

## Review

## Emotional intelligence and nursing: An integrative literature review

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## ABSTRACT

**Aim:** The purpose of this paper is to present findings of an integrative literature review related to emotional intelligence (EI) and nursing.**Background:** A large body of knowledge related to EI exists outside nursing. EI theory and research within nursing is a more recent phenomenon. A broad understanding of the nature and direction of theory and research related to EI is crucial to building knowledge within this field of inquiry.**Method:** A broad search of computerized databases focusing on articles published in English during 1995–2007 was completed. Extensive screening sought to determine current literature themes and empirical research evidence completed in nursing focused specifically on emotional intelligence.**Results:** 39 articles are included in this integrative literature review (theoretical,  $n = 21$ ; editorial,  $n = 5$ ; opinion,  $n = 4$  and empirical,  $n = 9$ ). The literature focuses on EI and nursing education, EI and nursing practice, EI and clinical decision-making, and EI and clinical leadership. Research that links EI and nursing are mostly correlation designs using small sample sizes.**Conclusion:** This literature reveals widespread support of EI concepts in nursing. Theoretical and editorial literature confirms EI concepts are central to nursing practice. EI needs to be explicit within nursing education as EI might impact the quality of student learning, ethical decision-making, critical thinking, evidence and knowledge use in practice. Emotionally intelligent leaders influence employee retention, quality of patient care and patient outcomes. EI research in nursing requires development and careful consideration of criticisms related to EI outside nursing is recommended.

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**What is already known about this topic:**

- Emotion is fundamental to nursing practice.
- Emotional intelligence research is growing

- There is a call within nursing scholarship to explore the influence of emotion within caring relationships, health and healing and organizational contexts.

**What this paper adds:**

- This review discovered specific areas of interest within nursing literature related to emotional intelligence and nursing practice

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- This review located significant gaps in knowledge related to emotional intelligence and nursing education, practice and leadership;
- This review questions a lack of scepticism about emotional intelligence theory within nursing literature

Emotion is fundamental to nursing practice. As front-line healthcare workers, nurses form and maintain relationships within emotionally charged environments where emotion is central to the fabric of health care delivery. Clinical decisions, intrinsically bound by professional ethics and codes of practice, occur in changeable and chaotic environments. Emotions influence professional relationships, impact patient care decisions and affect healthcare workers at an intrapersonal level.

Across academic disciplines, there is strong acknowledgement that understanding the impact of emotion is essential (Mark, 2005). In healthcare, there is a call to understand the nuances of emotion and its influence in organizational work and healthcare leadership (George, 2000; Mann, 2005; Mark, 2005). Healthcare scholars have questioned the boundaries between emotion and work, specifically the personal costs of caring, paradoxical dilemmas of market-driven healthcare, increased workloads, growing demands for mandated emotion work and the effect of emotion on the health of care-providers (Bone, 2002; Brunton, 2005; Obholzer, 2005; Waddington and Fletcher, 2005).

While healthcare academics search to identify the impact of emotions on individuals and their environments, emotional intelligence researchers and theorists seek knowledge about what it means to use emotions well. An underlying assumption within emotional intelligence theories is that using emotions in thinking and decision-making can be a form of intelligence. This view assumes that joining emotions and cognition, when done well, facilitates decisions, manages emotions, improves relationships, and ultimately results in more intelligent decisions (George, 2000; Mayer and Salovey, 1997).

Emotional intelligence theory and research has appeared in the psychology and business literature for over 15 years but discussions related to emotional intelligence in nursing are more recent. Even though emotional intelligence theory is controversial (Matthews et al., 2002), nursing literature focused on emotional intelligence shows considerable enthusiasm and growth. Emotional intelligence has been criticized for being poorly defined, not measurable and overblown in terms of importance. While enthusiasm about emotional intelligence grows, some writers caution that embracing emotional intelligence concepts uncritically may be premature (Freshwater and Stickley, 2004; Vitello-Ciccio, 2002).

The purpose of this paper is to report on the state of knowledge in nursing related to the concept of emotional intelligence. This integrative review was guided by the following questions: What is the state of knowledge development related to emotional intelligence and nursing? What does the literature reveal about the nature and direction of inquiry related to emotional intelligence and nursing? What are the knowledge gaps that can be

identified in relation to emotional intelligence and nursing? Following a brief background of emotional intelligence theories, we present an integrative review of the literature related to emotional intelligence and nursing published in peer-reviewed journals between 1995 and 2007. We present recommendations for further research based on an analysis of the current state of knowledge related to emotional intelligence and nursing.

## 1. Background

Emotional intelligence was originally conceptualized by Salovey and Mayer (1990), however emotional intelligence was made popular outside academia by Daniel Goleman. In 1995, psychologist and journalist Daniel Goleman published *Emotional Intelligence* and Goleman's book became an instant best-seller. Emotional intelligence became a well-known phrase in popular media circles (Matthews et al., 2002). Subsequently, emotional intelligence was adopted by big businesses that espoused emotional intelligence as a leadership mantra. Since 1995, Goleman published *Working with Emotional Intelligence* (1998), *Primal Leadership* and *Social Intelligence* (2006) and numerous scholarly articles related to emotional intelligence.

Emotional intelligence has been heavily researched and highly criticized. Two significant events mark the popular emergence of emotional intelligence as a construct worthy of scholarly investigation. In 1990, Salovey and Mayer published *Emotional Intelligence* in the academic journal *Imagination, Cognition and Personality* and later Goleman's 1995 book *Emotional Intelligence* was spotlighted in *Time Magazine* (Furnham, 2006). Within academia, psychology, education and business research focusing on emotional intelligence has grown dramatically. Outside academic circles, emotional intelligence concepts have blossomed into entrepreneurial enterprises. Reuven Bar-On, Daniel Goleman, John Mayer and Peter Salovey are emotional intelligence consultants who promote their ideas through paid presentations and training sessions. These theorists sell their emotional intelligence measurement tools to business, education and healthcare institutions and researchers on a worldwide basis (Consortium for Emotional Intelligence Research in Organizations, 2008).

## 2. What is emotional intelligence?

Emotional intelligence theory has evolved from definitions of intelligence. Historically, understanding the nature of intelligence and emotion has been difficult. Definitions of intelligence vary and include behaviours associated with information processing, experiential learning, environmental adaptation, thought and reasoning patterns (American Psychological Association [APA], 2007; Matthews et al., 2002). Emotions are complex reaction patterns involving behavioural and physiological elements to personally significant events (APA, 2007; Barrett and Salovey, 2002; Nussbaum, 2002). Intelligence and emotions have been investigated as components of mental operations and as physiological and behavioural response patterns within environments. However, investigations

into the nature of intelligence and emotions have not resulted in a clear conceptualization of either concept (Barrett and Salovey, 2002).

Although many theories have been proposed about emotional intelligence, three theories have clearly influenced scholarship. Reuven Bar-On, Daniel Goleman, and the team of John Mayer and Peter Salovey have significantly contributed to emotional intelligence knowledge and research. Each of these theorists' conceptualization of emotional intelligence has guided their research direction in relation to emotional intelligence. Emotional intelligence has been defined as an ability (Mayer and Salovey, 1997), a set of traits and abilities (Bar-On, 2005) or a combination of skills and personal competencies (Goleman, 1998).

An ability is the capacity to perform physical and mental acts and abilities may be innate or acquired through education or practice (APA, 2007). Mayer and Salovey (1997) define emotional intelligence as the ability to perceive, appraise and express emotion, access and process emotional information, generate feelings, understand emotional knowledge and regulate emotions for emotional and intellectual growth (p. 10). These researchers propose that the brain has a separate processing system for dealing with emotional information—one that detects, considers, processes and regulates emotion within the over-all thinking process. Mayer and Salovey assert that having emotional intelligence depends on the ability to process emotional information and to use core abilities related to emotions (Emmerling and Goleman, 2003, 2005; Mayer et al., 2000). Mayer and colleagues built a four-branch model of emotional intelligence and developed tools to measure emotional intelligence abilities related to emotional processing. In Mayer and Salovey's view, emotional intelligence, like academic intelligence, can be learned, increases with age, and is predictive of how emotional processing contributes to success in life (Mayer and Salovey, 1993, 1997; Mayer et al., 2004).

Bar-On (2005) conceptualizes emotional intelligence as a set of personality traits and abilities that predict emotional and social adaptation within environments. Traits are enduring personality characteristics that describe individual behaviours across a range of situations (APA, 2007). Bar-On (2005) defines emotional-social intelligence (ESI) as a "...cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others, relate with them, and cope with daily demands..." (p. 3). Bar-On acknowledges that environmental adaptation theories have influenced the development of the ESI conceptual model which describes skills, abilities and facilitators of emotional-social intelligence. Bar-On (2005) asserts that the following five key competencies are associated with ESI: interpersonal skills, intrapersonal skills, adaptability, stress management and general mood. Bar-On measures emotional-social intelligence within different groups utilizing the Emotional Quotient Inventory (EQ-*i* tools) based on abilities associated with the five key competencies. Bar-On (2005, 2008) affirms that emotional-social competence is a predictor of (success in) human perfor-

mance and emotional-social intelligence is "teachable and learnable" (Bar-On, 2005, p. 18).

Goleman (1998, 2005) sees emotional intelligence as a set of learned skills and competencies. Goleman's conceptualization of emotional intelligence is the most widely known outside academia. Goleman (1998) wrote that human minds have emotional and rational components that lead to responses and decisions and emotional responses are "...quick but sloppy..." (p. 291). Emotional responses, in his view, need to be tempered by rationality. Goleman (1998) explains that emotional intelligence "...refers to the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships..." (p. 317). Goleman (1998) views emotional intelligence as separate from cognitive intelligence (measured by IQ tests) and complementary to academic intelligence (measured by academic performance) (p. 317).

Goleman et al. (2002) views emotional intelligence as the goal of emotional self-work (Mayer et al., 2000). According to Goleman, emotional competency makes an individual emotionally intelligent (Emmerling and Goleman, 2003, 2005). Goleman's ideas have developed into leadership models that outline skills and competencies related to emotionally competent leadership (Emmerling and Goleman, 2003, 2005). Goleman and colleagues have developed tools to measure emotional competencies that they claim are predictive of emotional competency in the workplace.

### 2.1. Emotional intelligence: criticism

Debate about emotional intelligence is rampant within academic literature and emotional intelligence has been called "...old wine in new bottles..." (Matthews et al., 2002, p. 515). The following three key criticisms limit scientific knowledge development related to emotional intelligence: emotional intelligence is poorly defined and measured, emotional intelligence is an old idea for constructs previously identified and measured, and the importance of emotional intelligence is exaggerated and not supported by research (Matthews et al., 2006; Murphy and Sideman, 2006a; Murphy, 2006). While a complete review of criticism and support related to emotional intelligence is beyond the scope of this paper, acknowledging the importance of these views is vital to developing science related to emotional intelligence in nursing.

A central issue within debates about emotional intelligence relates to questions about whether emotional intelligence is separate from or part of general intelligence. Matthews et al. (2002) write that from a research perspective, the construct known as emotional intelligence is simply too broad to be scientifically investigated. Spector and Johnson (2006) wonder if emotional intelligence is an umbrella term that includes multiple layers and aspects of personality, coping ability and empathy.

The answer to the question "what is emotional intelligence?" seems to depend on which theory is adopted. A convergent definition of emotional intelligence does not exist. Currently, a lack of consensus about the meaning of emotional intelligence and subsequent

measurement differences used by researchers, results in fractured, inconsistent findings which weaken emotional intelligence science (Matthews et al., 2002; Murphy, 2006; Murphy and Sideman, 2006b). Since no clear definition of emotional intelligence exists, emotional intelligence research is criticized as being useless in terms of predicting or explaining behaviour. The boundaries between emotional intelligence as a construct and other constructs related to personality and general intelligence have not been established and emotional intelligence has not been depicted as unique (Matthews et al., 2002; Murphy and Sideman, 2006b).

The most controversial and unsubstantiated assertions made about the importance of emotional intelligence include: emotional intelligence is more important than IQ (Goleman, 1998); emotional intelligence is not strongly related to race, class, education or socio-economic status (Goleman, 2005); persons with emotional intelligence are more adaptable to stressful environments (Bar-On, 2005) and most people can develop emotional intelligence (Mayer and Salovey, 1997). These assertions have been criticized as exaggerated, unproven and unconvincing (Fineman, 2000; Jordan et al., 2006; Spector and Johnson, 2006). Ashkanasy and Daus (2005) clearly support Mayer and Salovey's conceptualization of emotional intelligence. These scholars refute critics who argue that emotional intelligence is poorly defined and measured and assert that emotional intelligence research should focus on the direct study of emotions, individual differences in relation to emotion and the subsequent impact of emotions on organizational settings. Ashkanasy and Daus argue that some researchers have incorrectly aligned emotional intelligence research with definitions of social intelligence. Defining and understanding emotional intelligence is relatively new and there is compelling research evidence from studies related to the impact of emotions on organizational settings (Daus and Ashkanasy, 2005). The authors contend that future research related to emotional intelligence needs to align with recent advances into studies of emotion, not broader concepts related to intelligence.

## 2.2. Published literature reviews related to emotional intelligence and nursing

We located two published literature reviews related to emotional intelligence and nursing. The first review, conducted by McQueen (2004), discusses literature related to emotional intelligence and emotional labor and considers the value of these constructs to nursing. McQueen's review focuses on understanding the relationship between emotional intelligence, patient care and staff welfare but does not review emotional intelligence management literature. The second review, completed by Akerjordet and Severinsson (2007), evaluates and discusses emotional intelligence research and focuses on the epistemological and empirical perspectives related to emotional intelligence. While their search was not limited to nursing, these authors analyze findings and relate ideas to professional nursing practice. Akerjordet and Severinsson assert that emotional intelligence research in nursing is scarce and

different approaches to studying emotional intelligence are needed. The findings of these two studies were considered within this review.

This integrative review builds on the work of both cited literature reviews. We seek to add knowledge to the field of emotional intelligence and nursing by completing a broad sweep of the literature focused directly on nursing and emotional intelligence. This literature review differs from Akerjordet and Severinsson's (2007) review by focusing specifically on literature related to nursing and emotional intelligence and also differs from McQueen's review as it includes literature related to nursing leadership and emotional intelligence.

## 3. Method

### 3.1. Data sources

Step one was a broad scope of the literature using electronic databases and these search terms: emotional intelligence AND healthcare, emotional intelligence AND nursing, emotional intelligence AND leadership, emotional intelligence AND research, nursing and leadership and nursing and research. The scope was limited to peer-reviewed journal articles published in English between 1995 and 2007. Databases included Medline, Health Star, Ovid Medline, Embase, CINAHL/EBSCO, Healthsource/EBSCO, Eric, ProQuest, Business and PsychInfo. Dissertations abstracts were included in the initial literature scope ( $n = 11$  located) but are not included in this review which focuses on published papers. Grey literature (conference proceedings) were not scoped as some authors indicate searching grey literature requires exhaustive investment of time, yields very little relevant material and is not often considered relevant by researchers (Scott-Findlay and Estabrooks, 2006).

### 3.2. Inclusion and exclusion

Articles were screened with an overall goal of finding a group of articles that focused specifically on emotional intelligence and nursing. Editorial, opinion, theoretical and qualitative and quantitative studies were included in this review. Articles had to be published in English between 1995 and 2007 and focus *specifically* on emotional intelligence and nursing education, nursing practice or nursing leadership. Articles were excluded if they did not focus on nursing and emotional intelligence, if there was no mention of emotional intelligence theory or theorists, if the research design was unclear or of poor quality, if the argument presented was not well reasoned or clear or if the article focused on leadership in healthcare generally instead of nursing specifically (Fig. 1 and Table 1).

### 3.3. Screening

A three-step screening process was used to obtain the final sample of articles. Step one was a broad search of the literature to identify abstracts that met the inclusion criteria. Titles and abstracts were printed, duplicates were eliminated and the remaining abstracts were screened

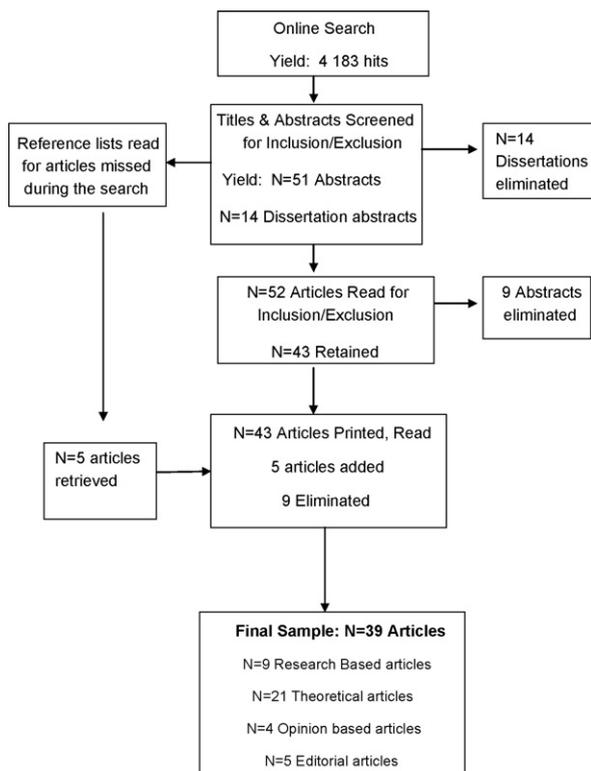


Figure 1. Search strategy.

using the inclusion/exclusion criteria. Full articles from the retained abstracts were printed and read carefully to further establish if they met the inclusion/exclusion criteria. The articles' reference lists were perused to identify additional articles of interest (Table 1).

Table 1  
Example of integrative review on the concept of integration (Whittemore and Knaf, 2005).

Stage of review	Illustration of decisions and issues
Problem identification	Theoretical and empirical work in the past decade related to the concept of integration suggested that integration was an important aspect of healing and living with a chronic illness. However, it was unclear what the similarities were across empirical and theoretical reports and whether the process of integration was similar across health-related issues. Greater understanding of the concept of integration was proposed as a possibly effective way to identify stages of healing responsive to nursing interventions. Therefore, the purpose of this integrative review was to analyze the concept of integration as related to health and illness.
Literature search	Having a specific focus on the experience of integration as related to health, illness, or nursing care facilitated the literature search stage. After using integration as a keyword in the CINAHL database, reports were initially excluded if integration was discussed in terms of health care systems (integrating a new policy in the workplace) or health care education (integrating theory and research into practice). By focusing the review, potentially relevant sources identified were reduced from 3982 to less than 200 reports.
Data evaluation	The final sample for this integrative review included empirical and theoretical reports. Empirical reports included a wide variety of methods: case study, cross-sectional, grounded theory, phenomenology, and instrument development designs. Due to this diverse representation of primary sources, reports were coded according to two criteria relevant to this review: methodological or theoretical rigor and data relevance on a 2-point scale (high or low). No report was excluded based on this data evaluation rating system; however, the score was included as a variable in the data analysis stage. In general, reports of low rigor and relevance contributed less to the analytic process.
Data analysis	Data were extracted from primary sources on sample characteristics and method (if empirical) as well as any reference to the concept of integration. Categories that were extracted included the definition of integration, aspects of the process of integration, antecedents, consequences, and facilitators of integration. Related terms were identified in addition to proposed relationships of integration to other variables. Data display matrices were developed to display all of the coded data from each report by category and were iteratively compared. As data were conceptualized at higher levels of abstraction, each primary source was reviewed to verify that the new conceptualization was congruent with primary sources.
Presentation	A synthesis in the form of a model was developed to comprehensively portray the process of integration.

### 3.4. Data analysis

Authors concur that a gold standard for completing integrative review data analysis does not exist (Conn et al., 2003; Kirkevold, 1997; Whittemore and Knaf, 2005). The goal of this data analysis was to determine the state of knowledge related to emotional intelligence and nursing within this sample. To accomplish this goal we sought to determine patterns, directions, similarities and differences among the articles within the sample. Using a framework developed by Whittemore and Knaf (2005) as a guide, retained articles were read three times to determine the quality of the writing, to reduce and compare data within the articles and to analyze and synthesize themes and patterns within the literature sample (pp. 550–551).

The quality of each group of articles (theoretical/editorial/opinion/research based) was assessed using screening assessment tools adapted by the authors for this review. We determined the quality of the opinion/editorial articles by evaluating the focus and reasoning of authors in relation to emotional intelligence theories and nursing. Quality of the theoretical articles was determined by the description of emotional intelligence theory, mention of emotional intelligence in relation to nursing, and by the quality of the article's writing in relation to scholarship. Scholarship determination was guided by Kitson's (1999) description of scholarship defined as the ability to communicate ideas effectively and clearly in an unbiased way (p. 773). Research articles' quality was based on design, sample characteristics, measurement, statistical analysis and relevance to knowledge development (Kirkevold, 1997; Whittemore and Knaf, 2005; Whittemore, 2005).

Data from the final group of articles were reduced to a manageable comprehensive form as follows. Editorial/opinion and theoretical articles were summarized in

writing, and then synthesized and coded by theme to reduce data and establish patterns and themes in a comprehensive and systematic manner. Empirically based articles were read, coded, summarized and synthesized to determine types of research studies completed to date. Theoretical, opinion and editorial articles were read for themes and ideas and were then categorized and synthesized to determine patterns among the group. The entire sample was then critically analyzed to gain an understanding of the state of overall knowledge in relation to emotional intelligence and nursing (Cooper, 1989; Kirkevold, 1997; Whittemore and Knaf, 2005).

## 4. Results

### 4.1. Search results

The original literature scope located 4183 abstracts. From these 51 abstracts and 14 dissertation abstracts were identified, printed and read by the author. Fifty-two (52) articles were screened for inclusion/exclusion criteria, 5 articles were added after reviewing references from the 52 articles, and 9 articles were subsequently eliminated for a final total of 39 articles. Thirty nine (39) articles were retained for this review including 4 opinions, 5 editorial, 21 theoretical, and 9 research based articles (Table 2).

#### 4.1.1. Emotional intelligence and the nature of nursing

Themes in this literature align within the following three areas: emotional intelligence and the nature of nursing, emotional intelligence and nursing education, and emotional intelligence and nursing leadership. The first major theme related to emotional intelligence and the nature of nursing proposes that the nature of nursing obliges nurses to be emotionally intelligent. This assertion is based on a claim that nurses provide care through human relationships and therefore, nurses are responsible for contributing to these relationships and the emotions within them. Central to this premise is the assertion that understanding and dealing with emotion is a core nursing skill (Freshwater, 2004; Freshwater and Stickley, 2004; McQueen, 2004).

Several authors affirm that understanding and recognizing emotion is a high-order nursing practice skill based on the notion that emotional intelligence is vital to practice. This assertion is focused on an assumption that understanding, detecting and conveying emotion is pivotal to a profession that requires sensitivity within relationships (Bellack, 1999; Bellack et al., 2001; Chabeli, 2006; Freshwater and Stickley, 2004; Gooch, 2006; Kerfoot, 1996; McQueen, 2004; Reeves, 2005; Strickland, 2000; Wasyiko and Stickley, 2003). Further, nursing values holistic nursing care which requires depth of emotional involvement within relationships (Bellack, 1999; Freshwater, 2004; Freshwater and Stickley, 2004; MacCulloch, 1999; McQueen, 2004). Emotions are perceived as vital to genuine, authentic, and compassionate relationships and therefore understanding emotion is a professional requirement of competent nursing practice (Bellack, 1999; Freshwater, 2004; McQueen, 2004).

**Table 2**  
Characteristics of 9 research studies.

First Author, Year, Journal Name, Volume	Country	Subjects	Setting	Study design	Unit of analysis	Theoretical influences
Akerjordet et al. (2004), <i>International Journal of Mental Health Nursing</i> , 13	Norway	N = 7 Mental Health Nurses	Nurses working in general psychiatry	Qualitative (Interviews)	Individual Nurses	Mayer and Salovey, Goleman
Carson et al. (2005), <i>The Health Care Manager</i> , 24	U.S.A	N = 152 RNs, Managers, CNAs, Techs, Unit Clerks	Rural US hospital	Correlational (Self-Report Questionnaires)	Individuals within sample	Goleman
Cummings (2004), <i>Canadian Journal of Nursing Research</i> , 17	Canada	N = 6526 RNs	RNs Acute Care within Alberta, Canada	Correlational (Surveys)	Individual RNs	Goleman, Boyatzis and McKee
Cummings et al. (2005), <i>Nursing Research</i> , 54	Canada	N = 6526 RNs	RNs Acute Care within Alberta, Canada	Correlational (Survey)	Individual RNs	Goleman, Boyatzis and McKee
Certis et al. (2004), <i>Mental Retardation</i> , 42	Holland	N = 380 RNs	RNs working in 56 Residential facilities	Correlational (Questionnaires)	Individual RNs	Bar-On
Kooker et al. (2007), <i>Journal of Professional Nursing</i> , 23	U.S.A.	N = 16 RNs	RNs working in acute, rural & urban settings	Qualitative (story analysis)	Individual RNs' stories	Goleman
Montes-Berges et al. (2007), <i>Journal of Psychiatric &amp; Mental Health Nursing</i> , 14	Spain	N = 119 Nursing Students	Undergraduate first year nursing students	Correlational (Questionnaires)	Individual Nursing Students	Salovey and Mayer
Rochester et al. (2004), <i>Nurse Education Today</i> , 25	Australia	N = 17 RNs	RNs in first 2-6 post graduation identified as "high career performers"	Correlational (Qualitative data + questionnaires)	Individual RNs	Goleman
Willard (2006), <i>Journal of the Association of Nurses in AIDS care</i> , 17	U.S.A.	N = 82 HIV positive adults	HIV positive patients/inner city clinic	Correlational (Interviews, MSCEIT measured)	Patients	Mayer and Salovey, Goleman

Some authors link emotional intelligence to important areas of practice such as clinical decision-making (Chabeli, 2006), collegial relationships (Pedersen et al., 2003; Cummings et al., 2005), clinical environment, knowledge utilization (Edgar et al., 2006) and inter-professional relationships at multiple levels (Carson et al., 2005; Cummings et al., 2005). The impact and consideration of emotion, viewed as an essential component of critical decisions and the notion that emotional intelligence is therefore central to quality clinical decision-making, resonates throughout this literature. Nurses make high-level critical decisions utilizing a broad base of nursing knowledge that directly impact patient care (Facione and Facione, 1996). Emotions serve as key indicators of moral dimensions within a decision and the implication is that emotions might contextualize decision-making and lead to more empathetic, patient-focused decisions (Freshwater and Stickley, 2004; Evans and Allen, 2002; Gooch, 2006). There is speculation that emotion might also be a powerful motivator for quality decision-making and considering emotion may propel decision-makers to expand and reconsider their reasoning and therefore think critically (Akerjordet and Severinsson, 2007; Chabeli, 2006; Rochester et al., 2005). While this assertion is speculation at this point, research from this literature sample shows that nurses use, consider and analyze emotional information extensively when they make practice decisions (Akerjordet and Severinsson, 2004; Kooker et al., 2007).

Carper (2004) wrote that nursing is composed of four patterns of knowing: empirics (the science of nursing), aesthetics (the art of nursing), personal knowledge and ethics (moral knowledge). Some authors offer that emotional intelligence is a core component of the art of nursing (Freshwater and Stickley, 2004; McQueen, 2004). Emotional knowing affects collegial relationships, healthcare environments and patient care and therefore, emotional intelligence is a requirement of nursing practice (Freshwater and Stickley, 2004). Authors propose that nurses feel a professional obligation to emotionally engage with patients, families and colleagues and this engagement is often stressful (McQueen, 2004; Muller-Smith, 1999). Nurses work in interdisciplinary teams where emotions cross over into work environments when information is shared. Akerjordet and Severinsson (2007) assert that [developing] emotional intelligence has significant implications for nurses' quality of work within healthcare environments. Preliminary research indicates that emotional intelligence skill may moderate the impact of chaotic work environments (Cummings et al., 2005; Montes-Berges and Augusto, 2007; Rochester et al., 2005). Some research supports theories that suggest a relationship between emotional self-management and the personal ability to manage stress in chaotic environments (Bar-On, 2005; Gertis et al., 2004; Montes-Berges and Augusto, 2007).

#### 4.1.2. Nursing education

There is strong support within this literature for explicit inclusion of emotional intelligence concepts within nursing education curricula. Three sub-themes emerged that relate to the nature of nursing practice and the need to

prepare students for emotional competence for effective nursing practice. These themes are: (a) students need to understand the emotional nature of nursing to be prepared for practice; (b) students need emotional skills to deliver competent nursing care; and (c) students need emotional intelligence competencies to effectively deal with chaotic working environments.

Freshwater and Stickley (2004) assert that emotional intelligence competencies should be made explicit for students within curricula as nursing practice is more than physical tasks. Several authors argue that nursing is an emotional experience involving emotional knowledge and competencies and students need to be educated about the emotional reality of practice (Bellack, 1999; Kerfoot, 1996; MacCulloch, 1999). Further, Freshwater and Stickley (2004) caution that paying lip-service to communication skills as a primer for emotional intelligence is inadequate for students:

An education that ignores the value and development of the emotions is one that denies the very heart of the art of nursing practice. By focusing entirely on the rational, we are in danger of producing unbalanced practitioners. When teachers pay little or no attention to emotional development, they fail to communicate with students the significance of human relationships ... communication skills become another intervention ... [and students are] denied the opportunity of fully developing intellectually ... (p. 93).

As novice practitioners, students develop an understanding about the nature of nursing practice and begin to develop a nursing identity. Students enter nursing with different levels of emotional maturity and are subjected to mounting pressures and anxieties associated with nursing education (Chabeli, 2006). Students who develop emotional intelligence may be better able to endure the pressures associated with nursing education. Bellack (1999) and Chabeli (2006) speculate that students who develop emotional intelligence likely make better treatment decisions in practice.

Emotional intelligence may be a key part of the less-obvious, but crucial practice knowledge students need (Akerjordet and Severinsson, 2007; McQueen, 2004). The emotional knowledge needed for practice is often linked to activities such as students' reflection, curricula integration of interdisciplinary knowledge and mentorship practices employed within teaching and learning experiences (Akerjordet and Severinsson, 2004, 2007; Freshwater and Stickley, 2004). Emotional skills needed by graduates are embedded within nursing theories and include notions of caring, empathy, understanding and dealing with conflict in human relationships in practice (Cox, 2002; Faugier and Woolnough, 2002; Hambleton, 2006). Students need a focused and clear understanding of the central place of emotion in practice relationships to effectively execute the nursing role (Brewer and Cadman, 2000; Cadman and Brewer, 2001; McKinnon, 2005).

For students, nursing education is an emotional as well as intellectual experience and this experience has the potential to profoundly affect students' ability to retain knowledge and think critically (Chabeli, 2006). Students

are required to think critically and this process involves managing and balancing emotions (Chabeli, 2006; Freshwater, 2004). Research from Montes-Berges and Augusto (2007) supports this assertion, indicating that undergraduate nursing students who recognize, pay attention to and regulate emotion moderately well are more able to withstand, cope and rebound from stress. Their findings might mean that students who possess emotional intelligence competencies are more likely to manage the pressures of school and consequently continue through nursing programs. Preliminary research reveals that many skills associated with emotional intelligence competencies set students up for successful integration into nursing practice (Rochester et al., 2005). Emotional self-competence is reasoned to be an essential skill for future competent practice and integration into the workforce (Bellack, 1999; Kerfoot, 1996; MacCulloch, 1999). Dealing with the realities and complexities of practice might be buffered by emotionally competent graduates who can handle occupational stress (Evans and Allen, 2002; Gertis et al., 2004; Gooch, 2006).

#### 4.1.3. Nursing leadership

Emotional intelligence is viewed as an executive leadership skill that benefits patient care, nurses and organizations (Herbert and Edgar, 2004; Muller-Smith, 1999; Snow, 2001). Emotionally intelligent leaders positively influence patient care by motivating nurses to make high-level practice decisions. Emotionally intelligent leaders establish positive relationships with nurses—relationships that reflect an understanding of the context of care, an acknowledgement of emotion within context and recognition of professional and emotional needs of colleagues. Establishing positive working relationships is used by leaders to link the clinical context, the implementation of nursing practice with the delivery of quality patient care (Carson et al., 2005; Pedersen et al., 2003; Vitello-Cicciu, 2003).

Emotionally intelligent leaders are distinguished by their ability to encourage others, their drive to excel, their enthusiasm for nursing and their passion for excellence (Shamian-Ellen and Leatt, 2002). A leader's passion and enthusiasm is thought to provide the spark that ignites nurses to deliver higher-quality patient care (Baggett and Baggett, 2005; Bellack, 1999; Cox, 2002). Emotionally intelligent leaders possess skills and abilities to motivate others through relationships (Goleman, 2005). Emotionally intelligent leaders use this emotionally intelligent skill set to motivate passion and dedication in the workplace and ultimately, this ability is thought to influence patient care practices (Goleman, 2005; Piper, 2005; Snow, 2001). Emotionally intelligent leaders inspire trusting relationships because they understand the nature of nursing, patient care and the environmental impact of practice in relation to nurses' work (Stichler, 2006; Strickland, 2000; Vitello-Cicciu, 2003).

Health care delivery occurs in dynamic environments and emotionally intelligent leaders positively influence this vibrant milieu. Emotionally intelligent leaders might buffer the pressures associated with chaotic environments (Faugier and Woolnough, 2002; Fuimano, 2004; Muller-

Smith, 1999). An emotionally intelligent leader is sensitive to emotional signals and uses emotional competencies to manage conflict, convey empathy to staff or families, and contextualize decisions. The outcome of emotionally intelligent leadership is related to leadership that exerts a positive influence on dynamic environments (Davis, 2005; Hambleton, 2006; Reeves, 2005). Even when significant changes occur in clinical environments, emotionally intelligent leaders can positively impact stressful environments. For example, research completed by Cummings et al. (2005) found that managers with a resonant leadership style, defined as managers who tune into [and] understand feelings within the environment, moderate negative environmental influences. Resonant leaders also possess emotional intelligence.

Current thinking within organizational literature supports the notion that strong leaders who know how to manage emotions within complex healthcare systems is needed (Ferlie et al., 2005; Herbert and Edgar, 2004; Edgar et al., 2006; Shamian-Ellen and Leatt, 2002). Edgar et al. (2006) propose that emotionally intelligent leadership might be particularly important in using knowledge and research in nursing practice. These scholars assert that emotionally intelligent leaders model and influence people to consider how and why knowledge is used. Emotionally intelligent leaders secure a commitment for excellence in practice through emotionally intelligent relationships that promote improvements in thinking, critical decision-making and care delivery (Goleman, 2005; Snow, 2001; Strickland, 2000).

#### 4.1.4. Nursing research

Research ( $n = 9$ ) related to emotional intelligence in nursing is small but notable. This sample reveals that scholars are beginning to use inquiry to understand the nature of emotional intelligence in nursing. Akerjordet and Severinsson (2004) used qualitative interviews to gain insight into mental health nurses' emotional experiences in practice and sought to understand the connection between nurses' articulations of emotions in practice and emotional intelligence concepts. Kooker et al. (2007) analyzed nurses' stories about practice and found meanings and conceptualizations of emotion in their writing that linked nurses' stories and common emotional intelligence concepts. Cummings et al. (2005) proposed that emotional intelligence and leadership is focused on a theory of relational energy invested by nurse leaders who developed and maintained trusting relationships with clinical nurses. Cummings associated the investment of relational energy to ideas proposed by nursing theorists such as Peplau and Orlando who place interpersonal relationships at the core of nursing practice.

Two research studies investigated emotional intelligence and nursing in relation to working environments. Carson et al. (2005) explored whether emotionally intelligent nurses (among others in the sample) displayed more organizational citizenship behaviours at work. Using Goleman's (1998) notions that employers seek emotionally intelligent employees because they are more successful at work, these researchers tested and reported a correlation between emotional intelligence indicators and

organizational citizenship. They speculate that employees with emotional intelligence might be more dedicated to their jobs. Cummings et al. (2005) investigated the correlation between resonant and dissonant leadership style and stressful organizational re-structuring events. Their research indicates that resonant leadership styles mitigates stressful organizational events and they speculate that resonant leadership styles are an expression of emotional intelligence competencies expressed through the relational energy of emotionally intelligent leaders. These findings indicate that leaders with emotional intelligence positively influence organizational environments and buffer employee stress within organizational contexts (Cummings et al., 2005).

Several studies investigated relationships between individual nurses, emotional intelligence and individual coping styles in stressful environments. Gertis et al. (2004) sought correlations between emotional intelligence, coping, burnout and psychopathology in a large sample of nurses. Similarly, Montes-Berges and Augusto (2007) and Rochester et al. (2005) investigated links between nursing students' emotional intelligence, coping and success at school or work. Findings from these three studies point to a moderate correlation between nurses' emotional intelligence and coping within work-related environments.

## 5. Discussion

Emotion is central to the context of nursing care and the importance of recognizing the emotional component of nursing care is a thread that runs throughout the discipline. Discussions and research that investigates the nature and meaning of emotion and how emotional intelligence fits into nursing practice and within the larger health care environment is warranted in a profession that articulates caring as a core concept (Akerjordet and Severinsson, 2007). Nursing has been slower to develop emotional intelligence theory and research than other scholarly disciplines, which might be advantageous if researchers take the time to understand and consider criticisms already articulated within disciplines outside nursing.

The purpose of this paper was to analyze the state of knowledge in nursing related to the concept of emotional intelligence and this discussion focuses on design issues in current nursing research and knowledge building related to emotional intelligence and nursing. This literature review reveals that published reflection and inquiry about emotional intelligence and nursing is growing. However, we propose that some current assumptions about emotional intelligence may be based on unsubstantiated rhetoric. We propose that it is important to consider criticisms of emotional intelligence inquiry outside nursing. Salovey (2006) writes that emotional intelligence research to date does not reveal new constructs that differ from current knowledge about general intelligence and personality concepts.

For the group of research studies included in this review, research designs and measurement methods are variable and for the most part, based on instruments

adapted or modified by researchers. We found a lack of consensus about the meaning of emotional intelligence within this literature. While this finding is not surprising, considering the lack of consensus about what emotional intelligence is, nursing scholarship would benefit from clearer articulations of how emotional intelligence is defined in relation to nursing. Also, we propose that nursing inquiry related to emotional intelligence would benefit from a variety of research methods and greater attention to research design details. Depth of understanding about the meaning of emotional intelligence could be strengthened by qualitative methods that develop knowledge and theory. The two qualitative studies included in the group of research articles have contributed to knowledge and theory development related to emotions, emotional intelligence and nursing (Akerjordet and Severinsson, 2004; Kooker et al., 2007). Sutton and Staw (1995) point out that theory building is more than data, references, variables and measures. These writers emphasize the importance of clear concepts and logical links between concepts when research results are presented. Theory development and research design issues are crucially important in relation to emotional intelligence, especially when skeptics question the science of emotional intelligence research and query whether emotional intelligence actually exists (Matthews et al., 2002).

We suggest further research that investigates potential uses for emotional intelligence theories, skills and competencies related to nursing practice and patient care is warranted. Benner (1984) said "... experts pass on cryptic instructions ..." (p. 10) to learners who struggle to learn the nuances of caring practice. Emotional intelligence concepts should be explicit within curricula and current ideas about emotional intelligence, as they relate specifically to nursing, require more discussion.

Nurses need to know how to deal with emotion in practice as nurses provide emotional support to patients and families to aide patient recovery (Benner, 1984). Student nurses could be screened for emotional competence prior to admission or taught how to deal with difficult or revealing emotional information in practice. The potential uses for emotional intelligence concepts in nursing practice are vast. This literature search suggests that understanding emotional information is likely beneficial to patient outcomes. Building the emotional intelligence skills of students could potentially improve students' competencies related to learning stress, initial and future decision-making, and could impact clinical learning situations. Teaching emotional intelligence skills to students might ease student nurse transition into practice and improve future nurse retention in the workplace. Emotional intelligence skills and competencies could potentially educate nurses about emotion and make explicit notions of caring and competent nursing care within human relationships. The result of an emotionally intelligent skill sets in the workplace might impact patient outcomes because emotional situations are managed at a personal and team level. Emotionally intelligent practitioners might directly impact the health care environment and patient health.

### 5.1.1. Critical thinking and emotional intelligence

Several authors in this review suggest that the interplay between emotion and critical thinking in nursing needs further investigation. Authors imply that critical thinking and clinical decision-making that consider emotion in reasoning might result in more empathetic decisions (Chabeli, 2006; Freshwater and Stickley, 2004) or that considering emotions within decision-making might lead to better quality decisions (Chabeli, 2006; Vitello-Cicciu, 2002). Elder (2007), a critical thinking scholar, argues that critical thinking "...cannot successfully direct our beliefs and actions unless it continually assesses not simply our cognitive abilities, but also our feeling or emotion states..." (p. 2). Elder reasons that emotions are used as internal monitors to critically gauge situations when making decisions. Similarly, Facione (2007) suggests there is an internal monitor called self-regulation as a sub-skill of critical thinking (p. 6). These ideas are similar to those of Mayer and Salovey (1997) who view emotional intelligence as an internal intelligence system that monitors emotional information. We located no studies that investigated the relationship between emotions, cognition and motivation within nursing. An area for future research could consider the nature of emotional information in nursing decisions in relation to clinical decision-making and critical thinking.

Assessing and monitoring clinical situations *well* is pivotal to critical thinking as part of clinical decisions in nursing practice (Facione and Facione, 1996). Patel et al. (1999) speculate that in clinical situations, decision-makers access and process different types of knowledge to make decisions. Explicit knowledge might come from direct learning and tacit knowledge is inexplicit knowledge gained through experience. Nurses use information and gain knowledge in unique ways as they make clinical decisions. Theory and research related to knowledge processing and the relationship between cognition and emotions in nursing could be explored and linked to current ideas about the nature of knowledge in nursing. Some of these ideas are articulated in Carpers' (2004) classic article about ways of knowing in nursing.

### 5.1.2. Emotion, nurse, environment

The way emotions, nurse and environment interact with emotionally intelligent leaders is another important area for future research. George (2000) writes that emotional intelligence is important for leaders because leadership involves creating vision and creativity. George states that optimism and vision leads to trust within organizations and speculates that leadership is an emotionally laden process that affects leaders and followers; emotional intelligence is essential to this process. However, emotionally intelligent leadership as an influencing factor in healthcare environments remains unclear.

Edgar et al. (2006) suggest that emotionally intelligent leadership may be related to evidence use in practice. Investigation of the interactions between several features of the environment and nursing in relation to emotional intelligence might beneficial nursing scholarship. The

suggestion that emotionally intelligent leadership might impact knowledge and evidence use in practice implies that emotionally intelligent leaders promote the use of best evidence as they influence the work environment. Leaders that positively influence environments are thought to possess core transformational competencies as they foster knowledge and evidence use through their impact on communication, relationships and thinking, and by modeling behaviours of best practice (Registered Nurses Association of Ontario, 2008). Characteristics of effective nursing leaders such as self knowledge, communication, relationship building, resilience, optimism and vision are integral to theories of emotional intelligence (Boyatzis and McKee, 2005; Moss, 2005; Goleman, 1998).

Theorists aspire to understand the impact of context and the nature of facilitative leadership in healthcare environments (Harvey et al., 2002; McCormack et al., 2002; Rycroft-Malone et al., 2002). The relationship among emotional intelligence, leadership, knowledge use and context requires exploration. Currently, the call to use sound evidence resonates, yet the influence, complexity, logistics of knowledge and evidence use to inform nursing practice remains unclear (Estabrooks, 1998). Research indicates that nurses use multiple forms of knowledge to inform their decisions (Estabrooks et al., 2005a,b; Profetto-McGrath et al., 2007) but what remains unclear is exactly how knowledge, evidence, context, and personal internal influences meld together and result in clinical decisions (Rycroft-Malone et al., 2004).

Emotionally intelligent leadership might be a key to transferring knowledge and encouraging evidence use within environments as some scholars speculate that leaders actually "transform" environments into a place where knowledge and evidence are valued in practice (Edgar et al., 2006). Other authors imply that drawing on numerous personal skills and attributes is a factor that is useful to facilitate evidence use in practice (Pedersen et al., 2003; Harvey et al., 2002) and authors suggest that transformational leaders utilize essential skills to facilitate organizational change. Leaders effect change by creating trusting environments where emotion is valued (Goleman, 1998; McCormack et al., 2002; Rycroft-Malone et al., 2002). Preliminary research does support this notion although findings are far from conclusive (Cummings et al., 2005; Wong and Cummings, 2007). No studies were found as part of this literature review that considered how emotion impacts decisions to use knowledge and evidence practice in practice or how emotion actually influences clinical outcomes. Understanding how emotions impact knowledge use might be an important part of the evidence-based decision-making puzzle. While there is ample evidence in health care that indicates the impact of the environment upon evidence and knowledge use, research that considers the impact of emotion on knowledge and evidence is scant.

Some authors propose that emotionally intelligent nursing care positively impacts patient outcomes (Snow, 2001; Vitello-Cicciu, 2002; Willard, 2006). The emotions of nurses and the care the quality of patient care they provide may be linked. Cummings et al. (2005) found a relationship between the stress of hospital restructuring, nurses'

emotional exhaustion and unmet patient care needs. This finding implies that the unmet emotional needs of nurses directly impacts the patient care nurses provide. The link between stress, emotions, nurses and patient care warrants further investigation in nursing.

### 5.2. Knowledge gaps and directions for inquiry

There are many knowledge gaps related to emotional intelligence and nursing. Obviously, educating and employing emotionally intelligent nurses is preferable to employing emotionally “un-intelligent” nurses. Scholarship related to emotional intelligence in nursing needs to move beyond the obvious and nursing academics must consider the multi-level debates about emotional intelligence outside the discipline. Some important questions that need to be considered are: What is emotional intelligence in nursing practice and how does it relate to other constructs in nursing practice? How should emotional intelligence in nursing practice be measured? Do nursing curricula include content on emotional knowledge and if so, is this knowledge explicit? How should levels of emotional intelligence in nursing practice be identified and determined? What are the implications of defining behavioural indicators of nurse’s emotional intelligence in terms of practice? How is emotional intelligence in nursing education and practice similar and/or different to conceptualizations within other disciplines? How does the emotional intelligence of individual nurses impact nursing teams and groups? How are nurses taught to deal with emotion in practice?

### 5.3. The importance of further research related to emotional intelligence

Rowe (2005) writes that “certain topics become fashionable to research...” (p. 290). Mark (2005) warns that the impact of getting the emotional agenda wrong in health care [is] particularly worrying. Emotional intelligence research in nursing is growing. Emotional intelligence theory and concepts are complex and controversial.

## 6. Limitations

This integrative literature review provides an overview and critique of the field of knowledge in nursing related to emotional intelligence. This review is limited by the key phrases used for searching, the databases accessed, the frame and method of searching for literature, and time constraints.

## 7. Conclusion

The purpose of this integrative review is to report on the state of knowledge in nursing related to emotional intelligence. Although the body of theoretical literature in nursing that explores concepts and ideas related to emotional intelligence is growing, scientific research about emotional intelligence and nursing is just beginning. Building knowledge about emotional intelligence and nursing would benefit from further inquiry that asks

salient questions to promote depth of understanding and knowledge development related directly to emotional intelligence and nursing practice, education and leadership (Senge, 1994). It is recommended that nursing scholarship explore and debate the criticisms and design issues currently leveled at emotional intelligence research outside nursing.

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