Investment in Social Capital to Mitigate Nursing Shortages Post-Pandemic

Jason H. Gilbert, PhD, MBA, RN, NEA-BC

The impacts of the pandemic have further eroded nursing work environments and have exacerbated the nursing shortage. Interventions have largely focused on unit-based interventions and unsustainable financial incentives to increase the levels of human capital in the organization to meet patient demand. Organizations may help to mitigate shortages, improve nurse work environments, and improve patient outcomes through intentional interventions related to social capital networks in the organization. This article describes the role of social capital in the context of the health care organization and proposes use of a conceptual model to improve social capital in the nurse work environment.

The impact of the COVID-19 pandemic has continued to place extreme challenges on healthcare organizations across the country to provide adequate nurse staffing levels to meet patient demand. Prior to the pandemic in March of 2020, healthcare organizations were already struggling to fill nursing vacancies due to retirements outpacing new entrants to the field, an increased demand for services from medically complex, aging, and chronic disease populations, and challenging workplace environments with inadequate support.[1] As demand for healthcare services rapidly increased during the initial COVID-19 surge and through subsequent variant surges, many health care organizations raced to secure nurse staffing through offering lucrative financial incentives for overtime as well as increasing numbers of travel nurses at increased rates. Labor costs from these staffing strategies since 2020 have increased costs per patient-day by an estimated 8%, or an additional $24 billion annually during the pandemic.[2] Many of these increased costs were offset by federal supplemental CARES act funding in 2020, but as those supplemental payments have stopped, up to 53% of hospitals are expected to have negative margins in 2022.[3]

The impact of COVID-19 on the nursing workforce has continued to exacerbate these challenges and it is not likely to change soon. The US Bureau of Labor Statistics predicts that jobs for nurses will grow by 6% through 2031, and an additional 203,200 new entrants to the field will be needed annually to replace those who are retiring or leaving the workforce.[4] Although schools of nursing have increased enrollment over the last decade, critical shortages of nursing faculty have caused nursing programs to turn away more than 80,000 qualified applicants annually.[5] Difficulty in securing an adequate pipeline into the profession is not the only antecedent. As the pandemic raged on, there has been a significant negative impact on the nursing work environments nationally. Inadequate pipelines and workforce supply have forced organizations to make concessions such as increasing nurse workloads and overtime, which further erode the work environment, which ultimately may increase patient harm and nurse turnover.[6] Some nurses who have experienced the negative impact of this cycle have chosen to leave the profession altogether, further impacting the workforce pipeline.

Many of the initiatives to solve the nursing workforce crisis have been centered on the individual nurse through financial incentives and temporary labor

KEY POINTS

- **While focus on human capital is important, current interventions are unsustainable and inadequate to mitigate current workforce shortages.**
- **Intentional development of social capital networks may help mitigate nurse shortages, improve the nurse work environment, and improve patient outcomes.**
- **The Gilbert Conceptual Model of Organizational Intellectual Capital is a useful tool to help assess organizational context and plan social capital interventions.**

contracts. This approach centers on increasing human capital, which may be defined as the acquired knowledge, skills, and experience of individuals that enable them to act in new ways that are economically valuable to both the individual and to the organization.[7] Although adequate compensation and numbers of nurses are a vital component in the ability to provide safe and effective care, nurse leaders must also pay attention to and design interventions to improve the network of relationships or social capital in the organization. Investment in social capital may help to improve the nursing work environment as well as improve patient and organizational outcomes. The purpose of this article is to explore the role that social capital may play in helping to mitigate the nursing shortage.

SOCIAL CAPITAL IN THE NURSING WORKFORCE

The concept of social capital was first introduced in nursing literature in the mid-1990s and has continued to evolve.[8] Workforce continues to evolve in the literature and may be may be defined as the groups, networks, norms, and trust that people have available to them for productive purposes.[7,9] Social capital is conceptualized in 6 interrelated domains, which are displayed along with their functions in Table 1. The benefits of organizational assessment and investment in social capital may have tremendous impact on patient and organizational outcomes. Individual nurse outcomes associated with increased social capital include increases in self-reported healthy behavior, organizational commitment, and job satisfaction, and reductions of emotional exhaustion, burnout, and turnover.[7,10,11] It is possible that development of social capital may help to mitigate the impact of human capital losses. Social capital has also demonstrated positive impacts to patient safety through increases in the participation and quality of knowledge-sharing behavior.[11,12] There are currently 4 generational groups in the nursing workforce, each with variation in their values, work preferences, and expectations of their organizations and leadership.[13] Another shift in the nursing workforce is demographic factors. More men are entering the profession, and the ethnic and/or racial heritage of nurses and patient populations are becoming more diverse.[11] In order to prepare the nursing workforce to embrace these shifts, and to improve diversity, equity, and inclusion in the profession, the relationships and communication between and among members and leaders must be improved.

In a 2017 cross-sectional quantitative descriptive study conducted at a 15-hospital system in the Midwest, the relationship between nurse social capital as measured by the Social Capital Outcomes for Nurses (SCON) instrument and job satisfaction and turnover intent was explored in a sample of 1149 registered nurses.[10] Table 2 presents the results of Pearson's Product-Moment correlations for the social capital (SCON) scales with intent to turnover and job satisfaction. The total social capital (SCON) scale and the external trust and empowerment scales demonstrated significant moderate negative relationships ($-0.50 < r < -0.30$) with turnover intent and strong significant positive correlations with job satisfaction ($r > 0.50$). The internal trust, solidarity, and collective action scale and the conflict and solidary scale also had significant moderate negative relationships with turnover intent and significant moderate positive relationships with job satisfaction ($0.30 < r < 0.50$). The participation and affiliation scales were significantly, but weakly, correlated with both turnover intent and job satisfaction. Similarly, a 2013 study noted that external trust and empowerment was the highest determinant of job satisfaction and turnover intent.[10]

Although conducted prior to the pandemic, these studies provide valuable insight into the types of social capital that should be cultivated in health care organizations. Unit-based interventions to increase internal trust, solidarity, and collective action are undeniably important in protecting against turnover and increasing job satisfaction. However, sole reliance on unit-based interventions focused only on nurses in the same social unit (bonding social capital) may have unintended negative consequences. If individuals in the same social structure are too tightly bonded, they may not trust others outside of the social unit, may not assimilate vital information or new evidence from the outside, and may socially exclude newcomers or outsiders to the unit.[7,11,14] Broader-based interventions that create opportunity for creation of bridging and linking social capital, including opportunity for nurses to interact with senior administrators and external parties and share in the decision-making process, may be vital to increase external trust and empowerment.

SOCIAL CAPITAL AS A PART OF ORGANIZATIONAL INTELLECTUAL CAPITAL

Social capital is not an independent variable that may be developed in isolation of the context of the organization. Social capital and an associated interventions related are likely to be the most affected by organizational context and boundaries that impact relationships within the organization.[15] Other factors impacting social capital must be assessed when designing interventions. A useful conceptual model in assessing the health care organization and to assist with intervention design is the Gilbert Conceptual Model of Organizational Intellectual Capital. A graphical depiction of the conceptual model in Figure 1 provides a complete overview of the interrelatedness of social and human capital, as well as the organizational context and impact on organizational knowledge exchange and organizational outcomes. A complete description of the

Table 1. Social Capital Domains and Functions[7,9,10]

Social Capital Domain	Domain Function
Bonding, bridging, and linking networks	**Bonding network:** strong ties in closed social units that bond individuals of similar status. **Bridging network**: weak ties across open networks that bridge bonds between individuals of similar status who reside outside of the same social unit. **Linking networks**: weak ties in open and vertical networks that link individuals to those with higher authority or status. This domain identifies the nature of and participation in various social connections which may create opportunities for individuals and/or groups.
Trust and solidarity	This domain identifies the cognitive processes of trust and shared meaning which are essential to create unity, harmony, and team effectiveness.
Collective action and cooperation	This domain identifies the coordination of action of individuals and teams working together toward shared organizational goals or in response to an event or crisis.
Information and communication	This domain identifies the formal and informal infrastructure through which information and knowledge is provided, accessed, processed, synthesized, and communicated within and across social units as a primary form of production in a knowledge-based organization.
Social cohesion and inclusion	This domain identifies how outsiders are assimilated into a group, social relation norms, and how conflict, diversity, and change is handled in a social unit.
Empowerment and political action	This domain identifies the extent to which individuals have a voice in the structures and processes that govern them.

model along with full conceptual definitions is provided elsewhere.[7] A key component of this model proposes that there is a relationship between social capital and human capital. Nurses are knowledge workers who must exchange their personal human capital and access, and synthesize the human capital of others on the care team through the network of social relationships in the organization, which leads to knowledge exchange and the production of patient and organizational outcomes. Social and human capital are also impacted by organizational capital, which may be defined as the institutionalized knowledge and codified experience that arises from established structures, processes, and routines.[7,16] Additionally, organizational capital provides the context for the organizational architecture, culture, and institutionalized knowledge (such as policy and procedure) that defines the value and utilization of human and social capital in the organization. Organizational capital defines the rules of engagement, culture, and institutional knowledge, human capital defines the unique knowledge, skills, and abilities of the individual, and social capital accounts

Table 2. Pearson Product-Moment Correlations for Social Capital (SCON) With Turnover Intent and Job Satisfaction (n = 1149)

SCON Subscales and Total Scales	Turnover Intent (1 year)	Turnover Intent (5 years)	Job Satisfaction
External trust & empowerment	–0.44**	–0.45**	0.67**
Internal trust, solidarity, & collective action	–0.38**	–0.33**	0.49**
Social cohesion with coworkers	–0.04	–0.06	0.07*
Participation and affiliation	–0.18**	–0.19**	0.28**
Conflict and solidarity	–0.31**	–0.28**	0.42**
Total SCON	–0.41**	–0.40**	0.59**

**Significant at the p < 0.05 level.*

***Significant at the p < 0.01 level.*

SCON, Social Capital Outcomes for Nurses.

for the network and quality of relationships that exist between individuals and groups in the organization. These 3 concepts collectively constitute organizational intellectual capital, which may be defined as the sum of all knowledge an organization is able to leverage in the process of conducting business to gain competitive advantage.[7,17]

Another key role outlined by this model is that of the organizational manager, which may be defined as a key agent of the organization who is responsible for facilitating organizational outcomes through the work of other individuals. Leadership at all levels in the organization have both direct impact on human and social capital as well as a moderating effect in the relationship between the organization and human and social capital through their actions application of organizational policy and procedure, translating the organizational goals, communicating a shared vision, building trusting relationships, evaluation of outcomes, facilitating access to organizational resources, and intentionally developing both human and social capital in the teams that they lead.[7,11,18,19] A limitation of this conceptual model is that the propositions have not been empirically tested, but this model may be used as a guide to complete an organizational assessment and design interventions and research.

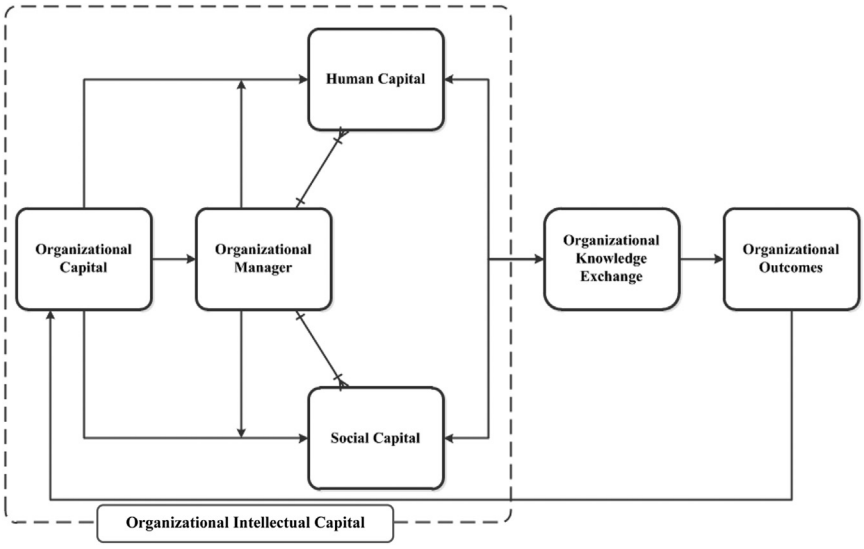

Figure 1. Gilbert Conceptual Model of Organizational Intellectual Capital

DISCUSSION AND IMPLICATIONS FOR NURSE LEADERS

Interventions to improve relationships between nurses on different units and with leaders at all levels of the organization may help to improve external trust and empowerment. Leaders must also move from transactional leadership styles and incentives to more transformational styles of leadership that foster relationships based on trust and empowerment. Reinvestment of funds used for staffing incentives into professional development and codesign of future care models may assist in transforming the nursing workforce and the way care is delivered nationally. Evolution of nursing professional governance structures that foster shared vision, enable involvement in decision-making, enhance communication, are evidence-based, and improve relationships may serve to develop both human and social capital leading to an improved nursing practice environment and improved patient outcomes.[20] For example, a mentoring program between nurses on professional governance teams and senior leadership may increase linking social capital and increase external trust and empowerment.

In addition to full organizational assessment when planning interventions, careful attention should be paid to include diverse viewpoints (inclusive of the interprofessional team) to help strengthen decision-making and enhance understanding. Preparation to change contextual elements that may be inhibitors of social capital development (such as role design, policy, and procedure that limit social capital development) must be planned and executed. For example, a review of policies that may artificially limit the scope of practice for licensed professionals should be conducted to help advance utilization of human capital and development of social capital.

Development of social capital in health care organizations is a vital component in rebuilding the nursing workforce at a pivotal time in the profession. While development of interventions must occur to secure a more stable pipeline and increase levels of human capital in the nursing workforce nationally, this alone may not be enough to mitigate potential shortages over the next decade. It is also unlikely that sole focus on social capital interventions will be successful without assessment and design that accounts for contextual factors in the organization.[21] Use of a social capital framework such as the Gilbert Conceptual Model of Organizational Intellectual Capital may be helpful to plan interventions that may assess the full organizational context. Other helpful resources include the AONL Nurse Leader Competencies, which help provide an assessment and development plan of transformational leadership. Additionally, the ANCC Magnet® Model and associated standards assist in ensuring that transformational leadership and structural empowerment structures and processes are in place leading to improved outcomes. Intentional investment in the social capital networks in health care organizations may help mitigate the shortages predicted to last several years into the future, improve the nurse work environment, and improve patient outcomes.

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Jason H. Gilbert, PhD, MBA, RN, NEA-BC is executive vice president and chief nurse executive at Indiana University Health in Indianapolis, Indiana, and Coldiron Fellow 2022 at Marian K. Shaughnessy Nurse Leadership Academy, Frances Payne Bolton School of Nursing, Case Western Reserve University, in Cleveland, Ohio. He can be reached at jgilbert1@iuhealth.org.

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