Nurse Outcomes: Burnout, Engagement, and Job Satisfaction

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Introduction

What makes nurses like their job as proud and engaged professionals and as clinically competent and critical thinkers? What makes nurses open-minded and eager to learn about continuous change focused on improved care delivery and patient outcomes? An empowered nurse workforce is one of the critical components for positive nurse outcomes. Additionally, the system characteristics of a healthy nurse work environment (NWE) are essential. System questions should address: What makes teams at the unit and organizational level perform beyond expectations with energy and creativity to innovate and underpin solutions for patients' and organizations' continuously changing needs?

Successful healthcare delivery creates value for a host of stakeholder groups: patients, healthcare professionals, management, policymakers, and society as a whole. It is imperative to recognize and attend to all stakeholders' interests. In the past few decades, healthcare organizations have been challenged by constant changes: budget constraints, an aging workforce, an aging patient population, more complex and chronic patient problems, a higher need for inter-professional collaboration and practice, and safe patient outcomes. Organizations and healthcare professionals, including nurses, are challenged to adapt in flexible ways that often lead to detrimental outcomes (e.g., burnout) for the healthcare professional and the patients in their care. The burnout literature spans 30 or so years (Dow et al. 2019). Thus, currently, there is a focus on healthcare professionals' well-being in general (Brigham et al. 2018).

In this chapter, nurse outcomes are explored using the QHOM, specifically, how nurse outcomes are affected by interventions at the individual nurse and system

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levels. First, the nurse outcomes of engagement, burnout, job satisfaction, and turnover intentions are described briefly. Second, interventions at the individual level, such as personal leadership development, are discussed. Third, successful system interventions are discussed, including Magnet designation, to improve NWEs. In turn, improved NWEs improve nurse outcomes and ultimately improve patient safety and quality of care. Finally, an example from a program of research focused on nurse outcomes is provided. In this research example, favorable assessed NWE aspects such as nurse-physician relations, unit-level nurse management, hospital management, and organizational support were found to be strongly associated with balanced nurse work characteristics such as social capital, decision latitude, and workload. These three work characteristics are closely related to empowerment. In turn, balanced nurse work characteristics were associated with favorable nurse outcomes such as high engagement levels or low levels of burnout, job satisfaction, and organizational outcome of favorably assessed quality of care. Conclusions and future directions are provided. Overall, it is argued that both hospitals and nurses bear a responsibility to achieve optimal nurse outcomes that subsequently lead to better organizational and patient outcomes.

Nurse Outcomes: Linkages with the QHOM

For almost four decades, an international multitude of practitioners and researchers have been providing a body of knowledge that links system characteristics, interventions, client (nurse) characteristics, and nurse outcomes at the individual, team, and organizational levels as described in the QHOM (Mitchell et al. 1998). In the QHOM, nurse outcomes include nurses' well-being: engagement vs. burnout and job satisfaction, as well as attraction and retention to the profession and their employer. Outcomes are affected by interventions *that work through* the client and system (Fig. 13.1). In this chapter, the client is the nurse. It is understood (but not discussed in this chapter) that nurse outcomes are strongly linked with patient outcomes. Interventions that influence nurse outcomes via the nurse (client) include the development of personal leadership skills. Interventions that act through the system to improve NWEs include the Magnet Recognition Program (ANCC n.d.-a). Thus, individual- and system-level interventions can empower nurses to deal with the continuous challenges and changes in healthcare organizations that confront them daily. In other words, systems that implement such interventions have a culture where learning is implemented and encouraged. A learning culture is imperative for positive nurse outcomes and excellent patient care. Systems or organizations that manage to create such a professional development learning culture and embrace and prioritize organizational effectiveness will ensure their long-term sustainability and success.

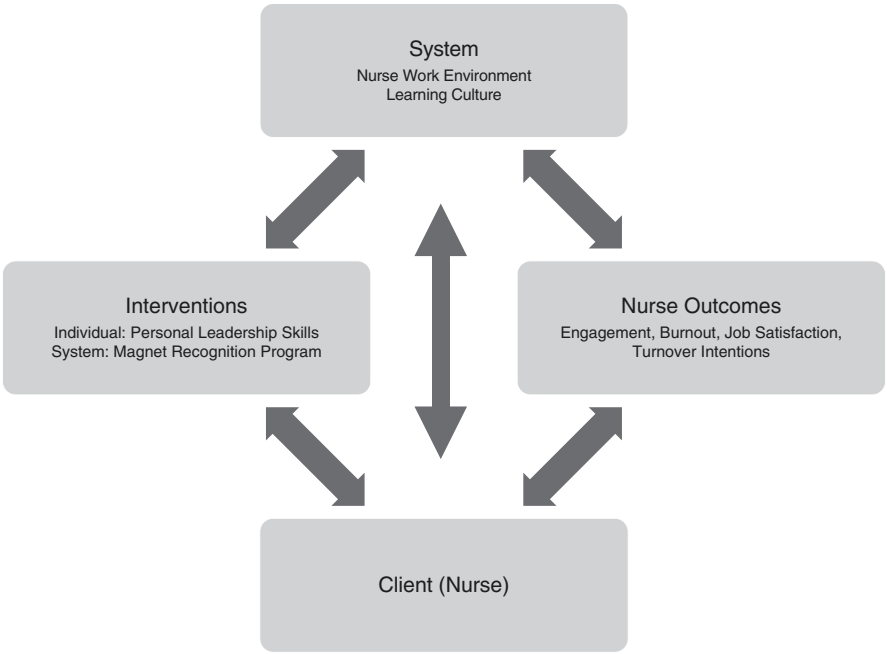

Fig. 13.1 Framework for nurse outcomes

Nurse Outcomes

The study of nurse outcomes is almost as old as the profession itself. The outcomes of job satisfaction and turnover or turnover intention have been studied extensively, followed by burnout and engagement. Nurse outcomes are related to patient outcomes—better nurse outcomes are associated with higher care quality ratings and patient safety. Thus, an understanding of what predicts nurse outcomes is essential (Van Bogaert and Clarke 2018a).

Several systematic reviews have examined the relationship between various aspects of the NWE and nurse outcomes (see Table 13.1). Review results show that the nurse outcomes most consistently associated with better hospital NWEs are lower burnout, lower emotional strains, or better psychological health (Copanitsanou et al. 2017; Halm 2019; Lake et al. 2019; Wei et al. 2018); higher job satisfaction or lower job dissatisfaction (Copanitsanou et al. 2017; Halm 2019; Lake et al. 2019; Petit Dit Dariel and Regnaux 2015; Wei et al. 2018); and higher intent to stay or lower turnover (Lake et al. 2019; Petit Dit Dariel and Regnaux 2015; Wei et al. 2018).

Table 13.1 Systematic reviews of the relationship between nurse work environments and nurse outcomes

Authors Date published, type of review	Review inclusion criteria	Studies in review	Nurse outcomes
Copanitsanou et al. (2017) Systematic review	• Years 1999–2014 • Studies in English • Research studies (prospective, cross-sectional, or retrospective) • Studies examining the effects of nurses' work environment on both patients' and nurses' outcomes • Studies in which both patients and nurses participated • Studies in which only questionnaires were used for the self-assessments of outcomes	10	Lower burnout and higher job satisfaction
Halm (2019) Critical evidence review	• Search of cumulative index • To Nursing and Allied Health Literature and MEDLINE • Key words: nurse, staffing, patient outcomes, Magnet hospitals, nursing excellence, and practice or work environments • Original research in the past 10 years	14	Higher quality of care and safety ratings; less job dissatisfaction and burnout
Lake et al. (2019) Meta-analysis	• July 2002–September 2018 • Use of the PES-NWI to measure work environment • Reported odds ratios (ORs) and 95% confidence intervals from regression models of four outcome classes: nurse job outcomes, safety and quality ratings, patient outcomes, and patient satisfaction	17	28–32% lower odds of job dissatisfaction, burnout, or intention to leave; 23–51% lower odds of rating nursing unit quality and safety as fair or poor; 22% lower odds of reporting that they were not confident that patients could manage care after discharge
Petit Dit Dariel and Regnaux (2015) Systematic review	• 1994–2014 • Quantitative studies comparing nurse and patient outcomes in Magnet-accredited hospitals with those in non-Magnet hospitals	10	Higher job satisfaction, lower intent to leave and turnover

Table 13.1 (continued)

Authors Date published, type of review	Review inclusion criteria	Studies in review	Nurse outcomes
Wei et al. (2018) Systematic review	• January 2005–December 2007 • Primary research studies with empirical data • Focused on nurse work environment • Written in English in the USA	54	Better psychological health and lower emotional strains; lower burnout; lower incivility; higher job satisfaction and retention; higher perceptions of autonomy, control over practice, nurse-physician relationships, and organizational support; higher new graduate 3-year retention rates

Predictors of Job Satisfaction and Turnover

Two predictors of job satisfaction and turnover are structural and psychological empowerment. Structural empowerment is the extent to which nurses have (a) formal and informal power in care delivery, (b) access to information and opportunities to improve personal development, and (c) supportive relations with subordinates, peers, and superiors (Kanter 1993). These conditions are linked with job satisfaction, engagement, productivity, and burnout (Laschinger et al. 2003, 2004; Laschinger and Finegan 2005). Psychological empowerment is the psychological response to work conditions and the extent to which a nurse experiences meaning, competence, self-determination, and impact (Eo et al. 2014; Laschinger et al. 2001; Spreitzer 1995; Wagner et al. 2013; Yang et al. 2013). However, a third concept, authentic leadership, plays a mediating role between nurse empowerment and job satisfaction (Dahinten et al. 2014; MacPhee and Bouthillette 2008; MacPhee et al. 2012, 2014).

Burnout and Engagement

In the first decade of this millennium, the Nurses' Early Exit Study (NEXT-Study) performed a comprehensive study in ten European countries to investigate the reasons, circumstances, and consequences of nurses' premature departure from their healthcare institution or the nursing profession (Hasselhorn et al. 2005). The most predictive factors for leaving nursing were burnout and poor-quality teamwork. Both are associated with NWEs. The study results showed that units with more nurses who perceived adequate staffing, good administrative support for nursing care, and good relations with physicians had better outcomes than those nurses who did not work on units with these characteristics. Further, nurses reported lower burnout, and patients were more than twice as likely to be satisfied with their care (Estryn-Béhar et al. 2007; Hasselhorn et al. 2005).

The NEXT-Study findings are closely related to the research that started more than 35 years earlier. This research investigated a phenomenon in human service

professionals, whereby enthusiastic service providers in close contact with service users become emotionally drained, cynical, and not confident in their abilities. This phenomenon is identified as *burnout* and has three dimensions: emotional exhaustion, depersonalization, and personal accomplishment (Maslach et al. 2001). Research reveals that burnout is a critical mediator between areas of work-life or work environment and nurses' intention to leave their job (Leiter and Maslach 2009). From these studies on burnout, the opposite or positive concept was developed: *work engagement* (Maslach and Leiter 2008). Work engagement is a positive, fulfilled work-related state of mind characterized by (a) *vigor* or high levels of energy and mental resilience at work, (b) *dedication* or strong involvement in one's work accompanied by feelings of enthusiasm and significance, and (c) *absorption* or being fully engrossed in one's work and having difficulties detaching oneself from it (Schaufeli and Bakker 2003). Some researchers argue that work engagement is an independent, distinct, albeit related, concept negatively correlated with burnout (Bakker et al. 2011; Schaufeli and Salonova 2011). However, both burnout and engagement are linked to the concepts of job demand and job control (JDC-model). In the JDC model, high demand and low control are potential risks for job strain, psychological distress, and illness (burnout), whereas high demand and high control are linked with high engagement because they increase motivation and learning (Bakker and Demerouti 2007, 2017). Also, job control and job resources act as buffers for high demands' negative consequences (Adriaenssens et al. 2017; Ibrahim and Ohtsuka 2014). To improve nurse outcomes, both individual and system interventions are needed.

Interventions: Client (Nurse)

In the QHOM, interventions can target the client or individual nurse and the system or organization. For the individual nurse, interventions focus on developing *personal leadership skills*, with three key components: self-knowledge, self-awareness, and self-control.

Self-Knowledge

Self-knowledge is knowing who you are (or self-concept) and what motivates you in terms of values and purpose. According to Gottfredson (1981), occupational selection is influenced by two factors: the image the individual holds of a particular occupation and the individual's self-concept. Research about the motivations of people who enter professional nursing revealed that they are influenced by three groups of factors: restrictive factors such as financial or family responsibilities, attractive factors such as having positive role models in their surroundings, and internal motivation factors such as altruism and the desire to meet someone else's personal or emotional needs (Zysberg and Berry 2005). The third factor has been

investigated less frequently. When asked why they entered the nursing profession, many nurses would answer "because I wanted to be of help to others" (Mimura et al. 2009, p. 604). However, when probed further why they wanted to help others, many nurses cannot answer that question. Because of the importance of self-concept, one possible explanation is that they want to help others compensate for negative self-concepts such as low self-esteem. Research findings show that nursing students have significantly lower self-esteem than medical students (Braspenning and Franck 2013). In turn, low self-esteem has been related to altruistic behavior (Schutz 1998). These findings suggest that nurses may unconsciously try to compensate for their lower self-esteem by caring for others. Therefore, developing self-knowledge, such as knowing who you are and what motivates you in terms of values and purpose, is the first step towards increasing self-knowledge.

Talent and Passion

Part of self-knowledge is being aware of one's talent and passion. In most healthcare organizations, nurses have specific job descriptions and are expected to perform the description's functions. However, assuming that everyone with the same functions has the same talent is erroneous. When *talent* is defined as the ability to do something(s) better, faster, and with less effort (Debisschop 2017), focusing on talent(s) alone ignores the fact that certain behaviors and competencies have a motivational component too. *Passion* is the strong inclination towards a self-defining activity that people like and in which they invest time and energy regularly (Vallerand 2012). Passion is the energy source that keeps someone moving towards goals. Some will argue that it is essential for nurses to know and develop talent and competencies, and passion(s) for their jobs. One way of doing so is by using the golden circle philosophy (Sinek 2009).

The golden circle (Sinek 2009) consists of three concentric circles with the outer circle defined as the WHAT, which has two components. The first is: What have you achieved? This achievement is one's resumé or curriculum vitae. For example, I am a certified ER nurse. The second WHAT is: What do you want to achieve? These are the goals one pursues. For example, I want to specialize as an advanced critical care nurse practitioner. In the nursing literature, this is also defined as a professional legacy, which answers the question: What in healthcare is better because of my efforts (Hinds et al. 2015)? Knowing what one wants to achieve or declare a professional legacy helps to maintain a focus on the meaning of an experience in the process of reaching a goal (Hinds et al. 2015). The middle circle is the HOW. Here, the question is: What experience, behavior, or competencies do you have that will help you reach your goal? For example, I am very good at active listening or in taking care of infected wounds. The inner circle in the model is defined as the WHY, also called the INNER WHY. Here one has to answer: What drives you as a nurse? From which values do you deliver patient care? Why did you become a nurse? Research indicates that the INNER WHY of an individual is linked to the more emotional limbic system of the human brain, whereas the WHAT questions are associated with higher order cognitive functions located in the neocortex of the brain (Sinek 2009).

Passion can thus be situated in a person's INNER WHY, whereas talent can be attributed to both the HOW and the INNER WHY. Many newer nurses start with a particular view on WHY they want to become a nurse. Moreover, some nurses seem to lose contact with their INNER WHY during their first years in clinical practice due to a non-supportive or unhealthy work environment. In a healthcare environment where system characteristics are rapidly evolving, knowing one's INNER WHY and HOW, passion, and talents is essential to staying aligned to one's WHAT or goals in the short and longer terms. Individual nurses can develop their self-knowledge by reflecting on the components of the golden circle.

Self-Awareness

Self-knowledge alone is not enough to achieve one's goals. The second step in expressing personal leadership is self-awareness, defined as the process of being aware of what triggers you and what and how this results in certain behaviors and effects in your immediate environment. Sometimes circumstances will trigger us, resulting in immediate emotions and emotionally driven or ineffective behaviors. An illustrative example is when a multidisciplinary surgical team in an academic medical center was observed with cameras and microphones installed in the operating room (Franck et al. 2016). At a certain point during a complicated surgical procedure, the surgeon was confronted with an unexpected problem. The workload increased, and the surgeon experienced a loss of control. He raised his voice and reacted emotionally towards the team members. The effects were clearly observed: communication processes froze for several minutes, and team members no longer felt safe to speak up, cross-check, or communicate otherwise.

One's self-awareness is influenced by both the hierarchical healthcare system and one's emotions. Hospitals are, by tradition, hierarchical, with the physician at the top. Hierarchy, or authority gradients, can create an unsafe environment for team members, inhibiting them from speaking up (Leonard et al. 2004). In turn, unnecessarily high risks result. Shifting from top-down organizational culture to a more team-oriented, bottom-up culture is challenging. A team-oriented culture is a crucial component in improving nurses' well-being, patient safety, and quality of care in healthcare organizations (Franck et al. 2018; Van Bogaert and Clarke 2018b). In addition to the organizational culture, communication is also influenced by factors intrinsic to individual healthcare professionals, such as speaking and listening skills, conflict resolution techniques, and appropriate assertion and advocacy instead of leading with one's emotions. Healthcare professionals work in emotionally charged settings, and evidence to date suggests that emotions play an integral role in patient safety (Heyhoe et al. 2016). In organizational psychology, the powerful impact of emotions on behavior is widely accepted. However, other than limited education around burnout and patient-centered care, healthcare professionals do not learn to recognize and anticipate the impact of their behavior in real time.

Self-Control

The third step in personal leadership is self-control. It refers to a dispositional capacity to regulate immediate dominant responses or tendencies, thoughts, behaviors, and emotions for a more delayed but desirable outcome, thereby promoting task completion (De Ridder et al. 2012). It is the ability to prioritize long-term over short-term goals, even when the latter are immediately gratifying. Research has found that self-control represents a key predictor of well-being by inhibiting undesired behaviors and fostering goal attainment and positive emotions (De Ridder and Gillebaart 2016). Emerging evidence shows that not using self-control, in other words, emotional reactivity (emotionally driven behavior) and ineffective coping strategies, impacts patient safety outcomes (Heyhoe et al. 2016) through less-than-optimal teamwork. Research examining self-control has demonstrated that lower self-control levels are associated with counterproductive work behaviors (Bolton et al. 2012). However, to achieve long-term changes in self-control and, therefore, work behaviors, recognizing the processes that will produce such changes is essential (Singleton et al. 2015).

The Interpersonal Circumplex Model

A model to guide all three personal leadership skills, self-knowledge, self-awareness, and self-control, is the interpersonal circumplex (IPC) model (Kiesler and Auerbach 2003). The IPC maps peoples' interpersonal behavior around two axes that indicate agency (dominant vs. submissive behavior) and communion (hostile vs. friendly behavior) (Redeker et al. 2012). Thus formulated, every form of interpersonal behavior is determined, on the one hand, by the degree of affiliation one bears to another in a relationship and, on the other hand, by the position of power one assumes towards the other. Such a circumplex model consists of categories of interpersonal behavior in relation to the communion axis and the agency axis. These categories are

- Directive and authoritarian behaviors are in the dominant-hostile quadrant.
- Distrustful and withdrawn behaviors are in the submissive-hostile quadrant.
- Inspiring and coaching behaviors are in the dominant-friendly quadrant.
- Participative and yielding behaviors are in the submissive-friendly quadrant (Gurtman 2009; Redeker et al. 2012).

The IPC model can be used as an outcome measure to map someone's interpersonal effectiveness and as a feedback instrument in an intervention to improve someone's interpersonal effectiveness or personal leadership skills.

Research guided by the IPC model investigated the combination of personality and interpersonal behavior of 587 staff nurses in general hospitals concerning burnout (Geuens et al. 2017). On average, nurses displayed a friendly-submissive

interpersonal behavior (between participative and yielding). In another study, Braspenning and Franck (2013) compared nursing and medical students in their first and last years of education. Although both groups displayed submissive-friendly behavior, nursing students' interpersonal behavior in their first and last years of education was significantly more submissive than that of medical students. Given that higher levels of burnout are associated with more submissive behavior (Geuens et al. 2017), nurses need to know where they are on the submissive-dominant spectrum. They must also work to be less submissive individually and collectively—a process that has to start during basic nursing education (Geuens et al. 2017).

In summary, individual healthcare professionals are influenced by many cultural perspectives, personal values, assumptions, beliefs, and disciplinary perspectives that will influence their work (Singleton et al. 2015). Without personal leadership—self-knowledge, self-awareness, and self-control—interactions between nurses and patients and within multidisciplinary healthcare teams will not reach its full potential. Healthcare organizations need to be aware and invest in the personal development of their healthcare practitioners. Nurse managers of today need to coach their team members to cope with the continuous changes in healthcare by highlighting the purpose of changes, making contact with nurses' intrinsic motivation, and investing in training for individual nurses to develop personal leadership skills. However, as part of the health administration team, nurse managers also need to push for changes at the system level to improve nurse outcomes.

Interventions: System

System interventions that improve NWEs and, in turn, improve nurse outcomes resulted from studies of Magnet hospital attributes. The original magnet research study performed in the early 1980s focused on what makes nurses want to work or stay in certain hospitals, hence the term magnet (McClure et al. 2002). Despite periodic nursing shortages, some hospitals could attract and retain nurses far better than other hospitals. This initial study scrutinized potential generalizable aspects that attract and retain nurses (Kramer and Schmalenberg 2002; McClure and Hinshaw 2002). Further, the link of magnet hospitals with care quality was set from the beginning (Kramer and Hafner 1989). Two concepts were born: the *Forces of Magnetism* translated in the American Nurses Credentialing Center (ANCC) Magnet Recognition® program (ANCC n.d.-a; Urden and Monarch 2002) and *the nurse work environment* or *practice environment*. The work environment is measured most often in the Practice Environment Scale of the Nursing Work Index Revised (PES-NWI) (Lake 2002), the Essentials of Magnetism II (EOMII) (Schmalenberg and Kramer 2008), and the Healthy Work Environments Assessment Tool (AACN 2016). See Chap. 4 for details on these three measures.

Magnet Recognition Program

In 1990, ANCC (n.d.-a) instituted the Magnet Recognition Program as an accreditation process, with 14 *Forces of Magnetism* and 5 *Magnet Model Components*. The five components are transformation leadership; structural empowerment; exemplary professional practice; empirical quality results; and new knowledge, innovation, and improvement. These five components are key for better NWEs, leading to better nurse and patient outcomes. The Magnet program requires resources that not all hospitals have, so in 2007, the Pathway to Excellence Program (PTE) was initiated (ANCC n.d.-b) to assure accessibility to an NWE recognition program for all hospitals, regardless of size. The PTE program will not be discussed in this chapter. See Chap. 4 for a more detailed description of the Magnet and Pathway to Excellence Recognition Programs.

Research indicates that Magnet hospitals are associated with lower levels of burnout and turnover and greater job satisfaction in nurses (Aiken et al. 2008; Kelly et al. 2012; Kutney-Lee et al. 2015), as well as higher nurse-reported care quality (Stimpfel et al. 2014). Other studies related to team processes and outcomes identified three Forces of Magnetism as primary priorities for team performance. The three priorities are (a) a flat organizational structure where team-based decision-making prevails, (b) strong inter-professional relations, and (c) supportive managers and leaders who guide processes of aligned goals within units and at all levels within the organization (Van Bogaert et al. 2014a; Wolf and Greenhouse 2006). These three primary forces were associated with responsive teams. Responsive teams can handle situations effectively, are supported by staff cohesiveness, have members who follow the rules, are focused on achieving goals, and are feeling trust and optimism. In contrast, reactive teams work in crisis mode, in small cliques, focusing on survival, often feeling paranoia, distrust, and pessimism. More responsive teams supported by the Forces of Magnetism are essential to creating a healthy and positive work environment with positive nurse outcomes. These teams can also improve care delivery, continuously focused on better patient outcomes.

The RN4CAST study demonstrated how hospital organizational features impacted nurse recruitment and retention, and patient outcomes (Sermeus et al. 2011). This study found that favorable ratings of the NWE and staffing were associated with patients' ratings of their hospital as excellent (Aiken et al. 2017). In other words, nurses' ratings of the NWE are linked with independently made patient assessments. In summary, it is well documented that system-level interventions can use the Magnet Model and Forces of Magnetism in the NWE to improve nurse and patient outcomes.

Example of Nurse Outcome Program of Research

In this section, the association of individual and system characteristics with nurse outcomes is discussed using several studies from the Van Bogaert and colleagues' research program (Van Bogaert and Clarke 2018a). The research is guided by the

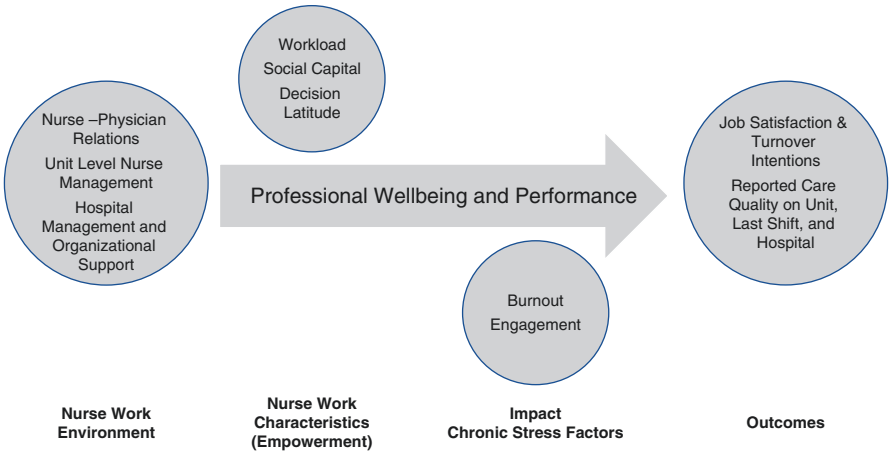

Fig. 13.2 Burnout and engagement model

Burnout and Engagement Model (Fig. 13.2). In the model, the NWE is measured using three dimensions of the Nursing Work Index-Revised Scale (Aiken and Patrician 2000): nurse-physician relations, nurse management at the unit level, and hospital management and organizational support. The work environment directly predicts empowerment and indirectly predicts burnout or engagement (Van Bogaert and Clarke 2018b; Van Bogaert et al. 2017b). Empowerment is described as nurse characteristics such as workload (or job demands), social capital (or experiences of peer support, shared values, and mutual trust), and decision latitude (or abilities to make decisions and the capacity to use and develop professional and personal skills). Also, NWE characteristics predict the nurse outcomes of job satisfaction and turnover intentions.

In the first study, strong direct predictors of all nurse outcomes are nurse management at the unit level and the nurse work characteristic, workload. Nurses experience outcomes personally and within teams, as shown by multilevel studies at the unit level (Van Bogaert et al. 2009, 2010, 2013, 2014a). In a second study, the identified associations were confirmed and extended in qualitative studies of staff nurses and nurse managers (Van Bogaert et al. 2017a). Nurses reported that they were concerned about the effect of high and prolonged job demands on care quality and patient safety. Moreover, respondents were concerned that they might overlook relevant patient signs and symptoms and neglect patients' mental and emotional needs. Further, both staff nurses and nurse managers reported staff nurses' feelings of sadness and querulousness.

These results of studies one and two were confirmed in a third study using a longitudinal design over 5 years. Findings were that unfavorably perceived hospital management and organizational support, along with unbalanced work characteristics such as unfavorable workload, social capital, and decision latitude, predicted higher burnout (Van Bogaert and Clarke 2018b). The study confirmed that poor nursing conditions were related to lower empowerment that, in turn, predicted high

levels of burnout and low levels of work engagement. Consequently, nurses experienced job dissatisfaction and turnover intentions and reported low quality of care (Van Bogaert and Clarke 2018b). These findings were confirmed in a fourth study that included physicians. Good staff outcomes and assessed quality of care were associated with balanced work characteristics such as favorably perceived workload, social capital, and decision latitude in both nursing and medical staff (Van Bogaert et al. 2018).

In the final study, staff in one hospital implemented a quality improvement (QI) project. The hospital had Magnet designation and thus had invested significantly in the NWE (Van Bogaert et al. 2014b, 2017a). The hospital implemented the Productive Ward: Releasing Time to Care™ program developed by the National Health Service in the United Kingdom, to eliminate waste in care processes and increase added value for patients by providing increased time for staff nurses to deliver care (White et al. 2014; Van Bogaert et al. 2014b). This large-scale quality improvement project was supported by hospital management and leadership, who were strong drivers in aligning healthcare teams' goals. The study found a favorable impact on healthcare staff's perceptions of social capital and decision latitude (Van Bogaert and Clarke 2018a; Van Bogaert et al. 2017b). The overall program of research suggests that balanced nurse work characteristics are essential and robust indicators for nurse outcomes and quality of care. Therefore, nurse work characteristics can be used to monitor and evaluate interventions and changes in organizations.

Implications and Future Directions

System characteristics (NWE), interventions, client (nurse) characteristics, and outcomes are linked at the individual, team, and organizational levels described in the QHOM. The relationships are supported by almost four decades of growing knowledge and insights. Current and future challenges are how to provide and sustain healthcare professionals' capacity, such as staff nurses and their teams to improve care delivery continuously focused on better patient outcomes.

Training about personal leadership skills in self-knowledge, self-awareness, and self-control may help individual nurses cope with the complex challenges in healthcare settings. Future research is needed to investigate further the relationships among purpose, emotions, self-control, and patient safety. Interventions from positive psychology seem promising in influencing personal resilience and enhancing self-control. However, it might be difficult to justify human resource development in light of practical and financial demands on the healthcare system. However, one cannot afford not to invest in individual skills and system-level interventions. The managerial challenges of integrating these principles into a departmental or organizational culture (or colloquially, making them part of a unit's, team's, or organization's shared mental models) are not to be underestimated. The existing organization or departmental culture may produce counterpressures to changing ways of working and thus the work environment. Therefore, the entire hospital management needs to

operate from a shared mental model to promote culture change that shifts the emphasis from individual performance to nonhierarchical teamwork to provide safer healthcare (Chap. 10).

Future challenges will be to create and sustain balanced work environments and work systems, focusing on stakeholders such as patients' and their family's needs, as well as healthcare practitioners and leadership needs, roles, and responsibilities. Work environments that are resilient to changes and demands focusing on developments and improvements are essential to creating a healthcare delivery system that provides high-quality care from nurses with high well-being.

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