COMPARISON OF CARING ABILITY AND BURNOUT
IN CRITICAL CARE NURSES

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Toni Lea Birch Moseley

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Abstract

of

COMPARISON OF CARING ABILITY AND BURNOUT IN CRITICAL CARE NURSES

by

Toni Lea Birch Moseley

Background:
The caring relationship between nurse and patient is an essential part of the nursing process. Literature supports that both caring ability and burnout can have significant effects on the caring relationships in the nursing profession. Duffy’s (2013) Quality Caring Model is relationship-centered professional practice. Using Duffy’s model of caring relationships as a conceptual framework and Maslach Burnout Inventory (MBI), this study examined the relationship between caring ability and burnout among critical care nurses at a large, teaching medical center.

Purpose:
The purpose of this study is to determine if there is a relationship between caring ability and burnout in a group of critical care nurses.

Methods:
Using a descriptive, correlational survey design, participants completed a demographics form, the MBI and the Caring Ability Inventory (CAI). The MBI tool has 3 subscales-Personal Accomplishment (MBI-PA), Depersonalization (MBI-DP) and Emotional Exhaustion (MBI-EE). The CAI has 3 subscales—Patience (CAI-P), Knowing (CAI-K), and Courage (CAI-C). The data was analyzed with SPSS using Pearson and Spearman rho correlations as appropriate.

Results:
Eighty-four RNs responded. Demographics included 80% female, 10 average years of experience as a critical RN, 62% med-surg ICU. All of the caring subscales were weakly to moderately, positively correlated with the MBI-PA subscale (p<.05). The CAI-K and CAI-C subscales were weakly, negatively correlated with MBI-DP (p<.05). Only CAI-C was significantly correlated with MBI-EE (r=-.236, p<.05).

Findings:
The positively correlated CAI and MBI subscales show that patience, courage and knowing increase along with increases in personal achievement. Conceptually, Depersonalization appeared to decrease as Knowing and Courage increased. Emotional Exhaustion decreased with increases in Courage. The results signify that a relationship exists between caring ability and burnout in critical care nurses and with this understanding the potential to decrease burnout with interventions focused on promoting caring may exist.

Committee Chair
JoAnn Daugherty, Ph.D., RN, CNL

Date
29 APR 16
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Most of all I wish to thank my amazing husband, Shae Moseley. To say he has supported me through this stressful time in our lives is an understatement. He has been and always will be my strongest supporter and most steadfast friend.
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CHAPTER ONE: INTRODUCTION

Background
The caring nature of nursing has long been regarded as the essence of the profession. The typical relationship that forms between the nurse and the patient, the caring relationship, is an essential part of the caring process. Since the time of Florence Nightingale, the phenomenon of the caring relationship has been woven into the core of nursing as a profession (Wagner & Whaite, 2010). The caring relationship has been a prominent focus in nursing professional literature and almost all definitions and descriptions of nurses or nursing contain portrayals of relationships and caring (Wagner & Whaite, 2010).

Historical content analysis of Nightingale’s famous writings, Notes on Nursing, conducted by Wagner & Whaite (2010) revealed five themes that symbolize and define the caring relationship: attend to, attention to, genuine, competent, and nurture. Nightingale’s understanding of the caring relationship explains that “the attitudes and actions of the nurse in a caring relationship can make a positive difference for patients, families, communities, and personal gain to nurses themselves” (Wagner & Whaite, 2010, p.231).

The focus on caring relationships that began with Florence Nightingale continues to drive the nursing profession today. Many nursing researchers and theorists have built and expanded on the core of Nightingale’s explanation of caring. Understanding the history of the profession and the development of these caring relationships has led to significant advances in the art and science of caring.
Significance to Nursing

Modern society differs greatly from the time of Florence Nightingale. The integrity of the nursing profession has fallen victim to the rushed, task-oriented, often depersonalized healthcare system of today. The expectations of the nurse providing care to the patient have continually increased in recent years leaving the caring nature of nursing devalued (Duffy, 2009). The stressors and pressures faced by modern day nurses can have an intense effect on their ability to enter into and maintain caring relationships with patients and their families. Focus on the ability of nurses to enter into and maintain caring relationships is warranted and necessary.

As the nursing profession faces this quality caring crisis, there lies an opportunity for nurses to reclaim and refocus their practice. The caring relationship is highly valued by both the nurse and patients and families and should receive equal if not highest priority when providing patient care (Duffy, 2009). This idea has sparked a new focus on “patient-centered care” (Peery, 2010, p.59) and is becoming widely adopted as a means to allow nurses to return to their roots and reclaim the core focus of nursing.

As a nurse transitions to an advanced practice nurse (APN) role, such as a nurse practitioner (NP), they take with them the strong caring foundation of the nursing field. Studies have shown that NPs perceive themselves to exhibit strong caring behaviors, such as appreciating a patient as a human being, showing respect, being sensitive, talking with the patient, and maintaining confidentiality (Brunton & Beaman, 2000; Green, 2004). The NPs ability to enter into caring relationships has a direct influence on their capacity to alter outcomes for the patient and highlights the importance
of the understanding of caring as a unique directive of all levels of nursing practice (Green, 2004).

An additional consequence of the high stress environment of the modern day health care system is burnout syndrome (BOS). BOS is a well-documented occurrence among healthcare workers, particularly nurses, and has been noted to be associated with “decreased well-being among nurse staff members, decreased quality of care, and costs related to absenteeism and turnover” (Poncet et al., 2007, p.698.). The negative effects of BOS on the professional nurse are profound and well documented in the literature.

The link between caring and burnout has been made in the literature, but occurs infrequently, noting the majority of burnout research being related to the job-related variables associated with burnout instead of the emotional variables that can affect burnout (Peery, 2010). Research conducted by Peery (2010), compares burnout and caring and is the only study of its kind found in the literature. Peery (2010) did not focus specifically on caring ability but rather caring behaviors. The overall findings indicate that increases in caring led to decreases in burnout. This prior research went on to call for further research to examine the relationship between caring and burnout and noted the importance as “nurses seek to meet their own and patients’ needs within their profession and the healthcare delivery system” (Peery, 2010, p.59).

**The Problem**

While the entire healthcare system faces the quality caring crisis, critical care nurses appear to be suffering at higher levels. Merlani et al. (2011) estimated that Intensive Care Unit (ICU) nurses and physicians are affected by BOS at rate of 45%. As
these nurses struggle to keep their focus on the caring relationship with the patient, they are inundated with complex emotional situations in addition to a seemingly perpetually growing list of tasks and job-related stressors that are proven to attribute to burnout (Peery, 2010).

With already high turnover rates and a projected shortage of nurses in the workplace, increasing through 2030, it has never been more important to eliminate the barriers to maintaining integrity in the nursing profession (American Association of Colleges of Nursing, 2014).

**Purpose of the Research**

In order to reclaim the nursing profession’s more holistic roots and refocus efforts on caring relationships, further understanding of the relationship between the ability to care when involved in relationships and burnout in critical care nurses is needed. With this knowledge, positive interventions can be put in place to facilitate change for the better of both the patients and the care providers. Focusing on the caring ability of nurses in relationships will speak to the caring relationship identified to be a key defining concept of the profession. Understanding the relationship between caring ability and burnout is the first step to answering an overarching question that the profession seems to be struggling with: How do we balance what we want to do with what we have to do?

**Research Question**

The research questions are: Is there a relationship between caring ability and burnout in a group of critical care nurses?
Conceptual Model and Assumptions

The Quality Caring Model (QCM), developed by Duffy & Hoskins (2003), is a middle-range theory designed to support the understanding of connections between quality health care and caring. An underlying aim of the QCM is to support nursing by focusing on the caring relationships that provide firm support for professional practice. The major proposition of this model is that caring relationships lead to an individual feeling “cared for” (Duffy, 2009) thus influencing attainment of positive health outcomes. Duffy (2009) proposes that caring relationships are grounded in eight caring factors including, “mutual problem solving, attentive reassurance, human respect, encouraging manner, appreciation of unique meanings, healing environment, affiliation needs, and basic human needs” (p.37).

Assumptions are made in regard to caring relationships, feeling cared for, and for health in Duffy’s model. The key implications to this research are the assumptions about caring relationships which include:

- Caring relationships are essential for well-being and growth
- Interaction is necessary for caring relationships
- Caring relationships are grounded in beliefs about individuals
- Caring relationships consist of factors or processes
- Caring relationships are tangible and can be measured
- Caring relationships are essential to the practice of nursing
- Caring relationships require knowledge, self-awareness, and skill

(Duffy, 2009, p.34)
With Duffy’s QCM as a framework, the proposed research will seek to increase knowledge on the critical care nurses’ ability to be involved in caring relationships and the confounding relationship with burnout.
CHAPTER TWO: LITERATURE REVIEW

Introduction
A search for relevant and current literature was conducted utilizing key words such as caring, caring ability, caring relationships, burnout, critical care, ICU, nurses and combinations of these words. The databases searched included CINAHL, PubMed, and Google Scholar. Initial results from multiple searches on multiple sites returned thousands of articles. Narrowing in on research in the last 20 years, published in English, and focusing on the two key concepts, caring ability and burnout, was done and yielded approximately 40 appropriate articles for review, further narrowed for appropriateness to the proposed research.

A broad overview of the literature supports previous statements that nurses, especially critical care nurses, are facing an increasingly difficult challenge to maintain caring relationships while faced with high incidence of burnout from many factors.

The key issue critical care nurses are facing is maintaining their caring relationships with patients while working in the increasingly technical and task-oriented bedside of Intensive Care Units (ICUs). The fast-paced development of modern technology has changed the face of critical care and has indispensable value. But caring relationships are also of paramount value and the burden of balancing the two is one of the most difficult aspects of care for critical care nurses (Almerud, Alapack, Fridlund, & Ekebergh, 2008). It is a common occurrence in an ICU setting for all eyes, even those of patients and families, to be focused on the machines and not the patients.

Facing a critical illness and receiving care in an ICU setting is often overwhelming for the patient. The therapeutic caring relationships between patients and
nurses are extremely important to preserve the holistic view of the ICU patient. Qualitative research by Almerud, Alapack, Fridlund, & Ekebergh (2008) reported that patients described feeling invisible as a person, overtaken by the status of organs or diagnoses. While the objective information provided by technology has great value, it is more valuable when interpreted by a professional who understands the lived experiences of the patient. Too much focus on the technology and machines causes the nurse to become an extension of the machine, an action that is detrimental to caring. Almerud et al. (2008) conclude by reinforcing that critical care nurses need to have a heightened awareness of the potential silencing of the patient’s voice caused by the roar of technology and note that the flaw is not turning to the device but turning away from the patient.

A qualitative study by Price (2013) went on to describe the process and importance of caring and technology being cohesive in the ICU setting and not separate entities. Sub themes of vigilance, focus of attention, being present, and expectations were identified as components of the overarching theme of the “crafting process” (Price, 2013, p.282) which results in the crucial goal of achieving what is in the best interest of the patient. The crafting process was identified as the means by which drawing together technology and caring could be achieved. The goal of keeping technology and caring integrated and not allowing for a division has potential for decreasing burnout as technology has been noted as on the aspects of critical care that can lead to the depersonalization component of burnout (Wilkin, 2003).
Caring Ability

While the science of caring is well researched and measured from several different perspectives, the specific concept of caring ability is sparsely present in the literature. Duffy (2009) has noted that the caring relationship is the foundation of care provided by healthcare professionals, leading to positive health outcomes for patients. Understanding the ability of the critical care RN to care in a relationship is justified and necessary.

The foundation for literature related to caring ability is the work of Nkongho (1990). Defined as “one’s ability to care when involved in a relationship with others” (Nkongho, 1990, p. 3), caring ability is explained as being necessary for human survival while human survival is also dependent on the continued ability to care. Nkongho’s (1990) instrument, The Caring Ability Inventory (CAI), is the only one of its kind, with a purpose to quantify the degree of a person’s ability to care when in a relationship in others. The CAI was developed with the work of Mayeroff as a framework. Mayeroff’s book, On Caring, originally published in 1971, recognizes the capacity caring has to allow for growth in the person being cared for (Nkongho, 1990). Several key elements of Mayeroff’s work informed the development of the CAI, including critical elements recognized as necessary in caring relationships: knowing, alternating rhythm, patience, honesty, trust, humility, hope, and courage (Nkongho, 1990). Nkongho (1990) explored these 8 critical elements of caring relationships through a factor analysis and revealed three subscales relevant to the measurement of caring ability: knowing, courage, and patience.
The final version of the CAI consists of 37 items on a seven-point Likert scale. The 37 items are divided between the three subscales: knowing (14 items), courage (13 items), and patience (10 items) with item responses summed for each subscale (Nkongho, 1990). The knowing subscale represents an understanding of who the person being cared for is, including their needs, strengths, weakness, and what enhances their well-being. Additionally, knowing implies an understanding of one’s own strengths and weaknesses (Nkongho, 1990). Courage, the second subscale, is centered on having the ability and confidence to take on the unknown. Courage in caring for others is gained by past experience and being open to future possibilities (Nkongho, 1990). The final subscale, patience, is perhaps the most essential to caring. Allowing the person being cared for time for growth and self-expressions requires a certain degree of tolerance during a period of confusion and perhaps even disorganization (Nkongho, 1990).

Higher CAI item scores indicate greater degree of caring if the item is positively phrased; scoring is reversed if item is negatively phrased. Initial testing of the reliability and validity of the CAI was conducted with two different groups, 462 students and 75 nurses. Reliability was established first by determining internal consistency with the computation Cronbach’s alpha for each subscale. In addition, test-retest reliability was established with a subsample of participants. Both the alpha coefficient and the test-retest were found to be significant, indicating the CAI to be reliable for the measurement of caring ability.
The validity of the CAI was established by Nkongho (1990) in several ways. Content validity was determined by two content experts who analyzed the items for clarity, determining that they appropriately represent caring ability as described by the developer. The content validity index was determined with a percentage of agreement of .80 (Nkongho, 1990). Construct validity was determined by two different methods. First, the CAI results of two groups (students and nurses) were compared and t-tests of the means of each subscale were found to be significant (p≤.001). Additional comparison between males and females found a significance of females being more caring (p≤.001) (Nkongho, 1990). Further analysis of construct validity was completed by correlating the CAI with the Tennessee Self-Concept Scale, with a positive correlation (knowing, r=.55; courage, r=.42; patience, r=.12; total CAI, r=.53) detected at p≤.01 and p≤.001, indicating those high in self-concept were also high in caring ability (Nkongho, 1990). The CAI is recognized as a useful tool with sophisticated psychometric properties, with potential for use in both academic and clinical settings (Watson, 2009).

The CAI has been utilized as a data collection instrument in a variety of settings, as well as was included in a factor analysis to refine a different tool for measuring caring,

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Alpha Coefficient (n=537)</th>
<th>Test-Retest r (n=38)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowing</td>
<td>.79</td>
<td>.80</td>
</tr>
<tr>
<td>Courage</td>
<td>.75</td>
<td>.64</td>
</tr>
<tr>
<td>Patience</td>
<td>.71</td>
<td>.73</td>
</tr>
<tr>
<td>Total CAI</td>
<td>.84</td>
<td>.75</td>
</tr>
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(Nkongho, 1990)
the Caring Nurse-Patient Interaction (CNPI) (Cossette, Cote, Pepin, Ricard, & D’Aoust, 2006). Simmons & Cavanaugh (1996) recognized the discrepancy between the ultimate caring goals of the nursing profession with patients’ reported experiences of impatient and disinterested nurses. Noting the gap between “the ideals and the realities of the nursing practice” (Simmons & Cavanaugh, 1996, p.373) their research aimed to identify potential predictors of caring ability in a national random sample of 350 female baccalaureate nursing students. In addition to the CAI, the maternal/paternal care experienced by participants was measured along with the climate of caring experienced in nursing school. Significant findings included a strong linear relationship between caring school climates and caring ability, detected using Pearson intercorrelations ($r=.016$, $p<.01$). This finding indicates that caring school climates are a predictor of caring ability and should be a focus of all baccalaureate programs (Simmons & Cavanaugh, 1996). Those with higher caring ability scores were noted to come from both the high and low scoring groups related to maternal care, indicating caring ability can develop regardless of caring nature of upbringing. The demographic variable of age was noted to be a significant predictor of caring ability ($r=.013$, $p<.05$), suggesting that caring ability is something that can be learned and developed over time (Simmons & Cavanaugh, 1996).

While it wasn’t a direct finding of this research, Simmons & Cavanaugh (1996) also discussed the incidence of individuals with a lack of a caring parental experience being more likely to turn to nursing as a profession as a means to indirectly fulfill personal needs by caring for the needs of others. This untiring need and ability to care for others can lead to emotional exhaustion and lack of self-care, attributes of burnout.
(Simmons & Cavanaugh, 1996). By understanding the nature of the relationship between caring ability and burnout perhaps there is a hope for harmony in these individuals.

Simmons & Cavanaugh (2000) went on to conduct a longitudinal study on the same group of students 3 years after the original survey conducted for their 1996 work. The participants were now graduated and in their first years of professional practice. Of the original 350 participants, 189 went on to participate in this second phase. The same variables were examined (CAI, maternal/parental care, and school caring climate) and significant increases in caring ability over time were found (Simmons & Cavanaugh, 2000). The mean caring ability scores (student mean = 76.4, graduate mean = 80.8) were compared using a paired t-test and significance was found at p<.001 (Simmons & Cavanaugh, 2000). These findings further validate the findings of Simmons & Cavanaugh (1996) and emphasize that the development of caring ability should be focused on and attended to in student nurses as school climate has both an “initial and lasting relationship to caring ability” (Simmons & Cavanaugh, 2000, p.82). Raines (2007) further studied the caring ability of nursing students and also found a significant increase (knowing, t-statistic = 11.53, p<.0001; courage, t-statistic = 13.34, p<.0001; patience, t-statistic = 12.11, p<.0001; total CAI, t-statistic = 20.17, p<.0001) in students’ caring ability when enrolled in a program grounded in a philosophy of caring. This finding further supports that a school climate rich in caring can have a positive effect on nurses entering the field.

Fjortoft & Zgarrick (2003) conducted a descriptive survey study related to the caring ability of pharmacists, utilizing the CAI. The researchers noted the historical
perspective of pharmacy being defined by the medication product, but recent focus is shifting in the profession to a more patient-centered approach, focused on patient well-being (Fjortoft & Zgarrick, 2003). While the total CAI scores for the random sample of 323 pharmacists was noted to be lower than those of nurses reported by Nkongho (1990), there was a modest positive correlation ($r=0.113, p=.044$) between years of practice and CAI scores (Fjortoft & Zgarrick, 2003). This finding further lends support to the idea that caring ability can develop over time and has potential to be influenced by targeted interventions.

A descriptive, cross-sectional, mixed method study was conducted in southwest China by Ma, Li, Zhu, Bai, & Song (2013) with the purpose of understanding the role clinical practice while in nursing school has in the development in caring ability. The researchers noted a significant decrease in quality caring in the Chinese healthcare system and a perceived crisis related to the ethical dilemmas and poor role models students are exposed to during clinical experiences (Ma et al., 2013). The CAI scores of the 598 participants were lower than those reported in previous research by Nkongho (1990), Simmons & Cavanaugh (1996, 2000), & Raines (2007) indicating that perhaps China is experiencing a caring crisis (Ma et al., 2013). The qualitative findings of this study show a strong relationship in the quality of clinical experience of students and their ability for caring; signifying the healthcare environment experienced by professional nurses can affect caring ability.

A distinction has been made between professional caring and innate caring, noting professional caring may involve a combination of technical and attitudinal
behaviors while innate caring consists of behaviors and attitudes that have formed with influence from years of social, environmental, and cultural factors (Sokola, 2013). Sokola (2013) explained that while professional caring is likely rooted in one’s innate ability to care, nursing students need to become more self-aware of their innate ability to care and learn to apply it while carrying out nursing actions, getting at the core of the quality caring crisis.

Nkongho’s (1990) conceptual framework when developing the CAI consisted of elements more in line with elements of innate caring, knowing, patience, honesty, trust, humility, hope, and courage. Using the CAI to measure innate caring and the CNPI to measure professional caring behaviors, the descriptive correlational study by Sokola (2013) was conducted with 119 participants, approximately half in their first semester and the other half in their fourth semester. A statistically significant correlation was noted between CAI and CNPI scores at both the first and fourth semester intervals (first semester students, \( r = .241, p < .05 \); fourth semester students, \( r = .470, p < .05 \)). The correlation in the fourth semester group was stronger however, suggesting that the passage of time through those three semesters had awakened students’ awareness of their abilities and capacity to establish caring relationships (Sokola, 2013). The mean CAI scores did significantly change between the two groups, likely a result of the data not being collected in longitudinal fashion. Another possible explanation for the lack of increase in CAI scores in first to fourth semester students is the experiences of the students. Noting that first year nursing students often enter programs with heightened enthusiasm and strong desire to enter into caring relationship, Sokola (2013) goes on to
suggest that perhaps “a dose of realism about the complexities of the nurse-patient relationship” experienced by the fourth semester may attribute to the consistent CAI scores. This distinct possibility sheds further light on the importance of understanding caring ability related to relationship and how that is connected with burnout.

**Burnout**

The concept of burnout is widely acknowledged to be a multi-dimensional phenomenon common among many professions that involve other people, such as nursing. Defined as “a state of physical, emotional, and mental exhaustion” (Chen & McMurray, 2001, p.152) burnout syndrome (BOS) is consider a debilitating condition with many negative impacts on those affected. BOS occurs in response to the demands of a job and the work environment and the stress that result from interpersonal conflicts (Chen & McMurray, 2001). The detrimental effects of BOS are well documented and include low morale, absenteeism, personal and family problems, high job turnover, and decreased quality of care (Chen & McMurray, 2001; Poncet et al., 2007).

Maslach & Jackson (1981) have conducted numerous research studies on the phenomenon of BOS and their findings have guided the development of the Maslach Burnout Inventory (MBI), a tool to measure BOS. Noted to be the “gold standard” (West, Dyrbye, Satele, Sloan, & Shanafelt, 2012, p.1445) in measuring burnout in healthcare workers, the Maslach Burnout Inventory (MBI) has been utilized in numerous studies of critical care nurses.

The MBI is a highly reliable and valid tool to measure BOS, comprised of three subscales derived from data analysis conducted by Maslach & Jackson (1981) including
emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA). The subscale of personal accomplishment is often referred to as reduced personal accomplishment in the literature as it is scored in reverse, indicating feelings of decreased personal accomplishment (Chen & McMurray, 2001). The EE associated with BOS is characterized by the feeling of being emotionally strained and lacking of additional emotional resources. DP is a feeling of detachment to other people, typically those receiving care or co-workers (Peery, 2010). And the final dimension of BOS, PA, is marked by a lack of confidence in competence and achievement at work (Peery, 2010). The MBI consists of 22 self-report items on a 7-point Likert scale.

Psychometric analyses have repeatedly confirmed the reliability and validity of the MBI. Cronbach's alpha coefficient was used to test internal consistency with reported reliability coefficients for each subscale of .90 EE, .79 DP, and .71 PA (Maslach, Jackson, & Leiter, 1996). Test-retest reliability coefficients for the subscales have been reported as .82 for EE, .60 for DP, and .80 PAs. Convergent validity of the MBI was demonstrated using three techniques; MBI scores were correlated with behavioral scorings made by another individual close to those being scored, MBI scores were correlated with dimensions job characteristics expected to contribute to burnout, and finally MBI scores were correlated with various personal outcomes thought to be associated with occurrence of burnout (Maslach et al., 1996). Each of the three sets of correlations demonstrated substantial validity with the majority of items found to be statistically significant at $p \leq .05$, $p \leq .01$, and $p \leq .001$ (Maslach et al., 1996). Discriminant validity was tested by correlating MBI scores with scores related to job satisfaction,
A literature review on the topic of burnout in critical care nurses revealed several common factors found to contribute to BOS (Epp, 2012). EE, generally regarded as the key component of BOS, was directly linked to several factors that influence the stress level of critical care nurses. Factors linked to EE in critical nurses were identified as high acuity of patients, morally distressing situations, futile care, advancing technology, caring for patient families, and interpersonal conflicts (Epp, 2012). The dimension of DP was noted in the literature to be a coping, self-preserving technique in response to the
incidence of EE. The emotional overload created by morally distressing situations and caring for patients’ families lead to nurses detaching personally from situations by creating either a physical or psychological space in which to escape (Epp, 2012). The dimension of PA associated with BOS was also linked to morally distressing situations, noting that critical care nurses often undervalue the emotional support they give and feel they haven’t done enough to make a difference. It is important to note the clear relationship of the three dimensions of BOS with EE clearly leading to DP and feelings of PA (Epp, 2012).

In addition to job-related stressors, several personal factors have been identified to be predictors of BOS in critical care nurses, including age. Younger nurses have been noted to be at a statistically higher risk ($H = -.031$, $p < .05$; odds ratio = .097, $p < .0008$) for BOS (Chen & McMurray, 2001; Poncet et al., 2007). Specifically younger nurses were noted to have higher incidence of EE and DP than older nurses, perhaps related to initial shock of entering the profession and the multitude of stressors that must be coped with in the critical care setting (Chen & McMurray, 2001). The realism encountered early in the profession was previously discussed in relation to the consistency in caring ability noted in first and fourth semester nursing students by Sokola (2013). These findings together suggest the potential for a relationship between caring ability and incidence of burnout specifically in younger nurses.

Marital status was also noted to have an effect on BOS incidence in critical care nurse with separated or divorced females having higher levels (Chen & McMurray, 2001). This finding suggests the lack of social support experienced by single and
divorced nurses, combined with increased responsibilities outside of work, are added stressors leading to BOS. Understanding that social support can have an effect on incidence of burnout puts emphasis on the importance of caring relationships beyond the nurse-patient relationship. Critical care nurses are often a support system for each other, offering support and encouragement during difficult times. These relationships are an important preventative strategy for BOS as burnout has been shown to be “contagious” (Bakker, Le Blanc, & Schaufeli, 2005, p.276) among critical care nurses, easily spreading from one nurse to another. Perceived burnout complaints in a group of 1849 critical care nurses had a positive impact on incidence of all three subscales of BOS (Bakker et al., 2005). The ability to maintain caring relationships with co-workers has potential to have an effect on incidence of BOS.

**Conceptual Model**

At the center of Duffy’s (2013) Quality Caring Model is relationship-centered professional practice. Four relationships are identified as fundamental to the core of nursing: relationships with self, patients/families, the health care team, and the community (Duffy, 2013). Duffy (2013) recognizes and describes the quality caring crisis as a major barrier to the ability to enter into and maintain these relationships. The ultimate goal of making a patient feel cared for, resulting in positive outcomes for the patient is dependent upon the integrity of the caring relationships being upheld. Literature supports that both caring ability and burnout can have significant effects on the caring relationships in the nursing profession.
Effort must be made to become more self-aware and find an internal shift from “doing” activities to practice that has more of a “being” quality, also described as “authentic presence” (Duffy, 2013, p. 82). When this authentic presence is achieved, healing caring relationships are more likely to be cultivated and sustained. These authentic caring relationships have the ability to overpower the traditional treatment of disease focus and transform outcomes for the better (Duffy, 2013).

**Summary**

Nkongho (1990) draws from Mayeroff’s work and recognizes that “A caring person experiences a sense of belonging and connectedness, is stable, and is more resilient to stress” (p.6). A resilience to stress could have a profound effect on the incidence of BOS. Understanding the relationship between the ability for caring in relationships and burnout is the beginning step to positive outcomes for both nurses and patients.
CHAPTER THREE: METHODOLOGY

Introduction
There is a noted crisis in the nursing profession related to the caring relationships at the heart of the profession. Modern healthcare, while scientifically astounding, is fraught with stressors added to the work of the nurse, making the maintenance of caring relationships increasingly difficult. The many stressors prominent in healthcare today are significantly linked with BOS in critical care nurses including technology advances, futile care, workload, and ethical dilemmas.

With a desire to strengthen the caring relationships of critical care nurses and their patients, this study drew from pertinent reviewed literature on caring ability and burnout in critical care nurses. While there has been no previous research conducted comparing the concepts, it seems a relationship may exist. Using the guidance of Duffy’s framework and the caring relationships central to quality caring and positive patient outcomes, an objective to understand the relationship between the two variables was undertaken. Understanding this relationship can lead to targeted interventions to improve these variables, potentially leading to the needed improvement in caring relationships.

Research Question
The research question was: Is there a relationship between caring ability and burnout in a group of critical care nurses?

Identification of setting
The research took place at a large urban, teaching medical center with two major campuses in Southern California. Data collection was limited to the nurses employed by two units on one of the two campuses.
**Research design**

A descriptive cross-sectional correlational study design was used to determine the existence and direction of a relationship between caring ability and burnout. The lack of previous research on the specific variables indicated a need to first determine the existence of a relationship by evaluating correlation of the two concepts. The cross-sectional approach lended itself to describing a relationship at a single point in time, the purpose of the proposed research (Polit & Tatano Beck, 2012). With no planned intervention or manipulation of the variables, correlational design was the most appropriate for determining the status of a relationship. No determination of a causal relationship was desired in the proposed research, rather evidence to describe the potential existence of a relationship between the variables. The correlational design was limited by the inability to identify changes in the relationship over time (Polit & Tatano Beck, 2012).

**Population and Sample**

A nonprobability convenience sampling of critical care nurses was used, drawing from two Intensive Care Units (ICUs) at one geographic site of a major university medical center in a metropolitan area in Southern California. While these two ICUs differ in patient populations, they are similar in the day-to-day stressors and complex emotional situations that can have an effect on caring ability and burnout. One of the ICUs focuses on cardiovascular and cardiothoracic patients (ICU A) while the other specializes in medical-surgical, neurology, and oncology patients (ICU B). Inclusion criteria was: employed as an RN in one of two units, fluent in English, and classification
of CNII or higher, and practicing as an RN for at least one year. Those RNs classified as CNI have less than 6 months professional nursing experience.

It was the feeling of this researcher that in order to truly capture caring ability and burnout related to nursing practice, the participant needs to have been practicing in the field for at least one year. This correlates with the work of Benner (1982) and the application of the novice to expert role transitions in nursing. While specific time frames are not provided, it can be assumed that a nurse practicing for one year would be at the advanced beginner level, noted by Benner (1982) to have likely “coped with enough real situations….. to note the recurrent meaningful situational components” (p. 403). Measuring caring ability and burnout in the CNI or newly graduated RN (those in field less than one year) may have unintentionally capture findings related to confounding variables not previously accounted for (recent schooling, etc.) and not necessarily findings related to real-life practice.

Sampling size was calculated with the assistance of Dr. Linnea Axman (2014). With no previous research available from which to derive a desired effect size, the desired effect size of this pilot study was determined to be .30. Combing the effect size of .30 with a desired significance of .05, and a power of .80, it was determined that 84 participants were required for a two tailed bivariate model (Axman, 2014). Accounting for a potential loss factor of 20%, the desired sample size was increased to a total of 100 participants sampled from both previously described units. Using these two units provided a larger cohort from which adequate sampling
could be achieved and allowed for comparison between the two units for detection of differences.

The sampling plan did put limits on the generalizability of the findings to the target population of critical care nurses. The convenience sample used only drew from a Southern California medical center. Thus the findings may only generalize to RNs practicing at an urban medical center in Southern California.

**Data Collection Process**

IRB approval was obtained from the IRB of UC San Diego Health System. This approval, through a documented joint agreement, satisfied the IRB requirements of California State University San Marcos as well. All required IRB tutorials were completed by the researcher prior to IRB application.

Three data collection tools were administered electronically, via email, to the sample for self-report; the CAI, MBI, and a demographics sheet. Participants were sent an email by this researcher which included a link to an electronic survey. The first page of the survey was a consent form that clearly stated that participation was voluntary. The consent also explained that by advancing to the next page they were consenting to participate. After acknowledging the consent, participants were led through the three data collection tools. Ample time was given to complete the electronic data collection survey to ensure participants are able to conduct the survey at a time that was convenient for them.

A second survey followed the collection of research data and functioned to collect information for incentive purposes. The researcher offered participants an incentive of
being entered in a drawing to win one of four $25 gift cards as a method of sample recruitment. The incentive survey was not linked to their research responses and in no way identified who provided what responses. It was only used to identify participants in the study. Those facts were made clear in the recruitment email.

**Measurement methods**

**Demographics.** The demographic data collected included ICU worked in, age, gender, years as a RN, years of critical care experience, education level, marital status, and hours worked per week. All of the demographics collected (with the exception of working in in these particular ICUs) have been previously correlated in the literature with either caring ability and/or burnout.

**Caring Ability Inventory.** Permission was obtained electronically, via email, from Dr. Ngozi Nknongo to utilize the CAI in this research. The CAI consists of 37 items on a 7-point Likert scale divided into the subscales of Knowing, Courage, and Patience (Nkongho, 1990). The Knowing scale is compromised of 14 of the 37 items (2, 3, 6, 7, 9, 19, 22, 26, 30, 31, 33, 34, 35, 37). There are 13 items under the Courage scale (4, 8, 11, 12, 13, 14, 15, 16, 23, 25, 28, 29, 32). And finally the Patience scale contains 10 items (1, 5, 10, 17, 18, 20, 21, 24, 27, 36) (Nkongho, 1990). Of note, in Nkongho’s original 1990 publication of the CAI item 36 is assigned to both the Knowing and Patience scales where as item 37 was not assigned to a scale at all. It was the decision of this researcher that item 37 likely was meant to be part of the Knowing scale and not 36. Therefore, item 37 and not 36 were included in Knowing and only item 36, not 37, were included in Patience. The author was contacted for clarification but no response was received.
The reported psychometric properties indicate the CAI is a refined and highly valid and reliable tool. Cronbach’s alpha coefficient values for each subscale, .79 for knowing, .75 for courage, and .71 for patience, in addition to the total CAI value of .84 indicate the reliability of the tool (Nkongho, 1990). Construct validity of the CAI was determined by three methods: comparing students and nurses, comparing males and females, and comparing the CAI with a measurement of self-concept with significant (p<.001) finding reported for all. Content validity index was determined to have a .80 percentage of agreement by two content experts (Nkongho, 1990).

Maslach Burnout Inventory. For use of the MBI, permission was obtained from Mind Garden, Inc. and 100 licenses for use were purchased. The MBI is a self-report collection tool with 22 items on a 7-point Likert scale, including three subscales of EE, DP, and PA. The Emotional Exhaustion scale contains nine items (1, 2, 3, 6, 8, 13, 14, 16, 20). There are five items within the Depersonalization scale (5, 10, 11, 15, 22). And finally the Personal Accomplishment scale contains eight items (4, 7, 9, 12, 17, 18, 19, 21) (Maslach, Jackson, & Leiter, 1996).

The reported psychometric properties of the MBI include significant findings for internal consistency with Cronbach’s alpha coefficients for reliability noted to be .90 for EE, .79 for DP, and .71 for PA (Maslach et al., 1996). Convergent validity of the MBI was tested for by Maslach et al. (1996) using three techniques, each returning a statistically significant result with p<.05, p<.05, and p<.001. Testing for discriminant validity found significant negative correlation for EE (p<.05) and DP (p<.02) and slightly positive correlation for PA (p<.06) when correlated with scores for job satisfaction.
Coding and Scoring

Demographics. The demographic variables of age, years as RN, and years as Critical Care RN, and hours worked per week were collected, coded and valued as whole numbers. The remaining variables, ICU worked in, gender, job title, education level, and marital status were categorized with numerical values assigned to choices.

Table 2. Coding of Categorical Data in SPSS

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>SURVEY MONKEY CHOICES</th>
<th>SPPS CORRESPONDING CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICU WORKED IN</td>
<td>CVC-ICU</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>TICU</td>
<td>2</td>
</tr>
<tr>
<td>GENDER</td>
<td>FEMALE</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MALE</td>
<td>2</td>
</tr>
<tr>
<td>JOB TITLE</td>
<td>CNI</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CNII</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>CNIII</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CNIV</td>
<td>4</td>
</tr>
<tr>
<td>EDUCATION LEVEL</td>
<td>ASSOCIATE DEGREE</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>BACHELOR'S DEGREE</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>MASTER'S DEGREE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>DOCTORL</td>
<td>4</td>
</tr>
<tr>
<td>MARITAL STATUS</td>
<td>SINGLE</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MARRIED</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>WIDOWED</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>DIVORCED</td>
<td>4</td>
</tr>
</tbody>
</table>

Caring Ability Inventory. Each item from the CAI was given the discrete choices of the numbers 1 through 7 according to the Likert scale design of the tool. The value of 1 was corresponded to the response of “Strongly Disagree” and value 7 was corresponded to “Strongly Agree”. Items 2 through 6 did not have specific corresponding statements. Per Nkongho’s scoring information (1990) items 4, 8, 11, 12, 13, 14, 15, 16, 23, 25, 28, 29, and 32 were reverse scored as those items were negatively worded. Additional variables to total each subscale were created in SPSS and included CAI-K (knowing
subscale), CAI-C (Courage subscale), CAI-P (Patience subscale) and CAI-Total (total of all subscales).

*Maslach Burnout Inventory.* The individual items for the MBI were given the discrete choices of the numbers 0 through 6 according to the Likert scale design of the tool. Each value was given a corresponding statement related to the frequency in which the stated item was felt at their job.

<table>
<thead>
<tr>
<th>VALUE</th>
<th>CORRESPONDING STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>NEVER</td>
</tr>
<tr>
<td>1</td>
<td>A FEW TIMES PER YEAR OR LESS</td>
</tr>
<tr>
<td>2</td>
<td>ONCE A MONTH OR LESS</td>
</tr>
<tr>
<td>3</td>
<td>A FEW TIMES A MONTH</td>
</tr>
<tr>
<td>4</td>
<td>ONCE A WEEK</td>
</tr>
<tr>
<td>5</td>
<td>A FEW TIMES A WEEK</td>
</tr>
<tr>
<td>6</td>
<td>EVERY DAY</td>
</tr>
</tbody>
</table>

Additional variables to total each subscale were created in SPSS and included MBI-EE (Emotional Exhaustion subscale), MBI-DP (Depersonalization subscale), MBI-PA (Personal Accomplishment subscale). Each subscale is considered individually without a total of the three to be valued (Maslach et al., 1996).

**Data Analysis**

Data collected from the demographics, CAI, and MBI were statistically analyzed to determine existence of correlations or relationships. The included demographic variables were a combination of nominal and interval level data. Descriptive statistics, measures of central tendency and frequencies, were utilized for analyzing and to determine significant groupings in the sample.
Data analysis for the scores of both the CAI and MBI began with descriptive statistics (measures of central tendency) to determine distribution of results. Both instruments were considered interval level data, noting that Likert scales are thought to be ordinal data but are treated in most biological science research as interval data (Kellar & Kelvin, 2013). Inferential analysis of correlations between the variables was conducted with correlation coefficient testing, with the goal to measure the strength and direction of the relationship between caring ability and burnout. The specific test used was Pearson correlation coefficient, noting the R value indicated the strength and direction of the relationship of the two variables (Kellar & Kelvin, 2013). For data found to be non-normally distributed, the alternative non-parametric Spearman correlation was used.

Additionally, Spearman’s Rho was utilized for the analysis of categorical data, such as gender. These tests are the appropriate way to analyze data and determine the strength and direction of a relationship.

**Bias, limitations, and ethical considerations**

The limitations of this convenience non-random sampling have been previously discussed in detail. An additional concern for bias in results related to caring ability stem from the knowledge of training that took place prior to this research, focusing extensively on caring and caring relationships in nursing practice. There was concern that participants may misrepresent themselves by giving answers that are in line with the new caring values of their employer, otherwise known as social desirability response bias (Polit & Tatano Beck, 2012).
Consideration was given to include the Marlowe-Crowne Social Desirability Scale (MCSDS) as a means to measure the avoidance of disapproval by participants (Marlowe & Crowne, 1960). However, the MCSDS consists of 33 items which would have been a burdensome addition to the 68 items (22 items in MBI, 37 in CAI, and 8 demographic items) already included in data collection. Ultimately, this identified potential for bias will be noted and addressed with the reporting of results without the use of MCSDS. There were limited ethical concerns related to this research. The loss of time for participants was considered and included in the informed consent. Involvement was solely optional and no pressure was placed on the participants to take part.

Summary

Threats to internal validity were controlled for by using highly valid and reliable tools (CAI and MBI) for measuring the key variables. Both tools have been subject to rigorous reliability testing and have significant results accounting for their ability to accurately measure the desired concepts. Key demographics determined previously to be confounding variables to BOS were included in the data collection tool. Including these demographics will add to the internal validity as correlations between caring ability/burnout and other potential confounding variables will be known and reported. Controlling for external validity and generalizability of the findings was accomplished by sampling from two ICUs. While there are noted limitations to the two ICUs sampled from, having the sample not come from one unit does add to the generalizability of the findings.
CHAPTER FOUR: RESULTS

Introduction
This chapter will provide the results to the research question: Is there a relationship between caring ability and burnout in critical care nurses? The data was collected over a period of six weeks through electronic surveys emailed to the staffs of two ICUs.

The IBM program, SPSS Statistics 20 was used to analyze collected data. Measures of central tendency (frequency, mean, median, and mode) were analyzed in addition to correlations using Pearson and Spearman’s Rho when appropriate. All demographic data (including PPM attendance) was analyzed using Spearman’s Rho either due to a non-normal distribution of data or the item being categorical. Of the CAI and MBI subscales only MBI-DP was non-normally distributed and was therefore also analyzed using Spearman’s Rho. The remaining scales had a normal distribution and were analyzed with Pearson’s correlation coefficient.

The correlation coefficients were interpreted using Cohen’s (1988) standards for r-value significance in relation to behavioral sciences. R-values of 0.1 (+/-) were considered weak, 0.3 (+/-) moderate, and 0.5 (+/-) were considered strong (Cohen, 1988). (Maslach et al., 1996)

Sample
A total of 88 responses were received from the electronic surveys. Of those, four were eliminated due to only responding to the demographics and not the CAI and MBI. Of the remaining 84, only a subset of 81 participants completed both the CAI and
MBI with three participants only completing the CAI. Those participants’ data was retained as the CAI information was deemed to be valuable.

**Data Collection and Preparation**

Data was collected electronically though the web based program Survey Monkey. Results were exported from Survey Monkey into SPSS for analysis. Variables were analyzed and updated with appropriate labels, verifying transcription of coding and values. Data was interpreted with measures of central tendencies as well as correlations as indicated.

**Results**

*Demographics.* Of the 84 participants, sixty-seven (79.8%) were female and fourteen (20.2%) were male. The percentage of those working in ICU B was 61.9% (n=52) while 38.1% (n=32) worked in ICU A. The average age of the participants was 38.5 years with a range from 26 to 64 years old. Participants years as an RN averaged to be 11.9 years with a range from 2 to 42 years. Years as a critical RN ranged from 1 to 38 years with 10.1 years as the average.

Job title information was collected from participants and was identified as follows; CNI (n=1), CNII (n=60), CNIII (n=22), and CNIV (n=1). Of note, the title of CNI was set to be an exclusion criteria due to that job title indicating less than one year experience as an RN. The particular respondent who indicated CNI also indicated 10 years of critical care experience and 10 years total years RN experience. This led the investigator to believe CNI may have been selected in error therefore the participants’ data was retained.
The highest degree of participants was obtained. Associates (n=13), Bachelors (n=63), Masters (n=7), and Doctoral (n=1). Hours worked per week ranged from 24 to 60 hours with 36.7 being the average. Marital status was collected with responses Single (n=17), Married (n=56), and Divorced (n=11) reported. Attendance of the PPM training was also collected and is considered part of demographics related to results. Of participants, 70.2 % (n=59) attended the training while 26.2% (n=22) did not.

### Table 4. Categorical Data of Participants

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Choices</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENDER</td>
<td>FEMALE</td>
<td>67</td>
<td>79.8</td>
</tr>
<tr>
<td></td>
<td>MALE</td>
<td>14</td>
<td>20.2</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>84</td>
<td>100</td>
</tr>
<tr>
<td>UNIT</td>
<td>ICU A</td>
<td>32</td>
<td>38.1</td>
</tr>
<tr>
<td></td>
<td>ICU B</td>
<td>52</td>
<td>61.9</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>84</td>
<td>100</td>
</tr>
<tr>
<td>JOB TITLE</td>
<td>CNI</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>CNII</td>
<td>60</td>
<td>71.4</td>
</tr>
<tr>
<td></td>
<td>CNIII</td>
<td>22</td>
<td>26.2</td>
</tr>
<tr>
<td></td>
<td>CNIV</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>84</td>
<td>100</td>
</tr>
<tr>
<td>DEGREE</td>
<td>ASSOCIATE</td>
<td>13</td>
<td>15.5</td>
</tr>
<tr>
<td></td>
<td>BACHELOR</td>
<td>63</td>
<td>75.0</td>
</tr>
<tr>
<td></td>
<td>MASTERS</td>
<td>7</td>
<td>8.3</td>
</tr>
<tr>
<td></td>
<td>DOCTORAL</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>84</td>
<td>100</td>
</tr>
<tr>
<td>MARITAL STATUS</td>
<td>SINGLE</td>
<td>17</td>
<td>20.2</td>
</tr>
<tr>
<td></td>
<td>MARRIED</td>
<td>56</td>
<td>66.7</td>
</tr>
<tr>
<td></td>
<td>DIVORCED</td>
<td>11</td>
<td>13.1</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>84</td>
<td>100</td>
</tr>
<tr>
<td>PPM ATTENDANCE</td>
<td>YES</td>
<td>59</td>
<td>70.2</td>
</tr>
<tr>
<td></td>
<td>NO</td>
<td>22</td>
<td>26.2</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>81</td>
<td>96.4</td>
</tr>
</tbody>
</table>

### Table 5. Measures of Central Tendency for Continuous Demographic Variables

<table>
<thead>
<tr>
<th>years old</th>
<th>yearsRN</th>
<th>yearsCC_RN</th>
<th>hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Valid</td>
<td>84</td>
<td>84</td>
<td>84</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mean</td>
<td>38.56</td>
<td>11.94</td>
<td>10.15</td>
</tr>
<tr>
<td>Median</td>
<td>36.00</td>
<td>9.00</td>
<td>8.00</td>
</tr>
<tr>
<td>Mode</td>
<td>31.00</td>
<td>8.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>9.01</td>
<td>8.46</td>
<td>8.13</td>
</tr>
<tr>
<td>Minimum</td>
<td>26.00</td>
<td>2.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Maximum</td>
<td>64.00</td>
<td>42.00</td>
<td>38.00</td>
</tr>
</tbody>
</table>
Caring Ability Inventory. Nkongho’s (1990) tool, CAI, is intended to “quantify a person’s degree of caring ability relative to others” (p. 3). The results are interpreted using the norms presented by Nkongho (1990) including the categories of low, medium, and high for each subscale and total.


<table>
<thead>
<tr>
<th>Subscale</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowing</td>
<td>Below 76.4</td>
<td>76.4-84.0</td>
<td>Above 84.0</td>
</tr>
<tr>
<td>Courage</td>
<td>Below 62.5</td>
<td>62.5-74.0</td>
<td>Above 74.0</td>
</tr>
<tr>
<td>Patience</td>
<td>Below 61.0</td>
<td>61.0-65.2</td>
<td>Above 65.2</td>
</tr>
<tr>
<td>Total CAI</td>
<td>Below 203.1</td>
<td>203.1-220.3</td>
<td>Above 220.3</td>
</tr>
</tbody>
</table>

Table 7 presents the mean scores for the subscales and total CAI. The three subscales and the CAI-Total had a normal distribution. The mean score for both Knowing and Courage are found to be medium norms with Patience found to be low. The total CAI mean was also in the range of medium norm.

Table 7. Measures of Central Tendencies for CAI Subscales and Total

<table>
<thead>
<tr>
<th></th>
<th>CAI_Knowing</th>
<th>CAI_Courage</th>
<th>CAI_Patience</th>
<th>CAI_total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>84</td>
<td>84</td>
<td>84</td>
<td>84</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mean</td>
<td>76.74</td>
<td>70.71</td>
<td>59.64</td>
<td>207.10</td>
</tr>
<tr>
<td>Median</td>
<td>77.00</td>
<td>71.00</td>
<td>60.0000</td>
<td>209.00</td>
</tr>
<tr>
<td>Mode</td>
<td>81.00</td>
<td>71.00*</td>
<td>64.00</td>
<td>210.00</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>8.87</td>
<td>8.70</td>
<td>5.23</td>
<td>17.35</td>
</tr>
<tr>
<td>Skewness</td>
<td>-.127</td>
<td>-.431</td>
<td>-.174</td>
<td>.012</td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.263</td>
<td>.263</td>
<td>.263</td>
<td>.263</td>
</tr>
<tr>
<td>Minimum</td>
<td>51.00</td>
<td>52.00</td>
<td>48.00</td>
<td>160.00</td>
</tr>
<tr>
<td>Maximum</td>
<td>98.00</td>
<td>88.00</td>
<td>70.00</td>
<td>247.00</td>
</tr>
</tbody>
</table>

Maslach Burnout Inventory. The MBI was created to measure the psychological syndrome of burnout while focusing on three different components that are represented by subscales, MBI-EE, MBI-DP, and MBI-PA. Eighty-one of the eighty-four respondents completed the MBI.
Each subscale is reported independently without a total for all the scales. Of note, the authors of the MBI manual suggest that researchers should report the results with individuals average score per scale rather than total score per scale (Maslach et al., 1996). However, the manual only provides interpretation scales based on total scores per scale. Literature reviewed related to burnout in critical care reported total scores rather than averages. A comparison of individual average scores per scale verses total score per scale was done and it was found that the correlation calculations were the same. Therefore, the total scores are reported so that scales provided by manual may be used for interpretation.

Table 8. Categorization of MBI Subscales; Human Services & Educators Form (Maslach, et. al., 1996)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>EE Frequency</th>
<th>DP Frequency</th>
<th>PA Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>27 or over</td>
<td>13 or over</td>
<td>39 or over</td>
</tr>
<tr>
<td>Moderate</td>
<td>17-26</td>
<td>7-12</td>
<td>32-38</td>
</tr>
<tr>
<td>Low</td>
<td>0-16</td>
<td>0-6</td>
<td>0-31</td>
</tr>
</tbody>
</table>

Both MBI-EE and MBI-DP are understood to be a greater indicator of burnout with higher total scores whereas MBI-PA is interpreted in the opposite direction, with higher scores indicating a lesser degree of burnout. The subscales MBI-EE and MBI-PA had a normal distribution while MBI-DP did not.
The subscales of the MBI are reported in frequencies as the questions of the tool are presented on a scale correlated with how often a certain characteristic is felt or experienced related to a job. Using the scales in table 8, the mean scores of all subscales would be ranked as moderate (rounding DP to the nearest whole number).

**Summary**

Significant findings related to certain demographics were found. These included unit worked with MBI-DP ($r=.263$, $p=.018$) as well as age with MBI-EE ($r=.222$, $p=.046$), MBI-DP ($r=.304$, $p=.006$), and MBI-PA ($r=.291$, $p=.008$). Gender was found to have a significant correlation with CAI-P ($r=-.249$, $p=.022$) and CAI-Total ($r=-.216$, $p=.049$). Years as an RN ($r=-.264$, $p=.017$) in addition to years as a critical care RN ($r=-.332$, $p=.002$) correlated significantly with MBI-DP. Years as a critical care RN was also found to correlate significantly with MBI-PA ($r=.236$, $p=.034$). It was also noted that marital status had a significant correlation with MBI-EE ($r=-.350$, $p=.001$) and MBI-PA ($r=.268$, $p=.016$).

The subscales and totals of the CAI were analyzed for correlations with the MBI subscales. Using Pearson’s R the total CAI ($r=.600$, $p=.000$) as well as all three...
subscales (CAI-K $r=0.584$, $p=0.000$; CAI-P $r=0.287$, $p=0.009$; CAI-C $r=0.434$, $p=0.000$) were found to have a positive correlation with MBI-PA. The subscale CAI-C had a negative correlation with MBI-EE ($r=-0.236$, $p=0.034$). There was also a negative correlation found between CAI-K ($r=-0.241$, $p=0.030$) and CAI-C ($r=-0.241$, $p=0.030$) with MBI-DP.
Table 10. Correlations of CAI/MBI subscales with demographics using Spearman’s Rho

|               | Unit worked | Years Old | Gender | Job Title | Yrs RN | Yrs CC RN | Degree | Marital Status | Hours worked |
|---------------|-------------|-----------|--------|-----------|--------|-----------|--------|----------------|--------------|-------------|
| CAI-Knowing   | R= .070     | Sig= .721 | .172  | .117      | .295  | .440      | .098   | .074           | .130         | -.119       |
|               |             |           |        |           |        |           |        |                |              |             |
| CAI-Courage   | R= -.039    | Sig= .721 | -.043 | -.154     | -.037 | .003      | .047   | .059           | .114         | -.142       |
|               |             |           |        |           |        |           |        |                |              |             |
| CAI-Patience  | R= .162     | Sig= .142 | .016  | .886      | -.249 | .038      | .139   | .155           | .025         | -.160       |
|               |             |           |        |           |        |           |        |                |              |             |
| CAI-Total     | R= .039     | Sig= .725 | .076  | .489      | -.216 | .053      | .134   | .164           | .100         | -.159       |
|               |             |           |        |           |        |           |        |                |              |             |
| MBI-DP        | R= .263     | Sig= .018*| -.304 | -.011     | -.264 | -.332     | .101   | -.198         | -.045        | .693        |
|               |             |           |        |           |        |           |        |                |              |             |
| MBI-EE        | R= .141     | Sig= .209 | -.222 | -.063     | -.174 | -.175     | .129   | -.350         | -.072        | .625        |
|               |             |           |        |           |        |           |        |                |              |             |
| MBI-PA        | R= .025     | Sig= .827 | .291  | .015      | .213  | .236      | .039   | .268           | .038         | .739        |

**correlation at the 0.01 level
*correlation at the 0.05 level

Table 11. Correlations of CAI subscales, CAI total and MBI subscales using Pearson and Spearman’s Rho as indicated

<table>
<thead>
<tr>
<th></th>
<th>MBI-DP (Spearman’s Rho)</th>
<th>MBI-EE (Pearson)</th>
<th>MBI-PA (Pearson)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAI-Knowing</td>
<td>-.241</td>
<td>-.121</td>
<td>.584</td>
</tr>
<tr>
<td></td>
<td>.030*</td>
<td>.283</td>
<td>.000**</td>
</tr>
<tr>
<td>CAI-Courage</td>
<td>-.241</td>
<td>-.236</td>
<td>.434</td>
</tr>
<tr>
<td></td>
<td>.030*</td>
<td>.034*</td>
<td>.000**</td>
</tr>
<tr>
<td>CAI-Patience</td>
<td>.077</td>
<td>.163</td>
<td>.287</td>
</tr>
<tr>
<td></td>
<td>.495</td>
<td>.034*</td>
<td>.000**</td>
</tr>
<tr>
<td>CAI-Total</td>
<td>-.238</td>
<td>-.133</td>
<td>.600</td>
</tr>
<tr>
<td></td>
<td>.032*</td>
<td>.238</td>
<td>.000**</td>
</tr>
</tbody>
</table>

**correlation at the 0.01 level
*correlation at the 0.05 level
The results of this research included several significant and interesting findings. The sample consisted of 84 critical care RNs from two different ICUs of the same health system. The average age of the sample was 38.5 years with an average of 10.1 years of ICU experience. In addition to demographics, participants completed the CAI (n=84) and the MBI (n=81). The correlations of the CAI and MBI indicate that a relationship does exist between caring and burnout in critical care nurses.
CHAPTER 5: DISCUSSION

Introduction
This study aimed to answer the question of if there is a relationship between caring ability and burnout in critical care nurses. Demographic variables deemed significant to the concepts of caring ability and burnout were also analyzed.

Major Findings by research question
The findings of this research add to the body of nursing knowledge in many ways. The demographic variables with significant correlations provide confirmation and insight into previous research findings, while the significant correlations between CAI and MBI offer a new perspective on the well known phenomenon of burnout in critical care nurses.

Demographics. Previous research has found that younger nurses seem to be at higher risk for burnout evidenced by higher levels of MBI-DP and MBI-EE (Chen & McMurray, 2001; Embriaco, Papazian, Kentish-Barnes, Pochard, & Azoulay, 2007; Meltzer & Huckabay, 2004; Merlani et al., 2011; Poncet et al., 2007). There was found to be a weak to moderate correlation between all three MBI subscales and years of age, suggesting younger nurses have higher levels of MBI-DP and MBI-EE while an increase in age may lead to increased MBI-PA. The findings of this study correlate with the previous findings related to MBI-EE and MBI-DP (Chen & McMurray, 2001; Embriaco, Papazian, Kentish-Barnes, Pochard, & Azoulay, 2007; Meltzer & Huckabay, 2004; Merlani et al., 2011; Poncet et al., 2007). However, it was also found in this study that MBI-PA had a weak to moderate positive correlation with age, which is not as prominent in previous research. Previous research either found no significance related to MBI-PA
and age or the scales were not analyzed independently and burnout was measured as either present or not present, not reporting specifically to MBI-EE, MBI-DP, and MBI-PA (Chen & McMurray, 2001; Embriaco, Papazian, Kentish-Barnes, Pochard, & Azoulay, 2007; Meltzer & Huckabay, 2004; Merlani et al., 2011; Poncet et al., 2007).

This would suggest that as younger nurses experience these higher levels of MBI-EE and MBI-DP, over time the sense of personal accomplishment does increase and burnout can potentially decrease.

The findings related to years as RN and years as critical care RN indicates that depersonalization (MBI-DP) has a weak to moderate negative correlation with age. In addition, personal accomplishment (MBI-PA) was also found to increase with years as a critical care RN with a weak correlation. The significant findings related to MBI-DP, MBI-PA and years as an RN and years as a critical care RN are congruent to the relationship these variable have with overall age. This finding would also confirm the suggestion that burnout can decrease over time.

The female gender was noted to have weak to moderate correlation with CAI-Patience (r= -.249, p=.022) as well as with the CAI-Total (r= -.216, p=.049). Considering the sample was 79.8% (n=67) female it is difficult to interpret these results.

Marital status was found to have a moderate negative correlation with MBI-EE (r= -.350, p=.001) implying that single RNs reported higher levels of emotional exhaustion. MBI-PA was found to have a weak to moderate positive correlation with marital status (r=.268, p=.016), suggesting that singles had lower levels of personal
accomplishment. These findings differ from previously reported findings, with divorced nurses reporting higher levels of emotional exhaustion (Chen & McMurray, 2001).

A weak to moderate correlation was found with nurses from ICU B reporting higher levels of MBI-DP. As previously noted, these ICUs do differ in patient population but have similar acuity and distressing situations. Further analysis is warranted to determine exact significance of this finding. There were no significant correlations found for job title, degree, or hours worked.

CAI and MBI. When comparing the subscales and total of the CAI with the subscales of the MBI several significant correlations were found. The CAI-K (r = -0.241, p = .030), CAI-C (r = -0.241, p = .030), and CAI-Total (r = -0.238, p = .032) scales were all found to have a weak to moderate negative correlation with MBI-DP, suggesting an inverse relationship exists. Perhaps as the caring components increase the depersonalization component of burnout decreases. In addition, CAI-C was found to have a weak to moderate negative correlation with MBI-EE (r = -0.236, p = .034). This suggests that possibly with an increase in the courage component of caring there is a decrease in emotional exhaustion.

All three CAI subscales were found to have a positive correlation with MBI-PA. As discussed previously, MBI-PA is interpreted differently than the other scales of the MBI. The higher mean scores indicate a lesser degree of burnout as evidence by one’s feeling of competence and successful achievement’s at work (Maslach et al., 1996). With CAI-K (r = .584, p = .000), CAI-C (r = .434, p = .000), CAI-P (r = .287, p = .009), and CAI-Total (r = .600, p = .000) having a moderate to strong positive correlation with
MBI-PA it may be that with an increase in the ability to care you will also experience and increase in personal accomplishment leading to a decrease in burnout.

The findings related to correlations between CAI and MBI are the first to be reported. Overall it can be said, that it is possible, that as caring ability increases, burnout is found to decrease. The three subscales of caring utilized in the CAI all seem to have an effect on the components of burnout. As courage and knowing increased, emotional exhaustion and depersonalization decreased. Total caring ability as well as the three components of knowing, courage, and patience increased along with personal accomplishment. These findings are similar to the findings Peery (2010) who found a significant relationship between burnout and caring using the Caring Behaviors Inventory (CBI) and also suggested that an increase in caring led to a decrease in burnout. The CBI evaluates four carative categories; assurance of human presence and attentiveness to others’ experiences, respectful deference, professional knowledge and skill, and positive connectedness (Peery, 2010). While a factor analysis hasn’t been done it is possible that these factors would have similarities to the concept of the CAI (knowing, courage, and patience).

Limitations
While some of the findings of this study are significant there are limitations to this research. The sample size of 84, while achieving the power analysis g-power of 84 participants, is still a rather small sample considering previous sample sizes of previous literature on these concepts. To further validate these findings a larger sample size would be necessary.
Nkongho’s (1990) CAI is a reliable and valid tool to measure one’s ability to care in a relationship. However, there is only one previous instance of the tool being used with practicing nurses. The majority of the CAI’s use in research has been with nursing students. More research utilizing bedside nurses and the CAI are indicated to further validate this tool in this population.

An additional limitation of this research is the use of a correlational design. Further research with a mixed methods utilizing qualitative methods could help to better understand the relationship between caring and burnout.

A final limitation of this research is the participants’ attendance of a workshop related to the medical center’s new professional practice model (PPM). This workshop occurred approximately eight months prior to data collection and had a strong emphasis on caring relationships. It is not possible to determine if attendance of this workshop had an affect on the participants measure caring ability. Of the participants of this research, 70.2 % (n=59) attended the workshop. Replication of this study at a medical center that has not had a focused training on caring would be warranted.

**Generalizability**

With this study occurring at a large teaching hospital with all ICU RNs, predominantly female, the findings are not generalizable to the entire nursing population. A larger proportion of male participants would add to the generalizability of these findings.

While burnout is a significant issue in ICU nursing, it is not unique to that area. As well caring ability is a global concept in the nursing field, not specific to critical care.
Additional research looking at different types of medical centers, more male RNs, and a broader variety of nursing specialties would add to the generalizability of these findings.

**Implications for Nursing Practice and Research**

With an increased focus on patient centered care, many institutions are implementing practice models and programs aimed at nurse caring. The idea that caring can be taught is becoming more accepted in the literature but much work instead focuses on fostering the caring ability already present inside of the nurse as a person as the priority of caring in practice (Blum CA, Hickman C, Parcells DA, & Locsin R, 2010; McDowell, Williams, & Kautz, 2013; Sitzman KL, 2007). Considering the findings of this research as well as previous studies, it can be expected that targeted interventions meant to increase or foster caring could lead to decreases in burnout.

Drawing from Duffy’s ideal of shifting from “doing” to “being” in nursing practice it is suggested that an increase in mindfulness could help today’s nurse retain those quality caring relationships. Meditation as a means to create mindfulness is known to be effective and something that could easily be incorporated into a nurses life. Encouragement and support for self care is important for a nurse to receive from leadership. It becomes very easy for a busy nurse to overlook the importance of self care.

The ideal of caring being at the root of nursing also must carry over to advance practice nurses (APNs). Literature has shown that APNs in the role of Nurse Practitioner (NP) continue to prioritize their caring role with patients but do so while trying to balance the expectation of productivity, much like the bedside nurse (Brunton & Beaman, 2000; Green, 2004). Those in the role of NP should give priority and focus to continuing to
bring their caring self to their interactions with patients and understand that “Nurse practitioners must embrace caring, not simply as a task or professional obligation, but as an extension of their own being and nursing identity” (Brunton & Beaman, 2000, p. 455). While there is responsibility with the NP there is also a responsibility with the training programs for NPs to retain caring as a priority and focus in their advanced practice.

Future research on the concepts of caring ability and burnout in a population of NPs would be valuable to add to the body of knowledge on these subjects. Recognizing the importance of retaining the caring nature of nursing into an advanced practice, it would be important to understand how the two relate in this population.

While nursing experiences a resurgence and focus on caring as the root of the profession, additional research is needed on the subject of caring from many angles. Understanding caring as it relates to the nurse and the patient can lead to increased job satisfaction, increased patient satisfaction and decreased burnout. Drawing from the findings of this research, a study to determine the causality of the relationship between caring ability could further add to the body of knowledge related to these subjects. Research with targeted interventions related to mindfulness and measurements of caring and burnout would be significant to understanding how mindfulness can affect these concepts.

Post-hoc analysis involving the attendance of a caring focused workshop attended by a percentage of the participants would be valuable for understanding the effect trainings of this type can have on caring ability and burnout.
Summary
While there is much research on caring in nurses and burnout in nurses, there are few studies that specifically look at how these two concepts relate and affect one another. With further research in this area, additional strides can be made to affect positive changes for both nurses and patients.
Appendix A. Informed Consent
University of California, San Diego
Consent to Act as a Research Subject

Comparison of caring ability and burnout in critical care RNs

Who is conducting the study, why you have been asked to participate, how you were selected, and what is the approximate number of participants in the study?
Toni Moseley is conducting a research study to find out more about the relationship between caring ability and burnout in critical care nurses. You have been asked to participate in this study because you are employed as a nurse in either the Sulpizio Cardiovascular Center Intensive Care Unit or Thornton Hospital Intensive Care Unit. There will be approximately 100 total participants from the two sites.

Why is this study being done?
The purpose of this study is to understand the relationship between ability to care when involved in relationships and burnout in critical care nurses. Understanding if and how the ability to care in a relationship (caring ability) and burnout are related as it pertains to critical care nurses can provide the profession with important insight to guide future positive interventions.

What will happen to you in this study and which procedures are standard of care and which are experimental?
If you agree to be in this study, you will be asked to complete three surveys: The three surveys include - one containing demographic information, one to assess caring ability, and one to assess burnout.

How much time will each study procedure take, what is your total time commitment, and how long will the study last?
The data will be collected over a period of six weeks, you can complete the surveys anytime in those six weeks. The actual time spent answering the surveys is approximately 30 minutes. You must complete the entire survey in one sitting.

What risks are associated with this study?
Participation in this study may involve some added risks or discomforts. These include the following:
- Loss of time spent completing the survey.
- Fatigue or stress related to the task of completing surveys
- Emotional fatigue related to upsetting memories of past work experiences
- Potential breach in confidentiality

Safeguards for possible risks:
If you experience emotional fatigue or stress related to completing the surveys – you may stop at any time and return when you are ready. You also may withdraw from the study at any time.

If you feel you are under stress or suffering from burnout, please be aware of resources that will provide assistance. You can contact UC San Diego’s Faculty and Staff Assistance Program (FSAP) at (858) 534-5523.

The collected data will be “de-identified” during the analysis. The data will be kept on a secure computer.

Because this is a research study, there may be some unknown risks that are currently unforeseeable. You will be informed of any significant new findings.

**What are the alternatives to participating in this study?**
The alternatives to participation in this study are to not participate in this study.

**What benefits can be reasonably expected?**
There may or may not be any direct benefit to you from these procedures. The investigator(s), however, may learn more about how caring ability and burnout affect each other and what can be done to promote a more caring work environment.

**Can you choose to not participate or withdraw from the study without penalty or loss of benefits?**
Participation in research is entirely voluntary. You may refuse to participate or withdraw at any time without penalty or loss of benefits to which you are entitled. If you decide that you no longer wish to continue in this study, you can stop the survey at any time and your data will not be included.

You will be told if any important new information is found during the course of this study that may affect your wanting to continue.

**Can you be withdrawn from the study without your consent?**
You may be withdrawn from the study for the following reasons: classification as a CNI or less than one year critical care experience. This study aims to understand the concepts as it relates to experienced critical care RNs. The primary investigator determined that only those with at least one year of critical care experience would be studied.

**Will you be compensated for participating in this study?**
As an incentive for participating in this research survey there will be a random drawing for four $25 gift cards, there will be four different winners total. To be entered in this drawing you will provide your name and email address at the end of the surveys. **YOUR NAME AND EMAIL WILL NOT BE LINKED TO YOUR SURVEY RESPONSES.** The drawing will take place at the end of the six-week survey period.
Winners will be drawn at random and contacted via email. The names and email addresses collected for purposes of the drawing will be kept completely separate from survey responses and can not be linked.

**Are there any costs associated with participating in this study?**
There will be no cost to you for participating in this study.

**What about your confidentiality?**
Your confidentiality will be maintained to the degree permitted by the technology used. Specifically, no guarantee can be made regarding the interception of data sent via the internet by any third parties.

Research records will be kept confidential to the extent allowed by law. Electronic data responses will be obtained from survey monkey. Responses to demographics, Caring Ability Inventory, and Maslach Burnout Inventory will be confidential and research participants will be assigned a number (001, 002, 003). The UCSD Institutional Review Board and the California State University San Marcos Institutional Review Board may review research records.

Because this research is taking place with a small population of nurses, the opinions and demographics of respondents could be interpreted by results of surveys. Please only answer questions you are comfortable with.

**Who can you call if you have questions?**

It is important that you understand all the information being presented to you prior to your consent for participation. If you have any questions or concerns related to participating in this research, you may reach the principal investigator, Toni Moseley at 619-540-9007 or tbirch@ucsd.edu

You may call the Human Research Protections Program Office at (858) 657-5100 to inquire about your rights as a research subject or to report research-related problems.
Appendix B. Demographics

1. Which unit do you work in?
   _____ Sulpizio Cardiovascular Center Intensive Care Unit (SCVC ICU)
   _____ Thornton Hospital Intensive Care Unit (TICU)

2. Age (rounded to the nearest year)
   _____ years old

3. Gender
   _____ Female
   _____ Male

4. Job Title
   _____ CNI
   _____ CNII
   _____ CNIII
   _____ CNIV

5. How many years have you been a licensed Registered Nurse (RN)?
   _____ years

6. How many years have you worked in critical care?
   _____ years

7. What is your highest level of education?
   _____ Associate Degree
   _____ Bachelor’s Degree
   _____ Master’s Degree
   _____ Doctoral

8. Marital Status
   _____ Single
_____ Married
_____ Widowed
_____ Divorced

9. What is your average number of hours worked per week?
   _____ hours
### Appendix C. Caring Ability Inventory

Please read each of the following statements and decide how well it reflects your thoughts and feelings about other people in general. There is no right or wrong answer. Using the response scale, from 1 to 7, select the degree to which you agree or disagree with each statement. Please answer all questions.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I believe that learning takes time.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>2. Today is filled with opportunities.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>3. I usually say what I mean to others.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>4. I can express my feelings to people in a warm and caring way.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>5. I do not like to be asked for help.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>6. I do not like to make commitments beyond the present.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>7. I really like myself.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>8. I have seen enough of the world for what I need to know.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>9. I can be approached by people at any time.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>10. Sometimes I like to be involved and some I do not like being involved.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>11. There is nothing I can do to make life better.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>12. I feel uneasy knowing that another person depends on me.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>13. I do not like to go out of my way to help other people.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>14. In dealing with people, it is difficult to let my feelings show.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>15. It does not matter what I say, as long as I do the correct thing.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>16. I find it difficult to understand how the other person feels if I have not had similar experience.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>17. I admire people who are calm, composed, and patient.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>18. I believe it is important to accept and respect the attitudes and feelings of others.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>19. People can count on me to do what I say I will.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>20. I believe that there is room for improvement.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>21. Good friends look after each other.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>22. I find meaning in every situation.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>23. I am afraid to “let go” of those I care for because I am afraid of what might happen to them.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>24. I like to offer encouragement to people.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>25. I do not like to make commitments beyond the present.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>26. I really like myself.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>27. I see strengths and weaknesses (limitations) in each individual.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>28. New experiences are frightening to me.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>29. I accept people just the way they are.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>30. When I care for someone else, I do not have to hide my feelings.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>31. I do not like to be asked for help.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>32. I can express my feelings to people in a warm and caring way.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>33. I admire people who are calm, composed, and patient.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>34. I can be approached by people at any time.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>35. I admire people who are calm, composed, and patient.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>36. People need space (room, privacy) to think and feel.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>37. I can be approached by people at any time.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
Appendix D. Maslach Burnout Inventory Samples

The purpose of this survey is to discover how various persons in the human services, or helping professionals view their job and the people with whom they work closely.

Because persons in a wide variety of occupations will answer this survey, it uses the term “recipients” to refer to the people for whom you provide your service, care, treatment, or instruction. When answering this survey please think of these people as recipients of the services you provide, even though you may use another term at work.

INSTRUCTIONS: In the survey below are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, choose the number 0 (zero). If you have had this feeling, indicate how often you feel it by choosing the number (from 1 to 6) that best describes how frequently you feel that way.

<table>
<thead>
<tr>
<th>How often:</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>A few times per year</td>
<td>Once a month or less</td>
<td>A few times per month</td>
<td>Once a week</td>
<td>A few times a week</td>
<td>Every day</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Correlating Subscale</th>
<th>How often:</th>
<th>Sample question:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Exhaustion</td>
<td>_______</td>
<td>I feel emotionally drained from my work.</td>
</tr>
<tr>
<td></td>
<td>_______</td>
<td>I feel burned out from my work.</td>
</tr>
<tr>
<td></td>
<td>_______</td>
<td>I feel like I’m at the end of my rope.</td>
</tr>
<tr>
<td>Depersonalization</td>
<td>_______</td>
<td>I worry that this job is hardening me emotionally.</td>
</tr>
<tr>
<td></td>
<td>_______</td>
<td>I don’t really care what happens to some recipients.</td>
</tr>
<tr>
<td></td>
<td>_______</td>
<td>I feel recipients blame me for some of their problems.</td>
</tr>
<tr>
<td>Personal Accomplishment</td>
<td>_______</td>
<td>I deal very effectively with the problems of my recipients.</td>
</tr>
<tr>
<td></td>
<td>_______</td>
<td>I feel exhilarated after working closely with my recipients.</td>
</tr>
<tr>
<td></td>
<td>_______</td>
<td>In my work, I deal with emotional problems very calmly.</td>
</tr>
</tbody>
</table>
References

American Association of Colleges of Nursing. (2014). *Nursing Shortage Facts Sheet*.


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http://doi.org/10.1164/rccm.200606-806OC

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