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Research Article

EMOTIONAL INTELLIGENCE IN HEALTHCARE: A CRITICAL EXAMINATION OF NURSES' ABILITIES

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Abstract

Emotional Intelligence (EI) has gained recognition as a vital component of human cognition and behavior. Initially conceptualized by Salovey and Mayer in 1990, EI encompasses the capacity to accurately perceive and express emotions, as well as employ emotions for motivation, planning, and goal achievement. EI has established itself as an essential tool in various fields, such as education, psychology, and business, contributing to team cohesion, effective communication, leadership development, and productivity.

Over time, different models of EI have emerged, providing various perspectives on this construct. These models include the skills model, which views EI as a malleable cognitive ability, the personality model, which considers EI a stable facet of one's character, and the mixed model, which combines abilities and personality traits in defining EI. Some experts propose that EI, distinct from traditional cognitive intelligence (IQ), represents another form of cognition that integrates emotions and can significantly enhance academic or professional performance.

This paper explores the multifaceted nature of EI and its relevance in contemporary society. By investigating the different models of EI, it aims to contribute to a deeper understanding of the roles emotions play in human intelligence and behavior.

Keywords: Emotional Intelligence, Salovey and Mayer, skills model, personality model, mixed model, cognition.

1. Introduction

1.1 What is emotional intelligence?

Emotional intelligence (EI) was first conceptualized by Salovey and Mayer (Salovey & Mayer, 1990) in their seminal article. In it, they defined EI as the "ability to accurately appraise and express emotions in oneself and others and the use of feelings to motivate, plan and achieve in one's life," (Salovey & Mayer, 1990). Since then, the construct has repeatedly been reformulated and become well established in the popular culture (Smith, Profetto-McGrath, & Cummings, 2009). EI has been studied in the fields of education psychology and business, proving itself an essential tool for team building, improving interpersonal communication, leadership development and production efficacy (Smith et al., 2009).

Since the original definition by Salovey &Mayer (Salovey & Mayer, 1990), three models of EI have been developed. These models are the skills model, which defines EI as a cognitive ability that can change over time (JD Mayer, Caruso, & Salovey, 1999; JD.Mayer & Salovey, 1997), the personality model, which defines EI as a component of personality that is fixed over time (JD. Mayer, Salovey, & Caruso, 2004) and the mixed model, in which EI is defined as a combination of abilities and personality traits that can change (Bar-On, 2005; JD Mayer

et al., 1999). In addition, some authors have suggested that EI, while separate from traditional cognitive intelligence measured by the intelligence quotient (IQ), is another form of cognition that incorporates emotions and can augment academic or professional performance independently of IQ(Goleman, Boyatzis, & McKee, 2002).

As such, many researchers theorize that EI is a learned skill that can be fostered in leadership and managerial positions across different industries (Goleman et al., 2002). EI is generally subdivided into several categories, yet these subdivisions differ between models.

For example, some authors discuss the components of self-awareness, social awareness, relationship management and self-management (Goleman et al., 2002) while others divide EI into knowledge, understanding, adjustment and general intelligence (JD. Mayer & Salovey, 1997). Subsequently, EI has come under some controversy (Thomas & Natarajan, 2017) as there is no standardized definition across the EI literature. It has been critiqued as poorly defined, a repurposed idea whose importance in education and management are over exaggerated (Mathews, Emo, Roberts, & Zeidner, 2006).

Regardless, numerous instruments have been developed to measure EI. The different instruments generally adhere to one of the three major models, for example, the Bar-On Emotional Quotient Inventory (EQI) is based on the personality model, the Mayer-Salovey-Caruso EI test (MSCEIT) on the skills model while the Emotional Competence Inventory (ECI) measures the mixed model(JD. Mayer et al., 2004). As such there is not only a need for a critical evaluation of the definition of EI but the ability to standardize its measurement.

1.2 Importance in nursing

Nursing is by nature an emotionally charged profession, with nurses serving at the frontline of healthcare in the highly stressful situations of death and illness. Their training and work environment must prepare and encourage them to withstand this constant level of emotional stress in an effort to buffer against physical exhaustion and mental distress. Occupational burnout is defined as mental and physical fatigue and interpersonal alienation caused by chronic work stress that renders workers unable to maintain work functions (Chao, Shih, & Hsu, 2016). This is relevant to nursing as the literature indicates that the high demands of the job have increased the levels of burnout and turnover, creating a shortage of nursing staff across many countries(Hong & Lee, 2016; Karimi, Cheng, Bartram, Leggat, & Sarkeshik, 2015; Lawal & Idemudia, 2017).

EI can modify an individual's or team's conflict management styles (Chan, Sit, & Lau, 2014) and leadership styles, with some studies indicating EI is associated with more effective leadership. Furthermore, across several fields, EI is correlated with individual self-awareness, flexibility and the ability to express empathy, an important factor in high stress situations. As such, nurses with high levels of EI may theoretically improve outcomes for patients and interdisciplinary teams in the healthcare setting.

Healthcare organizations realize the value of team members and leaders with effective conflict management styles and a focus on collaboration. As such, there is interest that training in EI may increase transformational leadership,

an emergent leadership style that emphasizes a clear vision and inspiration to motivate transformation in subordinates(Hutchinson & Hurley, 2013; Tyczkowski et al., 2015).Therefore, EI may be of specific value in augmenting the efficacy of nurse leaders, a group that the Institute of Medicine (National Academy of Medicine) has determined to be in critical shortage (Gatson&Grindel, 2016).

As such, the aim of this study is to review the published literature to determine the evidence regarding the impact of EI on the nursing profession and nursing outcomes, as well as any limitations in the literature. In doing so, the goal of this literature review is to make recommendations regarding the future directions of research in EI.

2. Methodology

A literature review of abstracts and articles, written in English, and published between 2010 and 2017 was conducted using electronic databases and the following search terms: emotional intelligence (EI) AND nurses/nursing NOT nursing students. The scope was limited to peer-reviewed scholarly journal articles. Databases included CINAHL, Medline, PsycINFO, HealthSource, PubMed, and Cochrane Libraries. Dissertations, theoretical and qualitative studies were not included in this review. The original literature scope located 722 articles. Abstracts were screened with an overall goal of finding a group of articles which focused explicitly on EI in nursing leadership, EI in patient outcomes and hospital performance, EI in the workplace environment, and EI and nursing burnout. From these, 34 abstracts were identified, printed and read by the author.

3. Results

34 articles fit the inclusion criteria for the study relating to emotional intelligence in the nursing field. The research articles were primarily descriptive analyses, with 22 cross-sectional articles and three longitudinal articles. Three had experimental designs, and the remaining six were literature reviews or opinion pieces from experts in the nursing field. The studies represented multiple countries, with the majority from the United States of America (five) followed by Iran (three). There were two each from Australia, South Africa, Spain, Malaysia, China and Turkey and one each from South Korea, Nigeria, Taiwan and Romania.

The studies conceptualized EI according to all three available models (ability, personality, mixed) and used 13 different EI instruments, the most popular being the Wong-Law EI Scale (Wong & Law, 2002) and Schutte Self Report EI Test (Schutte et al., 1998), used by four studies each, and the Mayer-Salovey-Caruso EI test (J. D. Mayer, Salovey, & Caruso, 2000) and Bar-On Emotional Quotient Index (Bar-On, 2004) used in three studies each. In one study (Wallis & Kennedy, 2013), the authors created a new EI instrument.

Four major themes emerged from the literature review: EI and burnout (11 articles), EI and leadership (11 articles), EI and quality of care (eight articles) and EI and workplace environment (eight articles). Several articles investigated more than one theme.

3.1 EI and burnout

The first theme evaluated the role of EI in mitigating nurses' job stress and burnout. Multiple articles confirmed that EI helps protect nurses from job stress and burnout (Edward, Hercelinskyj, & Giandinoto, 2017; Gorgens-

Ekermans & Brand, 2012; Hong & Lee, 2016; Karimi, Cheng, Bartram, Leggat, & Sarkeshik, 2015; Kaur, Sambasivan, & Kumar, 2013; Nagel, Towell, Nel, & Foxall, 2016; Ng, Ke, & Raymond, 2014) and thereby may be beneficial in helping to address the prevalent nursing shortages in several countries by indirectly decreasing nursing turnover(Hong & Lee, 2016; Karimi et al., 2015). Research indicates that EI is positively associated with nurses' sense of overall well-being (Karimi et al., 2015), mental health (Ng et al., 2014) and personal accomplishment (Năstasă & Fărcaş, 2015). Research (Aradilla-Herrero, Tomas-Sabado, & Gomez-Benito, 2014) suggests that that level of stress and psychological distress increase with clinical experience, indicating that EI is vital throughout nurses' careers.

Studies further suggested that specific components of EI were more critical in decreasing burnout. Specifically, research identified other's emotional appraisal (the ability to understand and express one's own emotions), emotional management (the ability to effectively evaluate and manage positive and negative emotions in oneself and others) and emotional control (the ability to effectively control emotions) as important EI factors that moderate stress and burnout in nurses(Gorgens-Ekermans & Brand, 2012; Lawal & Idemudia, 2017).

Despite the overwhelming positive findings, the review identified some mixed effects. One study (Codier, Freitas, & Muneno, 2013) did not reveal any difference in nurse turnover after an intervention to increase EI. Interestingly, another study (Newton, Teo, Pick, Ho, & Thomas, 2016), revealed mixed-effects of EI, with some nurses with low EI buffered against psychological stress. For example, while EI helped to manage stress related to work overload, it did not buffer against stress related to a decreased workload or discord between nursing managers and subordinates.

3.2 EI and nursing education and leadership

The next theme evaluated the role of EI in nursing education and in improving the efficacy of nurse leaders. Currently, there are no standards for EI in nurse training or for employment as a nurse leader. As such, the average EI of nurses is unknown. Prufeta et al. evaluated the level of EI in nurse leaders in the Northeast United States and found a mean score (based on the MSCEIT) in the low average range, with 31% needing development or improvement (Prufeta, 2017). A study of novice critical nurses in Spain, however, found an average score that was in the higher range of normal (148.9 out of 210), with a range of 103(Nagel et al., 2016). Importantly, these scores were based on different EI instruments and evaluated nurses at various stages of their careers.

Accordingly, 62% of nurse managers (Tyczkowski et al., 2015) report no previous training in EI, despite other research indicating that EI is a teachable skill in nurses who receive training (Kahraman & Hicdurmaz, 2016). In addition to specific training in EI, increased years of nursing experience (Kahraman & Hicdurmaz, 2016; Prufeta, 2017) and graduate education in nursing (i.e., Master's degree) (Prufeta, 2017) are associated with higher levels of EI. Higher EI scores in nurse team leaders increased team proactivity by motivating the team towards action and supporting relationships amongst team members (Erkutlu & Chafra, 2012). Also, nurse leaders with higher

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EI scores were more likely to adopt a transformational leadership style (Hutchinson & Hurley, 2013; Tyczkowski et al., 2015).

3.3 EI and quality of care

Another theme identified was the role of EI in nursing quality of care, patient care and hospital productivity. As discussed above, nurses are at the frontline of healthcare delivery, therefore their work is related to the outcomes of healthcare delivery. Several studies showed that increased EI is associated with more caring behavior towards patients (Adams & Iseler, 2014; Kaur et al., 2013).

Codier et al., using an experimental design, showed that an EI intervention program increased nursing staff's documentation of patient emotional status(Codier et al., 2013). However, one study (Chao et al., 2016) was underpowered to determine if EI affected the quality of care provided by nurses (as assessed via a patient questionnaire). EI negatively correlated with alexithymia and death anxiety, two factors that are important in nurses' ability to empathize with patients and deal with the emotionality of caring for a dying patient (Aradilla-Herrero et al., 2014). Furthermore, Heydari et al. found that self-reported EI correlated with the self-reported competence levels of Iranian nurses in such tasks as ensuring quality care and coaching patients (Heydari, Kareshki, & Armat, 2016).

A single study directly correlated EI to patient outcomes. Adams et al. showed that increased EI in bedside nurses was associated with reduced patient falls, reduced infections and increased pressure ulcer screening in patients (Adams & Iseler, 2014). Interestingly, EI did not correlate with other quality indicators such as medication errors or hand hygiene. However, this study was limited by a low response rate of 31.7%.

3.4 EI and workplace environment

The final theme evaluated the role of EI in modifying the nursing workplace environment. Multiple research studies hypothesized that increasing EI in nurses would augment the workplace by identifying maladjusted interpersonal behaviors early, thereby increasing team collaboration and overall job satisfaction (Hutchinson & Hurley, 2013). This hypothesis is supported by literature which shows that incorporating EI into the leadership of an organization mitigates an established culture of bullying by focusing on optimism, compassion, and resilience in stressful workplaces (Hutchinson & Hurley, 2013). Providing EI training to individual employees is also beneficial in dissuading the use of bullying in the workplace (Bennett & Sawatzky, 2013). Zhu et al. noted that amongst 500 Chinese nurses, those with higher EI were more likely to have increased workplace engagement, in which there is a positive, fulfilling and pervasive work-related state characterized by vigor, dedication and absorption (Zhu, Liu, Guo, Zhao, & Lou, 2015).

It is vital to understand that EI does not act in isolation in the nursing workplace environment. Rather, it requires an environment which cultivates team building and collaboration. For example, Tofighi et al. (Tofighi, Tirgari, Fooladvandi, Rasouli, & Jalali, 2015) noted that the four components of EI (awareness of the self, awareness of others, management of self and management of relationships with others) (Goleman et al., 2002) work together

to increase employee behavior geared towards organizational benefit, without a desire for compensation. Zhu et al. noted that EI, when found in a work environment that prioritizes fairness, increases nurses' engagement in the workplace (Zhu et al., 2015). In addition, nurse managers with higher EI had more success in teambuilding in hospitals which focused on collaborative problems solving compared to those that did not (Ng et al., 2014; Wallis & Kennedy, 2013; Zhu et al., 2015).

4. Discussion

There is an increasing number of research studies evaluating the role of EI in the nursing profession. This literature review revealed EI to be beneficial across the four themes identified (namely burnout, leadership, quality of care and work environment) and corroborates prior evidence (Guleryuz, Guney, Aydin, & Asan, 2008) that increasing EI is associated with reduced stress and burnout in nurses. As such, EI may be a useful tool for nurses who face job stress secondary to unchangeable organizational factors (i.e., budget cuts or nurse shortages) (Gorgens-Ekermans & Brand, 2012). Interestingly, one study revealed a mixed effect of EI, with nurses with low EI buffered against psychological stress, especially when faced with interpersonal conflict or a decreased workload (Newton et al., 2016). The authors' hypothesis regarding this phenomenon was that nurses with low EI scores may not feel frustration from low workloads or may not be emotionally aware enough to identify lingering tension associated with conflict with managerial supervisors.

The Institute of Medicine has issued a call to action to the nursing profession to enhance leadership that improves patient care and safety (Gatson Grindel, 2016). This is a reaction to the concern that many nurses lack the necessary skills for leadership (Gatson Grindel, 2016; Tyczkowski et al., 2015). While Nagel et al. (Nagel et al., 2016) found a high EI score in critical nurses, the low average score found by others (Prufeta, 2017) is confirmed by prior research indicating that as many as 53% of nurses need development or improvement in their EI skills (Hoar, 2011). This review supports the hypothesis that EI is a necessary criterion for nurse leadership. Our findings further support the use of formal EI training for new nurses as well as current and future nurse leaders (Kahraman & Hicdurmaz, 2016; Prufeta, 2017) and also to use EI as a factor in the hiring process for nurses (Nagel et al., 2016).

The nursing workplace is a highly stressful environment, with many nurses managing the emotional events surrounding death and illness in their patients. In such stressful situations, interpersonal relationships can be affected. There has been increasing concern about aggression in healthcare settings directed at nurses, primarily from colleagues and supervisors, with prior research showing as many as 70% of nurse affected (Bennett & Sawatzky, 2013; Hutchinson & Hurley, 2013). The findings of this literature review support research indicating that EI helps nurses build successful interpersonal relationships, obtain support from others (Erkutlu & Chafra, 2012) and manage workplace stress (Bennett & Sawatzky, 2013). EI is hypothesized to improve the workplace by allowing individual nurses to interpret workplace events accurately, decreasing misunderstanding as well as regulating their own emotions, so they do not overestimate any unjust proceedings (Zhu et al., 2015). Regardless,

EI does not operate in a vacuum, but interacts in a bidirectional manner with the environment. For example, multiple authors identified organizational factors including organizational infrastructure, organizational justice and relationships with nurse leaders (Cheng, Huang, Lee, & Ren, 2012; Lawal & Idemudia, 2017) as impacting nurses' EI.

While prior research suggests that EI in nurses is associated with increased caring behaviors and psychological support towards patients (Adams & Iseler, 2014; Codier et al., 2013; Kaur et al., 2013; Thomas & Natarajan, 2017), there is mixed evidence regarding the association between EI and quality of care and patient outcomes (Chao et al., 2016; Codier et al., 2013). Few studies (Adams & Iseler, 2014) directly correlated EI with essential patient outcomes such as injury and infection rates. Rather, the majority evaluated patient satisfaction, a subjective measurement which is not necessarily an adequate substitute for patient outcomes. As such, more research is needed to directly correlate EI with clinical outcomes in patients.

One limitation of this literature review relates to the wide range of definitions used to conceptualize EI. Thirteen different instruments were used to measure EI, with one study developing a novel EI instrument (Wallis & Kennedy, 2013). The lack of standardization leads to concerns regarding the reproducibility of EI measurements across the studies. It may be beneficial in future research to determine a uniform model and measurement for evaluating EI within nursing. While one study suggested that the Trait Meta Model Scale was a useful model for assessing the training needs and evaluation of general nurses (Giménez-Espert & Prado-Gascó, 2017) this finding is not universally accepted. In addition, the majority of included studies were cross-sectional in nature, limiting the ability to determine the longitudinal influence on EI on the nurses and nurse leaders. Few studies were experimental in nature, restricting the ability to establish causal relationships between EI and the different areas of nursing.

5. Conclusion

Our findings indicate that EI positively affects four domains in the field of nursing, specifically, burnout, nursing leadership and education, quality of care and the workplace environment. Still, a more standardized approach to defining and measuring EI is needed, as are rigorously designed longitudinal and experimental studies to evaluate the long-term and causal influence of EI on nurses and the healthcare system. In addition, EI should be incorporated into the training of nurses and future nurse leaders to improve the quality of nursing care.

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