the most important elements of an effective succession planning process is a clear conceptualization and associated assessment of high-potential leadership as part of an annual talent review process (Cappelli, 2011). Unfortunately, the availability of a high-potential leadership model developed specifically for the unique challenges faced by leaders in hospitals and health systems represents another

significant barrier to developing robust succession planning practices. This paper seeks to address this critical gap in the current research by developing a high-potential leadership model based on a two-phased study that consists of a narrative review of existing high-potential leadership models followed by a qualitative field study of 45 administrative, nursing, and physician leaders across healthcare organizations.

THEORETICAL FRAMEWORK

A narrative review of existing research and industry best practices on high potential leadership assessment identified seven primary models of high potential leadership. In addition to capturing the range of high-quality models of high potential leadership, the purpose of this review was to identify the potential applications—both theoretical and practical—of such models to the healthcare context (See table 1). One of the most comprehensive frameworks of high-potential leadership is the Dries and Pepermans (2012) 'consensus model', which offers several advantages as a guiding framework for the current study. First, the model was developed as a comprehensive framework of leadership potential that effectively integrates an extensive review of the leadership potential literature. Second, the model was not developed as part of specific consulting or commercial projects (e.g., Lombardo & Eichinger, 2000; Hezlett et al., 1997, etc.) or focused on a specific industry sector or geography (e.g., Sprietzer et al., 1997). Finally, the model offered the key advantage of relative brevity, which is key given the current study's goal of developing a parsimonious model for application in healthcare organizations.

METHODS

Participants

The sample of interview participants (n = 45) consisted of healthcare leaders from academic medical centers, fully integrated health systems, investor-owned/for-profit health

systems, faith-based health systems, children's hospitals, and medical groups. Overall, the final

sample of healthcare participating healthcare leaders consisted of 15 nurse leaders, 15 physician

leaders, and 15 administrative leaders.

Data Collection and Analysis

To develop a practical, grounded approach to understanding high-potential leadership in

healthcare organizations, semi-structured interviews were conducted with each of the 45 nurse,

physician, and administrative leaders. Each leader participated in a 60-minute telephone

interview that was recorded and transcribed for subsequent analysis. The purpose of the

interviews was to collect primary data on a range of issues that are critical for understanding and

assessing leadership potential in hospitals and health systems.

RESULTS

The interview transcripts were analyzed according to the content analysis methodology

(Weber, 1985), a quasi-statistical technique that translates textual responses and excerpts into

quantitative data for statistical testing. To employ content analysis, we collaborated with another

talent management professional to independently code the transcribed interview responses

according to the primary interview questions. After obtaining additional codes and feedback

from the outside reviewer, the final set of codes was revised and clustered into four primary

dimensions and their associated high-potential leadership criteria, behavioral examples, and

supporting excerpts from the interviewees.

Based on existing theory and research on leadership potential (Church et al., 2015;

Church, 2014; Cappelli, 2011; Church & Silzer, 2014) and the frequency of interviewee

responses, the primary codes were organized into an integrated model comprised of two

dimensions or axes, resulting in four components and fourteen criteria for leadership potential in

healthcare organizations (Figure 1). Structured across two dimensions that create a two-by-two matrix of leadership potential, the model is comprised of the following primary components: (1) Analytical Aptitude, (2) Learning Agility, (3) Leadership Capability, and (4) People Savvy. The horizontal dimension includes (a) cognitive competencies that require thinking, information-processing, problem-solving, and learning from dynamic environments; and (b) behavioral, skills-based competencies that capture the capability to influence, inspire, and engage others. The model's vertical dimension consists of leadership potential factors that operate at the (a) macro-level of analysis and influence, including the department or business unit, organization, enterprise-wide or health system, and broader industry; and (b) the micro-level of analysis and influence, which comprises self-management and interpersonal skills and influence capabilities.

Insert Table 1 & Figure 1 about here

DISCUSSION

The results of our qualitative study of healthcare executives across the spectrum of delivery organizations illustrated a dynamic two-dimensional model of leadership potential that comprises both cognitive and behavioral competencies operating across micro- and macro-levels of analysis and influence in healthcare organizations. An important contribution of the current study is how the high-potential healthcare leadership model differs from existing leadership potential frameworks and the influential role of the healthcare context for identifying the industry's future leaders. First, the model's strong emphasis on collaboration skills and the need to effectively collaborate across departments, clinical specialties, and business units represents a meaningful distinction. Given the industry's continuing evolution from volume- to value-based performance metrics and the resulting pressures on collaboration and health system-wide

initiatives, current and future healthcare leaders must build relationships across departments and business units, engage multiple stakeholders in decision-making, and nurturing relationships and trust by giving rather than claiming credit.

Another meaningful distinction of the model compared to existing frameworks is how the willingness to lead others ('leader drive') is manifested in healthcare organizations. As opposed to other models that include leadership potential criteria that reflect self-promotion or desire for advancement to meet ambitious personal goals or a results orientation, our study found that leader drive is largely centered on the drive to make sustainable changes in the delivery of healthcare services and a motivation to serve others (colleagues across the organization, internal and external stakeholders).

Our results suggest that the overall attraction to leadership roles is more consistent with servant leadership (Liden, Wayne, Chenwei, & Meuser, 2014) and the core motivation to step into leadership roles to generate the greater impact on others, their patients, and broader community health outcomes (e.g., population management) rather than for self-promotion or advancement. In closing, we believe the proposed leadership potential model serves as a potentially valuable resource for leadership assessment, talent development, and succession planning applications (including talent review and potential/performance grid calibrations) in healthcare organizations. Overall, we hope that our model provides scholars and practitioners a practical framework to identify and develop the future leaders of healthcare organizations.

TABLE 1

Existing Models of High-Potential Leadership

Author(s)	Factors	Competencies, Traits or Other Characteristics
Dries & Pepermans (2012)	1. Analytical Skills 2. Learning Agility 3. Drive 4. Emergent Leadership	1. Strategic insight, decision-making, problem-solving, intellectual curiosity 2. Emotional intelligence, adaptability, willingness to learn 3. Dedication, results orientation, perseverance 4. Self-promotion, stakeholder sensitivity, motivation to lead
Silzer & Church (2010)	1. Cognitive Abilities 2. Personality Variables 3. Learning Variables 4. Leadership Skills 5. Motivation Variables 6. Performance Record 7. Other Variables	1. Strategic thinking, intellect/cognitive ability, dealing with complexity/ambiguity 2. Interpersonal skills, dominance, maturity/resilience 3. Adaptability, learning orientation, openness to feedback 4. Leadership capabilities, developing others, influencing/inspiring others 5. Drive/tenacity, aspiration/drive for advancement, results orientation 6. Performance track record, leadership experiences 7. Technical/functional skills, mobility, diversity, cultural fit
Corporate Leadership Council (2005)	1. Ability 2. Engagement 3. Aspiration	1. Change agile, inquisitive/creative, problem solver/critical thinker, people savvy, effective communicator 2. Energy/drive, organizational awareness, presence/command 3. Desire for advancement/promotion
Lombardo & Eichinger (2000)	1. People Agility 2. Results Agility 3. Mental Agility 4. Change Agility	1. Self-awareness, learns from experience, treats others constructively 2. Gets results under tough conditions, inspires others to perform beyond normal, exhibits presence 3. Comfortable with complexity, thinks through problems from fresh point of view, explains thinking to others 4. Curious, passion for ideas, likes to experiment with test cases, engages in skill-building activities
Spreitzer, McCall, & Mahoney (1997)	1. End-State Competencies 2. Learning-Oriented Competencies	1. Broad business knowledge, sensitive to cultural differences, courage to take a stand, brings out best in people, acts with integrity, takes risks 2. Seeks feedback, uses feedback, cross-culturally adventurous, seeks opportunities to learn, open to criticism

Hezlett, Ronnkvist, Holt, & Hazucha (1997)	1. Thought Leadership 2. Results Leadership 3. People Leadership 4. Self-Leadership	1. Analyze issues, champion change, know the business, manage execution, establish plans 2. Drive for results, lead courageously, show work commitment 3. Build relationships, coach and develop, display organizational savvy, foster open communication, manage disagreements, foster teamwork 4. Act with integrity, demonstrate adaptability, develop oneself
Hogan, Curphy, & Hogan (1994)	1. Surgency 2. Emotional intelligence 3. Conscientiousness 4. Agreeableness 5. Intellectance	1. Sociability, gregariousness, assertiveness, dominance, capacity for status, social presence 2. Calmness, steadiness, coolness, self-confidence 3. Hard work, perseverance, organization, responsibility, ambition, need for achievement 4. Cooperativeness, likeability, friendly compliance, need for affiliation 5. Imaginativeness, board-mindedness, curiosity, openness to experience

FIGURE 1

Proposed Leadership Potential Model for Healthcare Organizations
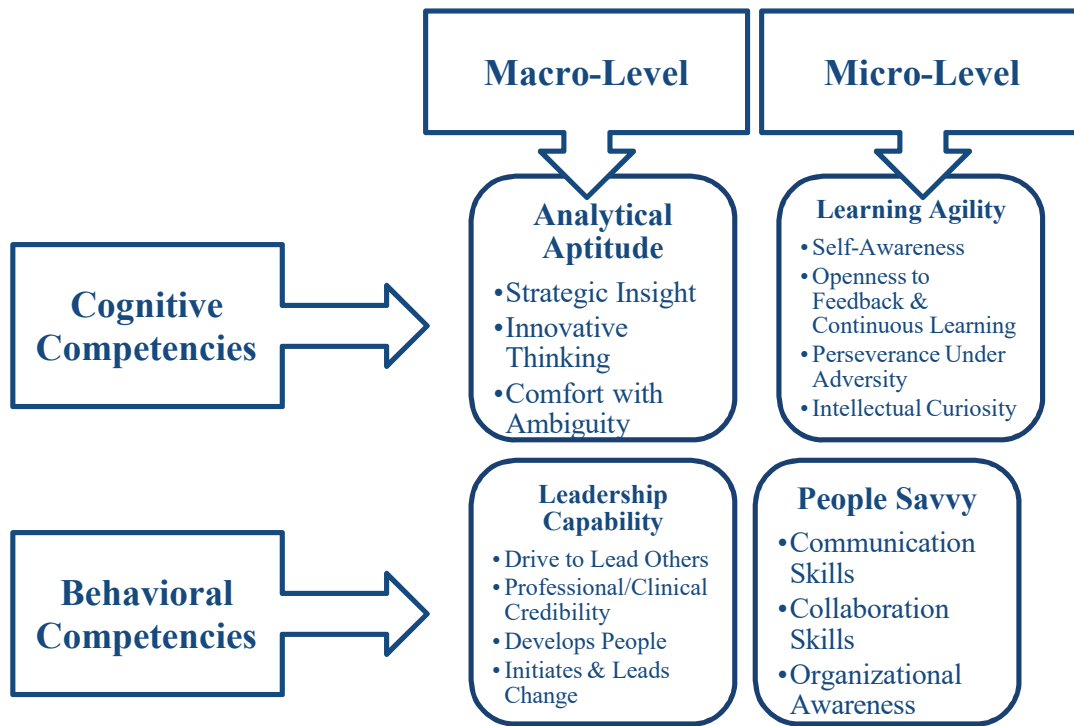
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