The Nurse Work Environment

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Introduction

A healthy and safe nurse work environment (NWE) is "one in which leaders provide the *structures,* practices, systems, and policies that enable clinical nurses to engage in the work *processes* and relationships essential to safe and quality patient care *outcomes*" (Kramer et al. 2010, p. 4). Healthy NWEs possess good professional relationships, professional autonomy, a strong safety culture, structural empowerment and engagement, appropriate staffing and resources, a balanced work schedule, professional advancement opportunities, transformational leadership, and joy in work (Copanitsanou et al. 2017; Kramer et al. 2010; Perlo et al. 2017; Wei et al. 2018). Safe and healthy NWEs are essential to achieving the Quadruple Aim of enhancing the patient experience, improving population health, reducing costs, and improving clinician well-being (Boyle et al. 2019; Grant et al. 2020).

Over 20 years of research provides evidence of an association between healthy and safe work environments and better outcomes for nurses and patients. Patient outcomes most consistently associated with better NWEs are lower 30-day mortality rates, overall mortality rate, and failure to rescue; lower odds or rate of adverse events such as falls, pressure injuries, medication errors, and central line-associated bloodstream infections (CLABSI); and higher nurse-reported quality of care or safety ratings (Copanitsanou et al. 2017; DiCuccio 2015; Halm 2019; Lake et al. 2019; Lee and Scott 2018; Nascimento and Jesus 2020; Petit Dit Dariel and Regnaux 2015; Stalpers et al. 2015; Wei et al. 2018). Nurse outcomes most consistently associated with better hospital NWEs are lower burnout, lower emotional strains, or better psychological health; higher job satisfaction or lower job dissatisfaction; and

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M. Baernholdt, D. K. Boyle (eds.), *Nurses Contributions to Quality Health Outcomes*, https://doi.org/10.1007/978-3-030-69063-2_4

higher intent to stay or lower turnover (Copanitsanou et al. 2017; Halm 2019; Lake et al. 2019; Petit Dit Dariel and Regnaux 2015; Wei et al. 2018).

Consequently, initiatives such as the American Nurses Credentialing Center (ANCC) accreditation programs of Magnet Recognition and Pathway to Excellence Recognition (ANCC n.d.-a, n.d.-b) have played a central role in elevating the importance of work environments as an integral component of patient-centered care, improved patient outcomes, improved nurse outcomes, and lower cost. This chapter discusses how the QHOM frames the relationship between the system's characteristics of NWEs and interventions to improve NWEs.

Nurse Work Environment: Specific Linkages with the QHOM

The QHOM (Mitchell et al. 1998) serves as an efficient organizing framework to describe the concepts intrinsic to NWEs and the inevitable interactions and relationships (see Fig. 4.1). The primary construct within the QHOM showcased in this chapter is the system, specifically the essential structures of the NWE. Four specific aspects of NWEs—joy in work and clinician well-being, safety culture, bullying and incivility, and staffing—are given special consideration due to their

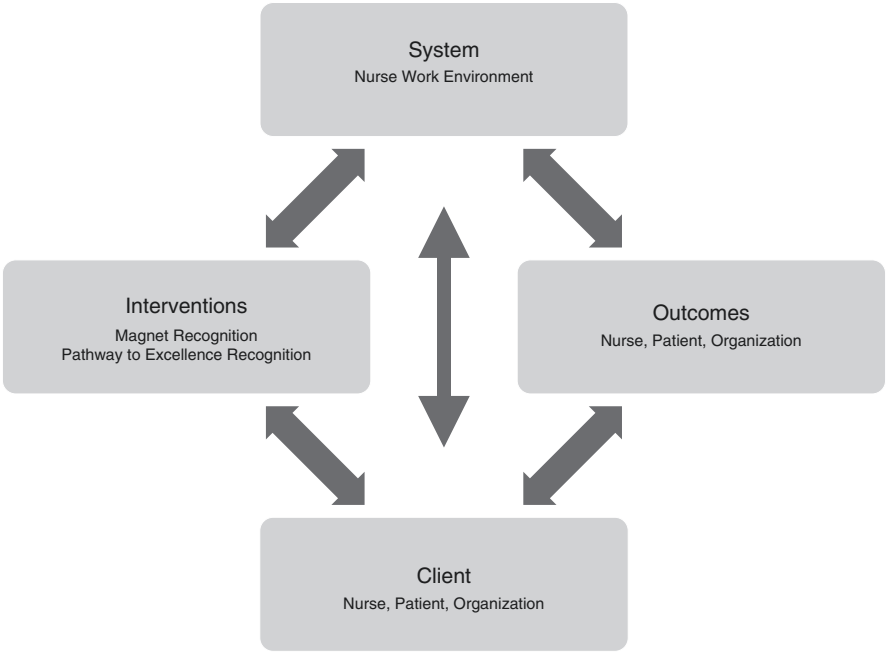

Fig. 4.1 Framework for the nurse work environment

contemporary significance. Successful system-level performance-driven interventions, the ANCC Magnet and Pathway to Excellence Recognition Programs, serve as road maps to nursing excellence and acknowledge healthcare organizations with healthy and safe NWEs. The Magnet Recognition Program also recognizes quality patient outcomes. The QHOM constructs of client and outcome are not discussed in this chapter.

NWEs are embedded in the complex adaptive healthcare system characterized by constant, nonlinear patterns of emerging change with multiple feedback loops (Marshall and Broome 2017; Plsek 2001). Therefore, the QHOM is an ideal lens for understanding the complex interdependent relationships among the system, client, interventions, and outcomes produced by these relationships. Outcomes are not static but rather provide inputs as feedback to the system and client. Importantly, unlike the linear Donabedian (1988) model, the QHOM defines the role of interventions, for example, applying for Magnet accreditation to improve the NWE. A broad range of activities are employed during the application process. These activities, in turn, work through the system and client to impact a variety of outcomes.

An advantage of the QHOM in relation to the NWE is the ability to examine and understand micro-, meso-, and macro-level factors (Serpa and Ferreira 2019). For purposes of this chapter, micro-level factors are at the individual level, for instance, psychological states such as attitudes toward empowerment and engagement and safety culture. See Chap. 13 for examples of interventions targeting the micro-level. Meso-level factors span from the unit and team level to the organizational level. Such factors might include how an organization's staffing resources are structured and deployed or how much professional autonomy is afforded to nurses in providing optimal patient care. NWE interventions at the meso-level are often focused on unit and organizational level changes such as improving collaboration between nurses and physicians, nursing participation in governance, and staffing and resources. Chapters 9 and 10 speak about processes or interventions at the unit or organizational level. Macro-level factors work at the regulatory, societal, and political levels. For example, accreditation requirements for the Magnet or Pathway to Excellence Programs or Joint Commission accreditation can impact NWEs. Hospital payment systems such as Medicare's Hospital Value-Based Purchasing Program (Medicare.gov n.d.) are also examples of macro-level approaches that can positively or negatively impact NWE (Chap. 2).

The QHOM helps consider how an intervention might be applied through these levels of impact. A macro-level intervention may have unanticipated effects at the micro or meso-level for nurses or patients, such as dictating staffing levels through state legislation (Chap. 3). Conversely, macro-level changes in staffing through legislation generally stem from problems identified at the micro and meso-levels in providing optimal care to patients. This complexity and interdependence are characteristics of the QHOM.

System

The Nurse Work Environment

Over the past 40 years, nurse leaders and researchers have emphasized the importance of understanding and improving NWE. In the early 1980s, nursing leaders and researchers began devoting considerable effort to understanding what makes a good place for nurses to work, rather than conceptualizing the organization and environment through the lens of other disciplines (e.g., sociology of work, workgroups, and organizations). Among the first of these initiatives was the American Academy of Nursing Task Force on Nursing Practice's study of 155 institutions to determine the NWE attributes that attract and retain nurses who provide quality patient care (McClure et al. 2002). Forty-one such institutions were identified and were given the moniker of "magnet" hospitals. Magnetic hospitals were characterized as having participative management with open communication; strong, supportive, and visible nurse leadership; recognition of the importance of nurse managers; adequate staffing levels; professional nursing practice; flexible scheduling; good relationships with physicians; and professional development and career advancement opportunities, among others (McClure et al. 2002). In 1990, the American Nurses Credentialing Center (ANCC) instituted the Magnet Hospital Recognition Program as an accreditation process. The Magnet program requires resources that not all hospitals have, so in 2007, the Pathway to Excellence Program was initiated (ANCC n.d.-b) to assure accessibility to an NWE recognition program for all hospitals, regardless of resources. For more details, see the system interventions section below about ANCC Accreditation Programs.

In response to the growing awareness and evidence base of the importance of the NWE, the Magnet and Pathway to Excellence Recognition Programs grew. Further, various other national entities released recommendations, principles, standards, and hallmarks for healthy and professional NWEs. Figure 4.2 provides a timeline of selected critical initiatives targeting NWE. In 2001, among the first of these initiatives was the American Nurses Association's (ANA) *Nurses Bill of Rights* (ANA n.d.). The *Bill of Rights* set forth seven principles of the NWE that the ANA believed every nurse had a fundamental right to see fulfilled. These included the right to an NWE that is safe, allows practice according to professional standards, and facilitates ethical practice. Simultaneously, The Joint Commission (2001) issued a call to action to address the USA's growing nursing shortage, *Healthcare at the Crossroads: Strategies for Addressing the Evolving Nursing Crisis.* The Joint Commission's recommendations focused on creating a culture that values nurse retention by transforming nurses' workplaces to empower and respect the nursing staff. The *Bill of Rights* and The Joint Commission's call to action were followed by the release of NWE standards from various nursing organizations. Prominent among these were the

- American Organization of Nurse Executives (now the American Organization of Nurse Leaders): *Elements of a Healthy Practice Environment* (AONL 2019), original release 2003.

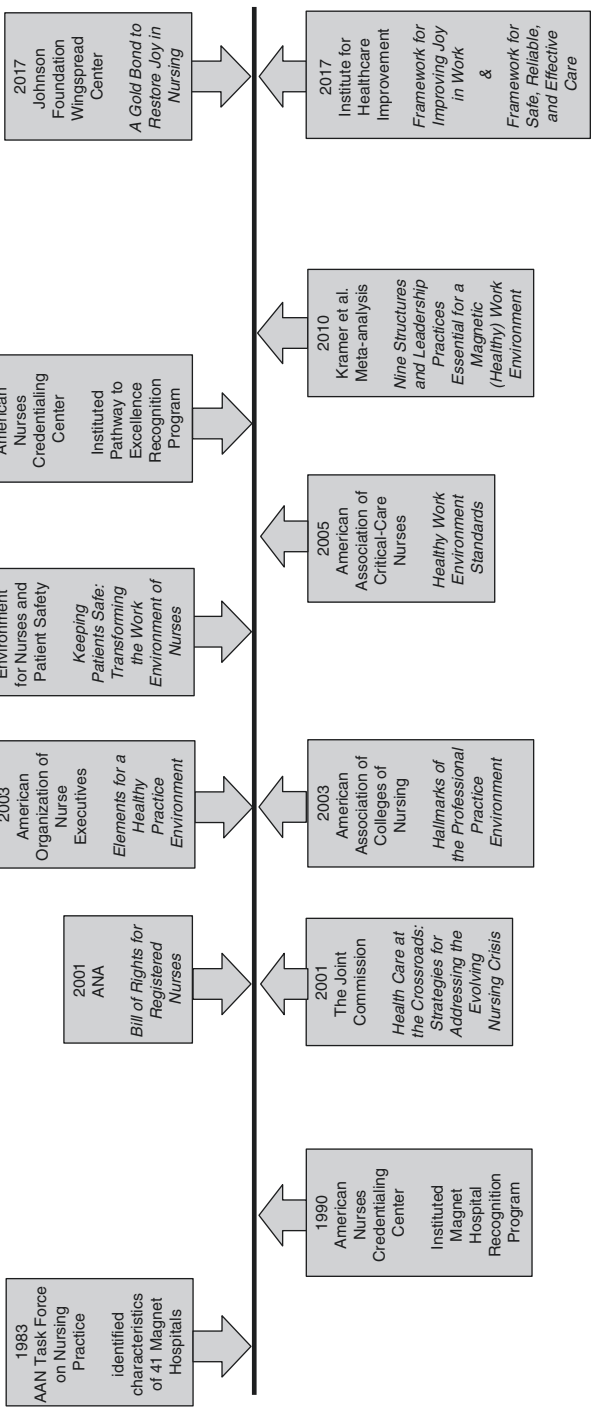

Fig. 4.2 Timeline of selected major national nurse work environment initiatives

- American Association of Colleges of Nursing: *Hallmarks of the Professional Practice Environment* (AACN 2020), original release 2003.
- American Association of Critical-Care Nurses: *Standards for a Healthy Work Environment* (AACN 2016), original release 2005.

Meanwhile, the Institute of Medicine Committee on the Work Environment for Nurses and Patient Safety released the 2004 landmark report, *Keeping Patients Safe: Transforming the Work Environment of Nurses (IOM 2004)*. The report was a call to action for healthcare organizations to recognize the crucial connection between NWEs and patient safety. The report found that the typical NWE was characterized by many serious threats to patient safety in four essential components of healthcare organizations: organizational management practices, workforce deployment practices, work design, and organizational culture. The IOM provided overarching and specific recommendations to improve the work environment in all four areas. For instance, they advocated for organizational culture and work design that promotes safety, adequate staffing, and effective nurse leadership.

In 2010, Kramer, Schmalenberg, and Maguire used a structure-process-outcome (S-P-O) framework to conduct a meta-analysis for purposes of distilling the essential structures for a healthy work environment (see Chap. 1 for information on S-P-O frameworks such as Donabedian 1966, 1988). They included publications and documents from various agencies that described healthy, magnetic, and professional NWEs and a series of published papers identifying the structural elements of the Essentials of Magnetism. The meta-analysis findings were nine categories of organizational structures essential to a healthy NWE (see Box 4.1).

Box 4.1 Structures/Best Leadership Practices Essential for Healthy Work Environments

1. Quality leadership at all levels in the organization
2. Availability of and support for education, career, performance, and competence development
3. Administrative sanction for autonomous and collaborative practice
4. Evidence-based practice education and operational supports
5. Culture, practice, and opportunity to learn interdisciplinary collaboration
6. Empowered, shared decision-making structures for control of the context of nursing practice
7. Generation and nurturance of a patient-centered culture
8. Staffing structures that take into account RN competence, patient acuity, and teamwork
9. Development and support of intradisciplinary teamwork

Source: Kramer, M., Schmalenberg, C., & Maguire, P. (2010). Nine structures and leadership practices essential for a magnetic (healthy) work environment. *Nursing Administration Quarterly, 34*(1), 4–17. Reprinted with permission from Wolters Kluwer Health, Inc.

Joy in Work

Joy in work and clinician well-being are aspects of the work environment that have evolved from the recently introduced fourth aim of the new Quadruple Aim (Bodenheimer and Sinsky 2014; Sikka et al. 2015). Besides the fourth aim of improving the work-life of healthcare clinicians and staff, the original Triple Aim was improving the health of populations, enhancing the patient experience of care, and reducing the per capita cost of health care. Joy in work is the feeling of accomplishment and fulfillment resulting from meaningful work (Sikka et al. 2015). Joy and meaning in work are integral to a healthy work environment for the individual and the collective. Bodenheimer and Sinsky introduced the fourth aim due to the multiple workplace stressors inhibiting optimal patient care. Among these stressors are increasing time pressures, poorly designed systems of care, staff shortages and overwhelming patient loads, demanding electronic medical record systems, government regulations, a general feeling of powerlessness, lack of authentic leadership, and hostile work cultures (Grant et al. 2020; Perlo et al. 2017; Johnson Foundation 2017). The consequences of these workplace stressors on clinicians are compassion fatigue, burnout, and, subsequently, turnover (Dyrbye et al. 2017; Perlo et al. 2017; McBride et al. 2018; Zhang et al. 2018). The Institute for Healthcare Improvement (IHI) (Perlo et al. 2017) and the Johnson Foundation at Wingspread Center (2017) recommended focusing on restoring joy and meaning in work rather than treating burnout.

Joy in work is a system property (Perlo et al. 2017). "It is generated (or not) by the system and occurs (or not) organization-wide. Joy in work—or lack thereof—impacts not only individual staff engagement and satisfaction, but also patient experience, quality of care, patient safety, and organizational performance" (Perlo et al. 2017, p. 5). The system components of joy in work are physical and psychological safety, meaning and purpose, choice and autonomy, recognition and reward, participative management, real-time measurement, wellness and resilience, and daily improvement (Perlo et al.). Focusing on joy in work is crucial for three reasons. First, healthcare professions regularly have the opportunity to improve others' lives. Caring and healing should be naturally joyful and rewarding activities. The compassion and commitment of healthcare staff are vital assets that, if nurtured and not hindered, can lead to joy as well as to effective and empathetic care. This asset-based approach often leads to designing more innovative and effective care processes (Perlo et al.). Second, joy in work is more than the absence of burnout. Joy is about the connection to meaning and purpose. Focusing on joy can reduce compassion fatigue and burnout while simultaneously bolstering resilience in healthcare workers (Perlo et al.). Third, organizational success can be contingent upon the level of joy experienced in the workplace. Joy and worker engagement dovetail. Greater worker engagement is associated with better performance and improved organizational clinical and financial outcomes. Ensuring joy is a crucial component of the psychology of change (Perlo et al.). Because joy in work is a system property, the IHI recommends identifying specific opportunities for improvement and implementing tests of change using Plan-Do-Study-Act (PDSA) cycles (see Chap. 6 for an overview of PDSA cycles) (Perlo et al. 2017).

Similarly, the multidisciplinary National Academy of Medicine (NAM) Action Collaborative on Clinician Well-Being and Resilience developed the NAM Conceptual Model of Factors Affecting Clinician Well-Being and Resilience. The model depicts patient well-being, clinician-patient relationships, and clinician well-being as the nucleus of a concentric model (Brigham et al. 2018). The nucleus is enclosed by individual and external factors affecting clinician well-being and resilience. The phenomenon of clinician well-being is having a personal state of fulfillment and engagement that leads to joy in practice and a connection to why one went into health care to begin with (Brigham et al.). Resilience is the ability to adapt to difficult conditions while sustaining purpose, balance, and mental and physical well-being (Padesky and Mooney 2012). The broader focus of the model is to improve clinician well-being and alleviate fatigue, moral distress, suffering, and burnout (Brigham et al. 2018).

Resilience is a term applied to the individual (micro-level), while "agility" is applied to the same concept at a collective or group level (meso-level) (Pipe et al. 2012). Resilience is a trait that can be learned and acquired (McAllister 2013; Mealer et al. 2017; Pipe et al. 2012). The return on investment made to improve resilience and build collective agility in nurses is well documented. Patients experience improved outcomes and better satisfaction with care (Cimiotti et al. 2012; Manomenidis et al. 2019; Mealer et al. 2017). Employees experience greater job engagement and increased levels of health, optimism, and self-care (Larrabee et al. 2010; Pipe et al. 2012). Administrators have better fiscal outcomes and increased staff retention (McAllister 2013; Mealer et al. 2017; Stagman-Tyrer 2014). This deeper understanding reinforces the NWE's conceptual linkages with well-being, joy in the workplace, and nurse resilience.

Safety Culture

Like joy in work, safety culture is an important contemporary aspect of the NWE and overall organization. Safety culture is "the product of individual and group values, attitudes, perceptions, competencies, and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization's health and safety management" (AHRQ n.d., p. 1). The way organizations view the importance of safety has a significant impact on workers' perception of their safety. In turn, worker safety and patient safety are inextricably linked. Therefore, it stands to reason that a strong safety culture is an integral part of a healthy work environment.

The IHI and Safe and Reliable Healthcare collaborated for over 15 years to develop a safety culture framework (Frankel et al. 2017). The collaboration was in response to the Institute of Medicine's landmark report *To Err is Human: Building a Better Health System* (IOM 2000), which revealed that healthcare errors were a leading cause of death in the USA. The *Framework for Safe, Reliable, and Effective Care* (Frankel et al. 2017) contains two foundational and overlapping domains. The first domain is *culture* which is the product of individual and group values, attitudes, competencies, and behaviors that form a strong footing on which to build a learning system (Frankel et al. 2017). Culture has four components, psychological safety, accountability, teamwork and communication, and negotiation. The second domain

is a *learning system* that can self-reflect and recognize strengths and weaknesses, both in real time and in intermittent review intervals (Frankel et al. 2017). A learning system has four components, transparency, reliability, improvement and measurement, and continuous learning.

Subsequent to the *Framework for Safe, Reliable, and Effective Care*, the IHI released the report *Safer Together: A National Plan to Advance Patient Safety* (National Steering Committee for Patient Safety 2020). The National Steering Committee for Patient Safety—a collaboration of 27 organizations representing federal agencies, healthcare delivery organizations and associations, patient and family advocates, and industry experts—developed a plan to improve patient safety while reducing harm to patients and healthcare providers. The plan contains a set of actionable and effective recommendations centered on four foundational and interdependent areas: culture, leadership, and governance; patient and family engagement; workforce safety; and learning system.

Incivility, Bullying, and Violence

Acts of workplace incivility, bullying, and violence undermine a safe and healthy work environment. These acts are part of a broader complex phenomenon that includes the acts, as well as failing to take action, when necessary, to address the acts (ANA 2015). Incivility, bullying, and violence occur on a continuum, may be physical or verbal, and may include assault, bullying, intimidation, harassment, and threats. Workplace incivility has been defined as low-intensity milder forms of negative behaviors. The perpetrator's purpose and uncivil behaviors are ambiguous (Anusiewicz et al. 2019). Incivility forms include rude and discourteous actions, gossiping and spreading rumors, refusing to assist a coworker, and using a condescending tone (ANA 2015). In contrast, bullying is a high-intensity form of negative behavior.

> Bullying at work means harassing, offending, or socially excluding someone or negatively affecting someone's work. For the label bullying (or mobbing) to be applied to a particular activity, interaction, or process, the bullying behavior has to occur repeatedly and regularly (e.g., weekly) and over some time (e.g., about 6 months). Bullying is an escalating process in which the person confronted ends up in an inferior position and becomes the target of systematic negative social acts. A conflict cannot be called bullying if the incident is an isolated event or if two parties of equal strengths are in conflict (Einarsen et al. 2011, p. 22).

Bullying behaviors are toward a clear target, present serious safety and health concerns, and often involve an abuse of power (ANA 2015; Anusiewicz et al. 2019).

Workplace violence involves instances where staff are abused, threatened, or assaulted in situations related to their work, including commuting to and from work (ICN 2017). It can involve explicit or implicit challenges to worker safety, well-being, or health. Nursing ranks among the riskiest occupations for violence and occupational injury. According to the United States Bureau of Labor Statistics (2017), nurses have the highest rate of nonfatal occupational injuries in all US occupations. Further, 12% of these injuries come from violence toward nurses, compared to only 4% for other occupations.

Edward et al. (2014) conducted a systematic review of 53 studies on aggression and violence in the nursing workplace. The studies included a broad range of practice settings in 14 different countries, pointing to workplace violence's international nature. Verbal abuse was the most frequent form of aggression experienced by nurses, with verbal abuse rates ranging from 17% to 94%. The rate of verbal abuse compared to physical abuse was about 3 to 1. Physician-to-nurse verbal abuse comprised about 42% of occurrences and nurse-to-nurse verbal abuse about 32% of occurrences. Edward et al. characterized these hostile actions between colleagues as repeated and persistent over time. The abuse comprised personal and professional aspects of the victim and was mainly related to insults, incivility, and rumors about their personal lives. Physical abuse instances ranged from 20.8% to 82% and were more prevalent in mental health, geriatric, long-term care, nursing homes, and emergency departments. More male nurses experienced physical abuse than females, as well as nurses on night and weekend shifts. The most common physical abuse acts were being spat upon, hit, pushed/shoved, scratched, and kicked, and were usually perpetrated by patients receiving direct care (Edward et al. 2014).

In a recent study of critical care nurse environments, Ulrich et al. (2019) found that in the past year, 80% of nurse participants reported verbal abuse at least once, 47% reported physical abuse at least once, 46% experienced discrimination, and 40% experienced sexual harassment. Further, 86% of participants reported at least one of the negative incidents in the past year. Of the participants experiencing these abuses in the past year (n = 6017), a total of 198,340 instances were reported. Although the source of verbal abuse was mainly from patients or families (73% and 64%, respectively), RNs reported verbal abuse from physicians (41%), other RNs (34%), and management staff (14%). Newly licensed nurses may be particularly vulnerable to workplace bullying (Anusiewicz et al. 2019).

Staffing

Of all the elements of NWEs, staffing has been researched most extensively; therefore, it deserves special attention. Lulat et al. (2018) conducted a scoping review of over 600 studies focused on the relationship between RN staffing levels and staff mix and patient, organizational, nurse, and financial outcomes. The studies' abstracts are contained in a database located on the Registered Nurses' Association of Ontario (Canada) website (https://rnao.ca/bpg/initiatives/RNEffectiveness). For patients, better staffing was associated with decreased mortality, increased quality of care, fewer pressure injuries and infections, and decreased length of stay, among other positive outcomes. Nurses working in environments with better staffing experienced higher job satisfaction and decreased turnover. Organizations experienced positive financial outcomes.

The American Nurses Association's (2020) Principles for Nurse Staffing provide an overarching framework to achieve appropriate nurse staffing, which is the match of registered nurse expertise with the needs of clients of nursing services in the context of the practice setting and situation (ANA 2020). Nurse characteristics to be considered in determining appropriate staffing are type of licensure, experience with patient population served, organizational experience, overall professional

nursing experience, professional certifications, educational preparation, competence with technologies and specific clinical interventions, and language capabilities (ANA 2019, 2020; Halm 2019). Additional factors that influence staffing are turnover (admissions, discharges, and transfers), availability of technical support and other resources, interprofessional team composition and level of teamwork, unit physical space and layout, culture of the organization, population/client characteristics, and cost (ANA 2019; Halm 2019).

Measures of Components of the Nurse Work Environment

Valid and reliable measurement instruments are essential to rigorous research and quality improvement projects about the NWE. Extensive work has been done over the years to this end. Multiple tools are available to effectively test and analyze relationships of variables embedded within the QHOM framework for NWEs. Examples of both general and specific measures of the NWE are presented below.

Measures of the General Nurse Work Environment

The three most widely used instruments to quantify the NWEs are the Practice Environment Scale of the Nursing Work Index Revised (PES-NWI), Essentials of Magnetism II (EOMII), and the Healthy Work Environments Assessment Tool (Wei et al. 2018). The PES-NWI is based theoretically on the construct nurse practice environment, defined as the organizational characteristics of a work environment that facilitate or constrain professional practice (Lake 2002). Dimensions measured by the PES-NWI are nurse participation in hospital affairs; nursing foundations for quality of care; nurse manager ability, leadership, and support for nurses; staffing and resource adequacy; and collegial nurse-physician relationships. The PES-NWI has been endorsed continuously since 2004 as a nursing care performance measure by the National Quality Forum. The EOMII (Schmalenberg and Kramer 2008) was designed to (a) measure attributes of a work environment based on Donabedian's (1966, 1988) structure-process-outcome paradigm and (b) represent the Magnet Hospital Standards. Dimensions in the EOMII are support for education, nurse-physician relations, working with clinically competent peers, clinical autonomy, control over nursing practice, perceived adequacy of staffing, patient-centered values, nurse manager support, and professional job satisfaction. The Healthy Work Environment Assessment Tool (AACN n.d.) is based on the AACN Healthy Work Environments Standards (AACN 2016) and measures the dimensions of skilled communication, true collaboration, effective decision-making, appropriate staffing, meaningful recognition, and authentic leadership.

Measures of Joy in Work

Although there are currently no direct measures of joy in work, the IHI recommends a suite of proxy instruments for assessing joy in work (Perlo et al. 2017, Appendix C, pp. 33–37). Among these measures are leadership, safety attitudes, burnout, and job satisfaction.

Measures of Safety Culture

The two most commonly used measures of safety culture are the Safety Attitudes Questionnaire (SAQ) and the Agency for Healthcare Research and Quality Hospital Survey on Patient Safety Culture (AHRQ HSOPSC) (DiCuccio 2015). Both questionnaires are based on the safety culture definition of "the product of individual and group values, attitudes, perceptions, competencies, and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization's health and safety management" (Sorra et al. 2016). The SAQ measures six dimensions of clinicians' attitudes: teamwork climate, job satisfaction, perceptions of management, safety climate, working conditions, and stress recognition (Sexton et al. 2006). It has been adapted for use in intensive care units, operating rooms, general inpatient settings, and ambulatory clinics. The HSOPSC asks all workers in an organization to rate 12 dimensions: communication openness, feedback and communication about error, frequency of events reported, handoffs and transitions, management support for patient safety, nonpunitive response to error, organizational learning-continuous improvement, overall perceptions of patient safety, staffing, supervisor/manager expectations and actions promoting patient safety, teamwork across units, and teamwork within units. The HSOPSC also contains two questions on an overall grade for patient safety (AHRQ n.d.; Sorra et al. 2016). It has been adapted for medical offices, nursing homes, community pharmacies, and ambulatory surgical centers.

Measures of Incivility, Bullying, and Violence

Two commonly used workplace bullying measures are the Negative Acts Questionnaire-Revised (NAQ-R) and the Bergen Bullying Indicator (BBI). The NAQ-R measures the domains of personal bullying, work-related bullying, and physically intimidating bullying (Einarsen et al. 2009). Items are worded behaviorally; that is, they avoid the use of terms such as bullying and harassment. The NAQ-R is useful in detecting bullying targets and differentiating groups of employees with different levels of exposure to bullying. The BBI is a one-item self-labeling measure that asks the worker how often they experience bullying behaviors (Notelaer et al. 2006). The BBI can classify workers into six categories, ranging from "not bullied" to "victim."

Other measures of incivility and bullying exist. For example, the Incivility in Nursing Education-Revised (INE-R) is a 48-item survey with four additional open-ended survey questions. The INE-R is a unique instrument because it employs both qualitative and quantitative methodologies to measure perceptions of uncivil behaviors (Clark et al. 2015). Another unique feature of the INE-R is that it simultaneously gathers input for potential solutions to the identified incivility.

Incidences of violence and injury are collected nationally. The Bureau of Labor Statistics (BLS) monitors the incidence and prevalence of workplace violence and injuries in the USA. It serves as the primary source for reporting and analysis via the Survey of Occupational Injuries and Illness (SOII) (BLS 2017, 2018) and through mandatory Occupational Safety and Health Administration (OSHA) reporting. Guided by the Occupational Safety and Health Act of 1970 (OHSA 1970), the intention was that employers were required to track and record injury data. In 2016, a significant change in reporting requirements was implemented by OSHA,

requiring employers to report this same data electronically directly to OSHA. Although work is still in progress to assure data integrity and full reporting, there is a promise of improved data accuracy through combined reporting between the BLS and OSHA (Pierce 2017).

Measures of Staffing

No one measure exists that effectively represents nurse staffing. A challenge with staffing measures is that many have yet to be standardized with universally accepted definitions and formulas. Only two unit-level nurse staffing measures are endorsed by the National Quality Forum (NQF): nursing hours per patient day (NQF 2019a) and skill mix (NQF 2019b). As detailed by NQF, both measures are intended for use in the hospital/inpatient setting only and are applicable to nursing units such as medical-surgical, pediatric, and critical care. The National Database of Nursing Quality Indicators® has expanded these nurse staffing measures to other unit types such as emergency department, perioperative units, labor and delivery, and ambulatory care.

Considerations for Selecting NWE Measures

When selecting NWE measures to use within the QHOM, one needs to be mindful of the measurement level—micro, meso, or macro. The QHOM allows for measurement at one level or more than one level. For example, nurse job satisfaction can be measured at the individual or micro-level. At the meso-level, nursing is practiced as a group on units in many work settings such as acute and long-term care (Kendall-Gallagher and Blegen 2009). Therefore, a patient will likely be cared for by multiple group members. Thus, some measures may need to be at the unit level. Examples are staffing (nursing hours per patient day and skill mix) and nursing specialty certification (percent of nurses on the unit with a nursing specialty certification, which captures nurse workgroup competence). Alternately, measures can be at more than one level. For example, in a typical organizational structure, individual nurses and other clinicians are nested in units or workgroups, units and workgroups are nested in organizations, organizations are often nested in corporate systems, and so forth. As individual nurses and clinicians in workgroups and organizations are exposed to common features, events, and processes over time, they develop consensual views of the workgroup and work environment through interacting and sharing (Kozlowski and Klein 2000). Consensual views of safety culture and morale at the meso-level are examples. These measures are taken at the individual level but are aggregated to the group level for analysis.

System Interventions

In keeping with the QHOM, interventions to enhance NWEs are targeted at the system and client. Further, interventions are generally at the meso-level (unit and organization). They include improving professional relationships, professional autonomy, safety culture, structural empowerment and engagement, appropriate staffing and resources, balanced work schedule, professional advancement

opportunities, transformational leadership, and joy in work/clinician well-being. Two intervention programs with demonstrated outcomes (e.g., improved nurse satisfaction, better retention of nursing staff and nursing leaders, higher quality interprofessional teamwork and nursing practice, better fiscal outcomes) are the Magnet Recognition Program® (ANCC n.d.-a) and the Pathway to Excellence (PTE) Recognition Program (ANCC n.d.-b). Both programs are performance-driven organizational (system) level accreditations for nursing excellence from the American Nurses Credentialing Center. Magnet Recognition also includes excellence in patient outcomes. Magnet- and Pathway-designated institutions can display the respective ANCC logo on advertisements, publications, and presentations—offering a significant marketing, recruitment, and reputational advantage. To achieve Magnet or PTE designation, healthcare organizations undergo a lengthy rigorous journey in which they conduct self-assessments, create opportunities for organizational advancement, and transform the organizational culture. For example, on average, it takes an institution 4.25 years to attain Magnet designation (Jayawardhana et al. 2014). Accreditation lasts 4 years. Currently (October 2020), there are 540 Magnet and 192 PWE facilities worldwide, with only a few outside the USA.

Magnet® Recognition

Magnet Recognition has been in place for 30 years. It is based on the Magnet Model of 14 Forces of Magnetism that include nursing leadership, management style, organizational structure, personnel polies and programs, community and healthcare organization, image of nursing, professional development, professional models of care, consultations and resources, autonomy, nurses as teachers, interdisciplinary relationships, quality improvement, and quality of care (ANCC n.d.-a). The Forces are categorized into five Magnet Model components of transformation leadership, structural empowerment, exemplary professional practice, empirical quality results, and new knowledge, innovation, and improvement (ANCC n.d.-a). For instance, the Forces of Magnetism "nurse leadership" and "management style" are categorized under the model component of transformational leadership. The Magnet Model provides the overarching constructs for nursing practice and research. Nursing excellence drives measurable improvements in organizational outcomes related to safety, quality patient care, and financial savings. As part of the program, Magnet organizations are required to measure and report nurse job satisfaction, nurse-sensitive clinical measures, and patient satisfaction (ANCC n.d.-a). Because Magnet Recognition is resource intensive, both personnel and financial, mostly larger hospitals have pursued it.

Pathway to Excellence® Recognition

The newer ANCC recognition program is the Pathway to Excellence Program (PTE). In 2003, the State of Texas developed the "Nurse-Friendly" program mainly

for smaller hospitals that do not have the organizational resources to become Magnet accredited (Merviglia et al. 2008). In 2007, the ANCC acquired the program, renamed it the Pathway to Excellence program, and offered it to hospitals nationwide and internationally. PTE differs from Magnet Recognition in several ways, but the most significant difference is that the performance standards exclusively address the work environment and nursing engagement. Patient and quality outcomes are not directly measured as a part of the criteria for recognition. PTE Recognition entails demonstrated achievement of six standards—shared decision-making, leadership, safety, quality, well-being, and professional development—and evidence to support 181 performance elements.

Implications and Future Directions

As depicted in the QHOM, the system characteristic of a healthy NWE is linked with improved outcomes—nurse, patient, and organizational. Over 40 years of nursing leadership and research have provided growing knowledge and improvement of NWEs. Current and future challenges include how to improve joy in work and clinician well-being, ways to support clinician resilience and organizational agility, methods for building stronger cultures to promote safety, and ways to eliminate systemic racism in health care.

Improving Joy in Work, Clinician Well-Being, and Resilience

The aforementioned NAM Conceptual Model of Factors Affecting Clinician Well-Being and Resilience provides a framework for future research in nursing practice and education to increase understanding of the phenomena of joy in work, clinician well-being, and resilience. These phenomena are affected by patient well-being, clinician-patient relationships, and other individual and external factors. More importantly, effective strategies for enhancing joy in work, clinician well-being, and resilience are needed (Brigham et al. 2018). The model's application should be embraced by nurses, educators, researchers, and scholars. Further examination of the linkages among joy, well-being, and resilience will likely be solidified, and additional improvement strategies developed.

Building a Stronger Safety Culture

Within the IHI Framework for Safe, Reliable, and Effective Care (Frankel et al. 2017), the concept of leadership needs further development. Senior leaders hold the keys to safety performance through culture change (Maccoby et al. 2013). Safety-specific transformational leadership (SSTFL) is one area that could assist with this change. However, it is an under-researched concept in health care, especially when contrasted with other high-risk industries (Fischer 2016). Transportation,

manufacturing, aviation, and nuclear power have monitored and studied safety performance and outcomes much longer than health care and, subsequently, have much better safety track records than health care (Barling et al. 2002; Conchie and Donald 2009; Conchie et al. 2012; Curcuruto et al. 2016; de Vries et al. 2016; Kelloway et al. 2006). In contrast with health care, these other industries have fully embraced the concept of SSTFL (Fischer 2016). SSTFLs promote individual and collective safety efforts and drive a healthy safety climate, thereby potentially influencing patients' and workers' health and well-being. Both research and development of consistent language to describe the complexity of safety phenomena provide current and future leaders at all levels with knowledge and tools that help decrease harm to patients and workers from preventable error, as well as generate new ways of thinking about safety (Fischer 2016).

Addressing the Quintuple Aim of Systemic Racism

Given the recent introduction of the Quintuple Aim (Matheny et al. 2019)—which adds equity and inclusion to the Quadruple Aim—considerations for equity and inclusion in health care and the NWE require sharper focus. Paradigms previously accepted in health care are now being challenged and changed. Health and healthcare disparities based on ethnicity, race, gender identity, and sexual orientation are no longer considered acceptable or unchangeable (Bonvicini 2017; Wheeler and Bryant 2017). Public awareness of systemic racism and momentum for change is growing. Chapter 3 contains a discussion of nursing workforce diversity issues. Further discussion and consideration of the timely and appropriate Quintuple Aim and its effect on the NWE and, subsequently, patient, nurse, and organizational outcomes are needed.

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