

# **Decision Making Experiences of Nurses Choosing to Work in Critical Care**

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## **Abstract**

### **Objective:**

To explore the decision making approaches used by nurses who chose to work in critical care and factors influencing the process of decision making.

### **Design and methods**

Qualitative descriptive methods using semi-structured interviews with nurses who had chosen to work in critical care within the past year.

### **Results**

Ten nurses weighed staying in their current positions with moving to critical care. Two nurses considered two or more specialty units. The nurses used rational-intuitive and satisficing decision making approaches in making their employment decision. Limited knowledge and unrealistic expectations of work life in critical care, pressure from others, and inadequate professional support made nurses' employment decisions more difficult. Social support, personal values for growth and learning, and paid educational incentives within employment offers facilitated their employment decisions.

### **Conclusions**

Several factors negatively influenced nurses' decision making approaches to making an employment decision. Findings revealed the need for decision support interventions focused on making employment choices for nurses.

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## Chapter One Introduction

There is a nursing shortage in specialty care areas in Canada and elsewhere in the world (Buerhaus, Staiger, & Auerbach, 2000; Stone et al., 2006). One such specialty care area is critical care; a healthcare specialty that provides care for patients experiencing life threatening illness or injury (Society of Critical Care Medicine, 2011). The shortage of critical care nurses is a multifaceted problem related to supply and demand (Stechmiller, 2002). An aging population and increasing complexity of patient illnesses are demanding more nurses; concurrently, an aging nursing workforce and retention difficulties, including nursing turnover, are decreasing the supply of critical care nurses (Alameddine, Dainty, Deber, & Sibbald, 2009; Stone et al., 2006).

Workforce instability related to nursing turnover is impacting negatively on the well being of nurses, the provision of quality care, and on overall systems costs (Hayes et al., 2006). Recent studies have reported between 15 – 36% of Intensive Care Unit nurses intend to quit their jobs (Stone et al., 2006; Stone et al., 2007; Hayes et al., 2006). Direct costs related to turnover include training costs, which can amount to \$64,000 per nurse for the critical care nurse training program alone (Hayes et al., 2006; O'Brien-Pallas et al., 2010). Other direct costs include those related to advertising, recruiting, and hiring of new nurses (Hayes et al., 2006; O'Brien-Pallas et al., 2010). The indirect costs, or the human costs, associated with nursing turnover are described as decreased employee productivity and decreased staff morale (Beale & Holinsworth, 2002; O'Brien-Pallas et al., 2010).

An important predictor of nursing turnover, or a job move within or to outside a workplace due to both voluntary and involuntary reasons, includes job dissatisfaction (Hayes et al., 2006). Job dissatisfaction has been studied extensively in the nursing literature and

found to have several moderators at the individual, unit, and organizational level (Hayes et al., 2006; O'Brien-Pallas et al., 2010). Organizational climate and unhealthy working conditions at the unit level have been described as significant contributing factors to nursing turnover in the Intensive Care Unit (Alameddine et al., 2009; Stone et al., 2006).

Role discrepancy, or an incompatibility between the nurses' role interests and the characteristics of the job undertaken, has also been found to contribute to nurses' dissatisfaction and resultant intention to quit their jobs (O'Brien-Pallas et al., 2010; Takase, Maude, & Manias, 2006). Personality fit theory has been used to explain nursing role discrepancy which assumes that individuals choose occupations that allow them to exercise their skills, abilities and values; and an incongruence between them leads to job dissatisfaction and job reassignment (Beale & Holinsworth, 2002; Lu, While, & Barriball, 2005; Takase et al., 2006; Price, 2009).

Role discrepancy highlights the importance of decision making in undertaking a job that matches individual skills, abilities, and values. Important recommendations found within the nursing literature focus on the institutional needs to improve the organizational climate and ensure role congruency for nurses beyond their decision to work in a specific area (Hayes et al., 2006; O'Brien-Pallas et al., 2010). Career development and planning strategies to support nurses in navigating their careers exist, however, no explicit reference is made to the decision making process involved in making an employment choice (McGillis Hall, Waddell, Donner, & Wheeler, 2004; Donner & Wheeler, 2001). An emphasis on decision making related to an employment choice would only serve to strengthen nurses' career choices and help ensure role congruency in the workplace prior to working in a particular setting.

The vocational psychology field has investigated the approaches individuals use to process information and make career choices in today's work environment from a decision making perspective (Phillips, 1997). Career choices are complex and while some individuals are easily able to make a career choice, others experience difficulty in the process (Amir & Gati, 2006). Difficulties faced by individuals in this process can halt the process or potentially lead to a less than optimal choice, or one that doesn't match an individuals' skills, values and interests, and thereby lead to job dissatisfaction (Amir & Gati, 2006; Gati, Krausz, & Osipow, 1996).

Critical care areas employ a multidisciplinary healthcare team that provides care for patients with acute life threatening illness or injury (Society of Critical Care Medicine, 2011). Critical care units have consistently been a significant employer of practicing nurses and employ 18,440 critical care nurses or 7.2% of Canada's practicing nurses (Canadian Nurses Association, 2008). Making a decision related to an employment choice to work in the specific setting of critical care offers challenges that are typically associated with making a career decision (Gati, Krausz, & Osipow, 1996). Such challenges may include the consideration of additional and perhaps challenging information related to the complexity of the nursing role.

Traditionally, experienced nurses with medical surgical nursing experiences have been hired into critical care areas (Travale, 2007). The current nursing shortage in specialty areas has resulted in the influx of novice nurses into the critical care setting (Travale, 2007). Nursing graduates' views on the importance of exposure to technical skills, learning, and practice opportunities that build competence, confidence, and ability to make sound judgments have also encouraged novice nurses' choices to work in critical care (Hayes et al.,

2006). While some novice nurses hired into critical care have gained previous exposure to this field through nursing preceptorships, some have not had any exposure to it at all. The novice nurses' potential limited exposure to critical care may pose challenges in their decision making regarding an employment choice to work in critical care.

In summary, an employment choice that results in a less than optimal decision for nurses and resultant dissatisfaction further compounds the difficulty faced in retaining staff, and meeting the health care needs of critically ill patients, particularly in critical care. The approaches individuals use to process information and make a career choice and specific influences on the process have been studied within the vocational psychology field, however, to the best of our knowledge, no reference has been made to it within the nursing field. Moreover, support for nurses making career choices has been outlined in the context of career planning and development without explicit reference to the skill of making a decision between two or more possible employment alternatives.

### **1.1 Objectives of the Study**

The purpose of this study is to explore the decision making experiences of nurses who have recently made an employment decision to work in critical care nursing. The specific research questions are:

- 1) What decision making approaches are used by critical care nurses in choosing to work in a critical care setting?
- 2) What factors influence the process of choosing to work in a critical care setting?
- 3) What changes to the Ottawa Decision Support Framework are required to affirm its applicability to nurses making employment choices?

The resultant description of the nurses' decision making experiences related to an employment choice would serve as the foundation for further inquiry and development of effective interventions to support future nurses making similar choices.

## Chapter Two Literature Review

### 2.0 Introduction

A literature review was completed to identify relevant information related to the decision making approaches used by critical care nurses making an employment choice, as well as the factors influencing the process. Electronic databases including CINAHL, PsychINFO, SCOPUS and the Cochrane Library were scanned for relevant sources of information. Search terms and phrases included: decision making, career choice, career indecision and critical care. Relevant sources were also obtained from reference lists of relevant articles, hand searches of relevant journals, and searches of nursing associations and prominent scholars in the field of nursing recruitment and retention. This chapter will provide a summary of the findings. More specifically, specific aspects of a career decision and theoretical models outlining how career decisions are and should be made will be outlined. Influences on career decisions, including potential contextual factors existing in the current health care environment, will then be reviewed. Finally, the Ottawa Decision Support Framework that informed this study will be introduced.

### 2.1 The Career Decision

Individuals making career choices have evolved from making a single career choice based on the matching of individual traits to work requirements, to that of *adapting* to a changing environment (Krieshok, Black, & McKay, 2009; van Vianen, De Pater, & Preenen, 2009). Adaptive individuals make ongoing matches or career choices while considering how well the match is working within a transforming work environment and changing personal goals (Krieshok, Black, & McKay, 2009; van Vianen, De Pater, & Preenen, 2009). Careers are now defined by vocational psychologists as, “a sequence of work roles or a sequence of a

person's work experiences over time", and are characterized by lifelong learning and change (Ashforth & Saks, 1995, p. 157).

Career adaptability, according to Krieshok, Black, & McKay (2009), includes preparing for life changes, exploring relevant career information, an awareness of decision making principles, and knowledge of self and the surrounding environment as they impact on career choices. Explicit reference to the actual decision making behaviours, or how individuals process information and arrive at a career choice, then, has been a focus in vocational career decision making models in an effort to support individuals' ability to adapt to the changing work environment and make effective career choices (O'Hare, 1987).

Career decisions require several elements: a decision maker; an objective that the decision maker is trying to achieve which will help determine the success or failure of the outcome of the decision; two or more alternative actions, each with several outcomes being anticipated; with each potential future occurrence having some degree of value or relative importance to the decision maker; and the need to collect relevant information related to each alternative (Gati & Tal, 2008; Jepsen & Dilley, 1974; Pitz & Harren, 1980). Strategies can then be used to assemble the information and allow the advantageous course of action to be recognized (Gati & Tal, 2008; Jepsen & Dilley, 1974; Phillips, 1997). A career decision, then, is defined as the actions needed to produce a favourable or optimal outcome (Reed, Jernstedt, & Reber, 2001; Savickas, 2010). This is differentiated from career choice that is considered the product of a decision where an individual selects an option between two or more alternatives pertaining to work or education (Reed, Jernstedt, & Reber, 2001; Savickas, 2010).

## **2.2 The Unique Features of a Career Choice**

Career decisions are described, from a cognitive viewpoint, as unique in several ways (Amir & Gati, 2006, Gati, Krausz, & Osipow, 1996). Unique features of a career choice relate to the importance of the decision for individuals and the information needed to make a career choice (Amir & Gati, 2006; Gati, Krausz, & Osipow, 1996; Gati & Tal, 2008; Phillips, 1997; Pitz & Harren, 1980).

### **2.2.1 Importance of the Decision**

Career decisions are often associated with increased levels of anxiety given the potential psychological and financial consequences of making an ineffective choice (Gati, Krausz, & Osipow, 1996; Gati & Tal, 2008; Greenhaus & Callanan, 1992). Western culture emphasizes values related to self-fulfillment and personal satisfaction (Gati & Tal, 2008). The type of work individuals undertake has an important influence on their identity formation (Trevor-Roberts, 2006). The potential job dissatisfaction resulting from an ineffective choice can lead to stress and anxiety (Gati & Tal, 2008). The financial costs related to time and training associated with an ineffective choice can also be stressful for individuals (Gati & Tal, 2008).

Feelings of uncertainty within the decision maker can result from the anticipated consequences related to a career choice, particularly in a shifting work environment (Athanasou, 2003; Gati & Tal, 2008; Phillips, 1997; Pitz & Harren, 1980). The constantly changing work environment and changing employee/employer terms make it difficult for individuals to anticipate future outcomes of potential career alternatives (Amir & Gati, 2006; Trevor-Roberts, 2006; Zhou & Santos, 2007). Trevor-Roberts (2006) sums up the description of uncertainty as something that “does not exist simply within people’s

experiences of their career, rather, it is a central experience of living” (p. 98). He outlines a number of empirical studies linking uncertainty to stress, role ambiguity, negative health effects and job transfer. An increasing awareness of the experience of uncertainty in individuals making career decisions within an unstable work environment has resulted in a variety of necessary approaches used by career counselors to assist individuals in dealing with it, one of which includes the facilitation of decision making skills for individuals making a career decision (Amir & Gati, 2006; Savickas, 2010).

### **2.2.2 Information Needed to Make a Career Choice**

Relevant information needed to make a career decision is required from both within and outside the individual (Jepsen & Dilley, 1974). Career decisions can include a large number of alternatives with sometimes large amounts of factual information available on each alternative (Gati, Krausz, & Osipow, 1996; Gati & Tal, 2008; Pitz & Harren, 1980). Pitz & Harren (1980) describe information to come at a cost in terms of time, money and effort; however, it offers a reduction in uncertainty regarding the potential outcomes of the alternatives.

Making a career choice also requires insight about one’s self and clarification of personal values and preferences (Gati & Tal, 2008; Krieshok, Black, & McKay, 2009). Lack of information about one’s self or difficulty in establishing one’s preferences is a major cause of career decision making difficulties, which in turn can halt the decision making process all together (Gati, Krausz, & Osipow, 1996; Gati & Tal, 2008; Krieshok, Black, & McKay, 2009). Vocational psychologists describe career preferences as resulting from introspection related to past work experiences, including successes and failures, and self-understanding of one’s values, skills and abilities (Gati & Tal, 2008). They also describe

individual preferences as being highly susceptible to contextual factors (Bright, Pryor, Wilkenfeld, & Earl, 2005; Gati & Tal, 2008).

### **2.3 How Career Decisions Are and Should be Made**

A key question consistently addressed by vocational psychologists in a literature review by Fouad (2007) includes how individuals go about making a career decision. The following section will review the theoretical and empirical literature related to this question. The lack of literature pertaining to how nurses make career decisions related to an employment choice to work in critical care has necessitated a review of the literature related to career decision making in the vocational psychology literature.

Several types of decision theories exist that help inform the process of making a career decision. Such theories are used in vocational counseling to help understand and guide individuals making career decisions (Savickas, 2010; O'Hare, 1987). Decision making models are classified as normative, descriptive, or prescriptive.

#### **2.3.1 Normative Theories of Decision Making**

The normative model of decision making includes theories that provide guidelines for how people should arrive at an optimal choice. The expected utility model, the most commonly known normative model of decision making, explains a rational approach to decision making and has served as the standard with which many normative models are compared to (Phillips, 1997; Pitz & Harren, 1980). This theory operates under the principle that an individual uses deliberate and knowledgeable reasoning to choose between risky or uncertain alternatives using quantifiable terms (Pitz & Harren, 1980). That is, individuals arrive at an optimal choice through the evaluation of each possible outcome with respect to values and preferences to yield the utility; probabilities are then assigned to each possible

outcome after which a combination, or a trade off, of the utilities and the probabilities reveal the most optimal outcome (Bekker, 2009; Germeijs & De Boeck, 2003; Phillips, 1997).

The rational decision maker is expected to have large amounts of accurate information, a well defined set of values and preferences, strong computational skills and be unaffected by previous choices in the past (Phillips, 1997). Effective decision making, according to Pitz & Harren (1980) then, relies on individuals' ability to seek information, consider a range of alternatives, obtain accurate knowledge about the alternatives, and show rationality and consistency in making a choice. The critiques of this model, however, revolve around the elements that go into making an effective choice and uphold that individuals' cognitive and informational limitations negate their ability to be rational in the approach to making a career decision (Gati & Tal, 2008; Phillips, 1997.).

The rational approach to making a career decision remains the standard with which to work toward despite mixed empirical findings regarding its superiority and effectiveness (Phillips, 1997). Empirical studies related to the effectiveness of a rational approach to career decisions focus on measurements of improvement on an aspect of decision making using validated decision making scales following instruction in or an intervention involving a rational method of choice. Maples & Luzzo (2005) found gains in the college students' career decision making self-efficacy when exposed to interventions geared toward self-appraisal (personal interests, abilities, and values) compared to students who weren't exposed to the intervention. Mitchel & Krumboltz (1987), however, found that rational decision making training was less effective than cognitive restructuring in the reduction of anxiety related to a career decision. Lunneborg (1978) found that a rational approach to

decision making was associated with career decisiveness and most relevant at the stage where individuals had committed to an alternative.

### **2.3.2 Descriptive Theories of Decision Making**

Descriptive theories of decision making illustrate how individuals actually make a decision (Gati & Tal, 2008). It entails general characteristics of information processing, including judgment, that guide individuals in the process of decision making (Bekker, 2009; Pitz & Harren, 1980). These information processing strategies, or heuristics, are felt to be adaptive in situations where the decision is complex and occurring within the context of a changing environment (Pitz & Sachs, 1984). Pitz & Sachs (1984) outline two specific strategies individuals use to make a decision. They outline a higher level, cost benefit analysis approach to a decision, in addition to a more automatic, non deliberative, intuitive approach (simplifying heuristics), the selection of which depends on the cognitive effort required. In either case, the only observable behaviour on the decision maker's part is usually the judgment or choice (Pitz & Sachs, 1984).

No comprehensive descriptive model of decision making exists, rather knowledge from various empirical studies have offered important insight as to how individuals make decisions (Gati & Tal, 2008). Common cognitive mechanisms are found to exist in an intuitive approach to decision making that aim to simplify a complex decision (Gati & Tal, 2008; Pitz & Sachs, 1984). For example, individuals may fill in missing information from memory when faced with a decision, the framing of a decision can depend on past experiences and not logic, and individuals will strive for maximization or selection of the best option as opposed to an optimal one (Gati & Tal, 2008; Pitz & Sachs, 1984). An implication of this theoretical approach to decision making, then, is that the chosen

alternative may not be the best one, although may be adequate for the individual (Gati & Tal, 2008).

### **2.3.3 Prescriptive Theories of Decision Making**

Prescriptive models of decision making provide a framework for a systematic process for making a better career decision (Bekker, 2009; Gati & Tal, 2008). It incorporates the advantages of rational and intuitive modes of decision making while minimizing their disadvantages (Gati & Tal, 2008). Prescriptive models of decision making are not evaluated by the consistency or coherence of the final choice that results from an evaluative process, rather by their ability to assist an individual in the decision making process (Bekker, 2009; Gati & Tal, 2008).

Several features are required for a prescriptive model to be useful in facilitating the decision making process. Bekker (2009) outlines these as interventions that (a) allow an individual to recognize a need for a decision making process, (b) recognize and reduce bias involved in the decision making process, (c) support cognitive processes in the provision of information, (d) an opportunity to explicitly evaluate defined options and potential outcomes, (e) an opportunity for the individual to challenge their own cognitions, and (f) facilitate the individual's ability to perform the trade-offs between options while using effective ways to integrate the information.

The changing nature of the term career has given rise to variations in the prescriptive models of decision making related to a career choice (Gati & Tal, 2008). For some individuals, career decisions can include multiple alternatives, each with a large amount of information. Gati & Asher's (2001) prescreening, in-depth exploration, and choice model offers guidance to individual's choosing a college major or their occupation in that it

facilitates a screening of the many alternatives prior to choosing amongst a promising few. Other prescriptive models include revised normative models designed to guide an individual in comparison and evaluation of fewer alternatives, which according to some theorists, would only occur at an advanced stage of the entire career decision making process (Gati & Tal, 2008). Bright, Pryor, Wilkenfeld, & Earl (2005) state that prescriptive models of decision making are needed to account for the continuous change and adaptation that occurs in individuals' careers today.

#### **2.3.4 Summary**

The vocational psychology field has emphasized the importance of and need for informed decision making in navigating today's careers. The vocational psychology literature includes both empirical studies and theoretical models related to career decision making approaches, with the focus on college students making occupational choices. The uniqueness of a career choice has necessitated ongoing research to determine difficulties faced by individuals making career decisions and effective strategies to support their decision making in the context of change and unpredictability.

#### **2.4 Nurses' Career Decision Making and Career Choice**

There is an absence of research pertaining to nurses' career decision making from a decision making perspective. A focus on recruitment and retention has led to several empirical studies investigating the influences on nurses' initial occupational choice to become a nurse, or choice of first employer (McCall, Wray, & Mckenna, 2009; Miers, Rickaby, & Polland, 2007; Palese, Tosatto, Borghi, & Mesaglio, 2009; Vanhanen & Janhonen, 2000; White, 1999). Mackintosh (2007) used qualitative descriptive methods to ascertain reasons behind experienced nurses' decisions to work in a surgical setting without

any inquiry into their approach used to make the employment or career decision. Price's (2009) suggestions related to the future directions for career choice research in nursing correspond with the vocational psychology field's suggestions to consider qualitative approaches to explore career choice experiences of younger professionals in the 21<sup>st</sup> century work environment.

## **2.5 Influences on the Decision Making Process and Career Choice**

Contextual variables have been demonstrated to influence individuals' career decision making and subsequent choices (Gati & Tal, 2008). Qualitative studies have existed in both the nursing and vocational psychology literature that have explored the influences on individuals' career choices to both aid in nursing recruitment and lead to the development of relational, contextual based career development models (Duffy & Dik, 2009, Phillips, Christopher-Sisk, & Gravino, 2001; Price, 2009). Content areas addressed by the researchers exploring influences on career decision making and choice include: 1) the actual experiences of making career decisions, 2) issues that might have influenced a career decision to stay or leave, 3) typical approaches used to make a decision, 4) personal help and the existence of role models that facilitated decision making, and 5) reasons nurses felt drawn to work in a surgical setting (Price, 2009; Mackintosh, 2007; Phillips, Christopher-Sisk, & Gravino, 2001).

Social cognitive theory has revealed the many influences on individuals' career decisions. These include resources and barriers that affect decision making indirectly through their effects on self-efficacy, and directly on their effects on the decision making process including the shaping of job preferences and impacting information needed to make the choice (Duffy & Dik, 2009; Gati & Tal, 2008). Specific influences include factors

related to the decision maker, the social system, and the environment, as well as from past and present experiences (Patton & McMahon, 2006). Additional influences include family, friends, media, and teachers (Bright, Pryor, Wilkenfeld, & Earl, 2005). Phillips, Christopher-Sisk, & Gravino's, (2001) qualitative study revealed that over half of their participants felt their decision making process was pushed, nudged, and even forced toward a specific course of action by others, including parents; while Palladino Schultheiss, Kress, Manzi, & Glasscock's (2001) qualitative study revealed the supportive role of peers and parents in the decision making process.

Empirical studies in the nursing literature were found to be limited to the description of influences on undergraduate nurses' first employment choices that shaped job preferences. McCall, Wray, & McKenna (2009) found that clinical placements, supportive environments, and preconceived ideas about different roles in nursing influenced where nurses chose to work upon graduation. Further qualitative studies by various scholars demonstrated a host of factors that shaped nurses' employment preferences including the need for autonomy, recognition, job satisfaction, role clarity, quality of supervision, peer support, and opportunities for learning (Fenush & Hupcey, 2008; McCall, Wray, & McKenna, 2009; Palese, Tasatto, & Mesaglio, 2007; Palese, Tasatto, Borghi, & Mesaglio, 2009; White, 1999). These findings, although limited to undergraduate nurses' first employment choice, added valuable insight into the importance of contextual factors that shape job preferences.

### **2.5.1 The Current Health Care Setting**

The context of today's health care setting offers several potential influences on nursing career choices. Drastic changes have occurred in the workplace over the past two

decades due to the rising costs of health care (Tarrant & Sabo, 2010). Downsizing, reengineering, and reorganizing of hospitals in attempts to reduce expenditures have and continue to influence the numbers and types of professionals needed in the acute care environment; as well as, how they work, where they work, and who they work with (Tarrant & Sabo, 2010).

A current nursing shortage has introduced several contextual factors that could be, and in fact, are designed to influence nurses' career choices. Government and health care institutions have responded to the nursing shortage with a comprehensive nursing strategy involving government and hospital incentives to help increase the number of nurses entering and staying not only in the nursing profession as a whole, but in the specialized practice of critical care as well (Health Force Ontario, 2010). Such incentives include the New Graduate Guarantee and the Critical Care Nurse Training Funds. A further look at these incentives is warranted given the intended influence on the nurse's choice to work in critical care.

### **2.5.1i New Graduate Guarantee in Ontario**

The Ministry of Health and Long Term Care's Nursing Graduate Guarantee in Ontario functions to support the integration of newly graduated nurses into the workforce and to retain Ontario's new nursing graduates (Baumann, Hunsberger, & Crea-Arsenio, 2010). This initiative provides hospitals with financial support for a full-time supernumerary nursing position for new graduates at specific hospitals in Ontario for a period of up to 32 weeks (Baumann et al., 2010). It is the intent of this initiative to ease new graduates into the workforce and to provide them with work experiences that allow them to compete for future permanent positions (Baumann et al., 2010). The hiring units are required to attempt to

provide the newly hired graduate nurse with a full-time permanent position beyond the supernumerary phase of employment; however, the nurse must compete with other nursing staff for this position (Baumann et al., 2010).

### **2.5.1ii Critical Care Nurse Training Funds**

The Ministry of Health and Long-Term Care in Ontario have also invested in meeting the increasing demand for critical care services in Ontario through the establishment of a Critical Care Nurse Training Fund. In efforts to improve the quality of critical care nurse training and increase the number of nurses trained each year, the Ministry of Health and Long Term Care provides hospitals with partial funding to support critical care training (Ministry of Health and Long Term Care, 2011, “Critical Care Nurse Training Funds,” para 1). This initiative is currently in its fourth year of implementation, having assisted with training costs of 1,547 critical care nurses in Ontario (Ministry of Health and Long Term Care, 2011).

Real and potential contextual factors exist that have been found to influence individuals’ career decision making and subsequent choices. Further inquiry is recommended to explore the factors that impact career decision making of nurses across all age groups in the 21<sup>st</sup> century work setting (Price, 2009).

## **2.6 Career Decision Making Difficulties**

Decision making difficulties, problems, or challenges within the process of making a career decision have been revealed in the vocational psychology literature to have prevented college students from making a career choice, or to have lead them to making a choice that was less than optimal or satisfactory for them (Amir & Gati, 2006; Gati et al., 2011; Guay, Ratelle, Senecal, Larose, & Deschenes, 2006; Gati & Tal, 2008; Germeijs & De Boeck,

2002; Greenhaus & Callanan, 1992; Kelly & Lee, 2002; Osipow, 1999; Zhou & Santos, 2007). The impact of such difficulties, problems, or challenges has been termed career indecision (Gati et al., 2011; Osipow, 1999). Career decision making difficulties have been differentiated into both temporary developmental and chronic more pervasive forms to help guide effective decision support for individuals experiencing career indecision (Gati et al., 2011; Guay et al., 2006).

Several theoretical frameworks exist in the vocational psychology field that explain career indecision, one of which includes Gati, Krausz, & Osipow's, (1996) taxonomy of difficulties in career decision making. Their model defines three broad categories of decision making difficulties to include: a) lack of readiness to make a decision, which includes a lack of motivation and dysfunctional beliefs about the decision, b) lack of information needed to make a decision including the actual information and ways to obtain it, and c) inconsistent information due to problems of using the information as a result of internal and external conflicts. These categories were further described to include feelings of confusion, discouragement, and lack of experience in decision making, conflicts among compatible desirable occupations, lack of information about the self and about the occupation, and conflict associated with disapproval by significant others (Gati, Krausz, & Osipow, 1996).

Kelly & Lee's (2002) model of career indecision includes an emphasis on the affective component to indecision. They outline career indecision as resulting from three specific problems: a) problems experienced prior to the decision that include lack of information about one's self or how one's characteristics can be implemented in a career, b) trait indecision which interferes with an individual's cognitive ability to process and act on

information, and c) disagreement with others that can further pose difficulties in implementing a choice. Zhou & Santo's (2007) empirical findings described gender difference in career decision making difficulties; whereby, males experienced fewer specific difficulties compared to females.

Career indecision can occur throughout an individual's life span and has been reported to lead to high rates of anxiety, depression, dysfunctional career thinking, low self-esteem, and low decision making self-efficacy (Callanan, 1992; Zhou & Santos, 2007). The lack of description in the literature pertaining to nurses' career decision making difficulties necessitates further exploration as to the specific challenges faced by nurses in making career decisions. Exploration of the potential difficulties experienced by nurses making a career decision to work in critical care could inform the development of decision support for future nurses making similar career decisions.

## **2.7 The Ottawa Decision Support Framework**

The Ottawa Decision Support Framework (ODSF) was used to inform this study (O'Connor et al., 1998). It is a mid range theory that is derived from theories of decision conflict, social support, and expected utility (O'Connor et al., 1998). It was designed to assist health care professionals in supporting patients making health decisions that: 1) come about as a result of new circumstances, diagnosis, or a developmental transition, and 2) require considerable deliberation due to the uncertainty and the values-sensitive nature related to the benefits and harms associated with the options (O'Connor et al., 1998; O'Connor, Stacey, Tugwell, & Guyatt, 2005). Examples of developmental transitions include those related to education, retirement, and careers (O'Connor & Jacobsen, 2007).

One assumption underlying the ODSF is that the quality of a decision can be adversely affected by unaddressed decisional needs (Stacey et al., 2009). Furthermore, individuals' choices depend on their perceptions of the decision, perception of what they think others would choose, resources including both internal and external, and personal characteristics (O'Connor et al., 1998).

According to the ODSF, assessment the decision-maker's needs include consideration of the context of the decision making for the individual, to see which perceptions may be suboptimal (O'Connor et al., 1998). Suboptimal perceptions of the decision include uncertainty as to which option to choose, inadequate knowledge about the options, unrealistic expectations, unclear values related to the options, and lack of readiness to make a decision. Suboptimal perceptions of others include unclear perceptions of other individuals' opinions, pressure to choose a specific option, and inadequate support. Suboptimal internal or external resources needed to make the decision include limited self-confidence in decision making or limited resources including finances.

The ODSF also includes the provision of decision support where patients are prepared for decision making and follow-up counseling is organized (O'Connor, Stacey, Tugwell, & Guyatt, 2005). The suboptimal perceptions are addressed at this stage to improve the quality of the patient's decision (O'Connor, Stacey, Tugwell, & Guyatt, 2005).

### **2.7.1 Rationale for Use of the Ottawa Decision Support Framework**

Although the ODSF has not been used to explore decision making in the context of making an employment choice, it is anticipated to be an appropriate lens with which to view nurses' decision making experiences related to an employment choice to work in critical care for several reasons. Individuals making career decisions are experiencing a developmental

transition where the choice between options involves careful deliberation due to the central experience of uncertainty in making a career decision and the importance of values in making an effective career choice (Gati, Krausz, & Osipow, 1996). Personal values play a large role in making a career choice in efforts to choose the alternative that best matches the individual's values, goals, and preferences (Gati & Tal, 2008).

Career indecision models in the vocational psychology literature describe potential difficulties that can halt individuals' decision making or lead them to make a less than optimal choice (Gati, Krausz, & Osipow, 1996, Kelly & Lee, 2002). These potential difficulties are congruent with the modifiable risk factors or suboptimal perceptions of a decision outlined in the ODSF and include lack of information needed to make the decision, including factual information related to the alternatives, awareness of personal values needed to make a choice, unrealistic expectations related to the alternatives, and the perception of significant others' influences in the decision including pressure to choose a specific option (O'Connor et al., 1998).

The elements of the ODSF focused on assessing and supporting patients' decision making are synonymous with those outlined in career counseling related to career decision making. Career counselors initially assess their clients' level of readiness for the decision, resources for the decision, and degree of indecision (Savickas, 2010). Specific counseling sessions then follow which involve the formulation of the decision, learning the principles and practice of decision making, gathering relevant information, and clarifying values associated with career preferences and alternatives (Savickas, 2010). Furthermore, several effective interventions such as patient decision aids and decision coaching are based on the ODSF and are potentially available to be evaluated for career choices (Stacey et al., 2009).

The prescriptive decision making nature of the ODSF meets the criteria put forward in the vocational psychology literature for the ideal theory to use in informing career decisions. The ODSF avoids complex calculations and fuzzy abstractions and maintains a level of complexity that aims to close the gap between choosing an optimal and a satisfactory outcome in the decision making process. These are described as desirable features of a prescriptive theory of decision making within the vocational psychology literature (Gati & Tal, 2008).

In summary, the vocational psychology literature makes an argument to explore career choices from a decision making perspective due to its utility for career guidance and counseling at a time when individuals are making more career choices within their working lives (Gelatt, 1962; Harren, 1979; Osipow, 1999). The ODSF is considered an appropriate mid-range theory to explore nurses' career decision making experiences related to an employment choice.

## **2.8 Conclusion**

Job dissatisfaction and resultant nursing turnover in the critical care setting have prompted consideration of how nurses make career decisions to work in critical care. To the best of our knowledge, there is an absence of studies that have explored decision making experiences of nurses who chose to work in critical care. Broader knowledge pertaining to this from the vocational psychology field has revealed that not only are career decisions complex and influenced by personal and contextual factors, but that difficulties exist for the decision maker that can halt a decision or lead to an less than optimal choice (Gati & Tal, 2008). Career decision making difficulties and ineffective career choices are relevant to critical care, as well as the profession of nursing, given the focus on recruitment and

retention during a global nursing shortage (Price, 2009). The nursing and vocational psychology fields have suggested the need for further qualitative studies related to career decision making experiences to inform new career decision making models that incorporate the shifting, unpredictable work environment within which people are making career decisions (Bright, Pryor, Wilkenfeld, & Earl 2005; Duffy & Dik, 2009; Price, 2009).

### **Chapter Three Methodology**

The purpose of this chapter is to outline the methodology used to guide this qualitative descriptive study exploring the decision making experiences of nurses choosing to work in critical care. This qualitative descriptive research study aims to provide a rich description of the experiences of the nurses making an employment choice through: the interaction of the researcher and individuals; sensitivity to and understanding of the context of individuals, immersion into the world of the individuals; and illumination of meanings individuals give to their experiences (Holloway & Wheeler, 2010). The research design, setting, sampling method and size, data collection methods, data analysis, ethics and study rigour will be presented.

#### **3.1 Research Design**

A qualitative descriptive research design was used for this study. Qualitative research, through its naturalistic approach, seeks to understand phenomena or experiences by way of the meanings people bring to them in the real world (Denzin & Lincoln, 2000). The why and how of a phenomenon are understood through a commitment to methodological processes that follow core principles associated with it. These principles recognize that: 1) individuals have unique experiences, 2) these experiences are influenced by a social and cultural context and, 3) the interaction between the researcher and participants occurs; whereby, the researcher's basic set of beliefs and understanding of a phenomenon guides an inquiry into it from the individuals' perspectives within their natural setting (Denzin & Lincoln, 2000; Holloway & Wheeler, 2010). A qualitative research design allows for a rich description of the individuals' experience related to a phenomenon (Sandelowski, 2000).

The naturalistic approach underlying this qualitative research was useful for this study where the researcher attempted to make sense of individual nurse's experiences related to making a career choice to work in critical care. Deciding amongst employment alternatives can be complex and influenced by many contextual as well as personal factors (Gati & Tal, 2008). The personal nature of making an employment choice emphasizes the need to consider each nurse's individual experiences in this process to better understand the process and its associated influences for nurses. The following key research questions guided this study:

1) What decision making approaches are used by critical care nurses in choosing to work in a critical care setting?

2) What factors influence the process of choosing to work in a critical care setting?

Given that little is known about the decision making processes nurses use to make career decisions, a descriptive qualitative method becomes most useful at describing these experiences (Dulock, 1993). Capturing the commonly understood meaning of the nurses' words in the description of their decision making experiences allows for a comprehensive summary of the facts associated with the nurses' experiences from their perspective (Sandelowski, 2000). The resultant summary of experiences arising from this qualitative descriptive inquiry could serve as the foundation for further inquiry and the development of effective decision support for nurses making career decisions in the future (Dulock, 1993; Lobo, 2005).

### **3.2 Situating Self**

Clarification of the researcher's values and interests related to the phenomenon of interest is important to consider prior to the data generation phase of the study to appreciate

the interactions it may bring (Koch & Harrington, 1998). Prior to my graduate studies I was able to pursue my interest in nursing and education in critical care through enacting the role of a Clinical Educator and critical care nurse in a busy tertiary care Intensive Care Unit.

As a Clinical Educator, I witnessed nurses making less than optimal employment choices. Of the six to eight novice and experienced nurses hired approximately every three months, about one of those nurses would revisit her employment choice to work in critical care and resign from her position within six months. Discussion with these nurses often revealed feelings of regret related to their employment choice. These nurses typically withdrew from the training program experiencing distress. In addition, the institution also faced additional costs associated with the nurses' decision regret, job dissatisfaction and consequent job turnover. My limited understanding of this phenomenon affected my confidence in supporting nurses experiencing decisional regret and supporting future nurses considering ICU as an employment alternative.

### **3.3 Setting**

This project was conducted at two intensive care units within the Ottawa Hospital including the Intensive Care Unit at the General Campus and the Cardiac Surgical Intensive Care Units at the Heart Institute. The Ottawa Hospital is the main academic teaching hospital for the Champlain Local Health Integration Network serving a population of 1.2 million in Eastern Ontario. The 32 bed Intensive Care Unit at the Ottawa Hospital campus serves as a tertiary referral service for patients throughout Eastern Ontario and provides intensive resuscitation, treatment and monitoring to the critically ill patient population (University of Ottawa Adult Critical Care Training Program, 2010). The 19 bed Cardiac Surgical Intensive Care Unit provides acute postoperative management of adults undergoing

cardiac surgery, as well as those experiencing postoperative complications (University of Ottawa Adult Critical Care Training Program, 2010).

Sensitivity to the context of this study eliciting the nurses' experiences in making decisions about employment is important for several reasons. Consideration of the context or setting of a qualitative study can allow for understanding of the influence it may have on participants' behaviour and experiences (Holloway & Wheeler, 2010). Contextual factors are known to influence and shape individuals' career preferences and resultant choices, and it exists as a prominent subject of research in vocational psychology (Gati & Tal, 2008). An emphasis on the context of the study, including the organizational setting, also affects the application of the study in the health care environment (Holloway & Wheeler, 2010). Given the importance of context within this qualitative descriptive study, a more comprehensive description of the setting that the nurses were making decisions in at the Ottawa Hospital is required.

The Intensive Care Unit at the Ottawa Hospital General campus alone hires upwards of 25 nurses on a yearly basis with nursing experiences ranging from a new graduate nurse to an expert nurse with many years of nursing experience ("ICU Orientation & ICU Projects", 2010). The Critical Care Nurse uses highly specialized knowledge and skills while working within a multidisciplinary team at the Ottawa Hospital to provide complex life support to meet the needs of the critically ill patients. The Ottawa Hospital Intensive Care Unit and the Cardiac Surgical Intensive Care Unit provide a comprehensive hospital based critical care nurse training program to nurses beginning practice in those areas to ensure competent nursing practice according to critical care nursing practice standards (J. Sellick, personal communication, June 15, 2010).

The Ottawa Hospital and Heart Institute are committed to meeting the constant need for critical care nurses. Their commitment to recruitment initiatives, in addition to the use of specific government funding resources, allows these sites to offer paid educational incentives for nurses entering critical care. The Ottawa Hospital and the Heart Institute apply for and receive financial support from Ontario's Ministry of Health and Long Term Care's Critical Care Training Fund to offset critical care nursing training costs (J. Sellick, personal communication, October 19, 2010). They also commit to the provision of additional money to support nurses' participation in the hospital based critical care training program (J. Sellick, personal communication, October 19, 2010). Newly hired critical care nurses at the Ottawa Hospital and the Heart Institute, then, are offered the opportunity to complete the hospital based critical care nurse training program at no financial cost to the nurses within their employment offer (J. Sellick, personal communication, October 19, 2010). The Ottawa Hospital also participates in the New Graduate Guarantee and often hires new graduate nurses with previous critical care consolidation experience into the ICU through this initiative (S. Slivar, personal communication, October 27, 2010). As with most government funded resources, however, there is uncertainty as to the length of time these funds will be available to facilitate recruitment of nurses into critical care.

### **3.4 Sampling Method**

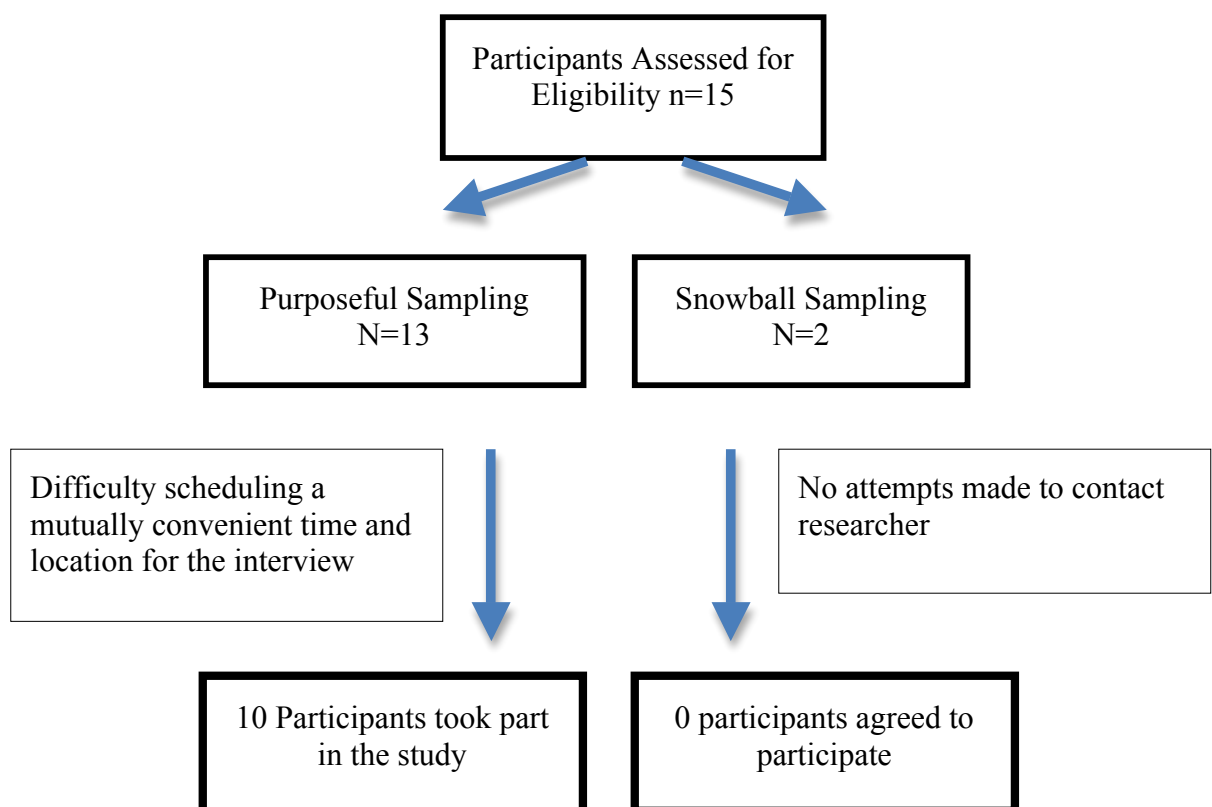
Participants who were eligible for this study included nurses who had previously made an employment choice within the last twelve months to work in critical care. This timeframe was chosen to allow the nurses enough time to establish themselves in their new roles yet not too much time to be unable to recall their decision to work in critical care. Participants who had applied for and were awarded the position in critical care were sought

as they related to the central issue of this study. Participants also needed to be able to participate in the interview in English.

Purposeful and snowball sampling were used to recruit participants for this study. Purposeful sampling facilitated the recruitment of nurses with a range of characteristics. More specifically, recruitment aimed to reach: a) male and female nurses in their 20's, and 30 years and older, and b) recently graduated nurses and nurses with greater than a year of nursing experience. This variation in age, sex, and years of nursing experience sought to obtain both the common and unique experiences of nurses making an employment choice (Sandelowski, 2000).

The researcher was available within the two intensive care units to recruit potential participants interested in the study. In addition, advertisement by way of a recruitment poster about this study was placed at various locations within the intensive care units (Appendix A). Professional networks such as the Critical Care Educators were also contacted in person to inform them of the study, provide them with posters, to request their support in informing potential participants, and to direct interested participants to the researcher. Interested participants were screened for eligibility by the researcher. If eligible, the researcher provided the potential participant with a verbal explanation of the study's goals, nature of commitment, the procedure, as well as any benefits and harms, prior to the participant's decision to enter into the study. Questions were answered and time was provided to allow the participants to decide upon their participation. Of the 13 participants recruited using purposeful sampling, ten consented to participate and three did not due to an inability to schedule an interview at a mutually convenient time and location or last minute scheduling conflicts (Figure 3.1).

Snowball sampling was also used to recruit participants in efforts to facilitate the inclusion of diverse experiences of nurses making employment choices (Sandelowski, 2000). Participants were asked to refer peers who they felt had a different decision making experience than their own; for example, a peer who had regretted their decision to work in critical care or who had described their decision making experiences as different. A recruitment poster was also given to the participants to provide to their peers. Two additional participants were identified who had experienced regret regarding their choice to work in critical care and subsequently left the Intensive Care Unit immediately upon completion of their training program. Despite peers informing these eligible participants of the research study and the researcher's willingness to interview them, the eligible participants did not contact the researcher (Figure 3.1)



**Figure 3.1 Recruitment Flow of Study Participants**

### **3.5 Sample Size**

Ten participants were recruited for this study in June 2010. This sample size falls within the recommended purposive sample sizes of between six to 12 participants to achieve maximal variation of the data within a qualitative study (Guest, Bunce, & Johnson, 2006; Morse, 1995; Sandelowski, 1995). Sampling continued until the data collection did not add any new themes within the data, or the point of data saturation, at which point the sample size was considered adequate (Milne & Oberle, 2005; Sandelowski, 1995). Saturation is the benchmark with which purposeful sample sizes are determined in qualitative research (Guest, Bunce, & Johnson, 2006). Data saturation was achieved in this study after eight interviews. Two further interviews were then conducted, however, no new themes were evident.

### **3.6 Data Collection Methods**

Data was collected for this study using a semi-structured interview. The researcher CF conducted the interviews with participants at a mutually convenient time in a private location within the hospital setting and away from the work place. Prior to commencing the interview, the participants reviewed and signed the consent form (Appendix B). The semi-structured interviews were facilitated by an interview guide (Appendix C), and were audio-taped using a Sony digital voice recorder (ICD-P620). Open-ended questions, as well as probes, were used within the interview process (Appendix D). At the end of the interview, participants were asked to complete a demographic questionnaire (Appendix E). Field notes were also made at the conclusion of each interview including the researcher's observations and impressions to enrich the data (Milne & Oberle, 2005). Participants were also invited to review and, if necessary, clarify a summary of the research findings upon completion of the

data analysis; a process referred to as member checking (Milne, 2005). Each interview lasted between 15 and 25 minutes with an average length of 20 minutes; and 1.3% of the total 219 minutes of audio-recorded data were lost due to noise interference.

The interview technique used in this study is commonly referred to as the gold standard for data collection in qualitative research. The semi-structured interview used in this qualitative descriptive study was guided by several open-ended questions to facilitate the nurses' rich disclosure of their personal experiences in making a career decision (Baumbush, 2010; DeCicco-Bloom & Crabtree, 2006; Sandelowski, 2002). Open ended-questions allow for responses that are unanticipated by the researcher, and they allow for the use of probes to encourage participants to elaborate on their answers and further disclose important elements of their experiences (Milne & Oberle, 2005).

Probing questions were also used during the semi-structured interviews to encourage more detailed answers from the participants and to clarify responses (Milne & Oberle, 2005). The probing questions (Appendix D) were not planned apriori, rather, they were asked in real time and recorded retrospectively. To ensure the flow of conversation was not interrupted between the participant and researcher, notes were taken by the researcher to facilitate the revisiting of topics that needed clarification or further probing.

### **3.7 Interview Guide Development**

An interview guide was developed for this study (Appendix C). The questions included within the interview guide were based on the Ottawa Decision Support Framework using the Population Needs Assessment (Jacobsen & O'Connor, 1998). The population needs assessment questionnaire has been used in over 12 studies assessing decision making needs related to health decisions in specific populations; however, it has not been used with

individuals making decisions about career choices. Questions in the interview guide were also adapted using the literature (see Chapter 2) as well as the results of an informal needs assessment previously carried out in another critical care area relating to decision support needs of nurses making employment choices. The interview guide was reviewed for content validity by three researchers with expertise in decision making, nursing practice and qualitative research.

### **3.7.1 Interview Guide Questions and the Ottawa Decision Support Framework**

The specific questions within the interview guide will be described in relation to specific elements within the Ottawa Decision Support Framework (ODSF).

*Participants' Perception of the Decision.* Questions related to this element asked how the participants made their decision to enter critical care and what difficulties or challenges they faced with their decision making. An additional question included what was most important to the participants when deciding to work in critical care.

*Participants' Perception of Others Involved in Decision Making.* Questions relating to this element of the ODSF asked participants who influenced them in their decision making process as well as what was most helpful in their decision to work in critical care.

*Participants' Resources for Making Decisions.* Questions included what the participants would have preferred to have had to help them in their decision making process as well as what they would recommend to better help nurses make the decision to work in critical care. The question asking what information was most helpful in the decision to work in critical care would also relate to this element of the ODSF.

*Participants' Characteristics.* Specific questions relating to demographic information were recorded on a demographic data questionnaire, and included age, sex,

education, past nursing experiences, length of time in current role, and the full-time equivalency status occupied at the time of the interview.

### **3.8 Data Analysis**

The researcher CF transcribed and analyzed the interviews using descriptive statistics and content analysis. Data analysis commenced with a transcription of the semi-structured interviews, word for word, from an audio to text form using computer software including Express Scribe and Microsoft Word. The transcripts were checked back against the original recordings twice to ensure accuracy. Computer software such as Excel was used to facilitate the description of the demographic characteristics of the participants outlined in Table 4.1.

A manifest, inductive qualitative content analysis was chosen to analyze and describe the data collected from the semi-structured interviews with the participants. Content analysis is a research method that systematically condenses data into categories representing a broader description of the phenomenon using like words and phrases for the purpose of providing new insights representative of participants' perspectives (Elo & Kyngas, 2008). Content analysis is the preferred strategy of data analysis in qualitative descriptive research to achieve the expected outcome of a descriptive summary of the data (Sandelowski, 2000). Given that little former knowledge is available on the nurses' experiences in making a career decision, an inductive approach to content analysis was taken whereby the categories and themes emerged from the data as opposed to being superimposed on the data (Braun & Clarke, 2006).

Content analysis was performed whereby a systematic reading of the transcribed interview text, line by line, occurred to look for a meaning unit consisting of a constellation of words or statements that shared the same central meaning (Braun & Clarke, 2006). This

unit was labeled as a code. Codes were generated through an inductive approach to data analysis whereby the data was coded according to what the data was saying while keeping focused on the research questions guiding the study (Braun & Clarke, 2006). The coding of data continued until all the essential features of the data were captured (Braun & Clarke, 2006). Codes were compared and contrasted with each other where similar codes were then put into categories (Pope, Ziebland, & Mays, 2000). Further comparison and contrasting of the categories resulted in the formation of over arching themes that captured all the essential features of the nurses' experiences with making a choice to work in an intensive care unit (Braun & Clarke, 2006; Elo & Kyngas, 2008). The resultant over arching themes captured the similarities, differences, and overall patterns within the data. NVivo computer software was used for data storage and management.

### **3.9 Protection of Human Rights**

Ethical approval for this study was granted from the Ottawa Hospital Research Ethics Board as well as the University of Ottawa Research Ethics Board (Appendix F). Conduct of this research study was therefore ensured to follow standards and procedures for research required by the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans. Written and verbal approval for this study was also obtained from the Director of Critical Care, Emergency and Trauma at the Ottawa Hospital, and the Vice President of Clinical Services at the Heart Institute.

Respect for free and informed consent, as outlined by the Tri-Council Policy Statement, was ensured with this study by providing eligible participants with information regarding the study and obtaining consent prior to participation. Consent was voluntary and the participants were ensured of no consequences of any kind resulting from withdrawal

from or non-participation in the study. A consent form was provided to the participant also explaining the above noted information prior to their decision to participate in this study (Appendix B).

Respect for privacy and confidentiality, also outlined by the Tri-Council Policy Statement, was ensured within this study in several ways. Participants were assigned identification numbers that were used in place of names to protect the participants' identity throughout the research process and beyond. Participants were ensured that no personal information would appear in any publication, presentation or written information associated with this research study. Any data generated from the study was kept in strict confidence and has been stored in a locked cabinet in the Nursing Best Practice Research Unit at the University of Ottawa where it will remain for up to 15 years. Any electronic data was password protected.

### **3.10 Scientific Rigour**

Scientific rigour in this study was ensured through five key validation strategies including: peer review, external auditing of a decision trail, clarifying the researcher's bias, member checking, and rich description (Creswell, 2003).

External verification of the research process was conducted using peer review and provided by D.S. (Lincoln & Guba, 1985). Peer review involved reviewing and interrogating the research methods and findings at frequent intervals through the research process (Lincoln & Guba, 1985). Verification of the inductive coding of the data was specifically achieved through the auditing of a decision trail; whereby, one of ten transcripts was randomly selected and analyzed separately by both the researcher and two experts in decision making. This verification process aims to improve the dependability of research

methods by ensuring consistent data collection that is free from variation (Long & Johnson, 2000). Auditing of a decision trail is recognized as ensuring that the researcher has remained true to the data through allowing others to follow the decision trail in the data analysis (Long & Johnson, 2000).

Given that the researcher can be considered the main research instrument in the qualitative research process, it is essential to demonstrate an ability on the researcher's part to consider his or her biases and how it can influence the research process and therefore results (Koch, 2006; Lincoln & Guba, 1985; Mays & Pope, 1995; Milne & Oberle, 2005). With expertise as an educator and critical care nurse, the primary researcher reflected on and recorded her thoughts and impressions at the completion of each interview and during the data analysis process. These reflections were considered important to minimize potential bias and ensure the participants' opinions and experiences were heard and not guided by the researcher's experiences (Milne & Oberle, 2005). The researcher's previous roles as a critical care nurse and educator may have contributed to an ability to build trust with the participants and understand the culture of the unit. It may have also strengthened the researcher's ability to identify salient elements of the participants' experiences and probe more deeply.

Credibility of the study's findings was further ensured through the member checking process (Lincoln & Guba, 1985). Participants were provided with a written descriptive summary of the data (Appendix H) upon completion of the data analysis (Milne & Oberle, 2005). Feedback was solicited from the participants allowing an opportunity for them to reflect on the interview and agree or disagree with the descriptive summary (Appendix G). An additional attempt to solicit the participants' feedback by way of a reminder communiqué

(Appendix I) resulted in three responses validating the descriptive summary of the data (Chapter 4).

A rich description of the participants' perspectives was provided by the inclusion of the participants' direct quotes within the content analysis (Lincoln & Guba, 1985). A rich description of the context that the nurses were making their career decisions within was also provided. This rich description allows the reader to decide if the information is transferrable to their setting (Lincoln & Guba, 1985).

### **3.11 Summary**

A qualitative descriptive research design guided the exploration of the decision making experiences of nurses choosing to work in critical care. Semi-structured interviews were conducted with ten nurses from a variety of ages and nursing experiences who made their decision to work in a larger tertiary critical care setting within the past 12 months. Content analysis, informed by the Ottawa Decision Support Framework, guided the coding and interpretation of the study data. Several key validation strategies were used to ensure trustworthiness was achieved in this study.

## Chapter Four Results

This chapter presents the results of a qualitative descriptive study exploring the decision making experiences of nurses who chose to work in critical care. This chapter will first describe the characteristics of the participants. A description of the interview findings will then follow.

### 4.1 Characteristics of the Sample

The ten participants occupied full time positions in either an Intensive Care Unit or a Cardiac Surgical Intensive Care Unit at a large Canadian tertiary care teaching hospital. Consistent with the purposeful sampling plan proposed *apriori*, the participants in this study represented a variety of ages and nursing experiences (see Table 4.1). Although purposeful sampling aimed to achieve a mix of males and females, only females agreed to participate in this study.

Participants ranged in age from 20 to 35 years old. Their nursing experiences varied with three being new graduate nurses, six having two to five years of experience, and one having six to ten years of nursing experience. The participants had a variety of work experiences with an equal number of participants having made one or two career transitions during the past two years, the last transition having occurred within the last 12 months (median 6; range 1 to 12 months). Prior to moving to an intensive care unit, the participants were previously employed in a variety of clinical units including Emergency, Labour and Delivery, Medicine, Cardiac Surgery, and a General Surgical unit. Only one participant had transitioned directly into an intensive care unit as a new graduate. The participants' diverse educational backgrounds were exemplified with four of the participants having gained

**Table 4.1: Characteristics of Participants (N=10)**

<b>Variables</b>	<b>Frequency</b>
<b>Age of Participant</b>	
20–25 years old	5
25-30 years old	3
30-35 years old	2
> 35 years old	0
<b>Sex</b>	
Female	10
Male	0
<b>Current Work Location</b>	
Cardiac Surgery Intensive Care	5
Intensive Care Unit	5
<b>Full time equivalency</b>	
Full Time	10
Part Time	0
<b>Median Length of Time in Current Position (months)</b>	6 (range 1-12)
<b>Length of Time in Current Position</b>	
≤1 month	2
2-3 months	2
4-6 months	3
7-10 months	2
10-12 months	1
<b>Work location Prior to Critical Care</b>	
Emergency Department	3
Antepartum, Postpartum, Delivery Unit	3
Medical Unit	1
Cardiac Surgery/General Surgery/Plastics/Urology	2
Nursing School	1
<b>Length of Time Working in the Profession of Nursing</b>	
< 2 years	3
2-5 years	6
6-10 years	1
>11 years	0
<b>Number of career transitions made in the last two years</b>	
1	5
2	5
<b>Educational Background</b>	
<b>Level of Education</b>	
Undergraduate Degree in Nursing	10
Graduate degree	0
<b>Completed ≥ 1 course in a college based critical care program</b>	4
<b>Previous Certification in Critical Care</b>	0
<b>Hired into Critical Care under the New Graduate Guarantee</b>	3

additional knowledge regarding critical care nursing through the completion of at least one course within a college based critical care nurse training program. Three of the participants were hired into an intensive care unit under the New Graduate Guarantee; whereby, they were offered a temporary full time position for a maximum period of 32 weeks.

The themes arising from the semi structured interviews with nurses were organized under three overarching themes that addressed the research questions asked for thesis and include: a) the decision making approaches used by the nurses making an employment choice, b) the factors that influenced their decision making processes, and c) suggestions as to how future nurses could be better supported when making similar decisions. Nurses reported having used one or more of six key elements to approach their decision making when choosing to work in critical care. These included: taking stock, framing the decision, accessing peer support, listing the pros and cons, listing their values associated with each alternative, and jumping off. The nurses also reported five factors that influenced their decision making, including: knowledge and expectations of work life in critical care, pressure to choose an alternative, social support, uncertainty, and the double edge sword of recruitment and workforce stabilization initiatives. The nurses made four suggestions for supporting future nurses making similar decisions, including: improved accessibility of factual information related to critical care, mentorship opportunities in critical care, encouragement from managers, and opportunities for values clarification related to working in critical care. A coding schema in Appendix J provides examples of how the codes identified in the transcribed data were merged into categories and finally themes illustrating the nurses' decision making experiences.

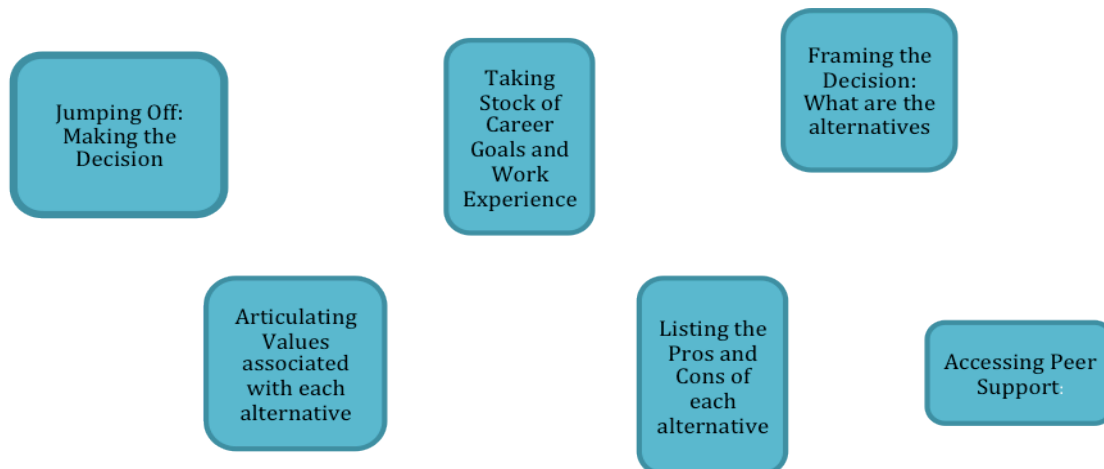
Member checking demonstrated that these themes are representative of the participants' experiences in making a choice to work in critical care. Three of the ten participants responded to the invitation to review and clarify a summary of the research findings (Appendix I). All three participants answered yes to the question asking if the interview data captured the essence of their decision making experiences. These participants answered no to the question asking if important information was missing from the summary of the results. Participants did not provide any further written clarification or suggestions.

## **4.2 The Nurses' Employment Decision Making Approaches**

The participants' approach to choosing an employment setting was a nonlinear, iterative process that took place over a variable length of time. Although the participants didn't explicitly describe their particular approach to making a choice to work in critical care, the elements to their approaches to making their employment decision were articulated throughout the interviews. The following section will describe the six elements to their decision making approaches, however, the presentation of these themes does not consistently represent the order in which the participants' behaviours occurred while making their decision to work in critical care (Figure 4.2).

### **4.2.1 Taking Stock**

All ten of the participants' experiences related to making a career decision to work in critical care included actions such as reflecting on or taking stock of individual career goals, past work experiences, and individual life circumstances. Nine of the participants summarized their work experiences noting both the knowledge and skill gained and used in their previous work settings. One nurse reflected on her previous work experiences in an



**Figure 4.2 Elements to the Decision Making Approaches Used By Nurses Choosing to Work in Critical Care**

emergency department stating, “It’s a 10 bed unit Emerg and it was really good experience. I went through Advanced Cardiac Life Support and I took my triage course and a few different things. I had critical knowledge in general, but the doing part I didn’t really have”. Another nurse stated, “When I first got hired [in my previous unit, the manger] asked, where I saw myself in five years. And I’m like critical care, and that’s what I wanted to do”. Seven of the participants had articulated personal career goals that included critical care nursing experience. One nurse stated, “I know having valuable critical care experience will be very useful and having the course under my belt will be very helpful in getting me to that place where I can be a Nurse Practitioner”. One nurses simply stated, “It’s a stepping stone for future”.

Five participants took stock of their past work experiences noting the positive and negative aspects of their previous work environment. One nurse expressed, [We were always] short staffed...we would tell staffing that we’re short staffed and they said they knew”. Another nurse stated, “My job satisfaction was going downhill where I was

working, not to say that it's not a great unit, but it's just the workload is too much and I always find myself drained all the time. I was getting sick, and I never get sick".

Two participants took stock of their personal life circumstances. One participant commented, "[We] are not together anymore so...I'm thinking, OK, what do I do now? I wanted to make my stay here the most I could". Another nurse categorically stated, "I just need a change".

#### **4.2.2 Framing the Decision**

The participants framed their decision by discussing their alternatives. Framing the decision occurred when participants described their perceived decisions and resultant alternatives that were constructed by reflecting on their personal circumstances, career goals, and past work experiences. Although all of the participants' choices included a new work setting, the participants' decisions included different alternatives. Four nurses decisions included making a choice between staying in their previous positions and moving to any critical care environment, whether it be the Intensive Care Unit (ICU), Coronary Care Unit (CCU), or the Cardiac Surgical Intensive Care Unit (CSICU). One nurse stated while defining her options, "This is where the position I applied for was offered. I didn't know one way or another where I was going to go. I didn't really care so long as the course was being offered and I get critical care experience". Another four participants' decisions involved the option to stay in their previous job or move to a specific critical care setting, namely the ICU or the CSICU. One participant deliberated amongst three options including three different critical care units across Canada. Finally, one participant's decision consisted of deciding amongst a critical care and a palliative care specialty.

### **4.2.3 Accessing Peer Support**

The participants accessed their peers for support when making their employment decision. The participants' use of external resources was manifested by their need to solicit factual information and advice from others regarding their alternatives. Eight of the participants sought further information from friends or significant others who had worked in critical care regarding their work experiences. One nurse referred to her friends and stated, "They had made the transition to ICU already and just the more I talked to them and talked with people who already had their masters degrees, they're all going on to get their Nurse Practitioner, it all looked really good". Another nurse stated, "I asked my other friend who took the critical care course if she wanted to be back in Emergency and how much she liked the course and how she was finding the Intensive Care Unit".

### **4.2.4 Listing the Pros and Cons**

Taking stock of career goals and past work experiences initiated a disclosure of the participants' perceived pros and cons associated with critical care. The participants did not state, however, that listing the pros and cons was considered within an explicit process for making their decision. All ten participants described pros associated with their alternative of critical care. The pros focused mainly on: a) the benefits associated with the enhanced knowledge, skill, and autonomy of the critical care nursing role, b) being able to participate in research, and c) a one to one nurse: patient ratio. One nurse stated, "Autonomy and knowing, and having the knowledge of what is happening with the patient, when things might not be going so well, and kind of being able to anticipate a couple of different things and interventions". Another nurse stated, "I can get some experience in research". A third

nurse stated, “I really like being able to get a good grasp on that one patient and to know everything about that patient”.

All ten participants described the cons associated with their alternative of critical care, several of which related to the increased acuity of the patients in critical care and the difficulty in leaving a familiar unit and peers. The cons were described as, “it’s a really hard job and you’ll see really sick patients”, as well as, “patients can go bad really fast and I get nervous when that happens”. One nurse stated, “That was the hard thing about [potentially] coming here, I didn’t know anybody”.

#### **4.2.5 Articulating Values Associated With Each Option**

All of the participants articulated their personal values associated with their pros (e.g. values placed on the enhanced knowledge and skill gained in critical care nursing) and cons (e.g. high acuity and unfamiliar environment in critical care). Statements that expressed the participants’ judgment regarding the desirability or dislike of specific pros or cons are referred to as the participants’ values (O’Connor et al., 1998). One nurse stated, “It’s a different kind of nursing, it’s a different mentality and this is what I truly enjoy”. Another nurse stated, “I’m always very curious and I really like challenges”. A new graduate nurse described her values regarding the critical care nurse training program as, “It’s good for learning purposes”. Finally, one nurses stated, “I have really looked up to how much knowledge the critical care nurses have about the body”. The participants also spoke of their values associated with the cons of choosing critical care. One nurse stated, “My walk through the unit was really intimidating for me”. Another nurse stated, “It’s a big decision to leave people that you’re comfortable with, and a place that you’re comfortable with”.

#### **4.2.6 Jumping Off: Comparison or Intuition?**

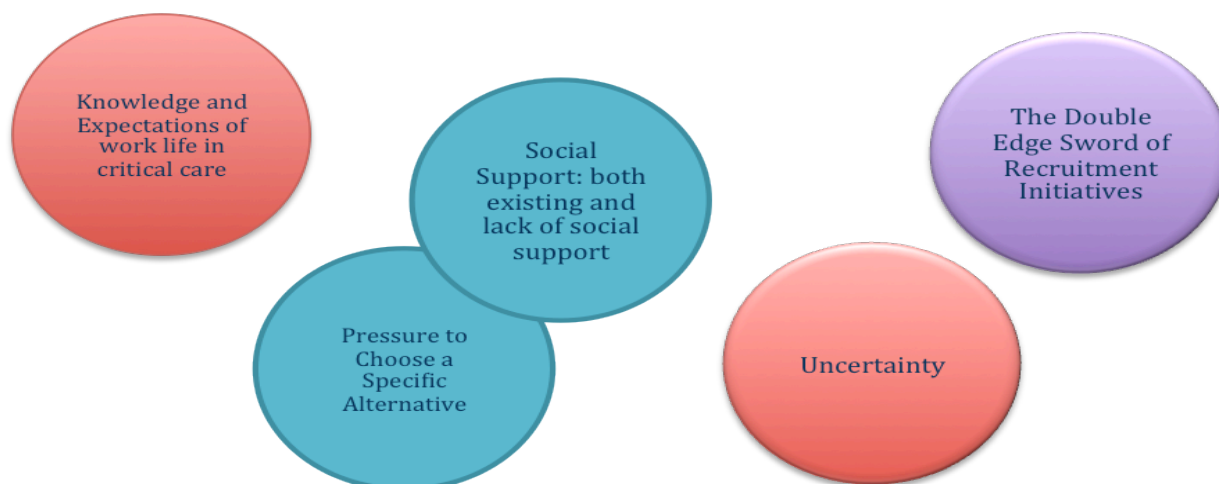
Although all the participants listed the pros and cons of their options, as well as clarified their associated values, four participants articulated an intuitive approach to making their employment decision. These participants described their actual choice as being a result of intuition or a gut feeling they had regarding which option to choose. One nurse explained, “I think outside things affected my decision but in my mind I kind of knew where I wanted to go”. This same nurse had denied any decision making process at an earlier stage in the interview by stating, “This pretty much happened by chance, there was no decision making”. One nurse made reference to her choice being made after she was offered a job in critical care, and stated, “There was no question in my mind that I would be coming to work here after I had got the job”.

#### **4.3 Factors that Influenced the Process of Choosing to Work in Critical Care**

Participants perceived that there were five factors that influenced their decision to work in critical care and included: knowledge and expectations of work life in critical care, pressure to choose an alternative, social support, uncertainty, and the double edge sword of recruitment and workforce stabilization initiatives (Figure 4.3). The remaining section will further describe each of the above themes in detail.

##### **4.3.1 Knowledge and Expectations of Work Life in Critical Care**

Five of the participants revealed a lack of knowledge or unrealistic expectations regarding their option to work in a critical care setting. Unrealistic expectations included the participants’ perception of the outcome of their choices, and in some cases, the participants’ perceptions exaggerated or minimized certain aspects of an alternative. One



**Figure 4.3 Factors That Influenced the Process of Choosing to Work in Critical Care**

nurse stated, “I had no idea what the Cardiac Surgical Intensive Care Unit was all about...I didn’t even know what I was getting myself into; I just knew it was going to be hard. I honestly didn’t know”. Another nurse related her fears associated with past experiences in the Intensive Care to her potential future work experiences by stating, “I used to come into the ICU when I was younger and I remember the oscillator. I didn’t ever want to touch an oscillator. I didn’t want a ventilator, or anything like that. That’s what was holding me back, I think I was terrified of these machines”. One nurse stated her assumptions about working in the Intensive Care Unit by stating, “I just thought the physical part of it was a bit easier than where I worked before”.

#### **4.3.2 Pressure**

Eight participants expressed the feeling of pressure to choose a specific alternative. Pressure was felt when the participants experienced a sense of persuasion due to specific circumstances or from important others to choose a specific alternative. Eight of the participants felt pressure from sources including significant others in their lives, financial reasons, and/or from internal values.

Six of the participants expressed feelings of pressure, or a sense of persuasion, from others in their lives to select a specific option. Three of those participants conveyed the pressure they felt from their managers to stay within their previous jobs when making their employment choices. One nurse stated, “My manager said, well, you’re going to have to wait another couple of months because I’m understaffed...I felt bad so I stayed longer”. One nurse spoke of the pressure she felt from a family member to choose to work in critical care. She stated, “She’s been trying to get me to work in the ICU since I started nursing but I didn’t feel like I knew enough yet...her and her friends would always try to convince me [to work in the Intensive Care Unit]”. Finally, three nurses revealed their experiences of pressure to choose to work in critical care from their peers. One nurse stated, “Well some of the nurses, I think there was a generational thing. Perhaps I was too laid back, I thought I was bullied a bit, they would say I think it’s time for you to go or else”.

Three participants felt pressure to choose a specific alternative due to financial reasons. These participants revealed their experience of financial pressure to choose an employer that was willing to pay for their critical care training program. Two of the participants had been working through a college based critical care training program at their past employers’ expense when half way through the program the funding was cut. One of the participants stated, “They wanted us to pay for it out of our pockets and I couldn’t afford it at the time”. That same participant also felt pressure to stay in her previous work location due to a financial penalty associated with leaving her employer. She stated, “They gave me a sign on bonus so I had to pay them back the sign on bonus in order to work here, so it was a big deal.” The third participant had personally paid the tuition for two college based

critical care courses and felt the expenses associated with it were costly. She summed up her experience by saying, “It’s actually quite expensive”.

One nurse spoke of her feelings of pressure due to her internal values. She stated, “My dad always pushed us to further our education. I can never stay in one place for too long; like, I know I want the experience here, but I think I’ll move on”. She concluded her statement by saying, “I pressure myself”.

#### **4.3.3 Social Support for Making the Decision**

The participants revealed the influence of social support from their direct managers, as well as from their peers and/or significant others, while making a choice to work in critical care. Social support is referred to as the interpersonal interactions; whereby, participants received information, expressions of positive affect from others, or where others endorsed the participants’ thoughts and opinions about the alternatives they were leaning toward (Norbeck, Lindsey, & Carrieri, 1981). Nine of the participants revealed a positive influence of existing social support in their choice to work in critical care when it existed for them. One nurse revealed the support her manager provided while making her decision and stated, “She was really great with me. She led me in this direction and she helped me with the choice to come here”. One nurse stated, “For me it was helpful because I had somebody to talk to, my best friend. That’s one of the big reasons why I thought this was a really good program”. Another nurse clearly stated, “So I think support helped me make this decision”.

On the other hand, the lack of social support was also experienced as an influence on the participants’ employment choice. Four participants perceived a lack of social support from their direct unit managers in their previous unit and nursing departments. One nurse explicitly stated, “I don’t feel like there is enough nursing support, or maybe there is, I don’t

know how to find it”. A second nurse stated, “I was on that unit for four years and I had no encouragement whatsoever; no, oh you’re a great nurse, you’ll be great, and I think you’ll be perfect at that”.

#### **4.3.4 Uncertainty**

Four participants expressed uncertainty about which alternative to choose during their decision making process (O’Connor & Jacobsen, 2007). The expression of uncertainty was exemplified when one particular nurse questioned the option of employment in critical care when the Unit Manager took her on a routine informal tour of the Intensive Care Unit. She stated, “At first, I wasn’t too sure, I was going around the unit seeing all the acutely ill patients on a ventilator, asking myself is this really what I want to do. It was a beautiful unit, but it felt a bit cold, I don’t know”. Another nurse was clearly wavering between the alternatives when she described her experiences as, “I really don’t know, I was going back and forth, and said to myself, oh my gosh, just apply for the new job and if you get it, just do it”.

#### **4.3.5 The Double Edge Sword of Recruitment and Workforce Stabilization Initiatives**

Specific initiatives within Ontario’s nursing strategy, namely the paid critical care training opportunity, as well as the New Graduate Guarantee, emerged as additional significant themes from the nurses’ description of their decision making experiences. These initiatives acted as a double edge sword that influenced the participants’ decision making experiences both positively and negatively.

Seven of the participants revealed these initiatives to have a negative influence on their choice to work in a critical care setting. For one participant, the negative influence revolved around the pressure to make an urgent choice due to the potential limited timeframe

of the existing recruitment initiatives. She stated, “I wanted to take advantage of that paid educational training because I didn’t think it would last”. The negative impact associated with the New Graduate Guarantee program for the three new graduate nurses revolved around their perceived need to secure a permanent full-time position after graduation from nursing school. One new graduate nurse stated, “I’m going through the New Graduate Temporary Full Time right now, so no, it’s not the ideal position”. Another new graduate nurse stated, “I [was working] six months full time because it was guaranteed through a government program. After we were done we were going down to part time again and I wasn’t guaranteed to stay in that unit either”. The third new graduate nurse stated, “[I wasn’t guaranteed a permanent position in the new graduate guarantee, but this ICU] was... a [permanent] full-time position that was available so that is what brought me here”. One experienced nurse addressed the focus on new graduates in the New Graduate Guarantee as making her decision more difficult. She stated, “The opportunities for new grads are so much better than the opportunities for me. My sister was offered to go to the ICU and get the critical care course if she wanted it, they would provide it for her, not for me”.

Recruitment initiatives were also illustrated in the participants’ decision making experiences as positive influences in their choice to work in critical care. Seven participants found the paid educational opportunity offered within the recruitment initiative to be helpful in their decision to work in critical care. One nurse expressed, “Wow, I could do all the critical care courses for free, and I’m going to be paid to learn. I would say that was really helpful in my decision”. Another nurse stated, “I was thinking about this opportunity for a while, and that’s what gave me the boost, like wow, they’re going to pay for me to learn, so I said that’s amazing, I really want to do that”. Another nurse explained, “With the course

being offered and things like that, I just felt like it was time to probably move on to have a new challenge”.

#### **4.4 Decision Support Suggestions**

Analysis of the interviews revealed suggestions that could potentially help other nurses considering the decision to work in critical care. These include: improved accessibility of factual information related to critical care, mentorship opportunities in critical care, encouragement from managers, and opportunities for values clarification related to working in critical care. The suggestions stemmed from the participants’ reflections of their own experiences, particularly the difficulties associated with making their own employment choices.

##### **4.4.1 Access to Factual Information about Work Life in Critical Care**

Four of the participants suggested the need for improved accessibility of factual information specific to critical care that they felt would be helpful for other nurses making a similar choice. One nurse stated, “Talking more about intensive care in university would be a good way to introduce it”. Another nurse suggested further information about the critical care training program itself as being beneficial to other nurses. She stated, “An explanation of how difficult the critical care program can be, as well as how time consuming it is, because I don’t think a lot of people realize how much work it can be. Then you prevent the trauma associated with having to quit half way through and going back to your other job”. One nurse made reference to the need for factual information, but more with respect to that offered by way of career guidance or recruitment methods. She stated, “Help us move around because in our profession, I think there needs to be more of that. Recruiters from the

floor should be available”. She also stated, “I had gone to a career fair, but I got told, no, you’re not a new grad, so yeah, I think support from nursing would have been great”.

#### **4.4.2 Mentorship Opportunities in Critical Care**

Seven participants suggested the need for experiential knowledge related to critical care, or more specifically, mentorship opportunities as part of the decision making process to further inform nurses regarding the critical care setting. Simply put, mentorship is the role modeling and information sharing provided by one person to another with the goal of enhancing individual, career, and professional growth and development over a period of time (Fielden, Davidson, & Sutherland, 2009). One nurse expressed her need for mentorship by stating, “more information, more mentorship, maybe an observation day so that nurses get an idea of what they’re getting themselves into before they get themselves into a course that will potentially waste money for the hospital”. Another nurse stated, “I think maybe if [nurses] had an opportunity to do a good clinical placement, like two buddied shifts with a nurse before they even start the program to see if it is something that they are interested in”.

#### **4.4.3 Encouragement from Managers**

Four participants suggested the need for encouragement from their nursing managers for nurses making a choice to work in critical care. One nurse exemplified this by stating, “Managers should be more encouraging, like, oh, I’m so happy for you, instead of, oh, another one [leaving], and now you too”. Another nurse stated, “If I could change anything about the whole process, it would have been my manager’s attitude towards me getting a better education and training”.

#### **4.4.4 Opportunities For Values Clarification Related To Critical Care**

Five participants suggested that potential critical care nurses have access to opportunities; whereby, they receive the needed guidance to help clarify their values related to working in critical care prior to applying for the position. Considering the desirability or the personal importance of the facets of working in critical care was felt to be necessary for potential applicants to be able to provide the specific nursing care critically ill patients require. One nurse expressed this by stating, “Working in ICU is not just a job, you need to look within yourself and see what drives you into this job and is that something that would be appropriate for critical care? Is it being able to function under high stress? Is it being curious? Is it human contact? Or is it something more?” Another nurse stated, “Nurses need to really think about if critical care will be a good fit for them”.

#### **4.5 Summary**

An enhanced understanding of how nurses make a career decision is necessary in efforts to effectively retain nurses and reduce turnover, particularly in the setting of critical care. This qualitative descriptive study set out to explore the decision making experiences of nurse choosing to work in critical care. Analysis of the nurses’ description of their experiences revealed the use of one or more different elements when making their career choices. The nurses also revealed personal and contextual factors that influenced their choice to work in critical care, including those specific to workforce stabilization and recruitment initiatives currently existing in the nursing workplace. Social support was also revealed to be a significant factor impacting the nurses’ decision making processes in situations where it existed or was lacking for nurses making employment choices.

## **Chapter Five Discussion**

The following chapter will further discuss the results of this qualitative descriptive study in light of what is known in the existing literature. This chapter will first relate the nurses' decision making approaches to known career decision making models. It will proceed to discuss the factors found to influence the nurses' employment choices followed by the implications for theory, policy, practice, education, and research. This chapter will conclude with the discussion of the implications of the Advanced Practice Nurse's role in supporting nurses making employment choices.

### **5.1 The Nurses' Decision Making Approaches Related to a Career Choice**

Much of the vocational psychology literature has traditionally upheld the rational decision making approach as an ideal which individuals might strive toward when making career decisions (Pitz & Harren, 1980). Based on classic decision theory, the rational approach to decision making refers to the decision maker as an objective, insightful individual who methodically and unimpulsively makes an optimal choice reflecting a match between the person and the occupation (Krieshok, Black, & McKay, 2009; Phillips, 1997). The findings of this study revealed the nurses' approach to their employment decision, although somewhat resembling a rational approach to decision making, included mixed various approaches to making a career choice. In some cases, nurses used a satisficing approach that resulted in an adequate choice of the most satisfying outcome as opposed to the most optimal outcome, as would be the case in a rational choice. In other cases, an intuitive approach to decision making was articulated by some of the nurses making employment decisions. These satisfying and intuitive approaches will be further discussed in the following section.

### **5.1.1 The Satisficing Approach: An Adequate Choice**

Taking work experiences and career goals into consideration, several nurses framed their decision as having to choose between staying in their old job and moving to a critical care unit, whether it be an Intensive Care, Coronary Care, or Cardiac Surgical Intensive Care Unit. The critical care unit represented the actual criterion or aspects of a job that the nurses considered dominant or most relevant with which to make their choice. The critical care unit criterion limited their choice to three possible units within critical care. In other words, the nurses were satisfied with choosing a position within a critical care environment setting including Intensive Care, Coronary Care or Cardiac Surgical Care.

This approach to decision making is synonymous with a prescriptive decision making model called The Sequential Elimination Model (Gati, 1986). This model is based on a natural process of elimination where the decision maker uses a hierarchy of decision criteria through which alternatives are passed to arrive at the most satisfying outcome or one that is good enough (Gati, 1986). With respect to the nurses' decision, employment alternatives needed to meet their most important criteria of it being a critical care unit; those alternatives not meeting that criteria were ruled out. External circumstances dictated the final choice for these nurses based on which alternative or unit posted a job vacancy first.

The Sequential Elimination model is meant to allow the decision maker to arrive at an outcome that is adequate, or one that the decision maker is satisfied with and is thus referred to as a *satisficing* model (Gati, 1986). This is compared to the optimal outcome that arises within a rational approach to decision making; whereby, a set of rules and calculations are used to arrive at the alternative with the maximum gain (Gati, 1986). The true rational approach to making a career decision has been criticized for its feasibility in making a career

choice (Gati, 1986; Hartung & Blustein, 2002; Krieshok, 1998). Simon (1955) recognizes the limitations of a true rational approach to career decision making and refers to the concept of bounded rationality to explain the limitations inherent within an individual to evaluate all possible employment outcomes with precision. Individuals' internal and external limitations lead to the selection of an adequate outcome versus an optimal outcome (Simon, 1955). Krieshok, Black, & McKay (2009) refer to the satisficing approach to a career decision as a "crude application of reason" (p. 282).

### **5.1.2 A Rational-Intuitive Approach to Decision Making**

Some nurses within the study described their choice to work in critical care as intuitive in addition to their description of their seemingly rational decision making behaviours. The nurses' articulation of an intuitive approach and behavioural manifestations of a rational approach to their decision making can perhaps be explained by increasing reference in the literature to the role of non-conscious processes in decision making. The non-conscious process, or what is termed as intuition, is an approach that can operate alongside rational decision making or in isolation of it (Krieshok, Black, & McKay, 2009). Krieshok's (1998) anti-introspectivist view on career decision making suggests that processing carried out by the human mind for decision making is not performed at a conscious level and that an attempt to reflect on the steps in making a choice, errors in the description occur that go unnoticed by the decision maker (Nisbett & Wilson, 1977).

The nurses in this study often began a description of their decision making approaches with a reflection of their individual career goals, past work experiences, and life circumstances. This reflection initiated a disclosure of the participant's perceived pros and cons associated with the option to work in critical care but not in a manner that demonstrated

a comparison of them. The nurses' description of their pros and cons occurred almost as if it were an attempt to rationalize their choice to work in critical care. This finding also supports the possible role of intuition in the nurses' employment choice. The findings of Nisbett & Wilson (1977) support the role of non-conscious processes in decision making and state that individuals have little ability to accurately report cognitive processes but still erroneously report giving what seems to be a reasonable explanation of why they did what they did. Krieshok (1998) also states that in response to a request to explain an individual's decision making, a rationalistic mode of thinking results and a rational approach to the decision is then described retrospectively.

Consideration of the nurses' description of an intuitive approach to their career decision provokes some interesting questions related to the factors they reported as influencing their decision. More specifically, were the nurses' experiences of pressure or motivation related to the recruitment initiatives for example, considered implicitly by the nurses? Did this constitute their intuitive approach to their employment decision? Further, would rational or explicit consideration of these influencing factors have resulted in a different choice? These questions relate to an emerging area of research within the vocational psychology field that aims to support individuals using an intuitive approach to make effective career choices (Krieshok, Black, & McKay, 2009).

In more recent models of career decision making, several theorists have concluded that both rational and intuitive decision making approaches occur simultaneously and that both approaches are essential to career decision making (Gati & Asher, 2001; Krieshok, Black, & McKay, 2009). Phillips (1997) makes reference to the importance of both these approaches in helping individuals plan, explore and decide in a complex environment, or

what she terms as adaptive decision making. Given these views, then, it can be plausible to conclude that some nurses used a rational intuitive approach to making their employment choice.

In summary, the nurses' use of different approaches to their employment decision making demonstrates Gelatt's (1989) viewpoint that a rational approach to decision making is not always used in the current context of career decision making within an unpredictable work environment. This study's findings corroborate current views in the literature that state career decision making entails more than the traditional rational approach and, in fact, it entails the use of many different strategies (Gelatt, 1989; Phillips, 1997). It is unclear, however, what the best approach is to a career decision. In addition, these strategies possibly lend themselves to a prescriptive approach to career decision making that aim to support individuals in making better career decisions.

## **5.2 Factors Influencing the Nurses' Decision Making Processes**

The nurses within this study experienced a host of factors that influenced their decision to work in critical care both positively and negatively. The factors described by the nurses can be considered as those specific to the decision maker, or the nurse, and those specific to the context that the choice is made within. Interpretation of important personal and contextual influences on the nurses' employment decision making will be discussed in the following section.

### **5.2.1 Personal Influences on the Nurses' Decision Making Processes**

The nurses revealed three personal factors that influenced their choice to work in critical care including internal pressure to choose critical care, limited knowledge and unrealistic expectations of work life in critical care, and uncertainty. These findings are

consistent with popular models in the vocational psychology literature that refer to difficulties in career decision making as those originating from circumstances within the decision maker. One such model includes Gati, Krausz, & Osipow's (1996) taxonomy of decision making difficulties. Empirical testing of their taxonomy demonstrated that lack of information about specific occupations, in addition to internal pressure felt by the decision maker to make a specific choice, lead to career decision making difficulties by college students. Germijs & De Boeck's (2003) empirical findings with college students also supported the premise that lack of information related to alternatives, or the attributes of the alternatives, earlier on in the decision making process leads to career indecision. This lack of information naturally leads to an inability to evaluate the attributes of the alternatives required in a rational decision making approach (Germijs & De Boeck, 2003).

The nurses' experience of uncertainty relating to unclear values highlights the central existence of it in making a career choice. Specific vocational psychology models describe uncertainty as a result of individuals not knowing which aspects of their personal identity to consider for a potential job (Trevor-Roberts, 2006). The importance of focusing on individuals' capacities and values related to a specific job as opposed to the terms of a working relationship are necessary to reduce the experience of uncertainty within individuals (Trevor-Roberts, 2006).

### **5.2.2 Contextual Factors Most Influencing the Nurses' Employment Decision Making Process**

The findings of this study revealed the existence of contextual factors relating to the workplace that influenced the nurses' choice to work in critical care including current staffing shortages, workforce stabilization, and recruitment initiatives. Pressure arising from

these contextual factors influenced the nurses' employment choice in a negative fashion. More recent career decision making theories have recommended the importance of considering a wider variety of contextual factors that exist within the decision maker's environment beyond that of the personal variables that influence career choice (Bright, Pryor, Wilkenfeld, & Earl, 2005). McMahon & Watson's (2009) recent systems theory of career choice further emphasized this point but also stressed the need to consider how such variables influence career choices. The significant contextual factors described by the nurses and how they influenced their decision making experiences will be discussed in the following section.

### **5.2.2i Staffing Shortages Leading to Experiences of Pressure**

Several of the nurses in this study described pressure from their unit managers to stay within their previous jobs due to staffing shortages and, in some cases, resulted in the nurses actually delaying their decision to pursue another job for an extended period of time. The consequences of nursing staff turnover within a hospital setting have been well articulated in the literature (Hayes et al., 2006). These consequences have been outlined for not only the patients and nurses, but for unit managers as well. The consequences of staffing shortages specific to nursing management include increased complexity in scheduling a 24 hour work service and the provision of leadership and guidance to a non-permanent and changing staff mix (Duffield, Roche, O'Brien-Pallas, & Catling-Paull, 2009). These challenges for managers may be manifested in the pressuring of nurses to stay within their employed positions when faced with an employment choice. The findings revealed in this study may add important insight into the impact of the manager's actions on the nurses' decision making regarding an employment choice that is, in many circumstances, enabling the nurse to achieve personal career goals.

### **5.2.2ii The Double Edged Sword of Recruitment Initiatives**

The findings of this study contribute important insight related to the impact associated with specific initiatives within Ontario's Nursing Strategy on nurses making employment decisions (Pinto-Dias, 2010). Exploration of the nurses' employment decision making experiences revealed that the existence of work force stabilization and recruitment initiatives within this strategy served as important factors that encouraged and discouraged most nurses' choices to work in critical care. The benefits offered within these strategies including full-time nursing positions and paid educational opportunities for specialty training were described as positive influences on the nurses' employment decisions. These benefits provided them with a feasible option toward meeting their career objectives. Although this is an intended influence of such initiatives, the insight gained as to the positive influence they had in nurses' employment decision making is valuable.

This study, however, also revealed negative influences on the nurses' decision making experiences that were associated with workforce stabilization and recruitment initiatives. The focus on new graduates within the New Graduate Guarantee made it difficult for some experienced nurses to consider the probability of obtaining a nursing position in critical care without having recently graduated. This factor led to the nurses' feelings of uncertainty in their decision making process, that in some cases, delayed their decision. The temporary nature of funding within recruitment initiatives resulted in the nurses' experience of pressure to make an urgent choice to ensure they didn't miss out on a valuable specialized training opportunity. The immediate cessation of training funding support experienced by some employers resulted in these nurses' experiencing financial pressure to find alternative

employment within a critical care setting that offered the opportunity to complete their specialty training program.

The temporary nature of the full-time positions within the New Graduate Guarantee resulted in the nurses' experience of pressure to consider alternatives that included a permanent full-time position. This finding bears relevance in light of a recent three year evaluation of the New Graduate Guarantee initiative. This evaluation reveals the overall success of the New Graduate Guarantee's attempt to provide new graduate nurses with full-time jobs and integrate them into the health care system in Ontario (Baumann et al., 2010). Recommendations were put also forward to retain this initiative; as well as, combine it with other initiatives to increase the efficiency in achieving its goals (Baumann et al., 2010).

### **5.2.2iii Social Support For Making The Decision**

The findings of this study revealed specific aspects of social support that were used and found to be helpful during the nurses' employment decision making experiences. These aspects included: an interpersonal or professional interaction; whereby, the nurses received affirmation or endorsement from important others such as managers, peers, and family regarding the alternatives they were leaning toward, as well as the receipt of information or material aid from others (Norbeck, Lindsey, & Carrieri, 1981). This study's findings exemplify the importance of available social support in managing career changes. Making a career decision requires an individual to manage many tasks associated with it in the context of family, peer, and workplace expectations (Creed et al., 2009). It has also been recognized that career choices can represent challenges for some due to personal and environmental factors (Lent, Brown, & Hackett, 2000; Wiesenbergs & Aghakhani, 2007). The nurses' request for social support during a time of career transition is consistent with the literature

informing that social support can help reduce the effects of stress during career change (Creed, Fallon, & Hood, 2009; Palladino Schultheiss, Kress, Manzi, & Jeffrey Glasscock, 2001).

O'Hare (1987) makes specific reference to the need for social support in the actual career decision making process. She states that a student's need for social support spans beyond the initial decision making phase and that it doesn't terminate at the actual choice, but it continues through implementation. She states that students needing to make a decision look for ways to bolster their decision making by seeking out others who will support their decision; the perceived support serves to reduce decision regret. Decision regret can occur if the individual doesn't get the needed support, at which time the individual may undo the decision or restrict its implementation (O'Hare, 1987). Hackett, Lent, & Brown (2000) further support this by stating, "people are less likely to translate their career interests into goals, and their goals into actions, when they perceive their efforts to be impeded by adverse environmental factors, (e.g., insurmountable barriers or inadequate support systems)" (p. 38). The nurses' description of the lack of social support being experienced as a difficulty further gives premise to the importance of social support in their career decision making process.

In summary, this study has provided insight into the existence of and effect of important personal and contextual factors that influence nurses' career decision making within the current work environment. These personal and contextual factors are representative of those in the changing nature of careers and work environments. The current nature of employment arrangements and the context of the organizations have become less stable (Higgins, Dobrow, & Roloff, 2010). Health care organizations have undergone changes in both the structure and process of care delivery while responding to the need to

ensure a sufficient and stable workforce (McGillis Hall, Waddell, Donner, & Wheeler, 2004). In addition, careers have transitioned from those where workers exchanged loyalty for job security to those where workers exchange performance for continuous learning; whereby, success is measured by the extent to which the work is found meaningful (Sullivan, 1999). These changes have necessitated individuals to be more self-directed in navigating their careers (Higgins, Dobrow, & Roloff, 2010; Sullivan, 1999). The results of this study have provided insight into the important factors that influence this process, both for individuals making an employment choice and organizations aiming to support nurses in this process.

### **5.3 Implications for Theory**

The Ottawa Decision Support Framework (ODSF) was used as the lens with which to explore the nurses' decision making experiences related to a developmental transition, or more specifically, a career transition (O'Connor et al., 1998). The ODSF proved to be a valuable mid-range theory with which to assess the nurses' decision making needs and to outline needed decision support for ongoing employment decisions. Expansion of certain elements of the ODSF, however, could be considered to allow it to better describe the nurses' decision making experiences related to an employment choice. For example, the nurses within this study didn't exclusively use a rational approach to their decision and the environment was demonstrated to have an impact on their decisions. These factors will be discussed further in the following section.

The findings of this study related to the nurses' use of a rational-intuitive approach to their employment choice corroborates a current viewpoint in the vocational psychology literature that rational and intuitive processes interact to serve the adaptive decision maker (Krieshok, Black, & McKay, 2009). The use of more than one approach to career decisions

is also outlined in Gelat's (1986) model of Sequential Elimination whereby a satisficing approach is first used to reduce the many alternatives to a promising few, at which point, a rational approach is encouraged to make the final career choice. The ODSF provided the necessary focus on the rational approach to making an employment choice, and may fit best at the stage of decision making where the cognitive aspects of a decision are considered. Explicit reference in the ODSF to the aspects of the decision not addressed, ie the non-cognitive aspects, may prevent its use in situations where intuitive aspects are involved.

This study not only revealed personal influences on the employment decision, but it also disclosed the existence and influence of important contextual factors in the nurses' career decision making experiences. The ODSF is explicit about considering personal influences on a decision (eg., an individual's perception of the decision and of important others, as well as personal and external factors needed to make and implement a choice) (O'Connor et al., 1998). It aims to support the modifiable determinants of a decision that are suboptimal, including unwanted pressure and inadequate support (O'Connor et al., 1998). The contextual factors that influenced the nurses within this study were recruitment policies, educational incentives, and inadequate decision making support within their career development process. These factors are more difficult to modify at the individual decision making level as they are more embedded within the hospitals' organizational structures. Given this, they are not acknowledged explicitly in the ODSF. A newer decision making conceptual model, the Interprofessional Shared Decision Making model, includes the broader environmental influences that can support or interfere with the process by which decisions are made (Legare et al., 2010). Environmental factors influencing decisions are described in this model as: social norms, including cultural values, routines, and policies

within the patient family teams, health care team, and society; organizational routines; and the institutional structures (Legare et al., 2010). Therefore it is possible to consider the ODSF as being situated within the broader environmental factors influencing individuals making decisions about health or social issues.

The decision support component within the ODSF nicely fits with the nurses' suggestions to support future nurses making similar types of choices. The concept of decision support, as defined by the ODSF, includes the preparation of an individual for decision making with the goal of improving the quality of the decision (O'Connor et al., 1998). It includes the role of interventions such as decision aids and decision coaching to support making health decisions that are informed and consistent with personal values. Coaching or other interventions are used to address the suboptimal determinants of or inputs into a decision including inadequate knowledge, unrealistic expectations, unclear values, and unwanted pressure that may lead to a lesser quality health decision (O'Connor et al., 1998). The focus on identifying and addressing the suboptimal determinants of a health decision is synonymous with the approach to supporting individuals making career choices (Amir & Gati, 2006; Amundson, 1995; Germeijs & De Boeck, 2003; Kelly & Lee, 2001).

More recent career development theory refers to career adaptability as a central construct outlining career success (Creed et al., 2009). Within this construct lies the individual's ability to plan and adjust to changing career plans. Decision making, for the adaptive decision maker, includes the ability to make a viable, value based decision that, for some, may include an intuitive component to it (Creed et al., 2009; Krieshok, Black, & McKay, 2009). It also includes the potential need to make a decision on more than one occasion during the decision makers career, while acknowledging a level of uncertainty in

evaluating the outcomes of possible alternatives in an environment undergoing constant change (Creed, Fallon, & Hood, 2009; Krieshok, Black, & McKay, 2009). The ODSF's focus on supporting an individual's decision making and potential uncertainty associated with it is suited to providing a mid-range theory with which to support the nurses' adaptive decision making skills.

#### **5.4 Implications for Policy**

The nurses within this study make specific suggestions to support future nurses making a career choice to work in critical care. These included the need for factual and experiential knowledge related to critical care, an opportunity to clarify values regarding employment options, and the need for social support to enhance the nurses' capacity to make the employment decision. Given that career decisions are facilitated and supported at an organizational level, these suggestions are discussed as possible policy changes. These policy changes aim to prepare future nurses for making an effective employment choice to work in critical care that is informed and based on the nurses' values and job preferences.

##### **5.4.1 Access to Factual Information about Work Life in Critical Care**

The nurses expressed a need for improved accessibility of factual information specific to critical care while making their employment choice. A hallmark of career decisions includes the vast amount of accurate and consistent information that is required to ensure alternative employment options are characterized adequately and in a detailed way (Gati, Krausz, & Osipow, 1996). Factual information may include general, as well as health care and unit specific information, outlining a critical care patient program and required nursing competencies. Print media, in addition to the internet, have been found influential in career choices of college students (Bright, Pryor, Wilkenfeld, & Earl, 2005). Such sources

would be the avenues with which to disseminate factual, relevant information related to working in a critical care setting. For example, existing hospital intranets, hospital wide newsletters, and career fairs could be considered possible ways to disseminate print or video media. Teachers were also found to be a significant influence on career decisions; therefore, faculty in nursing programs could be considered an effective avenue to disseminate relevant information (Bright, Pryor, Wilkenfeld, & Earl, 2005). Finally, according to the ODSF, decision aids that present information on options in a balanced way are effective for patient decision making and may also help nurses better understand the option of working in critical care (O'Connor et al., 1998).

#### **5.4.2 Mentorship Opportunities in Critical Care**

The nurses suggested the need for experiential knowledge related to working in a critical care setting. The opportunity to be partnered with a more experienced nurse working within the critical care setting was suggested by nurses in this study as a way to better support nurses considering the option to work in critical care. Such mentorship opportunities are central to enacting a culture of career development within an organization (Conger, 2002). Crow, Hartman, & McLendon (2009) suggest job previews, or shadowing an employee doing the same job, as an effective means to allow the nurses to have a realistic view of the specific job requirements, organizational expectations, and work environment. The evidence has shown that job previews are related not only to higher performance and lower attrition, but they serve to lower initial job expectations and lower turnover overall (Crow, Hartman, & McLendon, 2009).

### **5.4.3 Improved Social Support from the Employer**

Nurses in the study expressed the need for social support from their managers and the nursing profession when considering career alternatives and suggested that future nurses making similar decisions would also need this type of support. Social support may be offered to nurses considering the option to work in critical care in either formal or informal methods and by unit managers, advanced practice nurses (APN) and others in leadership positions and nursing professional practice. Social support may occur in the form of genuine interest in and encouragement regarding the nurses' career development and planning initiatives. More specifically, the provision of decision coaching, mentorship opportunities and advocating for potential career opportunities to enhance career growth should be considered.

Adapting to a changing work environment has brought about specific career development needs of individuals and well defined career development practices for effective organizations (Hall & Moss, 2004). The recommended provision of support for individual's own efforts at career development and change is one such practice (Hall & Moss, 2004). The RNAO (2008) has incorporated health care employers' interest in nurses' career development and provision of opportunities for personal and professional development into a best practice guideline addressing workplace health, safety and well-being of the nurse. This practice is said to foster the development of career resilient employees, a needed capacity to effectively navigate the present day work environment (Higgins, Dobrow, & Roloff, 2010; RNAO, 2008).

### **5.4.4 Opportunities for Values Clarification Related to Critical Care**

The nurses within this study suggested that future nurses making a similar decision should be explicitly supported to clarify their values related to their employment alternatives

to ensure a proper employee job fit. Opportunities for values clarification related to critical care can be done either using a decision aid such as the Ottawa Personal Decision Guide (OPDG) or by decision coaching (Stacey et al., 2008). Decision coaching could be provided by those knowledgeable in decision making and support, which may potentially include the APN in the critical care unit. This is consistent with the prescriptive approach to decision making proposed in the ODSF and is exemplified in the related OPDG designed to support individuals facing health or social decisions (Stacey et al., 2008). Hall & Moss (2004) recognize the challenge employees face in finding a fit within a changing organization. They suggest the need for resources to help employees assess their own identities and values to enhance the clarity of preferred alternatives and to increase confidence in their choices.

### **5.5 Implications for Nursing Education**

Providing a critical care nurse training program with a job offer for work in a critical care environment offered nurses in this study both motivation and help when making the decision to work in critical care. This finding offers insight into the importance of ongoing, accessible specialized nursing training programs. A recent evaluation of critical care education across the province of Ontario has recommended the merging of hospital and educational institution based critical care training programs to standardize education (Fisher, Bauman, Hunsberger, Blythe, & Fitzpatrick, 2008). The need for a permanent commitment to the provision of critical care training funding from the government as a recruitment incentive clearly exists. The ongoing provision of standardized, specialty nursing training with a job offer would serve to not only recruit additional nurses into critical care but also provide nurses with feasible career development opportunities. Furthermore, additional supports such as job shadowing and values clarification would ensure that those motivated

by free specialized training are sure about their decisions to work in critical care before embarking on training.

The provision of continuing education focused on enriching nurses' knowledge and skill related to higher acuity nursing is also suggested. This important strategy works toward providing nurses with greater insight into the care required by critically ill patients and ensuring competent nursing practice. This strategy is consistent with the College of Nurses of Ontario's (2010) principles that life long learning, based on the learner's needs, is required for competent practice.

### **5.6 Implications for Nursing Practice**

This study has provided valuable insight into the uncertainty experienced by nurses making an employment choice to work in critical care. Career decisions are complex. Personal and contextual factors existed for nurses in this study making their decisions more difficult without adequate support for making career decisions. Therefore, from a nursing practice perspective, nurses should have the opportunity to build their competencies related to decision making and decision support. Opportunities to enrich decision support skills for nurses are recommended to occur through undergraduate nursing and continuing educational programs (Stacey et al., 2008). An added advantage to building the nurses' capacity regarding decision making and decision coaching is the suggested transferability of these skills across clinical environments and patient populations (Stacey et al., 2008). Ideally, the nurses enhanced knowledge and skills would allow them to effectively support not only themselves and their peers in their employment choices, but also patients making health care decisions.

## 5.7 Implications for Research

To fully explore the decision making experiences of nurses choosing to work in a critical care setting, further research is required to understand the perspectives of nurses who have left critical care for a period of up to six months after commencing employment. Given the difficulty of recruiting those nurses who have left critical care, an alternative approach to gaining this information could be through a continuing quality improvement approach. More specifically, exit interviews could be conducted with nurses that have resigned from a critical care setting to assess for and explore potential reasons or precipitating factors motivating their previous employment choice, influences on their decision, and potential sources of decision regret including a misalignment of the nurse's values, preferences and choice to work in critical care. Suggested questions include:

- (a) What circumstances triggered your previous employment decision?
- (b) What, if any, influences did you experience in making your previous employment choice?
- (c) What made your decision to work in your recent location difficult?
- (d) What did you value most about this past work experience?
- (e) Have you had exposure to a critical care setting in the past?
- (f) What triggered your need for this recent employment choice that is resulting in this resignation?

Information gained from the nurses who left the critical care setting could serve to further specify decision support needed for nurses making similar choices. This information may also help direct questions asked in hiring interviews to make certain potential candidates are sure about their decision to work in critical care.

Further research is also needed to clearly develop and evaluate decision support interventions for nurses making an employment choice to work in critical care. The nurses in this study weren't exposed to decision support interventions and provided recommendations to support future nurses making a similar choice. It is suggested, therefore, that the development and evaluation of a decision support intervention be carried out to support nurses making a choice to work in critical care. This intervention would be designed to address the difficulties experienced by the nurses in making their employment choice including limited knowledge and unrealistic expectations or work life in critical care, unclear values related to critical care, pressure to choose a specific employment option due to both personal and contextual factors, and limited social support.

Further development and evaluation of a decision coaching intervention should be evaluated to determine the effect on addressing decision making needs of nurses considering employment in critical care. Decision coaching aims to guide individuals experiencing difficulty in making a decision through the decision making process to support their involvement in it and to allow them to make a quality decision (Stacey et al., 2008). A guide, similar to the Ottawa Patient Decision Guide designed for use within the ODSF, could be considered for use in the decision coaching process to further enhance decision support (Stacey et al., 2008). Barriers to the implementation of decision coaching within an acute care environment career transition would need to be considered in the design of this intervention. Such barriers include a limited awareness, knowledge, and skill regarding decision coaching among health care professionals, time constraints within the practice setting to develop the skill of coaching, and unclear administrative direction for nursing related to the provision of decision coaching (Stacey et al., 2008).

## **5.8 Implications for the Advanced Practice Nurse**

This study's findings suggest the need for the APN's advanced level of clinical nursing practice in areas pertaining to nursing policy, practice, education, and research to support nurses making an employment choice to work in critical care (Table 5.2).

According to the Canadian Nurses Association's National Framework for Advanced Nursing Practice (2008), the APN uses competencies within relevant areas including clinical, research, leadership, as well as consultation and collaboration, to develop and advance nursing practice.

The APN, as a leader and change agent, can advocate for policy changes at a unit, institutional, and government level to collaboratively support nurses making an employment decision to work in critical care (Donner, Wheeler, & Waddell, 1997). The APN's leadership abilities will also support the provision of mentorship and decision coaching for nurses making an employment choice (Gracey, 2001). The APN's educational knowledge and leadership skills will foster collaborative planning and implementation of effective educational initiatives directed at increasing nursing competencies associated with decision making and support. The APN's research and leadership skills will assist in the interpretation of relevant empirical findings and to evaluate current practice around the support of nurses making career choices. The APN's use of nursing knowledge related to decision support, research skills, clinical expertise, and integration of knowledge from other disciplines can be used to lead nursing, including nursing professional practice, in the development and evaluation of decision support for nurses making a career decision.

**Table 5.2 The APN's Role in Supporting Nurses Considering Employment in Critical Care**

Professional Practice Area	Implications for Supporting Nurses Making a Decision To Work in Critical Care
Leadership	<ul style="list-style-type: none"> <li>• Enhanced access to factual information related to critical care nursing.</li> <li>• Access to mentorship opportunities in critical care.</li> <li>• Enhanced access to social support from the employer.</li> <li>• Opportunity for values clarification within decision support interventions.</li> </ul>
Practice	<ul style="list-style-type: none"> <li>• Skill development related to decision making and support through undergraduate and continuing education programs.</li> </ul>
Education	<ul style="list-style-type: none"> <li>• Continued and permanent access to free standardized specialty nursing training within job offers for critical care.</li> <li>• Access to continuing education related to caring for more acutely ill patients.</li> </ul>
Research	<ul style="list-style-type: none"> <li>• Further exploration of nurses' employment decision making experiences from those who have left the critical care setting as well as those of male nurses.</li> <li>• Development and evaluation of decision support interventions.</li> </ul>

### 5.9 Study Limitations

Limitations within this study should be considered when considering the findings. Perspectives included in this study are limited to females working in a single institution and those who remained in the critical care units. Further research may further enhance our understanding of the decision making experience of nurses choosing to work in the intensive care unit by targeting male nurses, however, the Canadian Nurses Association (2010), reports that males only represent 6% of the critical care nursing workforce. Therefore this group of nurses may be difficult to recruit, as was the case in this study.

The nurses' descriptions of their employment decision making experiences offered important insight into contextual factors influencing their choice. These factors are limited to a specific health care institution within a single Canadian province. The inclusion of

nurses from additional hospitals may enhance the description of important contextual factors influencing nurses' employment choices due to the unique implementation of recruitment initiatives within hospitals.

This study provided valuable insight into the difficulties nurses experienced in making an employment choice to work in critical care from nurses who were satisfied with their choice. This study's findings could be further enhanced by incorporating the decision making experiences of nurses who experienced decision regret and subsequently left the critical care setting after making their decision. Difficulty in recruiting these nurses necessitates the need for more creative ways of obtaining their perspectives on their decision making experiences related to their employment choice.

## **5.10 Conclusions**

Inquiry into nurses employment decision making experiences related to a choice to work in critical care has arisen from a recent focus on nursing turnover and job dissatisfaction in the critical care setting. A current gap in the nursing literature related to nurses' decision making experiences associated with an employment choice to work in critical care led to a qualitative descriptive study which set out to reveal the approaches nurses used in making their employment choice and factors that influenced the process. The findings of this study contributes an important awareness of the rational-intuitive and satisficing approaches nurses used in making an employment choice to work in critical care in addition to the personal and contextual factors that influenced the process. The ODSF proved to be a useful theoretical lens with which to inform the exploration of the nurses' career decision making experiences and offered necessary guidance in the consideration of important decision support suggestions for future nurses making similar career decisions.

An explicit focus on the decision making aspect of nurses' career development contributes important knowledge as to how nurses adjust and adapt to career changes in today's working environment. Despite the limitations experienced in this study, the difficulties nurses faced in making an employment decision to work in critical care contribute valuable insight to an emerging body of knowledge related to role congruency, job dissatisfaction and resultant nursing turnover in critical care. In addition, this study also prompts further inquiry as to how best to support future nurses making similar career decisions.

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**Appendix A: Advertisement for Study Recruitment**

Have you begun working in  
Critical Care since  
July 2009 as an RN?

I am a Master's of Science in Nursing student at the University of Ottawa conducting a qualitative research study inquiring about nurses' decision making used while making employment choices in a Critical Care area. If you, or anyone you know, have made this decision within the last year, I would be very interested to hear your experiences. This is the first step toward providing nursing with the needed support while making important employment choices.

Please call:

Carolin Fiege



or



This research study has been approved by the Ottawa Hospital Research Ethics Board.

## Appendix B: Consent to Participate in a Research Study



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### Consent to Participate in a Research Study

Decision Making Experiences of Nurses Choosing to Work in Critical Care

**Research Team:** Carolin Fiege, University of Ottawa  
Dr. Dawn Stacey, School of Nursing, University of Ottawa  
Dr. Josephine Etowa, School of Nursing, University of Ottawa  
Valerie Fiset, Professor, Nursing Studies, Algonquin College

#### Invitation to Participate

I am a student in the Masters of Science in Nursing Program at the University of Ottawa under the supervision of Dr. Dawn Stacey. As part of my Master's program, I am asking you to participate in this study exploring nurses' experiences in making decisions to work in Critical Care. Critical Care is an area of high turnover of nurses and we would like to get a better understanding of the factors influencing this employment decision. Information gained will help us establish new ways to help support nurses decision making processes in the future. You are encouraged to ask questions or raise concerns at any time about any aspect of the study.

#### Participation in the study

Your participation in this study will include involvement in two interviews at a convenient time and location for you. The first interview will begin with general questions asking about your position, nursing experience, and number of career transitions experienced over the past while. Next, the interviewer will inquire about your experiences while making the decision to work in Critical Care. The interview is expected to take 30 to 45 minutes.

The interview will be audio taped in order to accurately capture your experiences in your own words. At a later date you will be contacted to ask if you would be willing to review a summary of the interviews and asked to verify that your experiences are reflected in it. Your responses will be anonymous. Any information you provide will be kept confidential.

#### Risks

There are no known risks to participate in the study. The interview will

Version Date: June 15, 2010

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Ottawa, Ontario K1H 8L6

*Riverside Campus Riverside*  
1967 prom. Riverside Drive  
Ottawa, Ontario K1H 7W9

require you talk about the process of decision making, which may include difficulties. You are free to stop the interview at any time, and if you wish, it can be resumed at a later time.

#### Benefits

You may or may not receive any direct benefit from participating in this study. Insights gathered from you and other participants will be helpful in understanding the decision making processes used by nurses making critical care employment decisions and if necessary used to establish ways to better support this process.

#### Voluntary Participation

Your participation in this study is voluntary. Whether or not you participate will not affect your employment status. If you agree to participate, you may decline to answer any questions you do not want to answer and you may leave the study at any time. In the event you choose to withdraw from the study all information you provide (including tapes) will be destroyed and omitted from the final report.

#### Confidentiality and Anonymity

All personal health information will be kept confidential, unless release is required by law. You will not be identifiable in any publications or presentations resulting from this study. All information, (questionnaires, notes, transcripts and audio tapes), will be kept for a period of 15 years after the study is initiated and will be kept in a locked cabinet. At the end of the 15 years, all paper records will be disposed of by way of shredding and electronic files will be permanently deleted. The Ottawa Hospital Research Institute, the Ottawa Hospital Research Ethics Board as well as the Research Ethics Board at the University of Ottawa may review the relevant study records, under the supervision of Dr. D. Stacey's staff, for audit purposes.

#### Contacts and further information

If you have any questions about this study please contact Carolin Fiege at [REDACTED], or Dr. Dawn Stacey at [REDACTED], [REDACTED].

The Ottawa Hospital Research Ethics Board (OHREB) has reviewed this protocol. The OHREB considers the ethical aspects of all research studies involving human subjects at The Ottawa Hospital. If you have any questions about your rights as a research subject, you may contact the Chairperson of the Ottawa Hospital Research Ethics Board at [REDACTED], [REDACTED].

Thank-you very much for taking time to consider helping us with this study.  
Version Date: June 15, 2010 Page 2 of 3



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**Consent to Participate in Research**

I understand that I am being asked to participate in a research study about decision making processes used to choose employment in Critical Care. This study has been explained to me by Carolin Fiege.

I have read (this 3 page Consent Form (or have had this document read to me). All my questions have been answered to my satisfaction. If I decide at a later stage in the study that I would like to withdraw my consent, I may do so at any time.

I voluntarily agree to participate in this study.

A copy of the signed Consent Form will be provided to me.

**Signatures**

\_\_\_\_\_  
Participant's Name (Please Print)

\_\_\_\_\_  
Participant's Signature

\_\_\_\_\_  
Date

**Investigator Statement (or Person Explaining the Consent)**

I have carefully explained to the research participant the nature of the above research study. To the best of my knowledge, the research participant signing this consent form understands the nature, demands, risks and benefits involved in participating in this study. I acknowledge my responsibility for the care and well being of the above research participant, to respect the rights and wishes of the research participant, and to conduct the study according to applicable Good Clinical Practice guidelines and regulations.

\_\_\_\_\_  
Name of Investigator/Delegate (Please Print)

\_\_\_\_\_  
Signature of Investigator/Delegate

Version Date: June 15, 2010

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## **Appendix C: Research Study Interview Guide**

### ***Set up:***

- \*Private location
- \*Set-up audio taping device

### ***Introduction and Purpose:***

Thank-you for agreeing to participate in this study. My name is Carolin Fiege, I am a Masters student under the supervision of Dr. Dawn Stacey. I will be talking with you over the next 30 – 45 minutes about your decision making experiences. The purpose of this interview is to hear, from your perspective, your experiences with the decision making process you used while choosing to work in Critical Care.

### ***Assurance of Confidentiality:***

Please be assured of anonymity within the research process; names will not be associated with data in any aspect of the report or published data. The interview can be stopped at any time without any consequences. There are no right or wrong answers, your experiences according to how you have experienced it is key. My role is to facilitate the progression of the interview and to take notes.

### ***Informed Consent:***

- \*Ensure it is signed and copy provided to participant.
- \*Contact sheet with email address to be able to send the combined results of the interviews to in the future.
- \*Complete Demographics Questionnaire at beginning of interview.

### ***Conclusion of Interview:***

- \*Ask if there are any other concerns or comments participants would like to share.
- \*Remind of future opportunity to view combined results of the interviews.
- \*Stop audiotape recording.

### ***Write Field Notes:***

### ***Interview Guide Key Questions:***

1. Tell me about the process you used while making the decision to work in Critical Care?
2. What information did you find most helpful in your decision to work in Critical Care?
3. What was most important to you when deciding to work in Critical Care?
4. Can you tell me any challenges or difficulties you faced with your decision making?
5. What/who influenced you in this process?
6. What did you find helpful during this process?
7. What would you have preferred to have had to help you in this process?
8. What would you recommend to better help nurses making the decision to work in critical care?

### **Appendix D: Probes Used With Interview Guide Questions**

The probes used in this study were not planned apriori, rather asked in real time and recorded retrospectively. They included:

Related to Question:

1. Tell me about the process you used while making the decision to work in critical care?

Probes: How did you decide upon Intensive Care? How did you eventually end up with this choice? When had you made your decision? How was that for you? Can you tell me about your transition from .... To .....

2. What information did you find most helpful in your decision to work in Critical Care?

Probes: Did the information change your opinion?

3. What was most important to you when deciding to work in Critical Care?

Probes: Going back to the point you made earlier about ....., can you tell me more about that?

4. Can you tell me any challenges or difficulties you faced with your decision making?

Probes: Tell me how you found that process? What threatened you most at this point?

5. What/Who influenced you in this process?

Probes: Were there other influences? Can you describe what was going on for you when you decided to come here when you did?

**Appendix E: Demographic Data Questionnaire**

Study ID: \_\_\_\_\_

Location of Work:  ICU  CCU  CSICU  Other

Length of Time in Current Critical Care

Position: \_\_\_\_\_

Are you currently working:  Full Time  Part-timeSex:  Male  Female

What is your highest level of education?

 Nursing Diploma Undergraduate Degree, Nursing  In other, specify: \_\_\_\_\_ Graduate Degree Nursing  In Other, specify: \_\_\_\_\_

Your age range?

 20-25  30-35  40 – 45 25-30  35-40  45-50  >50

How long have you been working within Nursing?

 Less than 2 years  11 to 15 year  26 to 30 years 2 to 5 years  16 to 20 years  more than 30 years 6 to 10 years  20 to 25 yearsHave you completed a College based Critical Care Training Program?  Yes 

Number of career transitions in the last two years: \_\_\_\_\_

## Appendix F: Ottawa Hospital Research Ethics Board Certificate of Approval



### Ottawa Hospital Research Ethics Boards / Conseils d'éthique en recherches

<http://www.ohri.ca/ohreb>

June 18, 2010

Dr. Dawn Stacey  
Ottawa Hospital - Civic Campus

Dear Dr. Stacey:

**Re: Protocol # 2010347-01H Decision Making Experiences of Nurses Choosing to Work in Critical Care**

**Protocol approval valid until - June 17, 2011**

Thank you for your letter dated June 15, 2010. I am pleased to inform you that this protocol underwent expedited review by the Ottawa Hospital Research Ethics Board (OHREB) and is approved. No changes, amendments or addenda may be made to the protocol or the consent form without the OHREB's review and approval.

Approval is for the following documentation:

- English poster received June 2, 2010
- French poster received June 16, 2010
- English Demographic Data Questionnaire received April 26, 2010
- French Demographic Data Questionnaire received June 16, 2010
- English Consent to Participate in a Research Study dated June 15, 2010
- French Consent to Participate in a Research Study dated June 1, 2010

The validation date should be indicated on the bottom of all consent forms and information sheets (see copy attached). If the study is to continue beyond the expiry date noted above, a Renewal Form should be submitted to the OHREB approximately six weeks prior to the current expiry date. If the study has been completed by this date, a Termination Report should be submitted.

The Ottawa Hospital Research Ethics Board is constituted in accordance with, and operates in compliance with the requirements of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans; Health Canada Good Clinical Practice: Consolidated Guideline; Part C Division 5 of the Food and Drug Regulations of Health Canada; and the provisions of the Ontario Health Information Protection Act 2004 and its applicable Regulations.

  
Chairman  
Ottawa Hospital Research Ethics Board

Encl.

/cb

**University of Ottawa Authorization Certificate**

**Université d'Ottawa**

Service de subventions de recherche et déontologie

**University of Ottawa**

Research Grants and Ethics Services

July 21, 2010

Dawn Stacey

School of Nursing

Faculty of Health Sciences

University of Ottawa

Carolin Fiege

School of Nursing

Faculty of Health Sciences

University of Ottawa

**Re: Decision Making Experiences of Nurses choosing to work in Clinical Care (A 06-10-04)**

Dear researchers,

Thank you for the protocol documents and the Certificate of Approval from the Ottawa Hospital.

This is to confirm that, in accordance with the agreement between the University of Ottawa and the Ottawa Hospital the University of Ottawa has authorized the Ottawa Hospital REB to act as Board of Record for the review and oversight of research involving human subjects conducted at or through the hospital.

Copies of annual reports and renewals of the Ottawa Hospital REB approvals, as well as certificates and reports for any other study sites must be provided to our office.

We remind you of your obligation to:

- Follow all procedures of the Ottawa Hospital REB including reporting and renewal procedures;
- Submit to the authority of the Ottawa Hospital REB and that you are subject to Ottawa Hospital REB requirements, including, without limitation, the requirement to modify or stop the research on demand of the Ottawa Hospital REB.

If you have any questions, please contact our ethics office [REDACTED]

Sincerely yours,

Germain Zongo

Protocol Officer for Ethics in Research

For Dr. Daniel Lagarec, Chair of the Health Sciences and Sciences REB

### **Appendix G: Member Checking Communiqué For Study Participants**

Date of Communiqué: April 2, 2011

Title of email: Request for feedback Related to Research Study- Decision to work in critical care.

Hello Everyone:

I'm the Nursing Graduate student who interviewed you last June regarding your experiences in making your choice to work in Critical Care. At the time of your interviews, I had indicated that I would be providing you with a summary of the results from the completed interviews in efforts to ensure I have captured your experiences accurately.

I have attached a short 11 slide power point presentation with the summary of the results from 10 interviews with critical care nurses about their decision making experiences in choosing to work in critical care. While reviewing this summary, can you provide me with the answer to the following questions:

- 1). Does the information capture the essence of your decision making experience? If not, can you clarify and incorrect information.
- 2). Is there important information missing from your reported experiences that should be included in the results? If so, can you describe the missing information.

I would be happy to discuss the summary of your experiences with any of you via skype or a telephone call at your convenience.

Thank-you again for your participation in this study. Your reported experiences will provide valuable insight needed to support future nurses making similar decisions. I would really appreciate receiving your feedback by April 15<sup>th</sup>, 2011.

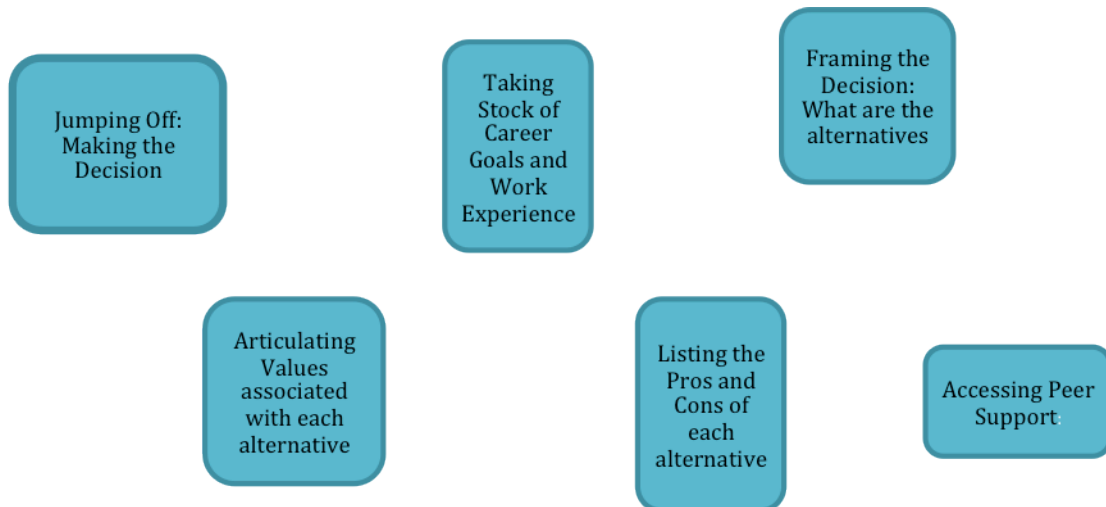
Sincerely,

Carolyn Fiege

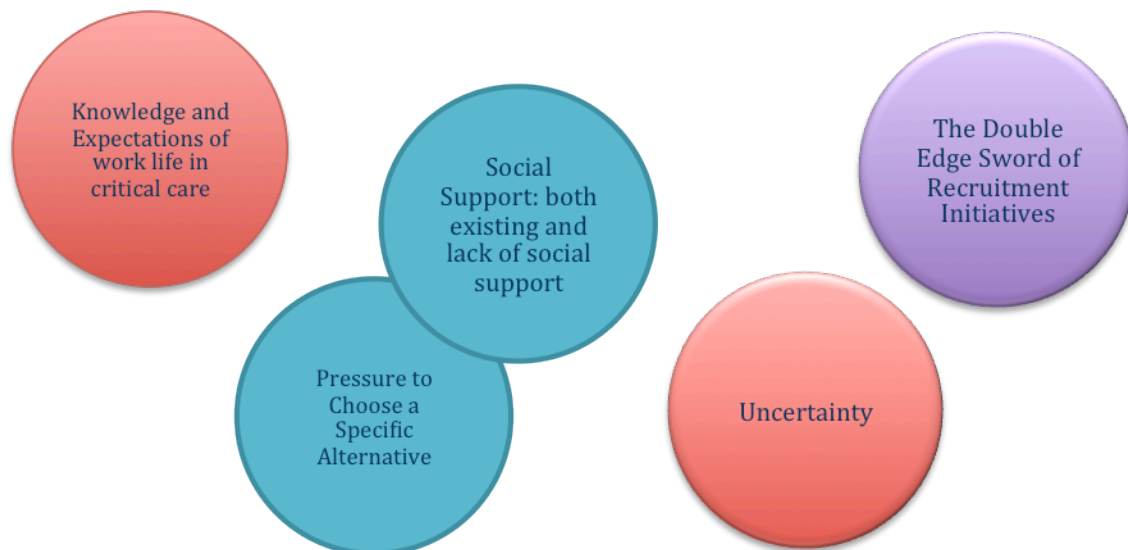
## Appendix H: Summary of Findings

The following is a summary of the findings from 10 interviews with nurses about the decision to work in critical care:

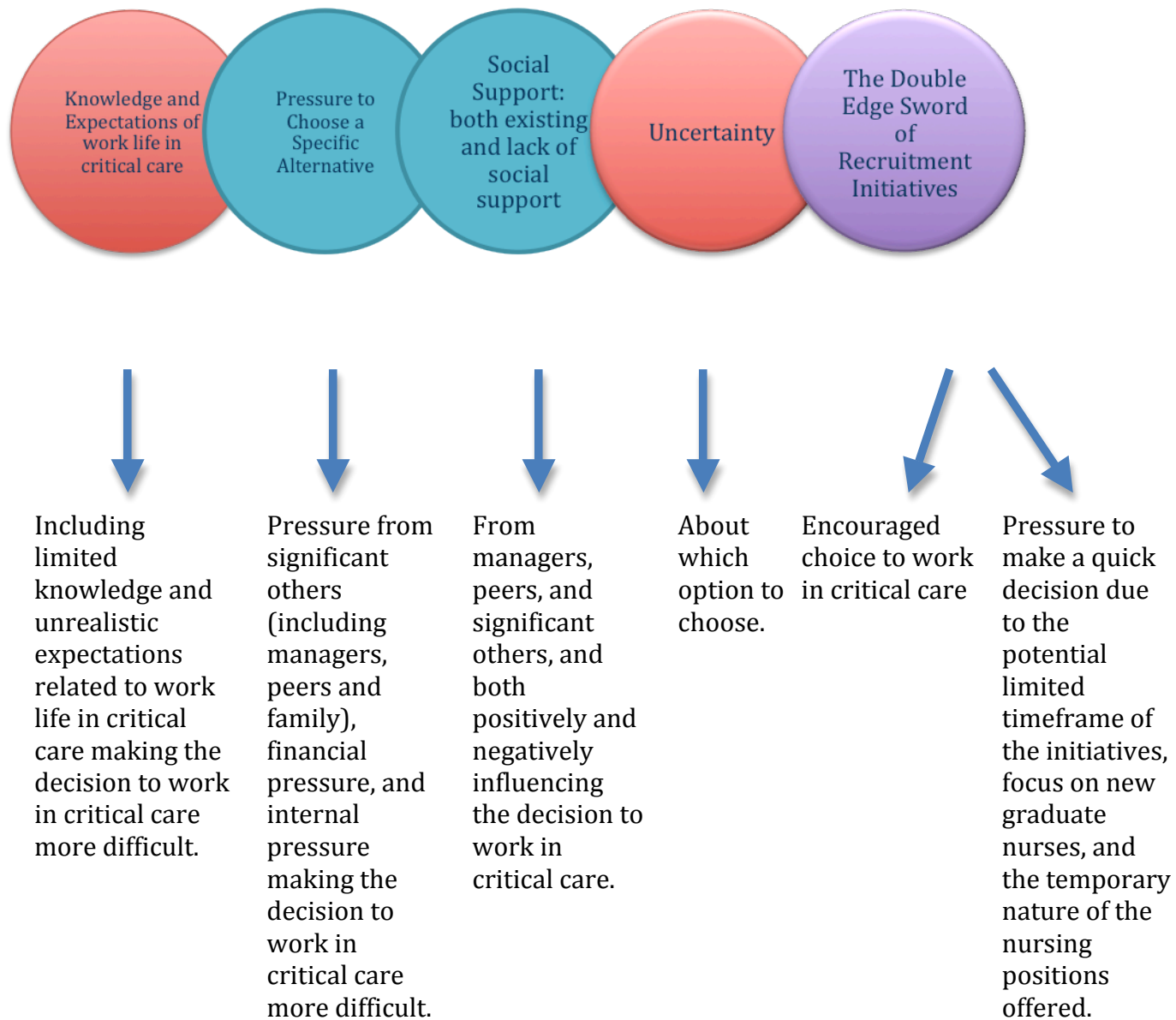
1). What were the decision making approaches nurses used in choosing to work in critical care?



2). What factors influenced the process of choosing to work in a critical care setting?



2). What factors influenced the process of choosing to work in a critical care setting cont'd:



**3). How can nurses be better supported when making the decision to work in critical care?**

- **Access to Factual Information about Work Life in Critical Care**  
Nurses suggested the need for career guidance and recruitment initiatives to inform nurses about working in critical care. Suggestions were also made to introduce content related to critical care nursing in nursing school.
- **Mentorship Opportunities in Critical Care**  
Nurses suggested the need for opportunities to gain experiential knowledge prior to making a choice to work in critical care such as job shadowing or having buddied shifts in critical care.
- **Encouragement from Managers**  
Nurses suggested that Nursing Management, as well as Nursing in general, provide improved social support to future nurses making similar employment choices.
- **Guidance to Clarify What is Most Important About Employment Alternatives**  
Nurses suggested the need for guidance in clarifying what was most important in the pros and cons of the different employment alternatives.

### Appendix I: Member Checking Follow-Up Communiqué

Date of Communiqué: June 6<sup>th</sup>, 2011

Title of email: Request for feedback- Decision to work in critical care: due by June 15

Hello Everyone:

I'm the Nursing Graduate student who interviewed you last June regarding your experiences in making your choice to work in Critical Care. I emailed you in April with a summary of my research results to ask if they reflect your experiences. This is a reminder email.

Your feedback on my research results is essential to ensure your experiences were accurately reflected in this study.

Please find attached a two -page summary of the results from interviews with 10 critical care nurses. While reviewing them, please can you answer the following questions:

1). Does the information capture the essence of your decision making experience?

Yes  No

If No, can you clarify any incorrect information:

2). Is there important information missing from your reported experiences that should be included in the results? Yes  No

If Yes, can you describe the missing information:

I would be happy to discuss any aspect of these results further with you in person. I could call you at your convenience, and would just need a contact number for you.

Thank-you again for your participation in this study. Your names will remain anonymous to readers of this research project. I appreciate your time, and I look forward to your responses. As I am preparing to submit my thesis to the examiners at the end of June, I would really appreciate receiving your feedback by June 15.

Thank-you again everyone!

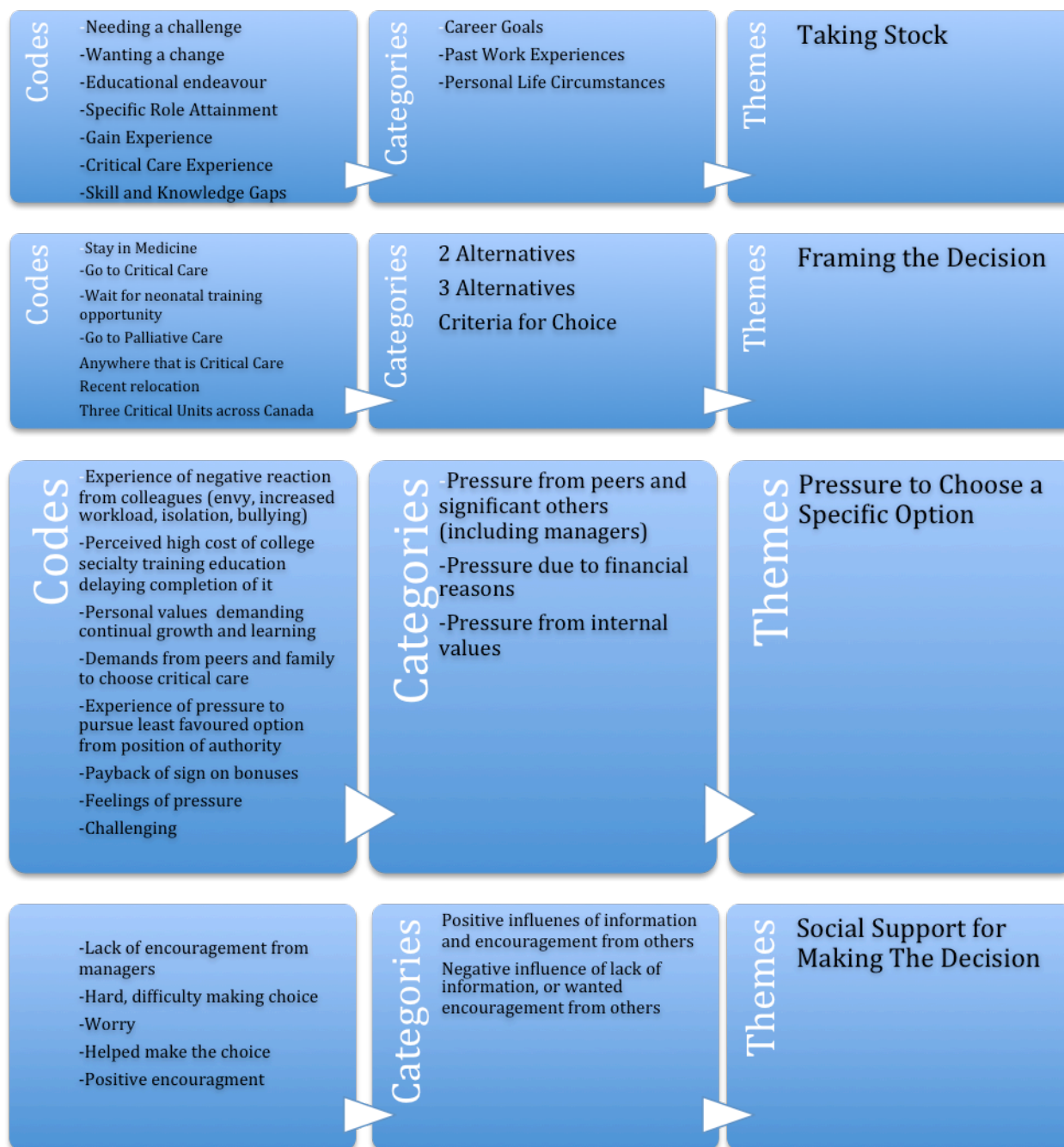
Sincerely,

Carolyn Fiege

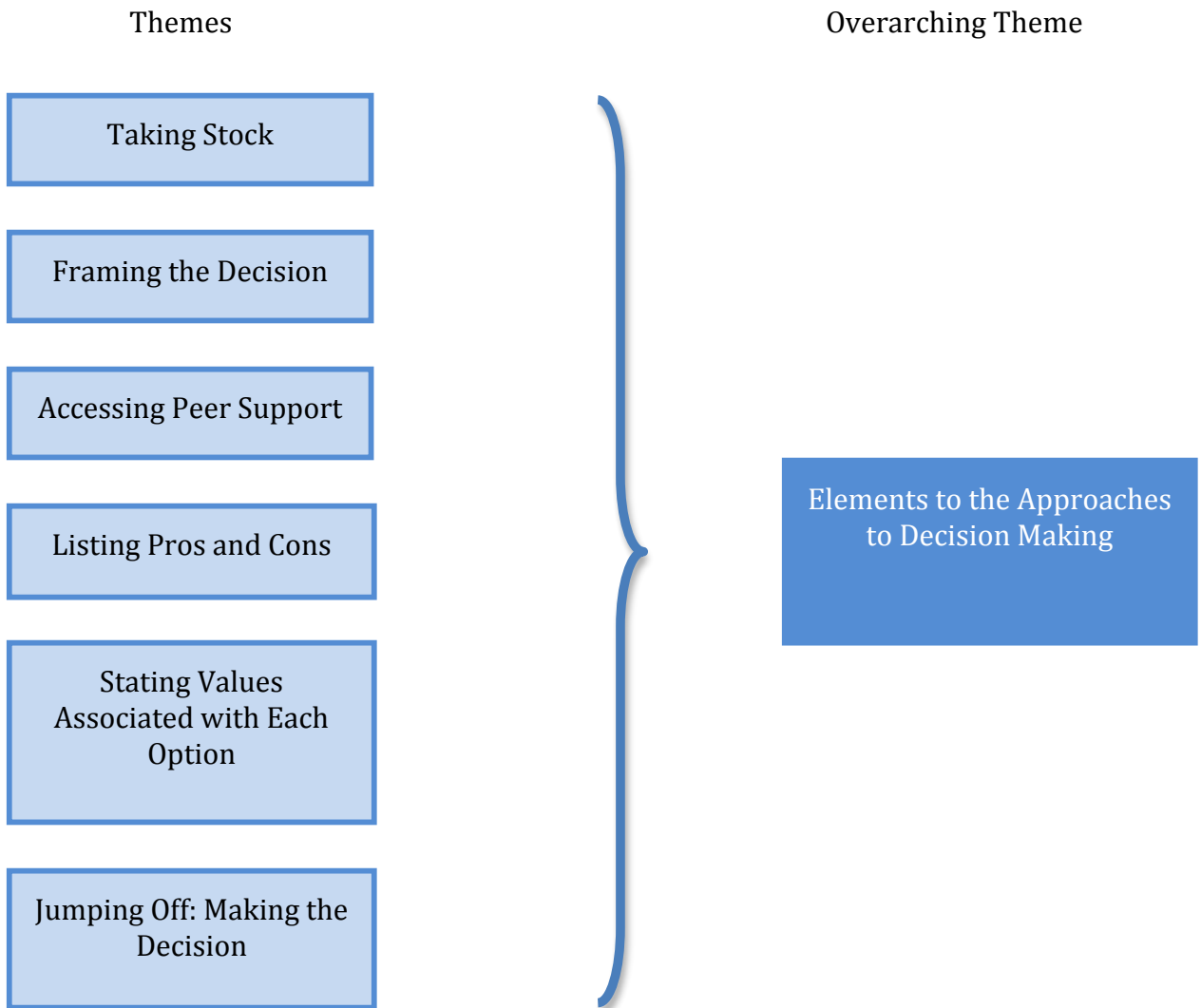
## Appendix J: Examples of Codes, Categories and Themes Emerging From Data

### Analysis

The following coding schema represents examples of codes, categories, themes and overarching themes that emerged from the transcribed interviews with the participants.



**Examples of Codes, Categories..... cont'd**  
**Grouping of Themes into Overarching Themes**



**Examples of Codes, Categories..... cont'd**  
**Grouping of Themes into Overarching Themes**

