An exploration of new nursing graduate and experienced nurse mentorship pairing processes: A multi-method approach

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Thesis submitted to the University of Ottawa
in partial Fulfillment of the requirements for the
Doctorate in Philosophy degree in Nursing

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Preface

Contributions of Collaborators

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Protocol conceptualization, design and review	ML, DS, CB, MD	ML, DS, CB, MD	ML, DS, CB, MD
Auditing data analysis and interpretation	ML, DS, CB, MD, AH	ML, DS, CB, MD	ML, DS, CB, MD, SC, RB, AH
Title and abstract screening by second reviewer	N/A	N/A	SC, RB, AH
Revision of manuscripts	ML, DS, CB, MD, AH	ML, DS, CB, MD	ML, DS, CB, MD, SC, RB, AH
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Dissertation Abstract

Background

Mentorship is used to ease entry to practice for new nursing graduates. However, little is known about the process of pairing with experienced nurses. The aim of this dissertation is to explore mentorship pairing processes for new nursing graduates and experienced nurses.

Methods

1. A quality improvement project was conducted using organizational data to describe the impact of the New Graduate Guarantee program at The Ottawa Hospital from 2013 to 2018 on new graduate nurses and organizational outcomes.

2. An interpretive descriptive study was conducted to develop an in-depth understanding of mentorship pairing practices specific to nursing occurring in a clinical setting that will ultimately inform future mentorship pairing practices.

3. A systematic review was conducted to determine the effect of mentorship pairing processes on the mentoring relationship and outcomes at the level of the new nursing graduate, mentor and organization.

Findings

1. From 2013 to 2017, 66 nurses were hired directly into operational vacancies and 579 new graduate nurses were paired with a mentor in the New Graduate Guarantee program. The two-year turnover rate for new graduates who participated in the New Graduate Guarantee program (21.5%, N=92/427) was lower than new graduate turnover rates reported in the literature.

2. Interviews with 13 new graduate nurses and 12 mentors revealed a lack of awareness of current nursing mentorship pairing processes. Six nurse leaders described pairing processes using third party pairing. Participants suggested preparation, socialization and self-selection are key components to consider for future practice.

3. Of 2583 citations screened, no studies evaluated the nursing mentorship pairing process. Research is required to determine effective mentorship pairing processes in nursing.

Conclusion

Although 579 nurses were hired through the New Graduate Guarantee nursing mentorship program, the 13 new graduates and 12 mentors interviewed were unaware of the process used for pairing. Furthermore, no studies have evaluated mentorship pairing processes. Ninety percent of new graduates hired participated in the New Graduate Guarantee program. Future research is required to trial pairing processes proposed by nurse leaders, new graduates and experienced nurses and to develop and validate tools to evaluate the outcomes of these pairings.

Acknowledgements

In this, the year in which we celebrate the 200th anniversary of Florence Nightingale's birthday and what has been declared by the World Health Organization to be the 'Year of the Nurse and Midwife', I am honoured to celebrate my 20th year as a registered nurse and submit my dissertation for consideration for graduation. It is my greatest wish that this work will stimulate conversation regarding mentorship including how we define, structure, implement and support this 'special relationship' within the profession of nursing.

I would like to thank those individuals who have engaged in that conversation with me throughout my PhD studies. You have kindled ideas, provided safe spaces to explore, supported me in times of struggle, and celebrated my successes both large and small. In short, you carried me through and were the supportive coaches, role models, cheerleaders and mentors I needed and for each of the roles you played, I wish to express my eternal gratitude.

To my supervisors Dr. Michelle Lalonde and Dr. Dawn Stacey; words cannot express how fortunate I feel to have had you both to guide me through the last several years. I have learned so much through your mentorship. Dr. Lalonde, thank you for sharing your knowledge, strength, patience and compassion. Your willingness to share your expertise in new graduate transition as well as your personal academic experience was truly meaningful and assisted me in finding my stride. Dr. Stacey, thank you for sharing your vast experience in navigating the PhD journey. You were an invaluable guide and I am grateful to you for sharing your thought process and knowledge. Together you challenged me to see beyond the present and encouraged me to become comfortable with the inevitable discomfort that comes with the process of knowledge

development. It is a life lesson I will always treasure and hope to have the privilege to share with others.

To the members of my thesis committee Dr. Chantal Backman and Dr. Magda Donia; thank you for your knowledge, kind support, and understanding. You encouraged me to see my topic from different perspectives and stretched my thinking as a result. I am humbled by your generosity and view you as examples to follow.

To my PhD student colleagues; we were so fortunate to have such a tight knit group. I will always remember and value our thought provoking discussions in and outside of class. I would especially like to thank Dr. Shelly Crick and her family Drs. David and James Crick for their steadfast support, never ending kindness and for blazing the trail.

To my nursing professional practice colleagues; I would not be here without you. I would specifically like to thank Cheryl Anne Smith, Evelyn Kerr, Dr. Ginette Lemire Rodger, and Dr. Debra Bournes for their encouragement and professional support to pursue this goal and advance our collective knowledge in this area.

To all of the new graduate nurses, mentors and leaders who so generously shared their time and experiences; your contribution to this work was invaluable and I feel privileged to share your words of wisdom with others.

To my parents (Brian and Judy), parents in-law (Tom and Daisy), sisters (Dawn and Dayle), brothers in-law (Jeff, Colin and Rodney), nieces and nephews (Olivia, Charlotte, Katie, Hailey, Eryn, Alex and Nolan), best friends (Trina and Terry) and loyal furry companion (Rogan); you have waited patiently, as I pursued my dream, to engage back in family life. Thank

you for your understanding, for not asking too many questions, for waiting to say ‘I am done!’...I am almost there.

Finally, to my loving husband Robert; I could not have asked for more. You proof read every paper. You left me alone when I needed space. You anticipated every need. You cooked, cleaned, wiped my tears and never once complained. You are a saint. As with everything else, I share this accomplishment with you.

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CHAPTER 1:

Introduction

There is an anticipated nursing shortage nationally and internationally. Canada is projecting a shortfall of 60,000 registered nurses (RNs) by 2022 (Canadian Nurses Association, 2009) and the United States is predicting a shortfall of a 400,000 by 2020 (Everhart & Slate, 2004). Furthermore, the United States predicts a 12% growth in need for RNs between 2020 and 2028 (US Bureau of Labor Statistics, 2015). Experienced nurses are typically difficult to recruit as they are often at a life stage where they have settled both in their personal and professional lives; consequently, new graduates are the largest cadre of nurses from which to recruit (Smith, 2008). However, transition to practice is a daunting prospect for many new nursing graduates who face unique challenges in the first year of their professional careers (Duchscher, 2008; Dyess & Sherman, 2009; Kramer, 1974). These challenges include the high acuity of the patient population, high workload due to staffing shortages, and pressure to continuously learn new technologies within the work environment (Duchscher, 2009; Dyess & Sherman, 2009; Kramer, 1974). Thereby, new nursing graduates often express feelings of stress, anxiety, frustration and doubt during this phase of transition (Duchscher, 2009; Kramer, 1974).

Turnover rates for new nursing graduates are high, which has a negative impact on mentors, patients, and the healthcare organizations (Duchscher & Cowin, 2006; Graham, Hall, & Sigurdson, 2008; Hillman & Foster, 2011; Smith, 2008; Zucker et al., 2006). Within the first two years of practice, 26-57% of new graduates will leave not only their first position or hospital, but the profession as a whole as a result of their first professional experience in nursing (Zhang, Huang, Xu, Xu, Feng, & Jin, 2019). The main reported reason for leaving their first position is lack of socialization or the feeling that they do not fit (Duchscher & Cowin, 2006; Graham et al., 2008; Hillman & Foster, 2011; Smith, 2008; Zhang et al., 2019; Zucker et al., 2006). Many experienced nurses, who are mentors, experience burnout as a result of the constant demand to

orient new nursing graduates (Laschinger, Grau, Finegan & Wilk, 2010; Laschinger, Finegan & Shamian, 2001; Vahey, Aiken, Sloane, Clarke & Vargas, 2004). This constant churn within healthcare organizations can be disruptive, cause a decrease in staff morale, increase overall turnover rates, and negatively impact nurse satisfaction (Laschinger & Fida, 2015; Laschinger, 2012; Vahey et al., 2004). Of concern is the link between nurse satisfaction and patient satisfaction rates (Laschinger & Fida, 2015; Laschinger et al., 2001; Vahey et al., 2004).

Furthermore, the financial cost associated with new nursing graduate turnover is reported to be as high as 25,000 to 75,000 Canadian dollars per departing nurse (Graham et al., 2008; Thompson, 2013; Smith, 2008). These estimates include costs associated with orientation of new staff, filling vacancies with agency staff, as well as overtime for regular staff (Ackerson & Stiles, 2018; Duffield, Roche, Homer, Buchan, & Dimitrelis, 2014). Thus, the high turnover rate of new graduates can have a significant financial impact on an organization.

Successful socialization of new nursing graduates is strongly influenced by the mentoring relationship (Weng, Huang, Tsai, Chang, & Lee, 2010). Recognition of the impact of socialization on an organization is becoming evident with many transition programs now including socialization as part of their structure (Ashforth & Saks, 1996; Duchscher & Cowin, 2006; Graham et al., 2008; Hillman & Foster, 2011; Kramer, Maguire, Halfer, Brewer, & Schmalenberg, 2013; Smith, 2008; Zucker et al., 2006). A systematic review focused on interventions to reduce nursing turnover found in addition to mentorship, structured orientation programs, leadership practices promoting group cohesion, and clinical practice sabbaticals have been implemented (Halter et al., 2017). Results indicated mentorship programs ranging from three to six months and the implementation of more than one intervention as having the greatest impact on retention and turnover (Halter et al., 2017). Extending coaching roles have also been

implemented to assist in transition and socialization (Jewell, 2013). Additionally, cultural change toolkits targeting nurses working in emergency departments have been implemented in an attempt to prevent burnout and decrease turnover (Adams, Hollingsworth, & Orsman, 2019). Data collected from 30 nurses pre and post implementation indicated burnout was reduced by all measures used; however, there was no statistically significant change in anticipated turnover (Adams et al., 2019).

Currently, mentorship is used as part of many organizational programs implemented to assist new nursing graduates in their transition to practice; however, little is known regarding pairing practices to bring new nursing graduates and experienced nurses together for the purpose of developing mentoring relationships (Cho, Lee, Mark, & Yun, 2012; Kowalski & Cross, 2010; Rush, Adamack, Gordon, Lilly, & Janke, 2013). The overall aim of this dissertation is to explore mentorship pairing processes for new nursing graduates and experienced nurses.

1.1 Background

1.1.1 Methods for literature review. The Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Medline OVID were searched for literature on new nursing graduate transition, mentorship, and pairing processes. An online hand search was conducted for information specific to nursing registration in Canada. English, peer reviewed articles were included in the search with no time limit. A summary of the findings is presented.

1.1.2 Nursing titles and registration. Nursing titles in Canada vary by province and territory and include: registered nurse (RN), registered practical nurse (RPN), nurse practitioner (NP) licensed practical nurse (LPN), and licensed psychiatric nurse (LPN) (Canadian Nurses Association, 2015). Although both licensed practical nurses and licensed psychiatric nurses have LPN as their abbreviated title, these positions are not used within the same province. The title of

focus for this dissertation is registered nurse (RN). The title of RN is protected by Canadian law meaning it may only be used by those individuals who have been granted the right to do so by a recognized regulatory body (Canadian Nurses Association, 2019). In Canada, provincial regulatory bodies, such as the College of Nurses of Ontario, are responsible for setting educational entry to practice requirements, including registration examinations, and granting registrations (Canadian Nurses Association, 2019; Canadian Nurses Association, 2015; College of Nurses of Ontario, 2019). All provinces and territories in Canada with the exception of Quebec, require the same registration exam, which in 2015, changed from the Canadian Registered Nurse Examination (CRNE) to the National Council Licensure Examination (NCLEX). In Ontario, the entry to practice requirement for any Canadian or international applicant for RNs changed in 2005 from a nursing diploma to a bachelor's degree in nursing (Canadian Nurses Association, 2019). A bachelor's degree is now the entry to practice requirement for all provinces and territories with exception of Quebec which accepts both diploma and bachelorette prepared applicants (Canadian Nurses Association, 2019). However, a reciprocity agreement exists between provinces and territories, therefore nurses are permitted to transfer their license to another province without additional educational requirements (Internal Trade Secretariat, 2017). Considering this agreement, there is a diversity in educational backgrounds for practicing registered nurses within each province (Canadian Nurses Association, 2019).

1.1.3 Current practice in new nursing graduate transition. Recognizing the complexity of new nursing graduate transition, many healthcare organizations have implemented targeted programs in an attempt to improve turnover rates, job satisfaction, and other measurable outcomes (Beecroft, Dorey, & Wenten, 2008; Cho et al., 2012; Kowalski & Cross, 2010; Rush et

al., 2013; Scott & Smith, 2008; Yu & Kang, 2016). Currently in Canada there are a range of transition programs that are provincially funded and/or structured, such as the Nova Scotia Provincial Orientation and Transition Framework for New Graduates (Bellefontaine & Eden, 2012) and British Columbia's Vancouver Island Health new graduate transition program (Vancouver Island Health Authority, 2013). However, the specific structure and implementation of the program is left to the individual health authorities or hospitals. Little is known of the outcomes or impact of these programs. By comparison, Ontario's New Nursing Graduate Guarantee (NGG) program is funded by the Ontario Ministry of Health and Long Term Care and provides structural guidelines and a report back mechanism (Nursing Policy and Innovation Branch, Ministry of Health and Long Term Care, 2017).

Five studies have been conducted on the Ontario NGG program (Baumann, Hunsberger, Crea-Arsenio, Akhtar-Danesh, & Alameddinec, 2018; Baumann, Hunsberger, & Crea-Arsenio, 2011a; Beaty, Young, Slepkov, Isaac, & Matthews, 2009; Guay, Bishop, & Espin, 2016; Lalonde & McGillis Hall, 2016). Research on the Ontario NGG program has reported on facilitators and barriers related to implementation and participation in the program, organizational socialization and job satisfaction, impact of implementation on dimensions of care, and theory development (Beaty et al., 2009; Guay et al., 2016; Lalonde & McGillis Hall, 2016). A mixed methods study was conducted to examine the perspectives of organizations (N=127) and unions (N=288) who implemented and new graduates (N=4,136) who participated in the NGG program (Baumann et al., 2011a). Facilitators identified included the use of resource teams and being a larger organization with barriers including administrative requirements of the program, and availability of mentors (Baumann et al., 2011a). New graduates' motivation for participation in the program was full-time employment and the opportunity for mentorship (Baumann et al., 2011a). A cross-

sectional study determined participation in the NGG had a positive impact on six dimensions of care (decision making, communication, care management, system integration, and commitment) (Baumann et al., 2018). Results of an exploratory descriptive study using focus groups and interviews with 18 nurses working within a home care organization indicated they appreciated the funding and recognition of the challenges pertaining to recruitment and retention (Beaty et al., 2009). Suggestions for improvement included the sharing of information regarding the program with staff members and the development of a new graduate specific orientation program would be of benefit (Beaty et al., 2009). A grounded theory study constructed the Discovering Professional Self theory through interviews with 10 new graduate NGG participants from an urban academic hospital in Ontario (Guay et al., 2016). This theory describes the process and experience of nurses during the first year after completing the NGG program (Guay et al., 2016). The authors found most nurses during this stage of their careers are focused on understanding who they are as nurses and professionals (Guay et al., 2016). Although new nurses still experienced setbacks when faced with unfamiliar circumstances; it was found that they had the ability to recover, build self-confidence, trust of their colleagues, and new found comfort in their role (Guay et al., 2016). A second cross-sectional study focused on mentor (N=41) characteristics and their impact on organizational socialization of new nursing graduates (N=44) who participated in the NGG program (Lalonde & McGillis Hall, 2016). Results indicated moderate correlation between specific mentor characteristics (conscientiousness, openness, emotional stability) and regularly measured outcomes of socialization (turnover intent, job dissatisfaction, role conflict). These results bear further exploration as they may indicate personality characteristics play an important role in the pairing process. Ongoing evaluation reports have also been conducted using a mixed methods approach and have focused on employment status,

barriers and facilitators to participation in the NGG program, and the impact of the NGG program on new graduates' transition to work (Baumann, Hunsberger, Idriss-Wheeler, & Crea-Arsenio, 2009; Baumann, Hunsberger, & Crea-Arsenio, 2010; Baumann, Hunsberger, & Crea-Arsenio, 2011b; Baumann, Hunsberger, & Crea-Arsenio, 2013; Baumann, Hunsberger, & Crea-Arsenio, 2016). Results indicated a participation rate of 18% (200/1198) of all Ontario healthcare organizations of which over 60% were hospitals (Baumann et al., 2011b). The majority (86%) of the 9904 new graduate participants found employment within hospitals with an increase in provincial full-time employment since the inception of the program.

Concerns regarding new nursing graduate transition are not limited to Canada. Internationally, programs for new nursing graduates have been implemented in the United States and Australia (Cubit & Ryan, 2011; National Council of State Boards of Nursing, 2017). The United States National Council of State Boards of Nursing offers a Transition to Practice program for new graduates which consists of five courses and a corresponding course to prepare experienced nurses to become mentors (National Council of State Boards of Nursing, 2017). Silvestre, Ulrich, Johnson, Spector, & Blegen (2017) conducted a study at 70 hospitals that were randomly assigned to the experimental group (N=44) who implemented the new transition to practice program or the control group (N=26) who used their existing hospital orientation and transition practices. New graduate nurses (N=1032) were surveyed at 6 and 12 months after hire. Results indicated a turnover rate of 15.5% in the group who implemented the transition to practice program, versus the control group at 26.8% (Silvestre et al., 2017). Total cost savings of the program was reported as $7,265 USD per new nursing graduate-participant hire (Silvestre et al., 2017). Australia offers multiple transition programs by state or territory that vary both in length and available funding (Levett-Jones & FitzGerald, 2005). In a descriptive summary of

Australian transition programs, Levett-Jones and FitzGerald (2005) suggests there was insufficient evidence to support the use of formal transition programs in Australia and propose that an organizational culture supportive of learning would yield better results. Considering the lack of adequate evaluation, their conclusions must be interpreted cautiously until further research is conducted.

Individual healthcare organizations have also developed new nursing graduate transition, or residency, programs (Bullock, Paris, & Terhaar, 2011; Halfer, Graf, & Sullivan, 2008; Morphet, Kent, Plummer, & Considine, 2016; Newhouse, Hoffman, Suflita, & Hairston, 2007). The implementation of both organizational and specialty based programs have been reported to lead to decreased turnover and increased retention (Bullock et al., 2011; Halfer et al., 2008; Morphet et al., 2016; Newhouse et al., 2007; Nadler-Moodie & Loucks, 2011; Orsini, 2005; Patterson, Bayley, Burnell, & Rhoads, 2010). Bullock et al. (2011) stated the decrease in turnover from 19% to 11% resulted in a cost savings of one million dollars USD. Although Newhouse et al. (2007) declared an initial increase in retention at 12 months; they noted there was no difference in retention rates between the program participants and comparison groups at 18 and 24 months suggesting new graduate programs may need to be extended over two-years to have a long term impact on retention rates.

Both government supported and hospital based transition programs varied in length from 12 to 72 weeks (Bellefontaine & Eden, 2012; Bullock et al., 2011; Nursing Policy and Innovation Branch, Ministry of Health and Long Term Care, 2017; Nadler-Moodie & Loucks, 2011; Newhouse et al., 2007). The common factor within these programs is the use of mentorship (Bellefontaine & Eden, 2012; Levett-Jones & FitzGerald, 2004; Morphet et al., 2016; National Council of State Boards of Nursing, 2017; Nadler-Moodie & Loucks, 2011; Newhouse

et al., 2007; Nursing Policy and Innovation Branch, Ministry of Health and Long Term Care, 2017; Orsini, 2005; Patterson et al., 2010; Rush et al., 2013; Vancouver Island Health Authority, 2017). Other direct comparisons of these programs are challenging due to a lack of homogeneity in design and length.

1.1.4 Mentorship vs. Preceptorship. Mentorship is a frequently used term to describe learning relationships in many different contexts and professions (Coller & Kuo, 2014; Huybrecht, Loeckx, Quaeyhaegens, De Tobel, & Mistiaen, 2011; Stewart & Krueger, 1996; Straus, Chatur, & Taylor, 2009). However, mentorship has specific attributes that help to clarify its purpose and function when compared with other relationships, such as preceptorship. Mentorship is a complex peer to peer relationship that integrates a variety of roles such as coaching and role modeling and can be formal or informal in nature (Table 1.1). The multiple types, roles and responsibilities encompassed within mentorship may contribute to the tendency to erroneously use terms such as preceptorship when referring to a mentoring relationship (Campbell, 2009; Yonge, Myrick, Ferguson, & Luhanga, 2012; Yonge, Billay, Myrick, & Luhanga, 2007; Table 1.1).

Preceptorship is an assigned, structured, time bound relationship between a student and experienced professional with the specific purpose of transferring skills and knowledge from the experienced professional to the student (Brink, 1989; Carlson, 2013; Stewart & Krueger, 1996). The length of time spent in a preceptoring relationship is usually quite short whereas a mentoring relationship can last for months, years or a lifetime (Brink, 1989; Healy, Glynn, Malone, Cantillon, & Kerin, 2012; Huybrecht et al., 2011; Stewart & Krueger, 1996). Two of the main features that help to distinguish both formal and informal mentorship from preceptorship is the presence of socialization and a self-selection process (Huybrecht et al., 2011).

Table 1.1 Mentorship and Preceptorship Attribute Comparison

Preceptorship	Mentorship	
	Formal	Informal
Trust (Brink, 1989; Carlson, 2013)	**Trust** (Brink, 1989; Carlson, 2013)	**Trust** (Brink, 1989; Carlson, 2013)
Respect (Brink, 1989; Carlson, 2013)	**Respect** (Brink, 1989; Carlson, 2013)	**Respect** (Brink, 1989; Carlson, 2013)
Feedback (Billay & Myrick, 2007)	**Feedback** (Billay & Myrick, 2007)	**Feedback** (Billay & Myrick, 2007)
Communication including active listening (Billay & Myrick, 2007; Yonge, et al., 2007)	**Communication including active listening** (Billay & Myrick, 2007; Yonge, et al., 2007)	**Communication including active listening** (Billay & Myrick, 2007; Yonge, et al., 2007)
Coaching (Billay & Myrick, 2007)	**Coaching** (Billay & Myrick, 2007)	**Coaching** (Billay & Myrick, 2007)
Role modeling (Baldwin et al., 2014)	**Role modeling** (Healy et al., 2012)	**Role modeling** (Healy et al., 2012)
Career development (student) (Billay & Myrick, 2007; Martensson et al., 2016)	**Career development (peer)** (Allen et al., 2006; Healy et al., 2012; Huybrecht et al., 2011; Lipscomb & An, 2010; Stewart & Krueger, 1996; Yoder, 1990)	**Career development (peer)** (Allen et al., 2006; Healy et al., 2012; Huybrecht et al., 2011; Lipscomb & An, 2010; Stewart & Krueger, 1996; Yoder, 1990)
Specific time frame, clear beginning and end (Brink, 1989)	**Specific time frame, can lead to long term** (Brink, 1989; Healy et al., 2012; Huybrecht et al., 2011; Stewart & Krueger, 1996)	**Long term-undefined, open** (Healy et al., 2012; Huybrecht et al., 2011; Stewart & Krueger, 1996)
Assigned relationship (Brink, 1989; Stewart & Kruger, 1996)	**Thoughtful assignment or self-selection** (Brink, 1989; Huybrecht et al., 2011; Stewart & Krueger, 1996)	**Free choice/self-selection** (Huybrecht et al., 2011)
Structured (Billay & Myrick, 2007; Brink, 1989; Carlson, 2013)	**Structured** (Allen et al., 2006; Billay & Myrick, 2007; Brink, 1989, Carlson, 2013)	**Unstructured/self-determined structure** (Allen et al., 2006)
Experienced staff and student (Stewart & Kruger, 1996)	**Experienced staff and peer (initial competence differential)** (Huybrecht et al., 2011; Stewart & Krueger, 1996)	**Experienced staff and peer (initial competence differential)** (Huybrecht et al., 2011; Stewart & Krueger, 1996)
Sharing of knowledge one way (Billay & Myrick, 2007; Brink, 1989)	**Mutual learning and growth** (Allen et al., 2006; Healy et al., 2012; Stewart & Krueger, 1996)	**Mutual learning, sharing and growth over time** (Allen et al., 2006; Healy et al., 2012; Stewart & Krueger, 1996)
Unit Specific (Brink, 1989)	**Unit Specific** (Brink, 1989)	**Non unit specific** (Healy et al., 2012)
	Socialization / social support (Huybrecht et al., 2011)	**Socialization /social support** (Huybrecht et al., 2011)

1.1.4.1. Mentorship outcomes. The literature reports that mentorship has many expected outcomes, and when implemented correctly can increase socialization, decrease turnover, increase retention, job satisfaction, as well as confidence and competence (Cho et al., 2012; Kram, 1983; Komaratat & Oumtanee, 2009; Kowalski & Cross, 2010; Leigh, Douglas, Lee, & Douglas, 2005; Morphet et al., 2016; Scott & Smith, 2008; Trepanier, Early, Ulrich, & Cherry, 2012; Yu & Kang, 2016). The following discusses each of these mentorship outcomes.

Socialization. Socialization is a key attribute of mentorship (Huybrecht et al., 2011; Table 1.1) and can be defined as the process of adapting one's behavior to fit with cultural norms

(Dinmohammadi, Peyrovi, & Mehrdad, 2013; Huybrecht et al., 2011; Pearsall, 2002; Taormina, 1997; Table 1.1). Socialization can be further delineated to professional socialization and organizational socialization. Professional socialization is defined as the acquirement of identity through interaction with others, and internalization of knowledge, norms, values, and culture associated with their position (Dinmohammadi et al., 2013; Pearsall, 2002). Whereas organizational socialization can be defined a process through which an individual obtains skills specific to their job, an understanding of the organization, develops a supportive network with coworkers, and knows and follows organizational protocol (Taormina, 1997). Research in business and nursing on organizational socialization has focused on the following outcomes: job satisfaction, organizational commitment, and intent to stay (Lalonde & McGillis Hall, 2017; Newhouse, Hoffman, Sulfita, & Hairston, 2007). A cross-sectional study on new graduate (N= 44) socialization found job satisfaction was linked to low role conflict and role ambiguity (Lalonde & McGillis Hall, 2017). The impact of a new nursing graduate social and professional integration program on retention, sense of belonging, organizational commitment, and anticipated turnover was tested in a quasi-experimental study (Newhouse et al., 2007). Nurses (N= 237) who participated in the program had a higher retention rate at one-year compared with non-participants (N=73). Nurses (N=73) who did not participate in the program were more likely to consider leaving their position than program participants (N=237) at six months.

A lack of socialization is the most cited reason for new nursing graduates leaving their first positions and for some, the profession altogether (Duchscher & Cowin, 2006; Graham et al., 2008; Hillman & Foster, 2011; Smith, 2008; Zucker et al., 2006). Organizational recognition of the impact of socialization is becoming evident with many mentorship transition programs now including socialization as part of their structure (Ashforth & Saks, 1996; Duchscher & Cowin,

2006; Graham et al., 2008; Hillman & Foster, 2011; Kramer, Maguire, & Halfer, 2011; Smith, 2008; Zucker et al., 2006).

Turnover and Retention. Turnover and retention are often cited as reasons for developing and implementing transition programs involving mentorship (Tiew, Koh, Creedy, & Tam, 2017; Trepanier et al., 2012; Yu & Kang, 2016). Turnover has been defined as a process of a nurse's departure from the primary position in which they are employed in the healthcare environment (Jones & West, 2010). Whereas retention refers to an intent to stay within an organization or present position (Laschinger et al., 2001). Turnover and retention have been correlated with important outcomes, such as nurse burnout, nurse satisfaction and patient satisfaction rates (Laschinger, 2012; Laschinger et al., 2001; Vahey et al., 2004). With the constant churn in personnel comes the associated demand to orient and mentor new staff leaving experienced nurses overburdened and unsatisfied with their work life which negatively impacts their ability to provide care with the time and compassion (Laschinger et al., 2012; Laschinger et al., 2001; Vahey et al., 2004). With the high cost of attrition a concern, turnover and retention are two outcomes often measured to determine the impact of mentorship transition programs; however, attributes of mentorship are rarely used as measures for success or failure (Cubit & Ryan, 2011; Graham et al., 2008; Little, Ditmer, & Bashaw, 2013; Thompson, 2013; Smith, 2008; Table 1.1).

Job satisfaction. Job satisfaction is another important outcome for new graduate nurses. It can be described as a person's emotional and attitudinal evaluation of their expectations of the work environment measured against their experience (Spector, 1997). A systematic review (N= 100) on job satisfaction in nursing found it was a complex term used to describe a multitude of intersecting factors related to the work environment, role and person (Lu, Barriball, Zhang, & While, 2012). These factors included, but were not limited to, working conditions, job related

stress, and role conflict and ambiguity (Lu et al., 2012). Organizational and professional commitment, as well as intention to stay within an organization or position, have also been associated with job satisfaction (Lu et al., 2012; Lashinger et al., 2001). Job satisfaction has been identified as a critical factor in turnover and retention (Hayes et al., 2012).

Confidence and Competence. Competence can be defined as the possession of the skills and knowledge required to complete or fulfill a specific task or duty (Komaratat & Oumtanee, 2009; Merriam-Webster, 2020). Whereas confidence as it pertains to new nursing graduates, can be defined as a feeling of self-assurance or belief that they have the knowledge and ability to engage as a member of the healthcare team and provide the care required as a professional nurse (Merriam-Webster, 2020; Pfaff, Baxter, Jack, & Ploeg, 2014). Increased confidence and competence are expected outcomes of mentorship (Komaratat & Oumtanee, 2009; Leigh et al., 2005). A quasi-experimental study measured new nursing graduate competence at three time points: before mentorship, at one month, and after completion of a mentorship program (Komaratat & Oumtanee, 2009). Results indicated a significant increase in new graduate nurse competency after participating in mentorship ($P = < 0.5$). Confidence has also shown to increase after engaging in mentorship (Leigh et al., 2005). Leigh et al. (2005) conducted a case study in hospital in the United Kingdom where confidence and competence of new graduate nurses who participated in a mentorship program were assessed pre and post implementation via a survey based on the European Foundation for Quality Management (EFQM) model. The new nursing graduates (N=27) who responded to the survey reported increased mean scores for all questions pertaining to confidence and competence after participation in the six month mentorship program. The validity and reliability for this tool is unclear.

An increase in self-reported competency was also found in new graduates who partook in

a mentorship program in a yearlong study by (Kowalski & Cross, 2010). Data was collected from new graduate participants using the Preceptor Evaluation of Resident form at three, six, and eight weeks and three six and eight months with a demonstrated increase in overall means when comparing the three week (N=78.1/124) and eight month results (N=111.1/124). The tool was developed by the organization with face validity determined through subject matter expert review. Reliability of the tool was not reported.

Measurement of mentorship outcomes. Tools measuring indirect outcomes of mentorship such as organizational socialization, such as job satisfaction and organizational commitment are many, whereas there are few direct measurement tools. In business, Chao, O'Leary-Kelly, Wolf, Klein, and Gardner's (1994) organizational socialization scale questionnaire was validated through factor analysis of six dimensions using data collected from 594 full time engineers and managers over four years. The mean reliability for each of the six dimensions of the socialization was: performance proficiency ($\alpha = .80$), politics ($\alpha = .80$), language ($\alpha = .85$), people ($\alpha = .80$), organizational goals and values ($\alpha = .83$), and history ($\alpha = .84$). This tool has been referenced in terms of relevance to nursing and suggested as a useful tool to evaluate organizational socialization for the profession (Klein & Heuser, 2008). Tools specific to professional socialization are also limited with only one tool found measuring professional socialization and considered the dimensions of personality and values of nursing students. Although the tool is not yet standardized, the Professional Socialization Scale is noted to have high reliability with a Cronbach alpha of 0.88 determined by item analysis (du Toit, 1995).

Turnover and retention are two standardized measures used by human resource departments in healthcare organizations. Turnover can be calculated by dividing the number of hires by the number of transfers out of the unit, program or organization (Beecroft et al., 2006;

Kovner, Brewer, Fatehi, & Jun, 2014). It can be further divided into voluntary and involuntary exits (Beecroft et al., 2006; Kovner et al., 2014). Retention can be measured by tools measuring intention to stay (Newhouse et al., 2007). The Anticipated Turnover Scale is a tool that has been used to measure intent to stay with acceptable internal consistency reliability ($\alpha = .84$) and moderate construct validity as determined by factor analysis and predictive modeling (Newhouse et al., 2007).

New nursing graduates' job satisfaction has been measured in a cross-sectional multisite study using The Michigan Organizational Assessment Questionnaire Job Satisfaction Subscale ($\alpha = .88$) (Lalonde & McGillis Hall, 2016). The McCloskey Mueller Satisfaction Survey ($\alpha = .89$) and Halfer-Graf Job/Work Environment Satisfaction Survey (Pearson-Brown split/half reliability of 0.89) have also been used to determine job satisfaction in new graduates participating in transitional programs (Altier & Krsek 2006; Halfer & Graf, 2006). As new nursing graduate attrition is of concern due to the challenges they face in their first year of practice, job satisfaction and its link with turnover and is commonly measured to determine the impact of mentorship programs (Duchscher & Cowin, 2006; Duchscher, 2008; Duchscher, 2009; Tiew et al., 2017; Yu & Kang, 2016).

The Michigan Organizational Assessment Questionnaire Job Satisfaction Subscale which is a reliable ($\alpha = .88$) and construct valid tool that has been used to measure job satisfaction in new nursing graduates (Lalonde & McGillis Hall, 2016). Whereas, the Organizational Commitment Questionnaire, the Modified Hagerty-Patusky Sense of Belonging Instrument, and the Anticipated Turnover Scale are all reliable and validated tools that have been used to measure organizational commitment and intent to stay in new nursing graduates (Newhouse et al., 2007). The Organizational Commitment Questionnaire has acceptable test-retest reliability and a high

coefficient alphas (α = .82 to .93) for all 15 items (Newhouse et al., 2007). The 32-item Modified Hagerty-Patusky Sense of Belonging Instrument focused on two domains with internal consistency coefficient alphas for the Sense of Belonging Instrument - Psychological Experience (SOBI-P) (α = .91-.93) and Antecedents SOB-A (α = .63-.76). Test-retest of both SOBI-P (*r* =.84) and SOBI-A (*r* =.66) determined reliability with construct validity established as acceptable by the authors (Newhouse et al., 2007). The Anticipated Turnover Scale has acceptable reliability (α = .84) and construct validity. The Casey-Fink Graduate Experience assessment is a tool specific to nursing measuring the new graduate experience related to transition, stressors, and performance with good reliability (α = .89) and content validity (Fink, Krugman, Casey, & Goode, 2008).

Competence has been evaluated using the Nursing Competence Scale. The Nursing Competence Scale was designed to evaluate four main dimensions including nursing, human relationship, communication, decision-making and problem solving, and quality development and assurance and contains 20 questions using a five-point scale and has a high reported reliability (α = .96) (Komaratat & Oumtanee, 2009). Confidence of new graduates has been measured using a tool based on the European Foundation for Quality Management (EFQM) model; however, the validity and reliability of this tool has not been determined.

1.1.4.2 Pairing Processes. Pairing processes are methods used to bring mentees and mentors together to form mentoring relationships and include pairing by a third party, self-selection or a combination of both. Pairing by a third party involves a person outside the relationship, typically the manager or educator, who determines which mentee will be paired with which mentor. This may be done randomly, through an interview process, or by using a tool such as a survey to determine learning and teaching styles (Allen, Finkelstein, Poteet, 2009).

With socialization being a defining attribute of mentorship, pairing processes are an important consideration when facilitating the development of positive relationships (Huybrecht et al., 2011; Table 1.1).

Nursing. In a systematic review focused on mentorship between new and experienced nursing professors conducted by Nowell et al. (2017), 18 of the 34 articles that met the inclusion criteria spoke of pairing and found that similarities in education, professional background, teaching experiences, personal requests and preferences were used in the process. It was unclear as to whether the criteria were determined by using a tool such as a survey or questionnaire, interview or self-determined by the participants themselves. One article, which did not specifically describe a pairing process, declared that in assigned pairings, mentors were not able to meet the goals of the mentees due to a lack of expertise or skill (Owens, Herrick, & Kelley, 1998). The authors concluded an appropriate fit between mentors and mentees to be important in the development of the mentoring relationship and recommended a thoughtful approach to the pairing process until a best practice is determined (Nowell et al., 2017).

A longitudinal evaluation study was conducted to determine satisfactory matches for new nursing graduates and mentors (Beecroft et al., 2006). The study was a part of a larger study that took place from 1999 to 2005 in a single hospital located in the United States. Eight of the 34 questions on the larger study were related to pairing and the development of the mentoring relationship and included a question on whether the new graduate ‘clicked’ with their mentor. As the evaluation was conducted formatively, changes were made to the pairing process based on results from each yearly cohort surveyed. Examples of changes made included giving opportunities for new graduates to familiarize themselves with potential mentors and allowing new graduates to submit three to four preferences in mentors prior to assignment. The final

assignment was made with three criteria: a) the mentor and mentee could not work in the same areas; b) the evaluation was not part of their relationship; and c) they have a similar clinical background or specialty. It was unclear as to who made the final decision regarding the assignment. Of the 285 respondents, 94% stated they 'clicked' with their mentor; however, time with each other was reported by participants as a factor with some noting that not having the opportunity to meet or speak prior to working together increased the amount of time it took to 'click'. Others noted they did not 'click' with their mentor as a result of not having enough time to spend with one another. Regular meetings were cited as positively influencing the likelihood of "clicking" with their mentor ($P = <0.001$). Recommendations included preparing mentors and mentees for mentorship, as well as organizational support and facilitation of in-person meetings for pairings.

Another longitudinal non-randomized control study was conducted to evaluate mentorship of new nurse graduates over three years in one hospital in China (Zhang et al., 2019). The control group consisted of 199 new nursing graduates who received the usual organizational approach to mentorship which consisted of each new graduate assigned to one mentor. The 239 new nursing graduates forming the experimental group were hired the year after and selected their mentors with suggestions made by their head nurse with one month for mentors and mentees to get to know one another prior to selection. The effectiveness of the mentoring program was the focus of this study with turnover the outcome of interest, therefore no analysis regarding the pairing processes used was conducted. However, the authors acknowledged the importance of the pairing process and suggested common interests and values identified by participants to determine best fit. When compared, the turnover rate in the first year of employment as significantly different in the experimental group ($P = <0.001$) than that of the

control group, but not in the subsequent two years of practice. Recommendations for future practice included a standardized approach to preparation, mentor selection and evaluation.

Medicine. In medicine, appropriate pairings have been recognized as an important factor in the development of mentoring relationships with various approaches explored. Soklaridis et al. (2015) evaluated a mentorship program that used a random pairing process to match second year psychiatric residents with faculty members. Data was collected through interviews and were analyzed using grounded theory. Among the themes that emerged was the importance of a pairing process that was natural, flexible and engaging. Many of the participants noted the random nature of the pairing process as a barrier to the development of a meaningful mentoring relationship and suggested a thoughtful and deliberate approach to pairing is the most important step in forming relationships. Recommendations from participants regarding future pairing practices such as holding events for the specific purpose of pairing and 'speed dating' approaches to pairing. Flexibility was noted as an important factor for pairing in the event a connection could not be established and a change was required. Additionally, clear expectations were found to be required in forming relationships with the quality and number of mentor-mentee interactions impacted by the level of socialization in the environment where they connected.

Caine, Schwartzman, and Kunac (2017) conducted a correlational study focused on pairing senior and junior surgical residents using a 'speed dating' type of event. Dedicated time and an event location outside of the clinical environment were determined as important to decrease distractions of attendees. Senior residents spent a total of 90 seconds with each junior resident and rotated to the next after the time lapsed. After the event, both junior and senior residents wrote their top three matches including their rationale on the worksheet provided to participants and submitted them to the to the associate program director who finalized the

pairings which were shared via email. Those residents who were unable to attend the event were assigned a mentor or mentee. Of the 23 pairings that resulted from the event, 14 were made with their attendees top three choices. Two additional pairings were completed by assignment. A survey developed by the organizers of the event was sent to the residency class with a 63% (36/57) return rate. Over three quarters (82%) of those who attended the event were "satisfied" or "very satisfied" with the event and as well as the resulting relationship (85%). The majority of residents who did not attend the event (62%) indicated they were either "neutral", "dissatisfied", or "extremely dissatisfied" with their pairing. Authors concluded the combination of mentor / mentee input into the pairing process with the guidance of a facilitator assisted in the development of mentoring relationships.

Business. Mentorship pairing processes in business have been studied by Allen et al. (2006) who hypothesized mentor and protégé input into mentoring processes would relate to the perceived effectiveness of the mentorship program. Participants included 175 protégés and 110 mentors from four organizations and 12 mentoring programs. Surveys were emailed to participants who had completed at least six months or were recent graduates of the program. Results indicated that perception of input into the mentorship matching process was associated with an increase in the quality of mentorship ($\beta = .27$, $p < .01$), role modeling ($\beta = .23$, $p < .01$) and career mentoring ($\beta = .18$, $p < .05$). Authors concluded providing an opportunity for participants to participate in the pairing process may assist with the perception of mentor engagement in the relationship. The use of social events for mentors and protégés prior to pairing, and a ranking system to indicate their preferred matches was suggested; however, the authors indicated further research is required to determine the most effective approach.

Outcomes and measurement tools. Although successful mentoring relationships was determined to be the outcome of interest for pairing processes, there is no consensus on the definition of success. Furthermore, there is no universally accepted measurement tool for pairing. Satisfaction with the process of pairing and resulting pairings was the most common measurement of success with surveys or questionnaires developed by those implementing the mentorship programs and these measurement tools were not validated (Beecroft et al. 2006; Caine et al., 2017; Soklaridis et al., 2017). Surveys were also used to measure mentor commitment, program understanding, and program effectiveness in business (Allen et al., 2006). A confirmatory factor analysis was conducted and found a reasonable fit with both the mentee data (x^2(df, 87) = 229.39, $p < .05$; RMSR = .00; GFI = .85; NFI = .93; CFI = .95), and mentor data (x^2(df, 87) = 197.83, $p < .05$; RMSR = .00; GFI = .82; NFI = .88; CFI = .93), as well as significant construct t-values for both mentees (>7.15) and mentors ($\geq$3.16). Hence, the scale items were confirmed to have measured the intended constructs identified as relevant to mentorship.

In summary, mentorship pairing processes found in the literature were often secondary to the evaluation of mentorship. The most pairing processes evaluated were self-selection, "speed dating/pairing", pairing by a third party or a combination of approaches. Although several professional groups recognized the importance of pairing mentors and mentees, little is known about effective mentorship pairing processes.

1.1.4.3 Frameworks. There are three frameworks relevant to new graduate nurse mentoring: Duchscher's Transition Stages Model© (2007) (Figure 1.1), Kram's mentorship model, and Burlew's mentor model (Burlew, 1991; Duchscher, 2008; Kram, 1983). Each of these conceptual models describes and explains a different component of new nursing graduates'

mentorship experience during transition to practice. Alone, they do not fully represent the focus of interest of this dissertation. It is for this reason these three models were chosen to guide this work. The following provides details on each one.

Transition Stages Model©. Duchscher's new nursing graduate Transition Stages Model© (Figure 1.1), is commonly used by educators and organizations to assist in the contextualization of new nursing graduate transition during their first year of practice (Bellefontaine & Eden, 2012 & Vancouver Island Health Authority, 2013). Informed by Kramer's (1974) Reality Shock and Benner's (1984) Novice to Expert model, The Transition Stages Model© consists of three stages (doing, being and knowing), Transition Shock© and Transition Crisis (Duchscher, 2008; Duchscher, 2009; Kramer, 1974; Benner, 1984; Figure 1.1).

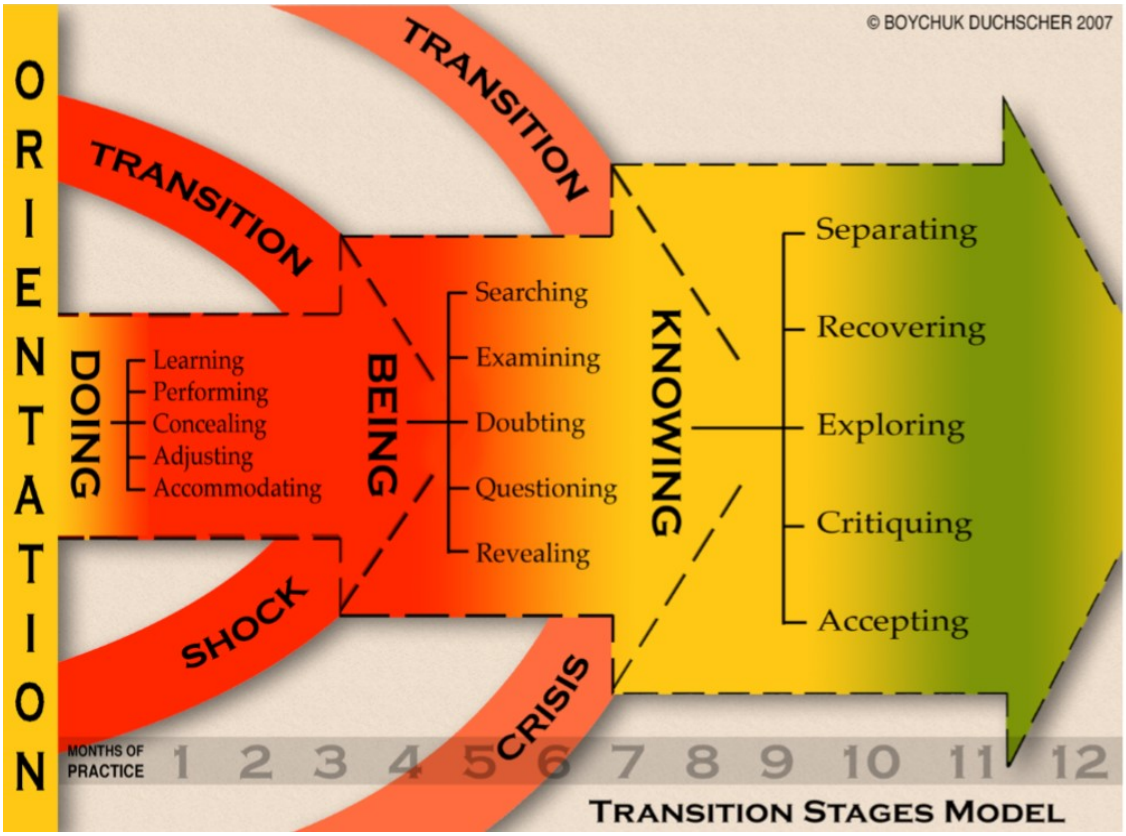

Figure 1.1 Transition Stages Model©

The model begins with the doing phase during which the new nursing graduate experiences a multitude of emotions and activities (Duchscher, 2008). In this initial phase lasts approximately three to four months and is an intense period of learning where new graduates are expected to perform. At times the new graduate may conceal what they do not know to avoid appearing incompetent to their peers and to continue in their position (Duchscher & Windey, 2018). They are required to adjust the manner in which they behave and perform to accommodate their new role. Multitasking unfamiliar tasks often in high paced environments lend to the stress and anxiety of this phase. Transition Shock© is first seen early in the stage of doing and is a term used to describe the period when emotions come to the surface related to the realization the expectations and reality of the profession entered into are at odds with one another. This theoretical construct highlights the aspects of the role and responsibilities of the new nursing graduate that assist in mitigating the impact and length of time spent in this intense period of transition (Duchscher & Windey, 2018).

The phase of being starts upon exiting the doing stage and typically lasts four to five months (Duchscher, 2009; Duchscher & Windey, 2018). An increase in the speed in which the new graduate acquires and consolidates new knowledge and skills are depicted in this phase. The ability to critically think increases with the acquirement of new knowledge and repeated exposure to new skills during in this phase. It is also a stage when the new nursing graduates are vulnerable and open to new ideas as it is a time of recovery and reflection (Duchscher, 2008; Duchscher, 2009). In the stage of being new graduates doubt themselves, examine their choices, search for answers and hoping to find stability once again. This leads the new graduate to the second period of vulnerability in their transition termed Transition Crisis. Transition Crisis is the term used for the intense period when a new graduate is confronted with complexity of their

professional and personal lives and the negotiation and reconciliation of their intersection (Figure 1.1).

As the new graduate transitions out of the emotion fraught period of Transition Crisis and the stage of being, the stage of knowing begins (Duchscher, 2008). This is a stage when the new nursing graduate comes into their own. Having gone through several months of instability new graduates find their equilibrium during the stage of knowing. They are separating from the old and exploring new possibilities, critiquing with new found confidence and accepting the reality of the environment within which they work and profession with which they now identify.

A strength of the Transition Stages Model© is the comprehensive description of the new graduate transition experience. The original contributions of this model, such as the placement description of Transition Crisis, resonate with new nursing graduates and those who are witness to the process of transition further contributing to its credibility. Missing components of this model are the representation of mentorship, characteristics of the mentor as well as the long term perspective of new graduate transition and the mentoring relationship.

Kram's (1983) mentorship conceptual model. Kram's (1983) mentorship conceptual model provides a longer-term perspective on mentoring and contains both psychosocial (e.g., promoting a sense of identity, increased competence) and career development activities. It has its origins in business, but has been referred to in nursing (Gagliardi et al., 2009). This model also contains four main stages: initiation, cultivation, separation, and redefinition; each with its own specific attributes and timeframe. The initiation phase takes place during the first six months to a year of the relationship during which the mentor acts as a coach ensuring visibility of the mentee while providing challenging work. The mentee demonstrates respect for the mentor during this phase and assists the mentor in their work while expressing willingness to learn and be coached.

The interaction between mentor and mentee takes place in the work environment while completing work related activities and tasks.

The cultivation phase occurs immediately after the initiation phase and lasts approximately two to five years (Kram, 1983). This phase is mutually beneficial to the mentor and the mentee with the interactions increasing in frequency and meaning. It is also during this time that the emotional investment by both the mentor and mentee increases and becomes evident.

The separation phase follows the cultivation phase and is approximately six months to two years in length (Kram, 1983). It is during this phase that the mentee is ready for, and actively seeks, autonomy in their work or practice. The mentor may also be in a different position due to promotion or new rotation and is less available or unable to provide support to the mentee. It is during this phase when situations may occur where opportunities are or appear to be blocked, which results in negative feelings and an interruption of the relationship.

The fourth and final phase is redefinition (Kram, 1983). This phase begins after the separation phase and has no definite end. The mentor and mentee begin to recognize themselves as true peers after letting go of any negative feelings experienced during the separation phase. Kram (1983) offers a detailed description of the evolution of mentorship depicted in stages over time and is a strength of this model. However, if strictly applied using the suggested timeframe it limits its application for new graduates to the first stage of mentorship (Kram, 1983). An additional drawback to Kram's (1983) model is that was not developed with nursing in mind and the lacks specificity to the new graduate experience. Kram's model also does not present the mentors nor a suggested pairing process.

Burlew's multiple mentor conceptual model. Burlew's (1991) multiple mentor model

consists of three main stages and is based on Len Nalder's (1979) Human Resources Development model. The different stages and corresponding mentors are defined as levels within the model. During the first stage of training the mentor assists with the new hire's adjustment to the organization and new position. Training mentors hold specific skills and attributes which assist to coach, provide instruction, and evaluate the progress of the mentee. The training mentor guides, supports, and makes suggestions for improvement based on the level of the mentee.

The second stage of the multiple mentorship model is education (Burlew, 1991). The education mentor assists the mentee prepare for other career opportunities. During this stage, the mentor has a good understanding of the bigger picture of the organization and their mutual profession, and assists the mentee to create a plan, schedule educational activities and consider work and life experiences that would assist with their advancement. The education mentor also helps the mentee with networking opportunities, assisting to make personal and organizational social connections, and highlights appropriate next steps and opportunities.

Development is the final level of the multiple mentor model in which the development mentor is described as a person who can look past the present and into the future for both the mentee and the organization in which they work (Burlew, 1991). They are spoken of as "gurus, masters, or special people" (Burlew, 1991, p. 217). They are concerned with both the personal and professional aspects of the mentee's life and attempt to guide them toward both personal and professional success and fulfillment (Burlew, 1991).

Burlew's (1991) model's presentation would be enhanced by the use of a diagram; however, is intuitive in nature and therefore easy to follow. Having a different mentor for each stage or level of mentorship is a strength of this model as it is highly improbable that one person can possess all of the skills and attributes required for every stage of mentorship. Two limitations

of note are the lack of suggested a pairing process for each stage and the lack nursing or new graduates represented in the model.

1.1.5 Summary. New nursing graduates face a complex and challenging transition to professional practice. The plight of new nursing graduates is recognized nationally and internationally with transition programs being implemented in attempt to prevent attrition, increase job satisfaction, increase confidence and skill acquirement, and professional development. Mentorship is commonly used as part of transition programs to assist new nursing graduates in their transition from student to practicing nurse. A key feature of mentoring is the pairing of mentors and new graduate nurses to ensure a successful experience. However, there is a lack of evidence on the process of pairing.

1.2 Positioning Myself

I have been a registered nurse for 20 years and have held a variety of positions and roles in that time. I have been a preceptor, mentor, clinical instructor, learning resources consultant, clinical manager and corporate nursing coordinator. I was employed as a nursing coordinator working with new nursing graduates during their transition into professional practice for eight years. In this role I facilitated the utilization of the New Graduate Guarantee program at The Ottawa Hospital (TOH) where over 80% of new graduates hired participated in the New Graduate Guarantee program. Through this work, I observed interactions between new nursing graduates and mentors participating in the program and had been witness to relationships that were successful as well as those that encountered difficulties. My past work experience combined with these observations led me to become interested in the topic of mentorship within nursing and specifically how new nursing graduates and experienced nurses are paired for the purposes of mentorship. I self-identify as a pragmatist and have viewed and conducted the work

pertaining to this dissertation through this paradigmatic lens. As such, this work focused on the applicability of research results. Approaches were chosen for their practical application in answering research questions rather than their alignment to a specific paradigm (Creswell, 2014; Kivunja & Kuyini, 2017).

1.3 Purpose and Objectives of Dissertation

The overarching purpose of this dissertation is to explore the processes of pairing new nursing graduates and experienced nurses to initiate a mentoring relationship. The three main objectives are: 1) to describe the characteristics and impact of the New Graduate Guarantee (NGG) program at The Ottawa Hospital (TOH) from 2013 to 2018 on new graduate nurses and organizational outcomes; 2) to develop an in-depth understanding of mentorship pairing practices specific to new graduate nurses; and 3) to determine the effect of mentorship pairing processes on the mentoring relationship and outcomes at the level of the new nursing graduate, mentor and organization.

Chapter 2 presents the characteristics and results of a quality improvement project of a new graduate nurse program conducted over a 4-year period. Given that no information was collected on the pairing process, Chapter 3 presents the findings of an interpretive descriptive study of the mentorship experiences of new graduate nurses, experienced nurse mentors, and managerial staff organizing the mentorship program, Given that a variety of processes are used to pair mentors and new graduate nurses, Chapter 4 present the results of a systematic review conducted to determine any current effective approaches for pairing in mentorship programs. Chapter 5 provides an integrated discussion across the three phases and the implications for nursing practice.

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CHAPTER 2:

Describing the impact of the New Graduate Guarantee (NGG) Program at a large urban tertiary care hospital: A quality improvement project

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Abstract

Background: Many organizations have implemented mentorship programs to support new nursing graduates and decrease consequences of poor transition (e.g. high turnover). In the New Graduate Guarantee (NGG) program offered by the Ontario Ministry of Health and Long Term Care (MoHLTC), new graduates were mentored up to 32 weeks.

Purpose: To describe the characteristics and impact of the NGG program at The Ottawa Hospital (TOH) from 2013 to 2018 on new graduate nurses and organizational outcomes.

Methods: A quality improvement project (QIP) was conducted using a retrospective longitudinal descriptive approach. Existing organizational administrative data from 2013 to 2018 was used with data at the level of the new nursing graduate, mentor and organization (e.g., New Graduate Guarantee data, Human Resources Information System data). Analysis used descriptive statistics.

Results: The majority (90%, N=579) of new nursing graduates hired participated in the NGG program. The average length of time spent in the NGG program was 23.1 weeks. Turnover rates for nurses who participated in the New Graduate Guarantee were lower (21.5%, N=92/427) than the new graduate turnover rate reported in the literature (26-57%) two years post hire.

Conclusions: No data was collected on the pairing process or on mentorship characteristics. The need to identify mentorship specific measures and associated ongoing data collection was made evident. Findings will inform future practices regarding new nursing graduate mentorship at The Ottawa Hospital.

Keywords: New Graduate Guarantee, mentorship, new nursing graduate, quality improvement, evaluation.

2.1 Background

Mentorship transition programs have become a common approach for healthcare organizations to ease new nursing graduates into the profession (Bellefontaine & Eden, 2012; Nursing Policy and Innovation Branch, Ministry of Health and Long Term Care, 2017; Vancouver Island Health Authority, 2017). The length of these range from 12 to 72 weeks. When evaluated, these programs have been shown to decrease turnover and associated costs to organizations (Silvestre, Ulrich, Johnson, Spector, & Blegen, 2017). Due to the variance in modes of delivery, length, and evaluation methods, comparisons between programs are challenging. One of the longer-standing government supported programs is the Ontario Ministry of Health and Long-Term Care New Graduate Guarantee (NGG) program (Burkoski, Tepper, & Matthews, 2011; Nursing Policy and Innovation Branch, Ministry of Health and Long Term Care, 2017).

The rationale for initiating the NGG program in 2007 was the lack of nursing workforce flexibility demonstrated during the Severe Acute Respiratory Syndrome (SARS) outbreak in 2003 and to provide mentorship for new nursing graduates entering the workforce (Baumann, Hunsberger, & Crea-Arsenio, 2011; Burkoski et al., 2011). With many nurses working multiple part-time positions, and unable or unwilling to pick up additional work, it left the system unable to react in a time of crisis (Baumann et al., 2011). With the goal of hiring more nurses into full-time positions and knowing that the largest group of nurses interested in full-time employment were new graduates; the NGG program was created (Burkoski et al., 2011). Healthcare organizations benefited from the additional financial support offered to support new nursing graduates' transition to practice.

The Ottawa Hospital (TOH) participated in the NGG program every year since it's

inception in 2007. Each year, approximately 200 new nursing graduates were hired with approximately 85% having participated in the NGG program. To participate in the NGG program, TOH applied each year to receive funding from the MoHLTC to cover the salary for each new graduate participant. In the NGG program, new graduates remained above the staffing quota and shared a workload assignment with their mentor until they transferred out of the program into an operational vacancy or left the organization.

From April 2007 to March 2017, the length of the NGG program was 12 to 32 weeks (Nursing Policy and Innovation Branch, Ministry of Health and Long Term Care, 2014). Length of time spent in the program was determined by the manager, educator, mentor and new graduate during regularly scheduled meetings. The length of time depended on: 1) the level of specialization in assigned clinical setting, 2) availability of vacant positions, 3) readiness to enter into a regular nursing position as determined by self-declaration by the new graduate, and 4) achievement of a new graduate's individualized learning plan. If a new graduate left the program before the end of three months, all of the funding for the new graduate was returned. However, if a new graduate was the successful candidate for a permanent full-time position and transferred into that position between 12 weeks and 26 weeks, then the remaining salary up to 26 weeks was kept by the organization to reinvest in nursing specific initiatives. If the new graduate was not awarded a full-time position after 26 weeks, the organization was required to provide an additional six weeks of mentorship with the salary of the new graduate paid by the organization (Nursing Policy and Innovation Branch, Ministry of Health and Long Term Care, 2014; Nursing Policy and Innovation Branch, Ministry of Health and Long Term Care, 2017). In April 2017, the new graduate program was shortened to 12 weeks with eight additional weeks of reinvestment funding available should the candidate be successful in transitioning to a permanent full-time

position (Nursing Policy and Innovation Branch, Ministry of Health and Long Term Care, 2017).

A nursing coordinator, funded separately from the NGG program, was appointed by TOH to be responsible for the transition to practice of all new graduate nurses that were hired directly into an operational vacancy (direct hire) or funded through the provincial NGG program. The coordinator met with new graduates at point of hire, 12, and 26 weeks post-hire to explore their experiences, provide them with appropriate resources and address any issues. For example, they discussed: a) the new graduate's confidence with their new position and satisfaction with their experience in the program, b) if there were any issues that would indicate a breakdown in the relationship with their mentor, and c) timely application(s) to permanent positions or intention to leave the unit or organization. Additionally, all new graduates completed a learning plan to outline their goals for the transition period and updated it with the mentor on a regular basis.

2.2 Specific Aims

The purpose of this quality improvement project was to describe the characteristics and impact of the New Graduate Guarantee program at The Ottawa Hospital (TOH) on new graduate nurses and organizational outcomes (See Appendix A for Glossary of terms). This project was guided by five questions: 1) What proportion of new nursing graduates who participated in the NGG program (NGGNs) left the organization two years post hire?, 2) What proportion of direct hire new nursing graduates left the organization two years post hire?, 3) What was the average length of time spent in the NGG program?, and 4) What proportion of NGGs and direct hires took on leadership roles?

2.3 Methods

This quality improvement project (QIP) was conducted using a retrospective longitudinal descriptive approach. Projects using retrospective longitudinal approaches are used when an

evaluation of time-series data to determine change over time is required (Portela, Pronovost, Woodcock, Carter, & Dixon-Woods, 2015). Given the purpose of this QIP is to describe the characteristics and impact of the New Graduate Guarantee (NGG) program at The Ottawa Hospital (TOH) using data from 4 cohorts over 5 years this approach is appropriate.

TOH had implemented the NGG since its inception and collected data on new graduates and organizational outcomes for multiple years, therefore this approach was determined to be the best fit. This quality improvement project used data collected on NGG and direct entry nurses hired in 2013 to 2017, with data collected from 2013 to 2018. These dates were chosen because TOH updated the system used to collect and store administrative data related to human resources in 2013 and the MoHLTC participation and reporting requirements remained consistent until 2017. The system change in 2013 did not allow the earlier data to be extracted in the same manner. The proposed project was reviewed by OHSN REB using the 'Is your project a Research or Quality Improvement? Guideline and Checklist' (Appendix B) and approved as a quality improvement project. The Revised Standards for Quality Improvement Reporting Excellence - SQUIRE 2.0 was used to structure this QIP (SQUIRE, 2015).

2.3.1. Context. This QIP was conducted at TOH in Ottawa, Ontario, Canada which is an acute care academic health sciences facility with three main campuses and approximately 1200 beds (The Ottawa Hospital, 2017). It serves a population of about 1.3 million. TOH provides 220 to 260 nursing preceptorship consolidation placements every year for students in the last year of the four-year BScN program. Consolidating students are accepted from local schools of nursing as well as those from outside the region. Upon graduation, many of these students, as well as students who did not consolidate at TOH, are hired.

2.3.2 Data Groups. Data from three groups were considered in this QIP: 1) new nursing graduates in the NGG program (NGGNs), 2) new nursing graduate direct hires (NGDHs), and 3) mentors. An estimated 160 NGGNs and 20 NGDHs were hired each year. Data on a total of 645 new graduates over four years was available for this QIP. For the purposes of this QIP new nursing graduates (NGGN, NGDH) were defined as registered nurses who were in their first year of nursing practice at any point from 2013 to 2017. Nurses practicing for one year or longer since graduation were not eligible to be included. Mentors were defined as experienced nurses who were paired with the new nursing graduates who participated in the NGG from 2013 to 2017 at TOH. Those excluded were: 1) experienced nurses who were preceptors to nursing students; and 2) mentors who were paired with new hires who had more than one year of experience. There was no data available on mentors that may have worked with NGDHs.

2.3.3 Data Sources. Administrative data from two hospital databases was used: the TOH NGG and Human Resources Information System (HRIS) databases (Table 2.1). Primary outcomes of interest for this QIP included: proportion and rate of new graduates who left the organization, proportion of new graduates who took on full-time positions, and proportion of new graduates who took on leadership roles. Secondary outcomes included: length of time spent in the NGG program, and location of consolidation experience (hospital).

Table 2.1 Data Extracted from Administrative Databases by Group

	New Graduate Guarantee			Human Resources		
	NGG	**Non NGG**	**Mentor**	**NGG**	**Non NGG**	**Mentor**
First position held	●	●				●
Position transitioned into after NGG	●	●				
Age				●	●	●
Graduating year	●	●				●
Length of time spent in NGG	●					
Specialty worked in for NGG	●		●			
Specialty transitioned out into after NGG	●					
Position held (by quarter)				●	●	●
Leaves of Absence				●	●	●
Terminations				●	●	●

* Dots indicate the type of data extracted from each database

2.3.3.1 NGG Data. The TOH NGG database, which was populated by the Nursing Professional Practice Department (NPPD) and Human Resources (HR), comprises data on all new graduates hired at TOH which includes new graduates hired directly into operational vacancies and those hired into the New Graduate Guarantee program since 2007. The information collected was determined by the reporting requirements of the Ontario MoHLTC. Information collected was managed in a Microsoft Excel (2013) spreadsheet for each new graduate from date of hire to the end of their first year of employment. Data points include: a) whether new graduates were consolidation students at TOH; b) where new graduates graduated from; c) where new graduates completed their NGG experience (including unit, program and specialty); d) position transitioned into after completing the NGG; e) length of time spent in the program, and f) terminations (voluntary and involuntary combined) (Table 2.1). From 2013 onward, information also included: g) new graduates' results on the registration exam, and h) name of the new graduates' mentor. Information on pairing processes and characteristics of the relationships formed as a result of the new graduate and mentor pairings was not collected.

2.3.3.2 Human Resources Data. The Human Resources Information System (HRIS) is maintained by the TOH human resources department. This system tracked information on individual hospital staff, including NGGNs, throughout the tenure of their employment. Data that was regularly accessed on NGGNs and for the MoHLTC annual reports included: a) age, b) positions held by new graduates and mentors, c) leaves of absence, and d) terminations (voluntary and involuntary combined) (Table 2.1).

2.3.4 Management of Data. Data was extracted from the two databases using the data extraction tools and merged into a single spreadsheet in Microsoft Excel (2013). Once the data was retrieved the employee identification numbers in the TOH NGG database associated with

the NGGNs, mentors and NGDHs were assigned codes i.e. NG1_2013, NG75_2014, M1_2015. The employee numbers of new graduates and mentors in the NGG database were then found in the HRIS database and replaced with the associated project identification code using a formula in Microsoft Excel. Once the same identification codes were assigned to both databases the data were combined into one spreadsheet to facilitate analysis. The information associated with the project identification codes in the HRIS database was transferred to the NGG database using formulas to link the codes, maintain consistency in approach, and limit errors. The employee identification numbers and any other identifiers were deleted from the final database prior to analysis. The file linking employee numbers and project identification codes is kept in a locked office on a password protected computer of the supervisor of the lead for the project who is a senior scientist of the organization.

2.3.5 Analysis. Data was analyzed in Microsoft Excel (2013). Missing data were handled using list wise deletion. Descriptive statistics, such as means and standard deviations were used to summarize the demographic characteristics of mentors and new graduates who participated in the NGG program, as well as new graduates who were hired into operational vacancies. Demographic characteristics included: age, number and proportion of new nursing graduates who participated in the NGG and who were hired directly into operational vacancies, number of mentors who mentored new graduates in the NGG, proportion of participants by program, and proportion of new graduates who consolidated at TOH. These demographic characteristics will be presented by year and in total over five years. Descriptive statistics were used to answer the four questions guiding this QIP. Proportions of position types and position titles held by year by cohort were used to determine career trajectory for new graduates and mentors. Table 2.2 provides a description of the QIP questions, the data sources, and the proposed analysis.

Table 2.2 Summary of the Statistical Analysis based on the QI Project Questions

QIP Questions	Data Groups	Data Sources	*Outcome	**Statistical Analysis
What are the characteristics of new graduates and mentors (including pairing)?	• New graduate NGG program participants	• HR • NGG	• Demographic information: age, number and proportion of new nursing graduates who participated in the NGG and who were hired directly into operational vacancies, number of mentors who mentored new graduates in the NGG, proportion of participants by program, and proportion of new graduates who consolidated at TOH • Pairing process type # of pairings	• Descriptive statistics – Mean, SD, median and range • Description of type and number of pairing processes
What proportion of new nursing graduates who participated in the NGG program (NGGNs) left the organization two years post hire?	• New graduate NGG program participants	• HR • NGG	• 2 year external turnover rate by cohort year for NGGNs	• Descriptive statistics – Proportion and percentage of turnover of at 2 yrs after hire. (# terminated over 2 yrs / # hired)
What proportion of new nursing graduates who were hired directly into operational vacancies (NGDHs) left the organization two years post hire?	• New graduates hired into operational vacancies	• HR • NGG	• 2 year external turnover rate by cohort year for NGDHs	• Descriptive statistics – Proportion and percentage of turnover of NDGHs at 2 yrs after hire. (# terminated over 2 yrs / # hired)
What was the average length of time spent in the NGG program?	• New graduate NGG program participants	• HR • NGG	• Length of time spent in the NGG program by mean, SD, median and range in months	• Descriptive statistics- Mean, SD, median and range of length of time spent in the NGG program by NGGNs
What proportion of NGGNs and NGDHs took on leadership roles?	• New nursing graduates (NGGN and NDGH)	• HR • NGG	• Proportion of NGGNs and NDGHs nurses who took on leadership roles	• Descriptive statistics on proportion of NGGNs and NDGHs who took on leadership roles

2.4 Results

There were a total of 579 NGG program and 66 direct hires into operational vacancies from 2013-2017 (Table 2.3). Consequently, data for a total of 645 new graduates was retrieved and analyzed in this QIP. For the 579 NGGNs, there were a total of 294 mentors reported once 66 duplicates were removed and 219 without mentors reported. Not all managers submitted the names of mentors. In addition, managers did not report on the process used to pair mentors with the new graduates as this information was not a ministry requirement.

Of the new graduates hired from 2013 to 2017 579 (89.8%) participated in the NGG program. The proportion of NGGs decreased yearly from 91.2% (N=125/137) in 2013-2014 to 88.4% (N=152/172) in 2016-2017. The number of new graduate hires (NGGNs and NGDHs) increased within the same time frame.

Table 2.3 Number and Proportion of New Graduates and Mentors

Year	NGGNs	NGDHs	Total
2013-2014	125 (91.2%)	12 (8.8%)	137 (100%)
2014-2015	148 (90.2%)	16 (9.8%)	164 (100%)
2015-2016	154 (89.5%)	18 (10.5%)	172 (100%)
2016-2017	152 (88.4%)	20 (11.6%)	172 (100%)
Total	**579 (89.8%)**	**66 (10.2%)**	**645 (100%)**

2.4.1 Characteristics of New Graduates and Mentors. The mean age of new graduates who participated in the NGG was 28.3 (SD=4.6) and ranged between 23 and 49 (median=27.0) (Table 2.4). New graduates who were hired directly into operational vacancies had a mean age of 27.9 (SD=5.2) and ranged between 23 and 60 (median=26.0). The mean age for mentors was 40.3 (SD=10.7) and ranged from 25 to 66 years (median=37.0). New graduates were female (90%, N=580) and male (10%, N=65). Mentors were female (93%, N= 273) and male (7%, N=21).

Table 2.4 Age of Group Cohorts

Year	NGG Total N= 578			NGDH Total N=66			Mentors Total N=294		
	Mean	**SD**	**Median (Range)**	**Mean**	**SD**	**Median (Range)**	**Mean**	**SD**	**Median (Range)**
2013-2014	29.2	3.9	28.0 (26-47)	32.7	9.2	29.5 (27-60)	43.0	11.0	40 (34-66)
2014-2015	28.8	4.7	27.0 (25-47)	28.4	4.1	26.0 (25-37)	39.5	10.0	36.0 (25-64)
2015-2016	28.0	4.6	26.0 (24-49)	26.7	2.1	26.0 (24-31)	40.8	11.1	38.0 (25-63)
2016-2017	27.4	5.0	25.0 (23-49)	25.7	2.4	25.0 (23-33)	37.0	9.8	34.0 (25-61)
Total	**28.3**	**4.6**	**27.0 (23-49)**	**27.9**	**5.2**	**26.0 (23-60)**	**40.3**	**10.7**	**37.0 (25-66)**

2.4.2 Experience at TOH. Most new graduates hired (86%, N=555/645) consolidated at TOH. The majority of those who participated in the NGG program consolidated at TOH (90%, N=518/579) versus 58% (N=38/66) of those who were hired directly into operational vacancies. The consolidation status of 36% (N=24/66) of NGDHs was unknown. For those in the NGG program, the mean length of time was 23.1 weeks (SD=6.6) with a range of 2 to 32 weeks (median=24).

The majority of new graduates who participated in the NGG program were hired onto surgery (43%, N=249), medicine (25%, N=142), and oncology units (11%, N=66). Most new nursing graduates who were hired directly into operational vacancies accepted positions on units within the obstetrical / gynecological program (67%, N=44).

2.4.3 Employment Outcomes. The mean two-year turnover rate for NGGNs was 21.5% (N=92/427) and 23.9% (N=11/46) for NGDHs (Table 2.5). In the years 2015-2016 and 2017-2018, new graduates who participated in the NGG program had slightly lower mean turnover rates (24.8% and 21.4%) than those who were hired directly into operational vacancies (33.3% and 33.3%). A decrease in turnover was noted for both new graduate cohorts in the 2016-2017 (18.9% and 6.2%).

Table 2.5 New Graduate Guarantee Hire Two Year Turnover Rate

	Fiscal Year					
Cohort Year	**2015-2016**		**2016-2017**		**2017-2018**	
	NGG	**NGDH**	**NGG**	**NGDH**	**NGG**	**NGDH**
2013-2014	31/125 **24.8%**	4/12 **33.3%**				
2014-2015			28/148 **18.9%**	1/16 **6.2%**		
2015-2016					33/154 **21.4%**	6/18 **33.3%**

Just under half of the new graduates who participated in the NGG program (49.1%, N=284/579) held full-time positions in 2017-2018. By contrast, 18.2% (N=12/66) of new graduates who were hired directly into operational vacancies held full-time positions in the same year. The highest rate of full-time employment for new graduates who participated in the NGG program was achieved in their first year of practice. Part-time and casual positions were held by new graduate direct hires in their first year of employment with an increase in part-time and decrease in casual positions in the years following. Few new nursing graduates transitioned into leadership positions with 0.5% (N=3/579) NGGNs and 4.5% (N=3/66) of the direct hires moving into roles such as clinical manager, educator, and coordinator. In addition, new graduates also took on the role of mentor with 3.1% (N=18/579) of NGGNs and 4.5% (N=3/66) of direct hires having been reported as taking on this responsibility.

2.5 Interpretation

This quality improvement project described the characteristics of participants and impact of the NGG program at TOH on 645 nursing graduates hired from 2013 to 2017 and the organization from 2013 to 2018. The majority of new graduates (90%) were hired into the NGG program. Two years post hire, turnover rates for NGGNs and NGDHs were 22% and 24%. The average length of time spent in the NGG program was 23.1 weeks (SD=6.6) out of a total possible of 32 weeks. Of the six new graduates entering leadership roles, half entered through the NGGN program and half were direct hires. These findings lead to the following points of discussion.

The mean two-year turnover rate of almost a quarter of both new graduate cohorts were less than the 26-57% average two-year turnover rate reported in the literature (Zhang, Huang, Xu, Xu, Feng, & Jin, 2019). Turnover rates were not reported in the annual provincial reports;

however, 27% of nurses who graduated between 2007 and 2012 and participated in the NGG in Ontario were not employed in their initial position compared with 41% of those who were hired directly into operational vacancies (Baumann, Hunsberger, Crea-Arsenio, Akhtar-Daneshb, & Alameddinec, 2018). Results of a cross-sectional study of 45 new graduates who participated in the NGG program from five sites reported a low intent to turnover (mean=1.70; SD 0.83) and high job satisfaction (mean=6.36; SD= 0.99) (Lalonde & McGillis Hall, 2017).

A turnover intention theory specific to nursing posits that a number of reasons may be related to higher turnover rates, such as lack of opportunity for career advancement, workplace relationships, and social connections (Cosgrave, Maple, & Hussain, 2018). As a core attribute of mentorship, socialization includes the social elements of workplace relationships and connections; access to mentorship may have a positive impact on turnover (Ashforth, Sluss, & Harrison, 2007; Lalonde & McGillis Hall, 2017; Saks, Uggerslev, & Fassina, 2007). Both cohorts of new graduates had a decrease in turnover in 2014-2015. The decrease in turnover rates may be attributed to the external and internal context of the unit and organization, and be indicative of a lack of available positions within the program, organization or region to which new graduates could apply. However, the lack of availability of such information limits the conclusions that can be drawn. As such, further monitoring could be used for trending purposes and help to evaluate mentorship programs.

The mean length of time spent in the NGG program was 23 weeks (range 2 to 32) with the program offering up to 32 weeks. Hence, on average, new graduates completed the program within the timeframe funded by the MoHLTC (26 weeks) and completed it three weeks before needing to extend the program at the expense of the unit budget. Provincially, turnover rates and average length of time spent in the NGG program has not been reported, therefore a comparison

with this organization's results is not possible and is a limitation of this QIP. The ideal length of time for the NGG program and any future mentorship program is an important consideration, particularly given the costs of funding supernumerary positions. However, determining the ideal timeframe is challenging as conflicting evidence exists in the literature with studies suggesting 12 to 72 weeks for these types of programs (Bellefontaine & Eden, 2012; Nadler-Moodie & Loucks, 2011; Spector et al., 2015; Rush, Adamack, Gordon, Lilly, & Janke, 2013) versus the MoHLTC NGG program that offered mentorship from 12 to 32 weeks.

Full-time employment for NGGNs was higher in the first year of employment, which is most likely attributed to the time the data was collected as most NGGNs were still participating in the NGG program, which required full-time employment for the duration of the program (Nursing Policy and Innovation Branch, Ministry of Health and Long-Term Care., 2017). Conversely, 18.2% (N=12/66) of the new graduate direct hires held full-time positions after multiple years of employment which is lower than the rate of RN full-time employment (35%) reported in Ontario prior to the implementation of the NGG program (Baumann, Hunsberger, & Crea-Arsenio, 2010). Higher rates of full-time employment in NGGNs may be a result of participation in the NGG program as one of the cited benefits of mentorship is career advancement (Eby & McManus, 2004). Alternatively, nurses hired directly into operational vacancies may have preferred part-time employment. In the future, it may be helpful to capture data on nurses' preferred type of position (full time, part time, casual).

The majority of new graduate nurses who were hired directly into operational vacancies were hired into a specialty program where the NGG program was not usually available (67%, N=44). This may be related to multiple factors. The first is the lack of availability of full-time positions within the program. The purpose of the NGG program was to bridge new graduates

into full-time positions and if there were not any available positions for new graduates to transition into, the units/programs budgets would be impacted by the requirement to extend their mentorship experience by six weeks. As such, new graduates would often accept casual or part-time positions in this highly sought after specialty program and wait for a more permanent position within that department. The challenge with this type of approach is the inconsistency in worked hours and lack of opportunity to consolidate skill sets, confidence and growth from novice to expert as per Benner's (1984) model.

2.6 Strengths and Limitations

This quality improvement project has limitations to be considered. First, retrospective data analysis has the potential for information bias, as well as potential errors in data collection. However, we attempted to improve the range of data by merging two databases. Second, some data was not collected that would have been useful in addressing questions related to the project. For example, the lack in information collected on the pairing process and outcomes of mentors, particularly lack of information on mentors paired with NGDHs. Third, the organizational processes for maintaining the databases, specifically the HRIS and NGG databases, are populated by members of the human resources and nursing professional practice department with employee information entered manually into the system upon hire and when movement within the organization occurs (i.e. transfer to new position). The information therefore is subject to human error, including data omission. As the findings presented in this QIP were restricted to descriptive statistics only expanding on the results of this QIP using a range of methods of analysis would be of benefit and provide additional guidance to the organization. In future, it would be helpful for the organization to define and collect administrative data specific to mentorship attributes, characteristics and outcomes. For example, socialization is a core attribute

differentiating mentorship from other types of learning relationships and would be worth collecting (Huybrecht et al., 2011). A strength was the large data set and will be beneficial for future QIPs and research studies.

2.7 Conclusion

The NGG program has been an important resource for supporting new graduate nurses hired at The Ottawa Hospital for over a decade. This QIP sought to describe the characteristics and impact of participation in this program by analyzing existing administrative data on new nursing graduates and new graduate direct hires. This initial descriptive analysis emphasized the need to identify mentorship specific measures to be monitored in ongoing data collection. Results of this QIP will be used to assist in informing future nursing mentorship at TOH.

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CHAPTER 3:

Exploring pairing of new graduate nurses with mentors: An interpretive descriptive study

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This is the accepted version of the following article: Devey Burry, R., Stacey, D., Backman, C. Donia, M. B. L., & Lalonde, M. (2020). Exploring pairing of new graduate nurses with mentors: An interpretive descriptive study. *Journal of Clinical Nursing*, *29*(15-16), 2897-2906., which has been published in final form at: https://doi.org/10.1111/jocn.15360. This article may be used for non-commercial purposes in accordance with the Wiley Self-Archiving Policy.

Abstract

Aims and Objectives: To explore mentorship pairing practices for new graduate nurses in a tertiary care hospital.

Background: Many organizations have implemented mentorship transition programs to decrease new nursing graduate turnover in the first two years of practice. Little is known about the mentorship pairing processes.

Design: An interpretive descriptive qualitative study was conducted in a multi-campus academic health science centre in Ontario, Canada. The COREQ reporting guideline was used.

Methods: Semi-structured interviews using an interview guide were conducted with new nursing graduates and experienced nurses who participated in the New Graduate Guarantee program in 2016 or 2017, as well as nurse leaders involved in the mentor-mentee pairing process. Data collected was analyzed using thematic analysis within the groups and triangulated across groups.

Results: Thirty-one interviews were conducted (13 new graduates, 12 mentors, 6 leaders) from July 2018 to July 2019. Neither the new graduates nor the mentors were aware of the pairing processes. Nursing leaders relied on their knowledge of the participants to pair new graduates and mentors with many stating participants' personalities were considered. New graduates and mentors described making an initial connection and socialization as important themes related to facilitating the pairing process. Organizational influences on pairing included taking breaks together, the location of the final student placement, and the management of workload and scheduling.

Conclusions: More nursing specific research focused on mentorship pairing processes is required to provide evidence that will inform practice.

Relevance: Findings from this study will inform future mentorship pairing processes in nursing.

3.1 Introduction

Transition to practice is a challenging experience for most new nursing graduates with 26-57% leaving their first position within the first two years (Duchscher & Cowin, 2006; Hillman & Foster, 2011; Rush, Janke, Duchscher, Phillips, & Kaur, 2019; Zhang, Huang, Xu, Xu, Feng, & Jin, 2019). Mentorship is a common intervention implemented to assist new graduates to integrate and adapt to their new work environment (Beecroft, Dorey, & Wenten, 2008; Duchscher & Cowin, 2006; Rush, Adamack, Gordon, Lilly, & Janke, 2013; Rush et al., 2019; Yu & Kang, 2016). While some new graduate nurse and mentor relationships are successful, others fail to thrive. As socialization is an important component of mentorship, the pairing processes used to connect new graduate nurses with mentors is critical; however, little is known about these processes (Duchscher & Cowin, 2006; Huybrecht, Loeckx, Quaeyhaegens, De Tobel, & Mistiaen, 2011; Hillman & Foster, 2011; Lalonde & McGillis Hall, 2017; Zhang et al., 2019).

3.2 Background

Mentorship is defined as a mutually beneficial relationship between peers with an initial imbalance in knowledge, skills and experience, involves socialization, shared learning, and has a positive impact on the careers of both the mentor and the mentee (Allen, Eby, & Lentz, 2006; Healy, Glynn, Malone, Cantillon, & Kerrin, 2012; Huybrecht et al., 2011; Stewart & Krueger, 1996). Mentorship typically has an element of self-selection, with its duration determined by those engaged in the relationship (Brink, 1989; Huybrecht et al, 2011; Stewart & Krueger, 1996). Attributes such as emotional commitment, career progression and socialization help further define mentorship (Allen et al., 2006; Healy et al., 2012; Huybrecht et al., 2011).

Socialization is a key characteristic of mentorship. Socialization can be subdivided into professional and organizational socialization. Professional socialization is defined as the internalization of knowledge, norms, values, and culture associated with their position and the acquirement of identity through interaction with others (Dinmohammadi, Peyrovi, & Mehrdad, 2013). While organizational socialization is a process through which an individual obtains skills specific to their job, gains an understanding of the organization, develops a supportive network with coworkers, and learns and follows organizational protocol (Taormina, 1997). Historically, the broader research related to new employees has mainly focused on organizational socialization (Ashforth, Saks, & Lee, 1998; Haueter, Macan, & Winter, 2003; Morrison, 2002; Newhouse, Hoffman, Suflita, & Hairston, 2007). Outcomes of organizational socialization include an increase in job satisfaction and organizational commitment, as well as a greater intention to stay within the organization (Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007; Bauer, Erdogan, & Zedeck, 2011; Lalonde & McGillis Hall, 2017; Newhouse et al, 2007). A lack of socialization is typically the most cited reason for new nursing graduates leaving their first positions or the nursing profession (Duchscher & Cowin, 2006; Huybrecht et al., 2011; Hillman & Foster, 2011).

Mentorship programs for new nursing graduates have various characteristics. They range in duration from three to 36 months, have one or multiple mentors, and include a range of resources and activities, including educational workshops and formalized meetings (Bellefontaine & Eden, 2012; Nadler-Moodie & Loucks, 2011; Spector et al., 2015; Rush et al. 2013; Rush et al., 2019). Outcomes of mentorship programs with new graduates include lower turnover, increased professional development, and increased job satisfaction (Beecroft et al, 2008; Phillips, Esterman, & Kenny, 2015; Rush et al., 2013; Rush et al., 2019; Yu & Kang,

2016).

In 2007, the New Graduate Guarantee (NGG) program was established by the Ontario Ministry of Health and Long Term Care to match and financially support organizations with nurses transitioning into the workplace (Nursing Policy and Innovation Branch, Ministry of Health and Long Term Care, 2014). A key element was providing funding to allow new graduate nurses to work above the staffing quota, alongside an experienced nurse for three to seven and a half months in a mentoring relationship. During this time, the new graduate nurse was supernumerary and worked 1:1 with the mentor. Together they were purposefully assigned the workload of one nurse in an attempt to provide the new graduate the time required to gain knowledge, skills and confidence to comfortably take on a full workload by the end of the program. As a result of the NGG program, there was a 9% increase in full-time new graduates employed in Ontario with an increase in new graduate retention and clinical proficiency from 2007 to 2012 (Baumann, Hunsberger, & Crea-Arsenio, 2016; Baumann, Hunsberger, Crea-Arsenio, Akhtar-Daneshb, & Alameddinec, 2018b). Qualitative studies on the NGG program demonstrated new graduate participants experienced decreased transition related stress and increased self-confidence even though they may experience setbacks. For example, a reversal in recently gained self-confidence may be temporarily experienced when faced with new and challenging situations (Beaty, Young, Slepkov, Isaac, & Matthews, 2009; Guay, Bishop, & Espin, 2016). A correlational study on the impact of the NGG on care delivery indicated significantly higher scores in prioritization of patient care and time management for new nursing graduates who participated in the program than those who did not participate (Baumann, Hunsburger, Crea-Arsenio, & Akhtar-Danesh, 2018a). There is no known literature on the New Graduate Guarantee (NGG) program mentorship pairing process nor the resulting characteristics

of the relationship (Baumann et al., 2018b; Beaty et al., 2009; Burkoski, Tepper, & Matthews, 2011; Guay et al, 2016).

3.2.1 Purpose and research questions. The overall aim was to explore mentorship pairing practices occurring between new graduate nurses and more experienced nurses in a mentoring role within a clinical setting. Specific questions were: 1) What are the approaches used for pairing? 2) What are nurses' experiences with the pairing process? 3) What would be the ideal pairing process? 4) What are organizational influences on pairing processes?

3.3 Methods

3.3.1 Design. A qualitative interpretive descriptive study was conducted (Thorne, 2016). This qualitative approach was chosen given the study's focus was to develop an in-depth description of a phenomenon that was difficult to remove from the context, specifically mentorship pairing processes for new nursing graduates and experienced nurses within a healthcare setting. (Thorne, 2008; Thorne 2016). Ethical approval was provided by the Ottawa Hospital Research Institute Research Ethics Board (OHRI REB) and the University of Ottawa Research Ethics Board. Written consent was obtained from each participant prior to commencing each interview. The consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist was used to as a guide to structure the reporting of the findings (Tong, Sainsbury, & Craig, 2007).

3.3.1.1 Setting. The study was conducted in an acute care academic health sciences facility in Ontario, Canada with three main campuses and approximately 1200 beds. On average this hospital has hired 200 new nursing graduates every year since the NGG began in 2007, resulting in a total of over 2000 new nursing graduates hired (Nursing Policy and Innovation

Branch, Ministry of Health and Long Term Care, 2014; Nursing Policy and Innovation Branch, Ministry of Health and Long Term Care, 2017).

3.3.1.2 Participants and sampling. Purposeful sampling was used to identify new nursing graduates, mentors and nurse leaders who participated in the NGG in 2016 or 2017. Inclusion criteria for participants were: 1) New nursing graduates who participated in the NGG during their first year of practice, 2) nurses working in the clinical setting that had mentored a new graduate nurse within the context of the NGG, and 3) Nurse leaders who were clinical managers or nurse educators on units where the NGG had been implemented. All participants were required to be able to read and write in English. Those excluded from this study were new nursing graduates who did not participate in the NGG program as they were not known to have participated in any mentorship activities. Mentors who were paired with new graduates hired directly into operational vacancies and preceptors for undergraduate nursing students were also excluded.

3.3.1.3. Recruitment. A recruitment email was sent to eligible participants from a member of the Nursing Professional Practice team that was not involved with hiring or performance review. Two reminder e-mails were sent at two week intervals. Information regarding the study was also shared at staff meetings. Recruitment of participants ceased when saturation was reached (Francis et al., 2010).

3.3.1.4 Procedures.

3.3.1.4.1 Data Collection. After obtaining verbal and written consent, interviews were conducted with new graduates, mentors, and nursing leaders who volunteered to participate in the study (Appendix C). Semi-structured interviews were conducted using an interview guide

(Kvale & Brinkmann, 2009; Appendices D-G). During the period of time when the new graduate and mentor interviews were taking place, the lead researcher was responsible for the implementation of the NGG at the same hospital and had direct contact with participants. Therefore, a research assistant obtained consent from new graduate and mentor participants and conducted the interviews. The research assistant was a PhD student with extensive experience in conducting interviews. Interviews with nurse leaders were conducted by the lead researcher after she had left her position within the organization to complete her own doctoral studies. The new graduate and mentor interview guides had questions focused on the pairing process, their experiences with the pairing processes, and their thoughts regarding future pairing processes. The clinical manager and nurse educator interview guides had questions focused on the pairing processes they use in their practice to pair new graduate nurses with mentors. The interview guide questions were developed by the research team and were based on mentorship and new graduate transition models (Burlew, 1991; Duchscher, 2008; Kram, 1983). The questions focused on the participants' description and experiences with pairing within the context of mentorship, as well as suggestions for improvements to the pairing processes. Interviews were audio recorded and transcribed.

3.3.1.5 Data Analysis. Qualitative analysis of the interviews was conducted within groups and then compared across groups using Braun & Clarke's approach to thematic analysis which is congruent with both the epistemological perspective of the study and the inductive analytical requirements of interpretive description (Braun & Clarke, 2006; Thorne, 2016). Themes were identified through a 6-step process: familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and producing the report (Braun & Clarke, 2006). The results of the analysis were audited by two others on the

research team (ML, DS). Thematic findings from the interviews conducted with new nursing graduates and mentors were summarized and shared with nurse leaders after their interviews were completed to determine confirmability and transferability (Lincoln & Guba, 1985). Descriptive analysis in Excel was used for demographic data.

3.4 Results

3.4.1 Participant characteristics. Interviews were conducted in-person (n=29) or by telephone (n=2) (Table 3.1), and ranged in length from 17-61 minutes with a mean of 33 minutes. Thirteen new nursing graduates and 12 mentors were interviewed from July 2018 to November 2018. Mentors had an average of four years of experience with new nursing graduates in the NGG. Results reflect a total of 13 new nursing graduate experiences and 50 mentor experiences. Six nurse leaders were interviewed from May to July 2019 with experience pairing 6 to 15 new graduate nurses per year for 1 to 10 years.

Table. 3.1 Characteristics of Participants

Characteristics	New Graduate (n = 13)	Mentor (n = 12)	Nurse Leader (n=6)
Age(yrs)†: Mean (Range)	25 yrs (22-33)	37 yrs (25-55)	42 yrs (33-60) 1 not reported
Gender Female Male	 13 (100%)	 9 (75%) 3 (25%)	 5 (83%) 1 (17%)
Paired with: Female Male Not reported	12 1	29 10 11	-
Nursing Experience Mean (Range)	 1.4 yrs (0.8-2.1)	 8.1 yrs (4-15)	 21.7 yrs (9.8-37)
Experience on Current Unit Mean (Range)	 1.1yrs (0.3-2.1)	 7.8 yrs (4-15)	 7.8 yrs (2.8-10)
Organizational experience: Mean (Range)	 1.7 yrs (0.8-7.7)	 8.0 yrs (4-15)	 15.6 yrs (7-37)
Experience as a mentor # of experiences (Range)	 -	 4 (1-8)	 -
Experience as a Clinical Manager or Educator Mean (Range)	-	-	 7.4 yrs (1.5-14)
Length of time in NGG‡ Mean (Range)	 14 wks§ (12-22)	-	-

† yrs - years; ‡ NGG – New Graduate Guarantee; § wks - weeks

3.4.2 Question #1: What are the approaches used for pairing? New graduates and mentors were generally unaware of any process used in pairing. However, nurse leaders indicated they were responsible for pairing new graduates and experienced nurses for the purposes of mentorship.

3.4.2.1 Unsure of pairing process. All 25 new nursing graduates and mentors were unsure of the pairing process with one new graduate remarking, *"I don't know what their process is."* (NG4). Another mentor stated, *"I don't know how [they pair]"* (M4). When reviewing the summary of results from the new graduate and mentor interviews nurse leaders agreed they were not transparent with the process and was an area they could improve upon in the future with one

nurse leader stating, “You know what…we never say, this is how we do this” (NL6).

3.4.2.2 Pairing through a third party. All nurse leaders described pairings based on their knowledge of the participants and ensuring their personalities, as well as skill sets, complemented one another. Personalities were assessed through personal observations of nurse leaders. No tools were used for this purpose. One nurse leader stated, *“There were a few nurses that I…would love to put people with ‘cause they’re so good at their job…[but] they just don’t have the personality”* (NL1). Another described the process as, *“We try to pair their personalities...[and] who’s here available…we try to complement each other”* (NL2). The final decision rested with the clinical manager with one nurse leader explaining, *“The manager…would decide if…not all in agreement”* (NL5).

3.4.3 Question #2: What are nurses’ experiences with the pairing process? All participants from both the new graduate nurse and mentor groups spoke of a lack of involvement in the process lending to a sense of luck when pairings led to positive relationships. Several new graduates and mentors also shared experiences when pairings did not work well and the associated processes involved ‘swapping’ or ‘switching’ mentors.

3.4.3.1 Volunteered/asked. Mentors indicated they either volunteered or were asked to be a mentor to a new nursing graduate; however, the majority stated they were asked. One mentor explained it by saying, “*It was a combination of me offering to be a mentor but also my manager kind of asked me*” (M3) with another stating, “*Basically my manager asked me whether or not I wanted to become a mentor and I said yeah sure*” (M6). A nurse leader stated, “*If nurses were interested they would usually bring that forward...or sometimes… [we] would ask*” (NL5).

3.4.3.2 No "pre-pairing". The experience of being paired was described as having no 'pre-pairing'; new graduates and mentors reported they met for the first time on their first shift working together. One new graduate described her experience as, "*The process of pre-pairing was non-existent. I did not know who I was gonna be paired with…we didn't have a pre-interview…nothing…they told us the names of who we're gonna be paired with*" (NG5). Mentors expressed having similar experiences with one recalling, "*I kind of just met her on the first day we were gonna to be working*" (M2). A nurse leader stated, "*There wasn't always a lot of activities to put them together beforehand*" (NL4). This lack of 'pre-pairing' was consistently reported by all participant groups regardless of the outcome of the relationships.

3.4.3.3 Making an initial connection. Another theme was **making an initial connection.** These usually took place on the first day new nursing graduates and their mentors worked together. This initial connection sometimes involved the use of technology. *"She texted me telling me to meet at one end of the hall… she introduced herself and I introduced myself and then we started working that day"* (NG2). At times, their first shift working together did not enable a connection to take place and therefore had to wait until there was an opportunity within the workflow to have a meaningful conversation. Many described connecting on night shifts. One mentor described her experience as, "*It was a pretty chaotic first day…it wasn't until really the next day in the night that we actually were able to kind of sit down and talk about how she…wants me to teach her*." (M6)

3.4.3.4 Personalities clicked or didn't. Many of the participants reported a feeling a sense of "luck" when the pairing process resulted in a good fit of personalities. Rather than having similar personalities, participants indicated they needed to "click" or have a mutually innate understanding of one another which they found challenging to articulate. One new

graduate stated, "*I think that I really lucked out…she was a really good mentor so I'm really glad that I got to be with her*" (NG7). Similar experiences were had by mentors with one recalling, "*I was just kind of, we just kind of 'clicked' so both our personalities clicked and we still go out for coffee now and talk*" (M2). There were times when personalities didn't fit as one mentor described, "*Initially…here is a big extrovert who just [says] it's the way it is…and here's this quiet lady being a new grad and initially we had a challenge because our personalities were completely…different*." (M8)

3.4.3.5 Making subtle changes to pairings. When a new graduate and mentor pairing did not work, switches were made to assign a new mentor. Nurse leaders described tactics to avoid drawing attention to conflicts, *"we said at three months everybody's switching…we didn't point fingers to say: why is that person changing"* (NL2). For those whose first mentoring experience did not go well, a change in mentor was welcomed, *"with my second mentor I was like ohhh I got me an angel…she was a…senior nurse so her understanding is a wide lens approach. And she wouldn't focus on this tiny little thing which I felt like I had more opportunity to kind of grow and learn and ask questions safely"* (NG5).

3.4.4 Question #3: What would be the ideal pairing process? Although new graduates and mentors were not aware of current practices all participants suggested a number of ideal pairing processes to use in the future, such as pairing by a third party, random pairing, and pairing by self-selection. A safe process to switch pairings was also recommended for instances when the mentoring relationship did not work.

3.4.4.1 Formalizing pairing by a third party. Nurse leaders reported that their understanding and knowledge of staff was an important component when pairing new graduate nurses with mentors. Their ideal pairing process was described as having a more formalized

approach that included interviews and surveys to better understand new graduate and mentor personality types, strengths, areas for improvement, and preferred styles of teaching and learning. A nurse leader expressed, *"You can really tell what type of person they are by asking… questions. You're not…asking about clinical expertise…you are really looking at who they are"* (NL2). A new graduate stated, *"I think it should be interviewed for like a job because you're making a new nurse and you can make it or completely break them"* (NG13).

3.4.4.2 Trialing multiple mentors. Several nurse leaders recommended switching the pairings halfway through the allotted time for funded mentorship provided by the NGG. The rationale was to expose new graduates to multiple approaches to nursing so that they would be able to find the right approach for them, explaining, *"it's a learning experience…to see how you want to practice"* (NL3). Mentors also suggested, *"we should switch…halfway through…so you get a different nurse's perspective"* (M12). New graduates had mixed feelings about being paired with multiple mentors; some new graduates with the experience of having multiple mentors felt appreciative and thought others would benefit from a similar experience stating, *"having more than one mentor actually helped me a lot"* (NG9). Other new graduate nurses were not enthusiastic about the change, concerned they felt they had to start the process of building a mentoring relationship all over again and prove themselves with each new mentor, *"I did not have the continuity of feedback and mentorship"* (NG5).

3.4.4.3 Self-selection. Many participants recommended that organized social activities would facilitate new graduates and mentors to select the best match for themselves through organized social activities, such as meet and greets and speed mentoring sessions, were recommended by many participants. One new graduate suggested, *"a meet and greet where…all the new graduates and all the mentors come together through some sort of social and see how*

people bond" (NG3). Ensuring a connection between the mentor and the mentee was important with one nurse leader recommending, *"you need to get the group of them together and get a sense…mentors…[and] new grads…have coffee and cake…say welcome to the unit"* (NL1). Another suggested, *"in an ideal world you would have the mentor pick the learner"* (NL4) but recognized there may be challenges with that approach in terms of personality mismatches or not understanding the mentor's motivation behind the selection. Creative ways of ensuring new graduates and mentors 'clicked' were recommended with one new graduate stating, *"I wish there was some kind of…speed dating for mentors and new grads"* (NG12).

3.4.4.4 Having a process to safely switch. Most new graduate and mentors recognized a need for the opportunity to safely switch pairings if serious and irreparable conflicts arose within the relationship. One new graduate remarked, *"So to kind of let them know…if you just want to switch it up with a different mentor…it won't affect your job"* (NG6). A mentor explained, *"I think either party should be able to approach the manager and say…I just don't think this is a good match"* (M4). Nurse leaders stated if a switch was required that they would ensure it would happen without recourse; however, their preference was to attempt to repair the relationship first. If that proved unsuccessful they would wait until a time when everyone was switching to avoid highlighting the conflict and damaging the reputation of either of the participants.

3.4.5 Question #4: What are the organizational influences on pairing processes?

New graduates, mentors and nursing leaders noted organization influences could either be a pairing process facilitator or a barrier.

3.4.5.1 Facilitators. The organizational influences that were identified as facilitators to the pairing process included organizational resources, taking breaks together, and the location of new graduate's final student placement.

Participants identified that the pairing process was facilitated by ***resources*** such as learning plans, e-mail and check-ins, as well as educational workshops. Learning plans were documents provided by the organization to help organize and clearly articulate the learning objectives of the new graduate as well as planned approach for achievement. Workshops were corporate in-house education sessions offered to staff to assist with knowledge and skill development. A new graduate described the resources as a support in negotiating the beginning of the mentoring relationship. *"That sheet [question sheet provided by the Nursing Professional Practice Department] that we had at the beginning of the [NGG program] was also helpful just to…think of what my expectations were…and then have them…write down their own expectations"* (NG6). A mentor explained the resources received as, *"I got e-mail, I got follow up and I got the form [question sheet provided by the Nursing Professional Practice Department]"* (M11).

The pairing process was also facilitated by taking ***breaks together.*** Finding time to talk about topics other than work was expressed as crucial to connecting on a personal level by many participants. Taking breaks together, specifically in the staff break room was important in making new graduates feel part of the team. *"We would take the same breakfast and lunch break…as students you aren't allowed to eat in the staffrooms but as a new graduate you are and you eat with your mentor and whoever else is on break. So I feel like that's kind of the big time when you're also kind of part of the team"* (NG7). Finding time to connect on a personal level helped build trust and confidence in each as well. *"You try to take your lunch break with them a sit down and learn a little bit about them so be a little more personable…once you become friends you become confident in each other, you know"* (M12).

Pairing was facilitated when the new graduates' ***consolidation or final placement*** was on

the unit where they were hired. Nurse leaders would use their knowledge of the new graduates to identify the most appropriate mentor pairing. One nurse leader stated, *"If we have someone…we know is strong from consolidation I wouldn't be super worried if they were paired with a nurse who doesn't have the strongest mentorship abilities. I would put them with a new mentor where the student could…help them improve their skills as a mentor"* (NL2) Another explained, *"We never put the new grad back with who they had in consolidation…we would say what pieces do they need to work on…and then we would find the strengths in that next…mentor"* (NL3).

3.4.5.2 Barriers. The organizational influences that were identified as barriers to the pairing process included schedule and workload management, failing the NCLEX-RN© and the dynamics of the unit.

Participants identified that ***the work schedule and workload management*** was a barrier that interfered with the pairing process. When mentors took vacation or switched shifts with colleagues it interrupted the connection between the mentor and mentee, flow of learning, and continuity of feedback provided to the new nurse. One new graduate expressed, *"The days where she was off I was paired with somebody else…I didn't have the continuity of feedback and mentorship"* (NG5). Assignment of workload posed a similar barrier as a larger workload prevented the ability to work side by side and limited the pairing and mentorship. A mentor described the situation as being, *"Any time…somebody is paired with a new grad often time when the person's making the assignment they go oh there's 2 of them so they can handle a little more, which is…absolutely unfair to the new grad…so it often ends up being just [a] 50/50 partnership and I don't think that builds confidence for the mentee."* (M10).

Failing the NCLEX-RN©. If a new graduate was unsuccessful in their entry to practice registration exam (NCLEX-RN©) they were no longer able to practice which resulted in a

temporary pause in their mentoring relationship. If they were ultimately unsuccessful in passing the exam after two attempts, their position and therefore mentoring experience was terminated. One mentor described the impact of the NCLEX-RN© on their mentee and mentoring relationship as, *"They started [then] they didn't pass so they had to go away because they weren't allowed to work without a license"* (M12). This impacted the pairings as many new graduates were paired with a new mentor upon their return.

The ***dynamics of the unit*** was a barrier to the pairing process and evolving relationship between the new grad and mentor. Both new graduates and mentors were impacted by the dynamics of the unit, such as major changes in the environment, changes in staff, as well as units with younger or less experienced staff influenced their pairing experience. A new graduate shared an experience where mentorship pairings were separated, *"We were going through a lot of change so not only was it a stressful time for me it was a stressful time for all the nurses…They moved the schedules around as well when they split…so people that they usually worked with weren't on their same line so that was stressful"* (NG12). A mentor shared how young the staff on the unit was and the resulting expectation in terms of becoming a mentor early in their career. *"We have a lot of young nurses so I am [number] in seniority on my unit and I've only been there for 4 years"* (M1).

3.4.6 Review of interview results by nurse leaders. Nurse leaders reviewed the thematic summary of findings from new graduate and mentor interviews. Reviewing the results led to a surprising realization for many nurse leaders in that the pairing process is not transparent to those being paired. Several stated they would change their practice in the future to ensure those involved in mentorship were fully aware of any process used in pairing new graduates and mentors.

3.5 Discussion

This study explored mentorship pairing practices specific to new graduate nurses. New nursing graduates, mentors and nurse leaders discussed the current approaches to pairing, their experiences with the processes, organizational influences as well as preferred methods of pairing processes presented. Themes such as a lack of awareness of the pairing process used, making an initial connection, organizational facilitators and barriers as well as preferred pairing processes were highlighted. A review of these themes has led to the following three discussion points: a lack of awareness and involvement in the pairing process by participants, lack of preparing for initial contact, preferred pairing processes.

First, while nurse leaders articulated their individual processes used in pairing new graduates and mentors, those being paired revealed a lack of awareness and involvement in the process. Third party pairing was widely utilized with no participation by new graduates and mentors. While other professional groups, such as medicine and education, have advanced in this area by acknowledging and publishing work on pairing processes as part of mentorship programs, nursing is just beginning to research pairing processes that would fit best within the context of its profession (Caine, Schartzman, & Kunac, 2017; Kirresh et al., 2011; McNabney, Fedarko, & Durso, 2010; Soklaridis, Lopez, Charach, Broad, Teshima, & Fefergrad, 2015).

Although best practices in pairing have yet to be concretely determined in any profession, there is emerging support in professions outside of nursing for alternatives to third party or random pairing; noting random assignment impedes the development of mentoring relationships (Soklaridis et al., 2015). Approaches such as questionnaires focused on personality traits have been recommended for medical surgical residents (Kirresh et al., 2011). Further, a “speed dating” approach, or a process where each fellow and faculty has a short time with each other to

ask pointed questions of each other and determine whether they feel they would connect well, was used to introduce geriatric medicine and gerontology fellows and faculty to form mentoring relationships (McNabney, Fedarko, & Durso, 2010) as well as with surgical residents with success as demonstrated by satisfaction scores (Caine et al., 2017). Of the 28 attendees of the event who responded to the survey, 82% were satisfied or very satisfied with the event itself with 85% stating they were satisfied or very satisfied with the resulting pairing. Whereas 62% of those who did not attend and had assigned pairings expressed they were neutral dissatisfied or very dissatisfied with their pairings (Caine et al., 2017). This approach allows both the potential mentor and mentee to evaluate and select the person with whom they believe is best suited to develop a mentoring relationship. In both instances, surveys were used to evaluate the pairing process with participants expressing satisfaction with the process itself and the subsequent pairing (Caine et al., 2017; McNabey et al., 2010). Authors of both studies recommended further research to determine the long term efficacy of the "speed dating" pairing process on outcomes of the mentoring relationships (Caine et al., 2017; McNabey et al., 2010).

Second, both new nursing graduates and mentors described their first meeting as taking place on their first shift. Emails and texts were sometimes exchanged in the week prior to arrange a place to meet on the unit. Previous research on nursing mentorship programs focus on the content, activities and outcomes, and do not provide information on the first contact between new graduates and mentors (Bellefontaine & Eden, 2012; Morphet, Kent, Plummer, & Considine, 2016; Nadler-Moodie & Loucks, 2011; Spector et al., 2015; Rush et al., 2013). Dedicated time for mentees and mentors to connect has been demonstrated in recent nursing research to be an important aspect to negotiating the mentoring relationship (Abudullah, Higuchi, Ploeg, & Stacey, 2018; Caine et al., 2017). This protected time is used to determine learning

needs and teaching styles, and for mentoring itself (Abdullah et al., 2018; Caine et al., 2017). All participants in the current study noted mentors and new graduates made an initial connection and developed a bond by taking breaks together and while working nights. This time was spent getting to know each other and discussing topics unrelated to work. Although participants did not mention negotiating their learning relationship during their break times, the resulting connection between the mentor and new graduate allowed for the building of trust making working together easier. Many used social media platforms, such as Facebook or Instagram, to initiate and maintain a connection throughout the NGG program outside of work hours and still use these tools to continue their relationship today. Recommendations of other studies have included the use of an online platform to facilitate applications to the mentorship program and encourage the use of electronic communication such as email between new graduates and mentors to maintain connection throughout the mentoring relationship (Bellefontaine & Eden, 2012).

Although first meetings between new graduates and mentors are reflected in the literature, the timing and experience of making an initial meaningful connection are not, and is a unique contribution of this study. Understanding the concept of building a lasting connection is a defining attribute of mentorship this initial connection may be a facilitator to the commencement of the mentoring relationship (Healy et al., 2012; Huybrecht et al., 2011; Stewart & Krueger, 1996). Although in this study resources were provided to facilitate in initial conversation regarding learning needs and styles, no designated time or space was provided to the new graduates and mentors to facilitate this conversation to occur; this contradicts previous studies (Abdullah et al., 2018; Caine et al., 2017). The participants in this study highlighted that working night shifts together assisted with socialization as the workflow offers the opportunity to connect that is lacking on other shifts. In a recent study, surgical residents surveyed rated protected time

for mentoring as an important or very important characteristic of mentorship by 31 of 36 or 86% of respondents (Caine et al., 2017). As such, dedicated time prior to the first shift worked to be introduced to each other, discuss approaches to learning and teaching, as well as formulate learning objectives may assist in decreasing anxiety related to the unknown of the first day and may help prevent future communication issues between the mentor and the new graduate.

Third, participants suggested a number of ideal pairing processes, such as the use of interviews, meet and greets, and understanding personalities. Lalonde and McGillis Hall's (2017) correlational study with new graduates and mentors who participated in the NGG measured mentor personality and new graduate nurse socialization outcomes. These authors reported that the mentor personality traits of openness, conscientiousness and emotional stability were positively correlated with new graduate job dissatisfaction and role conflict, turnover intent and role ambiguity respectively. These authors also reported that the differences in personalities between those who volunteer to be mentors versus those who do not is not currently understood (Lalonde & McGillis Hall, 2017). Furthermore, future research was recommended to determine optimal personality traits for new graduate and mentor pairings (Lalonde & McGillis Hall, 2017). While the suggested ideal pairing processes were varied, most participants in this current study recognized that personality was an important element to consider when pairing. Whether being paired by a third party or by self-selection, the concept of "clicking" or "meshing" with one another was mentioned by all participants. Results of a qualitative study revealed that the development of mutual respect and collaboration within a mentor and mentee relationship was supported by their sharing similar values and goals for the relationship (Abdullah et al., 2018). Self-selection has been demonstrated to be an important characteristic of mentorship with studies indicating participant involvement in the pairing process creates satisfaction with the process and

resulting relationships (Caine et al., 2017; Healy et al., 2012). Further research is needed to determine the efficacy of outcomes of these pairings as little evidence is currently available in the literature.

3.5.1 Strengths and Limitations. To improve credibility of the findings (Lincoln & Guba, 1985; Thorne, Kirkham, O'Flynn-Magee, 2004), data was collected from a variety of stakeholders who were able to provide various perspectives on the pairing process, the findings were audited by two other members of the research team, and the lead researcher transparently positioned herself within the study. Another strength was triangulating the findings across the three participant groups. To increase overall trustworthiness, nurse leaders were given the chance to review a summary of the findings from new graduates and also from mentors. Review of new graduate and mentor interview findings by nurse leaders lent to transferability and confirmability of findings presented (Lincoln & Guba, 1985).

3.6 Conclusion

This study was conducted to explore mentorship pairing practices specific to nursing and focused on new graduate nurses in the provincially funded NGG program. Although nurse leaders articulated their individual processes used in pairing new graduates and mentors, those being paired lacked awareness of the process and were not involved. The typical process used was pairing by a third party. Neither new nursing graduates nor mentors had preparation for mentorship in advance of their initial contact which usually took place on their first shift together. Ideal pairing processes were suggested by participants and included the use of interviews, meet and greets, and speed dating to facilitate pairing by self-selection or by a third party. There is a need to increase transparency and awareness of the current pairing practices to increase trust and confidence of staff involved. This may open a dialogue that will reveal and

encourage new and creative methods of pairing not yet explored. Pairing processes such as speed dating have been used in medicine with initial success; however, further research is required to determine a best practice in terms of mentorship pairing processes and subsequent outcomes. Evidence of pairing processes and their impact on resulting relationships are needed in order to contribute to organizational arguments for required investment in resources, financial and otherwise to ensure the desired outcomes of new nursing graduate mentorship programs.

3.7 Relevance to Clinical Practice

The findings from this study contribute to the current state of knowledge related to mentorship pairing processes including suggested pairing processes by new nursing graduates, mentors and nurse leaders. Results of this study could be used to inform future mentorship pairing practices specific to nursing and areas for further research. Specifically, nurse leaders may use the results of this study to reflect on their current mentorship pairing practices and ensure those entering into mentoring relationships are aware, if not involved, in the pairing process. New graduates and experienced nurses could use the results to initiate conversations with colleagues and nurse leaders regarding pairing processes to initiate positive changes in practice. While nurse researchers could use the results to inform future research studies related to nursing mentorship pairing processes.

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CHAPTER 4:

Mentorship pairing processes for new nursing graduates: A systematic review

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Abstract (No headings as per Journal formatting)

Mentorship is commonly used to assist new nursing graduates' transition into practice. Effective processes for pairing new graduates with experienced nurses in mentoring relationships is unknown. The overall aim of this review was to determine the effect of the mentorship pairing processes on the mentor/new nursing graduate relationship and outcomes at the level of the new nursing graduate, mentor and organization. Eligible studies evaluated the mentorship pairing processes for new nursing graduates with experienced nurses in a healthcare setting. Peer reviewed experimental studies including randomized and non-randomized controlled trials, controlled before-after studies, and interrupted time series studies were included in this review with no restrictions on languages or publication date. Databases searched were Medline (Ovid), PubMed (NLM), CINAHL (EBSCO), Nursing and Allied Health (ProQuest), Embase (Ovid), and PsycINFO (Ovid). Two investigators screened all citation titles and abstracts. Full text screening of 177 citations yielded no eligible studies. Although the pairing process is considered essential for successful mentoring relationships, no studies have evaluated the process of pairing new graduate nurses with experienced nurses.

Keywords: mentorship; new graduate; nursing; pairing process

4.1 Background

Mentorship is a common strategy employed by healthcare organizations to assist with career development and challenges associated with socialization of new hires (Egan and Song, 2008). In fact, poor socialization is the most cited reason for the 26-57% turnover rate of new nursing graduates within their first two years of practice (Duchscher & Cowin, 2006; Graham, Hall, & Sigurdson, 2008; Hillman & Foster, 2011; Smith, 2008; Zhang, Huang, Xu, Xu, Feng, & Jin, 2006). Although much has been written on the implementation and outcomes of mentorship transition programs, little is known about the effectiveness of processes used to pair new nursing graduates and experienced nurses entering into mentoring relationships.

Mentorship is frequently confused with preceptorship (Campbell, 2009; Yonge, Myrick, Ferguson, & Luhanga, 2012). Preceptorship is a relationship built between two people usually involving a student assigned to an experienced professional for the purpose of transferring knowledge and skills from the experienced professional to the student (Brink, 1989; Carlson, 2013; Stewart & Krueger, 1996). Conversely, mentorship is a mutually beneficial shared relationship that takes place over time between a mentor and protégé involving emotional support, socialization, as well as mutual learning (Straus, Chatur, & Taylor, 2009). The length of time spent in a preceptoring relationship is relatively short, whereas a mentoring relationship has no defined end and can last for months, years, or a lifetime (Carlson, 2013; Huybrecht, Loeckx, Quaeyhaegens, De Tobel, & Mistiaen, 2011; Stewart & Krueger, 1996). Mentors will often use their influence to assist in progressing the career of the protégé and will encounter career benefits from their participation in the relationship (Straus et al., 2009). Two attributes that help define mentorship from preceptorship are professional socialization and an element of self-selection in the pairing process (Huybrecht et al., 2011).

The overall aim of this review was to determine the effect of mentorship pairing processes on the mentoring relationship and outcomes at the level of the new nursing graduate, mentor and organization. Specific research questions were: 1) What are the effects of pairing processes on the mentoring relationship?, 2) What are the characteristics of the relationships that result from pairing methods?, 3) How are the pairing processes measured?, 4) What are the effects of pairing processes on the new nursing graduate?, 5) What are the effects of pairing processes on the experienced nurse mentor?, and 6) What are the effects of pairing processes on the organization?

4.2 Methods

4.2.1 Design

A systematic review was conducted using the Joanna Briggs Institute methodology for systematic reviews of effectiveness and reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (Godfrey & Harrison, 2015; Moher, 2015). It was registered a priori with PROSPERO (CRD42018090964).

4.2.1.1 Inclusion criteria. The inclusion and exclusion criteria are described in Table 4.1 and outlined as follows:

Participants were new nursing graduates and experienced nurses with whom they were paired for the purposes of mentorship. New nursing graduates were defined as registered nurses within their first year of practice. Experienced nurses were defined as registered nurses with more than one year of experience. Studies involving a student and experienced nurse were excluded.

Intervention was the pairing processes for the purpose of developing mentoring relationships.

Comparator(s) included any comparator.

Outcomes were any that were reported by the eligible studies. For example outcomes focused on the new graduate/mentor relationship (strength, quality, length, mutual learning), new nursing graduate (socialization, job satisfaction, career development, increase in confidence), mentor (job satisfaction, career development), and organization (turnover and retention rates, financial impact).

Types of studies included peer reviewed experimental studies such as randomized and non-randomized controlled trials, controlled before-after studies, and interrupted time series studies. Excluded studies were non-experimental including cohort, case-control, correlation, survey, and qualitative studies. Opinion papers, theses and studies focused on relationships other than mentorship were also excluded. There were no restrictions for language or date of publication.

4.2.2 Search strategy

The search strategy was developed in collaboration with an academic librarian (MB). A comprehensive search strategy was designed by analyzing the text words found within the title and abstract, as well as the index terms used to denote mentorship pairing processes. This informed the development of a full search strategy for Medline which was subsequently tailored to each database (Appendix H). A full search of all databases was conducted on March 13, 2018.

4.2.3 Information sources

Databases searched were: Medline (Ovid), PubMed (NLM), CINAHL (EBSCO), Nursing and Allied Health (ProQuest), Embase (Ovid), and PsycINFO (Ovid) from their initiation to March 13, 2018.

4.2.4 Study selection

All citations identified in the search were uploaded into Covidence (Veritas Health Innovation Ltd ABN 41 600 366 274). Duplicates were removed prior to the screening of titles and abstracts by two independent reviewers (RDB, MC, RB, AH). Full texts of the citations included or unsure after titles and abstracts screening were retrieved and screened. Disagreements between reviewers were resolved through discussion between reviewers and disagreement about eligibility of studies was discussed with senior authors (DS, ML).

Table 4.1 Inclusion and Exclusion Criteria

	Inclusion criteria	**Exclusion criteria**
1. Study design	• Randomized controlled trials; • Non-randomised controlled trials; • Controlled before-after studies; • Interrupted time series and repeated measures studies.	• Opinion papers, editorials, theses, dissertations; • Non-experimental including cohort, case-control, correlation, survey, and qualitative studies.
2. Population	• New nursing graduates (with less than one year of experience); • Experienced nurses (with more than one year of experience) who are mentors	• Nursing students, youth; • Experienced nurses who are not mentors or are mentors for new hires who are experienced nurses
3. Intervention	• Approaches to pairing or matching for the purposes of mentorship	• Approaches to pairing or matching for the purposes of building relationships other than mentorship such as preceptorship
4. Comparator	• Any comparator	• None
5. Outcomes	• Any outcome including: a. Relationship: development and maintenance of the relationship b. New Grad: job satisfaction, career development, increase in confidence c. Mentor: job satisfaction, career development d. Organization: Approaches to pairing or matching for the purposes of mentorship, turnover and retention rates, financial impact	
6. Date range	• Not limited	• None
7. Publication language	• Any language (that can be translated to English)	• None

4.3 Results

We identified 2583 citations with 1421 remaining after duplicates were removed. After title and abstract screening 177 citations remained for full text screening. No studies met the inclusion criteria. The 177 full texts were excluded for four main reasons: no mention of a pairing process (88), wrong study design (72), wrong population (12) or wrong intervention (5) (Figure 4.1, Appendix I).

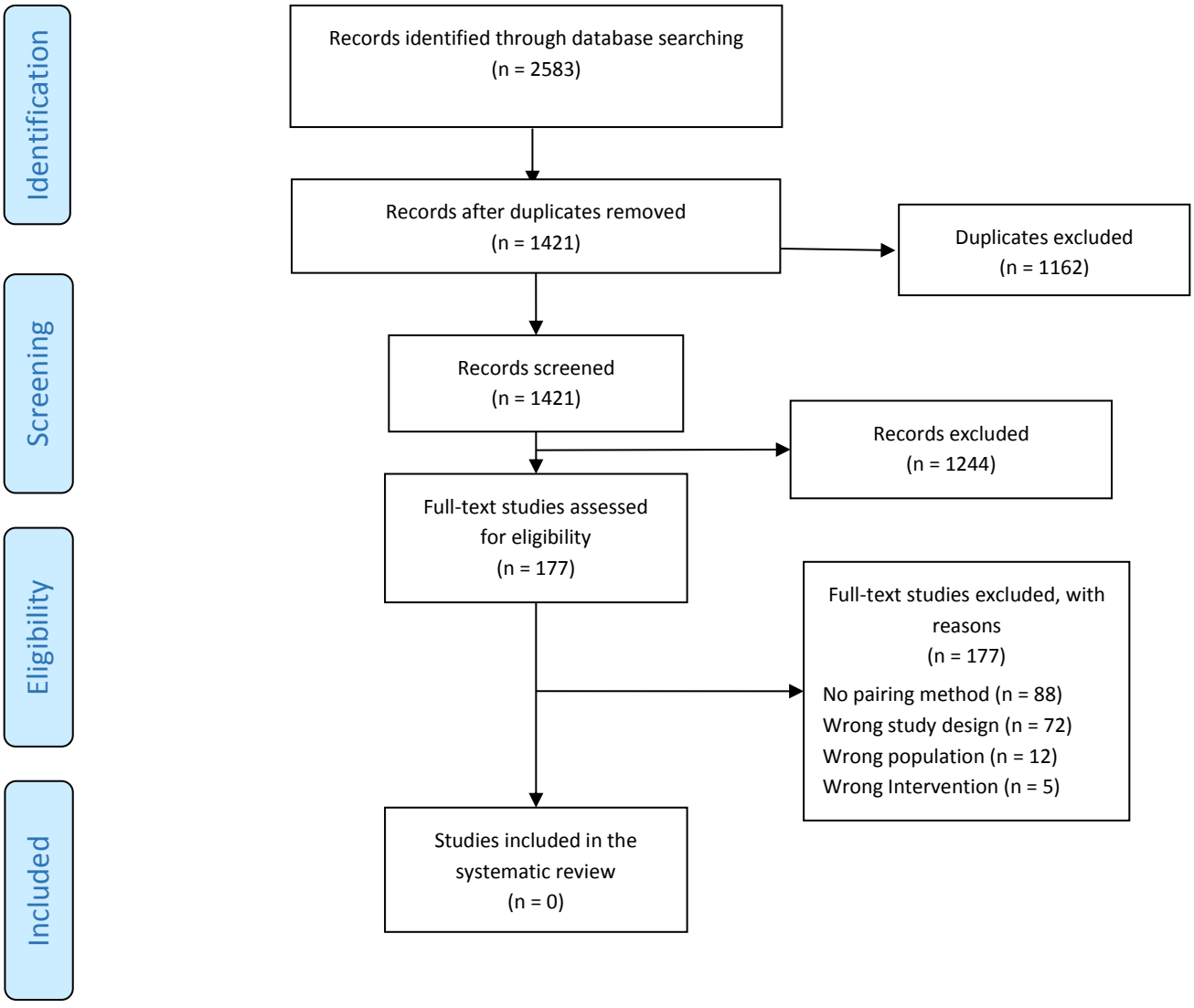

Figure 4.1: PRISMA flow diagram. PROSPERO (CRD42018090964)

Of the 177 full texts excluded, six were excluded for the wrong intervention. The interventions of focus in these texts were preceptoring and mentoring program content development and evaluation (n=3 studies) (Condrey 2015; Finn, Fensom, Chesser-Smyth, 2010; Wilkinson, Forbes, Bloomfield, & Gee, 2004) and the testing of instruments (n=2 studies) (Bradley et al., 2015; Long, Mitchell, Young, & Rickard, 2014). Three texts were excluded that closely matched the inclusion criteria. These studies described pairing new nursing graduates and mentors in hospital settings; however, the processes themselves were not evaluated (Beecroft, Dorey, & Wenten, 2008; Grindel & Hagerstrom, 2009; Jones, 2017). Pairing by a third party was the primary process used in all three studies (Beecroft et al., 2008; Grindel & Hagerstrom, 2009; Jones, 2017).

4.4 Discussion

Although there are several citations about the implementation and evaluation of mentoring programs for new graduate nurses, none evaluated the process of pairing. Six studies that were excluded due to the wrong intervention highlighted the confusion between the terms preceptorship and mentorship (Condrey, 2015; Finn et al., 2010). When mentorship pairing processes were described in the nursing literature they spoke of pairing by a third party. The pairing processes were not the main focus of any study and as a result the descriptions of processes mentioned lacked depth (Beecroft et al., 2008; Grindel & Hagerstrom, 2009; Jones, 2017). Third party approach to pairing is also described by other professional groups such as medicine, business, and education (Forret and Tubban, 1996; Nowell et al., 2017; Soklaridis et al., 2015). However, medicine, business and education use other pairing processes not mentioned in the nursing literature such as self-section, speed mentoring and the use of technology to facilitate self-selection of mentors and mentees (Allen, Eby, & Lentz, 2006;

McNabney, Fedarko, & Durso, 2010; Soklaridis et al., 2015). Evaluation of these approaches indicated that those who participated in the pairing process had greater satisfaction with the process and the resulting mentoring relationship (Caine, Schwartzman, & Kunac, 2017).

The dearth of nursing specific literature on mentorship pairing processes is of concern for two main reasons. First, there is a high turnover rate for new nursing graduates and poor socialization is the main reason new nursing graduates leave their first position, organization or the profession entirely (Duchscher & Cowin, 2006; Graham et al., 2008; Hillman & Foster, 2011; Smith, 2008; Zucker, et al., 2006). Socialization is a key element of mentorship that promotes new graduate integration into the practice environment. On the surface mentorship provides this support; however, without the two people achieving a relationship that 'clicks' or 'meshes', the success of the initiative is left to chance (Germain, 2011). Furthermore, achieving successful new nursing graduates' mentoring relationships with experienced nurses has the potential to reduce nursing turnover, improve satisfaction of nurses and patients (Graham et al., 2008; Smith, 2008; Thompson, 2013).

Second, is the concern regarding the anticipated turnover in nursing leadership who are largely responsible for pairing new graduates with mentors (Beecroft et al., 2008; Grindel & Hagerstrom, 2009; Pederson et al, 2018). When experienced managers and educators leave their positions, the innate knowledge of the current pairing processes they possess typically leave with them (Pederson et al., 2018). With limited knowledge of the staff they will oversee, a mentorship pairing process based in evidence would be a valuable asset.

4.5 Conclusions

A paucity of literature exists regarding mentorship pairing processes in nursing. This

systematic review demonstrated no studies have evaluated the process used to pair new graduate nurses with experienced nurses. Considering effective pairing processes used in other professional groups such as medicine and business may be beneficial and would enable those involved in the implementation of mentorship programs to thoughtfully prepare those engaging in these relationships. Specific attention should be paid to the pairing processes that have a positive impact on socialization as guidelines for best practice in this area would have the greatest potential impact on turnover and the domino effect on finances, staff morale, and patient satisfaction. Determining effective mentorship pairing processes will assist organizations address the challenges upon which the implementation of these programs are attempting to have a positive impact. Given the resource intense investment into these programs, it behooves us to provide them the best opportunity for success.

Acknowledgements

We would like to acknowledge the contribution and support received the Queen's Collaboration for Health Care Quality: JBI Centre of Excellence through which the primary author completed the JBI Comprehensive Systematic Review training workshop. We would also like to thank Mish Boutet, academic librarian, University of Ottawa for his contribution to the development of the search strategy. This review was completed as part of Robin Devey Burry's doctoral studies. Dawn Stacey holds a university research chair in Knowledge Translation to Patients.

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CHAPTER 5:

Integrated Discussion

The purpose of this chapter is to integrate the findings from the three papers presented in this dissertation with the broader literature and to discuss implications for nursing. First, I present a summary of the results of the quality improvement project (Chapter 2), interpretive descriptive study (Chapter 3), and systematic review (Chapter 4). Then, I provide an integrated discussion on the pairing processes used to bring together new nursing graduates and experienced nurses for the purpose of mentorship. These findings are also discussed in view of an emerging integrated conceptual framework on new graduate nurse mentorship. Finally, I discuss the implications for nursing practice at the level of the organization, unit, individual and research.

5.1 Review of Findings

First, I conducted a quality improvement project focused on the Ministry of Health and Long Term Care (MoHLTC) funded New Graduate Guarantee (NGG) program implemented at a large academic teaching hospital in Ontario (Chapter 2). The purpose of the project was to describe the characteristics and impact of the NGG program on new nursing graduates and suggest ways to improve monitoring of future mentorship programs. I used a retrospective, longitudinal, descriptive quality improvement project with administrative data from two different databases (New Graduate Guarantee, Human Resources Information System). Over a four year period (2013 to 2017), there were 579 new graduate nurses who were hired and participated in the NGG program at this hospital and 66 direct hires. There was no reporting on pairing processes used. Results indicated new graduates who participated in the NGG program were more likely to obtain full-time employment than those who were hired directly into operational vacancies. Within two years, some (N=21) new graduates became mentors and only three transitioned into formal leadership positions (Chapter 2). The main suggestions included ensuring administrative data collected includes information on the pairing process and other

measures specific to mentorship, its attributes and expected outcomes, as well as the development of tools to enable evaluation (Chapter 2).

Next, I conducted an interpretive descriptive study of new graduate nurses and mentors at the same large academic hospital (Chapter 3). The purpose was to explore mentorship pairing practices occurring between new graduate nurses and more experienced nurses in a mentoring role within a tertiary care hospital. Interviews were conducted with 13 new nursing graduates, 12 mentors and 6 clinical leaders who participated in the NGG. Inductively derived themes included: a lack of awareness of pairing processes, a lack of preparation and contact pre-pairing, and the importance of personalities related to pairing. Rather than pairing by a third party, new graduates, mentors and nurse leaders suggested a self-selection process for pairing. If pairing by a third party was the only option available, the use of interviews to acquire a sense of the individual personalities to aid in matching was proposed. Other findings included: first meetings often took place on their first worked shift. Socialization and time to connect, negotiate and form relationships frequently took place on night shifts as dedicated time or space was unavailable to support this activity. Maintenance of this connection outside of work was facilitated through social media platforms and electronic forms of communication such as texting and email.

Finally, I conducted a systematic review to determine effective pairing processes for new nursing graduates forming mentoring relationships with experienced nurses (Chapter 4). Of the 2583 citations identified in 6 databases (Medline (Ovid), PubMed (NLM), CINAHL (EBSCO), Nursing and Allied Health (ProQuest), Embase (Ovid), and PsycINFO (Ovid)), no peer-reviewed publications evaluated nursing mentorship pairing processes. Discussion points included the lack of awareness and evidence of mentorship pairing processes, pairing processes used by other professional groups, and suggestions for future practice and research.

5.2 Discussion

I have identified four key points for this integrated discussion: 1) the lack of awareness and evidence of effectiveness of nursing mentorship pairing processes; 2) the importance of pairing in socialization and mentorship; 3) the use of personality in the pairing process; and 4) the lack of data collected to measure attributes and outcomes specific to pairing and mentorship. These results will also be used to inform an emerging new graduate transition and mentorship model.

5.2.1 Lack of awareness and evidence of mentorship pairing processes. Despite the NGG program having been in place since 2007, best practices for mentorship pairing processes have yet to be determined. The success of mentorship is strongly dependent on the type of relationship built (or not). A lack of knowledge of pairing processes used to match new graduates and mentors in the qualitative study (Chapter 3) reflected the results of the systematic review (Chapter 4). The interviews conducted with new nursing graduates and mentors openly described their lack of awareness of any process used to bring them together to form mentoring relationships (Chapter 3). In addition, the administrative databases at the hospital did not track pairing processes used nor assessed the resulting relationships (Chapter 2). Several leaders interviewed realized their approach lacked the element of self-selection as well as transparency in the third-party pairing processes used. In light of this realization, leaders voiced they would share and explain their pairing process with those involved in the mentoring relationship in the future. However, nurse leaders did not state whether they would alter their pairing process to include self-selection (Chapter 3).

For some participants in the qualitative study, this third-party pairing worked well and for others it was problematic in terms of the resulting connection or lack thereof between the mentor

and the mentee (Chapter 3). Third-party pairing is not ideal as the mentoring relationship is based in part on the mutual attraction, chemistry and trust between the mentee and mentor (Kinsey, 1990). As one of the primary organizational goals of implementing mentorship programs is decreasing turnover, healthcare institutions may want to better understand the influence of pairing and the resulting relationship on the socialization of new graduates (Weng, Huang, Tsai, Chang, Lin & Lee, 2010).

Other professional groups, such as business and medicine, suggest self-selection processes for mentorship (Caine, Schwartzman, & Kunac, 2017). For example, 'speed mentoring' has been used to give prospective mentors and mentees an opportunity to interact and ask each other questions to self-determine quality of fit. However, little research has been conducted to inform this approach for pairing (Caine et al., 2017). When asked what pairing processes they would recommend as ideal, mentees, mentors and nurse leaders in this current study suggested processes that included participants' input or outright self-selection (Chapter 3). The literature indicates that self-selection and socialization as key attributes of mentorship (Huybrecht, Loeckx, Quaeyhaegens, De Tobel, & Mistiaen, 2011; Chapter 1). Given self-selection was not present in the pairing process (Chapter 3), and socialization was not measured, it is unclear if the resulting relationships were mentorship.

5.2.2 Mentorship, pairing and socialization. Socialization is a key characteristic of mentorship that helps to define it from other types of learning relationships (Huybrecht et al., 2011). However, it is often overlooked as an indicator of success of mentorship programs (Chapter 2; Huybrecht et al., 2011). A feeling that they "fit in" is often what keeps a new graduate in their position, organization and profession. A lack of socialization is the biggest contributor to high new nursing graduate turnover rates (Duchscher & Cowin, 2006; Graham,

Hall, & Sigurdson, 2008; Hillman & Foster, 2011; Smith, 2008; Zucker et al., 2006). Participants of the interpretive descriptive study indicated having a social connection with the mentor with whom they are paired and by association, their new team (Chapter 3). Participants described this connection as leading to increased trust and realized work efficiencies. Building a connection with their mentor assisted them in times of doubt when they were lacking self-confidence. Mentors were described as bolstering them to continue on their professional journey when they felt they lacked the ability to do so (Chapter 3). These subtle social interactions that take place within, but often times outside, the workplace frequently go unnoticed and unevaluated; none of the databases tracking relevant outcomes to the NGG included socialization (Chapter 2). Successful pairing and resulting socialization may help decrease the anxiety new graduates feel when they first enter practice and allow them to feel they are part of the team (Duchscher & Cowin, 2006; Graham et al., 2008; Hillman & Foster, 2011; Smith, 2008; Zucker et al., 2006). This positive transitional experience, and exposure to effective mentorship and role modelling, may lead them to become mentors themselves; 3% (N=18/579) of NGGNs and 5% (N=3/66) of NGDHs became mentors (Chapter 2; Eby & McManus, 2004). However, when there is a disconnection between the new graduate and mentor, this can result in mutual mistrust, a lack of new graduate self-confidence, and the new graduate may consider leaving their position or organization (Chapter 3; Duchscher & Cowin, 2006). Using a self-selection pairing process may decrease the burden on those mentors who are repeatedly asked to fill that role and increase the capacity of the staff on the unit and organization for mentorship thus raising the practice bar for all (Laschinger, Grau, Finegan & Wilk, 2010; Laschinger, Finegan & Shamian, 2001; Vahey, Aiken, Sloane, Clarke & Vargas, 2004). Tools are needed to measure and better understand pairing and socialization of new nursing graduates being mentored during their transition to

practice (Chapter 2). This may lead to nursing as a profession to develop its own best practices for mentorship.

5.2.3 Personality and pairing. Personality was mentioned as an important component of pairing by many participants of the interpretive descriptive study (Chapter 3). Personality is defined as a predictable pattern of characteristics or traits and communicated through behaviour (Woods, Anderson, Sayer, & Mustafa, 2018). A correlational study conducted by Lalonde & McGillis Hall (2017) provides some insight into the relationship between personality and pairing. Participants included mentors and new nursing graduates from 38 dyads from five large hospitals who participated in the New Graduate Guarantee program in Ontario, Canada. Participants responded to a questionnaire one month after completing the program and measured four personality traits using Goldberg's (1999) International Personality Item Pool (IPIP) short scale. Results indicated a positive correlation between openness and new graduate job dissatisfaction, preceptor conscientiousness and new graduate turnover intent, and emotional stability of the preceptor and role ambiguity of the new graduate. Although these results appear counterintuitive, authors suggested these results may be related to generational differences in work values and role expectations, as well as new graduates' interpretation of mentors' personality traits as exhibited through their behaviour for example, conscientiousness of the mentor may be interpreted as having high expectations by the new graduate. A study conducted by Meikle et al. (2007) evaluating a mentorship program for junior faculty members lends further support for the importance of personality in mentorship pairing. Findings indicated pairings that were based on personality were related to more positive program evaluations and increased quality of the mentoring relationships, but found generational differences did not have an impact on either of these measures. These combined findings support further research on

personality as it relates to membership pairing and the forming of mentoring relationships.

5.2.4 Lack of data collected related to mentorship attributes and outcomes. Results of this dissertation demonstrate a lack of data collected specific to mentorship processes, attributes and outcomes (Chapter 1 & 2). Instead proxy outcomes, such as turnover, retention, and job satisfaction were often used. As well, professional socialization was not assessed (Chapter 2) and a lack of available tools was noted in the literature that specifically measure socialization (Chapters 1). Most commonly, researchers have focused on measuring organizational socialization through proxy measures, such as job satisfaction (Lalonde & McGillis Hall, 2017) and retention (Newhouse, Hoffman, Suflita, & Hairston, 2007). One study was found that measured professional socialization in nursing students using the Professional Socialization Scale (du Toit, 1995) and focused on the dimensions of personality and values.

5.2.5 New Graduate Transition Mentorship Model. This model is a hybrid of the three models that guided this dissertation and is a unique contribution based on the findings: the Transitions Stages Model (Duchscher, 2008), Kram's (1983) mentorship model, and Burlew's (1991) multiple mentor model. The results of this dissertation indicate the need for a model specific to new graduate transition and mentorship. Specifically, the results of the quality improvement project indicate organizations need to measure mentorship related outcomes. Secondly, the interpretive descriptive study results show a lack of preparation for mentorship, as well as a lack of awareness and transparency of pairing processes. Third, the systematic review revealed a lack of evidence on mentorship pairing processes to guide nursing practice. Therefore, these results informed the need to blend the three frameworks presented in Chapter 1, as well as add two important missing elements, preparation and pairing. The concepts of, ***'preparation'*** and ***'pairing'***, were identified as important components of the new nursing graduate mentorship

during transition experience (Chapter 3) and were unique contributions made to the hybrid model by the work conducted throughout the course of this dissertation. Multiple mentor pairings may be required for each new graduate depending on the characteristics of the mentor and their ability to meet the specific needs of the new graduate during each stage of transition. The model indicates when these pairings would take place if required (Figure 5.1).

In addition to the stages of preparation and pairing, the alteration of terminology used within the model was informed by the results of this work and were not part of the composition of the three original models. Specifically, the term "stages" will replace "phases", the term "skills mentor" will replace "training mentor", the term "professional and organizational socialization mentor" will replace "educational mentor" and "personal and professional growth mentor" will replace "developmental mentor". In this section I will discuss how the findings informed the development of a new hybrid New Graduate Transition Mentorship Model (Figure 5.1).

The purpose of the New Graduate Transition Mentorship Model is to provide an approach to mentorship and its implementation during the stages of new graduate transition. In addition, the model provides linkages between transition stages, stages of mentorship and the most appropriate type of mentor with the stages of each model interrelating and complementing one another thus providing a broader perspective of the combined experience of mentorship during new nursing graduate transition. Several models have described the stages of new graduate nurse transition to practice (Duchscher, 2008; Kramer, 1974), mentorship (Kram, 1983) and mentor characteristics (Burlew, 1991). Each has contributed valuable knowledge to the specific topic upon which they are focused; however, the New Graduate Transition Mentorship model takes a step back to enable a wider perspective to fully view the process and experience of

new graduate transition through mentorship and the most suitable mentor for each stage.

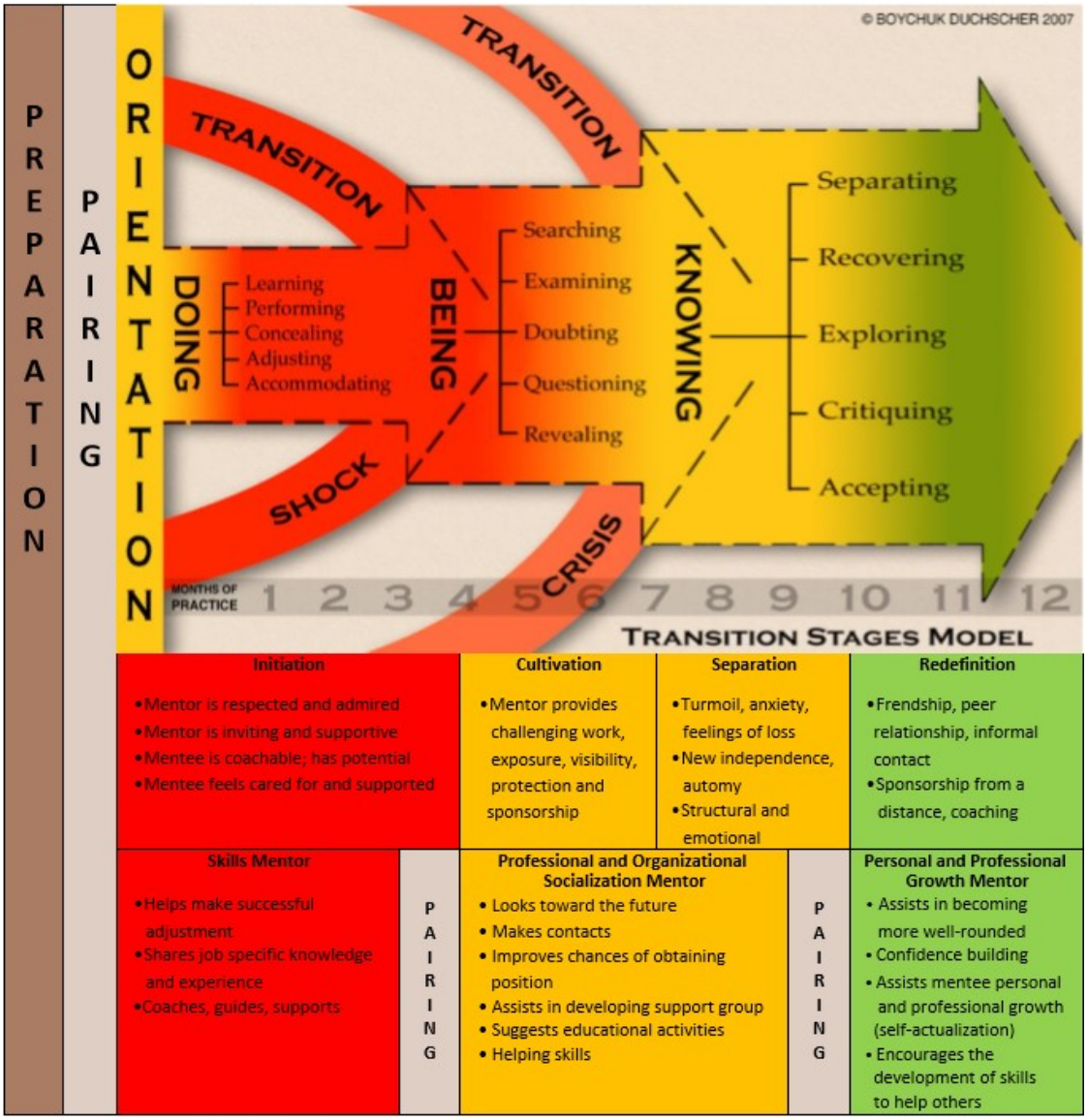

Figure 5.1. New Graduate Transition Mentorship Model

Starting from the left, the model begins with '***preparation'*** which has no timeframe attached to it other than it takes place prior to the start of the mentoring relationship. It is during this time that mentors would be identified, new nursing graduates would be interviewed and hired, and workshops for both future mentors and mentees would be delivered by the

organization. The environment itself would also go through a process of preparing. For example, the chief nursing executive might send a note to all staff letting them know new that nursing graduates are about to enter into the work environment, to set friendly expectations, reminding everyone to be aware and welcome newcomers to the organization and to their teams. Concurrently, on a unit level, clinical managers and educators would prepare their staff for the new hires' arrival, the beginning of mentoring relationships and what roles everyone can play during this time. Educators would also be preparing documents associated with mentorship to be shared with participants and setting up follow-up schedules throughout the time of formal mentorship. The system by which pairing would take place would also be discussed and arranged during this stage.

Once the preparation stage has been completed, the first '***pairing'*** stage begins. It is during this stage that new nursing graduates are paired with an experienced nurse who fulfills the role of ***Skills mentor*** (Figure 5.1). Regardless of the type of pairing process used, the pairing should take place prior to orientation. If a self-selection process is implemented, then it is during this stage the mechanism to make these selections takes place. For example, meet and greets or 'speed mentoring' sessions would be set up and facilitated by nurse leaders (Caine et al., 2017). Once the pairings have been determined, the notification and linking of the mentor and the new graduate would take place and the first meeting would be arranged. Ideally, this first meeting should occur prior to the first worked shift and the pair should have enough time to get to know one another and review the learning objectives (to eventually inform the learning plan) and negotiate expectations. The expectations to be discussed would include topics such as: where and when to give and receive feedback, preferred learning and teaching styles, and frequency and method of communication when not in the work environment. Where government funding is

available for mentorship programs, payment for preparation and 'meet and greets' should be factored into the overall cost of the program. A return on investment in the form of anticipated decreases in turnover-costs related to an increase in socialization could outweigh this investment (Jewell, 2013; Trepanier, Early, Ulrich, & Cherry, 2012). It is important to note that there may be opportunities to introduce new graduates to multiple mentors during the pairing stage in anticipation of the future needs of the new graduate, as well as to determine mentor characteristics for subsequent stages of mentorship. This need will become clearer as each stage of the model is described.

During the stages of ***'preparation'*** and ***'pairing'*** administrative data to be captured would include: the availability, length and content of preparation workshops, method of identification of mentors, lists of individuals who completed the preparation stage and are ready for pairing, the number and contact information of new graduates entering the organization with projected start dates as well as units on which they will be working, and a list of final mentor and new graduate pairing dyads.

Once the primary ***'pairing'*** stage is complete and the relationships have begun to form, new graduates move on to the stage of **'*orientation'*** (Duchscher, 2008). This is when the mandatory corporate orientation occurs. After **'*orientation'***, the stage of ***'doing'*** begins, with new graduates engaging in learning, performing, concealing, adjusting, and accommodating (Duchscher, 2008). Associated with the first stage of new graduate transition, and depicted directly below, is the **'*Initiation stage'*** of the mentoring relationship (Kram, 1983). During this stage, new graduates need to show their mentors that they have potential and they need to demonstrate coachability, while simultaneously feeling cared for and supported by their mentor. Since the new graduate is transitioning through the stage of ***'doing'*** during this time, they need a

mentor that has the characteristics (***'Skills Mentor')*** that will enable their successful adjustment to their new role, shares job specific knowledge and experience, and acts as a coach and guide (Burlew, 1991).

Moving to the right within the model, Transition Shock© delineates the first and second phase of transition. **Transition Shock©** is the peak of the perceived disconnect between what a new graduate was taught in school and what their experience is in their work environment (Duchscher, 2009). It is during this time that the characteristics of the experienced nurse fulfilling the role of the ***'skills mentor'*** are reviewed both through self-assessment and discussion with nurse leaders to determine whether there is a need for a mentor with different characteristics to guide the new graduate through the two next transition stages (***'being'*** and ***'cultivation'***), as they focus more on professional and organizational socialization (Duchscher, 2008; Kram, 1983). If so, a new pairing takes place. If not, the dyad continues on as before.

As new graduates move through the second phase of ***'being'*** to the third of ***'knowing',*** they encounter **Transition Crisis. Transition Crisis** is described as a point of crisis of confidence for new graduates, highlighted by insecurity around their competency, fear of failure and resiliency (Duchscher, 2008). Two phases of mentorship are linked with **Transition Crisis**. During the ***Separation stage,*** new graduates may experience turmoil, anxiety and feelings of loss (Kram, 1983). They also find a new found independence and sense of autonomy. A physical and emotional distance between the new graduate and the mentor may exist during this phase. During this period, new graduates may seek out a '***Personal and Professional Growth mentor'*** whose role would be to help the new graduate build confidence and become more well-rounded encouraging them to develop skills to help others potentially becoming mentors themselves.

Finally, once new graduates move through the stage of ***'knowing'***, they emerge at the

final phase as mentorship begins (Duchscher, 2008; Kram, 1983; Figure 5.1). The '***Redefinition stage'*** is one in which the new graduate and the mentor begin to see each other as peers developing a friendship like relationship with occasional contact and coaching by a distance. Interactions of support and information sharing begin to be more reciprocal over time (Kram, 1983).

The proposed New Graduate Transition Mentorship Model demonstrates the possibility of identifying a number of outcomes that are related to mentorship that could be targeted; a blending of a number of existing tools with the addition of missing ones may be useful. To improve the collection and analysis of data, as well as trending over time, instruments to evaluate pairing processes as well as mentorship and socialization could be administered electronically. Organizational databases tracking the results of this information overtime is recommended as a starting point. However, I envision a broader national or potentially international data collection and warehousing system with access granted to those organizations contributing to the data warehouse. This would facilitate analysis at multiple levels (profession, specialty, organization, country) including high level comparisons between these groupings. In addition, this would allow the production of evidence to enable stronger arguments for required resources and could influence policy; thus allowing organizations and nursing as profession to push the agenda forward regarding support during transition to practice (Popovic, 2017). Management of data through a single source (person, department) at the level of the organization and externally is highly recommended to ensure consistency and frequency of data collected.

5.2 Implications for Nursing Practice

In this section, I will discuss the findings of my dissertation and the overarching implications for nursing practice specifically at the level of the organization, unit, individual, and

research. Implications at each level are further divided into four subcategories: preparation, facilitating pairing processes, supporting mentorship dyads, and evaluation.

5.2.1 Organization. The findings have given rise to multiple suggestions at the level of the organization. First, results have suggested preparation or organizational readiness is imperative in order for mentoring relationships to thrive. It is suggested organizations prepare for mentorship by budgeting for mentoring activities such as the development of and delivery of preparation workshops for by mentors and mentees (Chapter 3). Consistent corporate messaging and communication to staff regarding the arrival of new hires, pairing processes to be used, expectations of the relationship, and supportive roles to be played by the all staff members are also suggested (Chapter 3). Awareness of roles and expectations of all staff would assist in avoiding future conflict and breakdown in communication often seen in mentorship pairings and in teams. These activities would promote a culture supportive of mentorship as environment supportive of transition has been suggested as a method of supporting new graduates' transition to practice (Levett-Jones & FitzGerald, 2005). As other authors have suggested an approach using multiple interventions as more effective in supporting new graduates (Halter et al., 2017), a combination of both a mentorship program and a prepared environment may be worth consideration.

Table 5.1. Implications for Nursing Practice

	Implication(s)
Organization	**Preparation** • Appoint corporate administrative lead to oversee mentorship activities • Ensure funding is available within corporate budget to support mentorship activities • Develop and deliver corporate workshop(s) to prepare experienced nurses to become mentors • Ensure organizational awareness of mentorship activities and expectations **Facilitating Pairing Processes** • Promote transparent and consistent practice in mentorship pairing • Facilitate mentor and new graduate participation in pairing processes **Supporting mentorship dyads** • Follow-up with both mentee and mentors regarding development of mentoring relationship, learning/teaching activities **Evaluation** • Corporate approach to mentorship data collection • Develop and promote corporate approach to data collection
Unit	**Preparation** • Review demographics of the unit • Identify mentors and potential mentors • Facilitate attendance of preparation workshops for those who may be paired • Prepare staff for the arrival of new graduates and launching of mentoring relationships • Prepare for arrival of new graduates, ensure new hires are welcomed **Facilitate Pairing Process** • Arrange for meet and greets for mentors and new graduates • Communicate and create awareness of pairing processes • Take note of mentoring dyads resulting from pairing processes **Supporting Mentorship Dyads** • Ensure appropriate schedules and assignments • Regular follow-ups with individuals and mentorship pairs • Facilitate activities to promote pairing connection, organizational and professional socialization • Facilitate safe processes for changes in pairings when required **Evaluation** • Collection of data specific to mentoring relationship, transition to practice, as well as all new graduates and experienced nurses • Participate in research and/or quality improvement activities related to pairing and mentorship
Research	**Evaluation** • Identify effective mentorship pairing processes • Develop and evaluate psychometric properties for instruments to measure outcomes of mentorship pairing processes as well as mentorship itself. • Provide ongoing feedback from quality assurance monitoring of new nursing graduate and mentor data to make continual improvements. • Develop and manage warehouse for mentorship data collection and use.

Second, findings of both the literature review and qualitative study indicate there is a lack of focus on pairing processes to help form mentoring relationships (Chapter 3 & 4). Organizations could facilitate the development and offering of mentorship forming activities such as meet and greets and speed mentoring events. Awareness of current pairing practices may help to facilitate conversation regarding pairing and stimulate engagement in the process leading to a shift in practice from third party pairing to self-selection (Chapter 3). This shift is expected to have a positive impact on socialization which in turn will have an impact on job satisfaction, patient safety and turnover (Chapter 2 & 3). Available funding to support mentorship activities including a corporate lead to oversee preparation, pairing and socialization as these activities were identified as important to participants of the interpretive descriptive study (Chapter 3) with the literature suggesting this to be a prudent investment and may result in realized savings (Jewell, 2013).

Third, it is suggested organizations support mentoring dyads through a corporate administrative lead appointed to be responsible for the oversight, consistency and evaluation of mentorship activities. These would include the organizing of preparation workshops, facilitation of pairing meet and greets for new graduates and mentors, and data collection on activities and outcomes. These were areas found lacking in the literature, qualitative study and QIP (Chapters 2, 3 & 4). It is suggested leaders should budget funding to support mentorship activities including preparation, pairing and socialization as they were identified as important to participants of the interpretive descriptive study (Chapter 3) with the studies suggesting this to be a strategic investment (Jewell, 2013; Rush, Adamack, Gordon, Lilly, & Janke, 2013; Trepanier et al., 2012).

Finally, it is suggested that organizations participate in the ongoing evaluation and

research activities pertaining to pairing and mentorship. Once pairings have been established, appropriate data collection is of importance. Data specific to attributes and stages of mentorship, mentors and new graduate transition will allow for those involved to evaluate processes, activities and relationships that take place during this time and make adjustments to ensure goals are met. The newly developed model would assist in determining appropriate data to collect as well as the timeframe for data collection (Figure 5.1).

Appropriate data collection and measurement tools are required to determine the impact of current practices and any implemented change. Results suggest an organizationally consistent approach be taken in terms of data collection and analysis. This would include an understanding of the current function and capacity of existing electronic systems such as human resources information systems (HRIS) and the potential to add or modify functions to capture the data required to adequately measure outcomes of interest (Chapter 2 & 3). Participation in such activities would enable continuous improvement to be made and the potential to positively impact the experience of those engaging in mentoring relationships as well as their impact on the organization.

5.2.2 Unit. Results have highlighted further suggestions at the unit level. First, it is suggested managers could prepare both themselves and their units for mentorship by reviewing the demographics of their staff thereby understanding the average years of experience of available mentors and the potential need for multiple pairings if needed (Chapter 2 & 3). This would be helpful in terms of identifying mentors, determining who should attend preparation workshops and timing of pairing activities (Chapter 2 & 3; Figure 5.1).

Second, those involved in developing the workload assignments could support mentorship parings by understanding the stages of transition and mentorship and the expectations

in terms of workload (Chapter 1 & 3). Understanding that the new graduate and mentor should be treated as one person in terms of the workload assignment is imperative in order to ensure there is sufficient time available during the shift for teaching and learning (Chapter 2 & 3; Zhang, Huang, Xu, Xu, Feng, & Jin, 2019). Findings from this dissertation suggest unit level understanding of the mentorship and how to support these relationships will assist with the development of trust, respect, and socialization between new graduates and all members of the team potentially leading to increased retention (Chapter 3; Duchscher & Cowin, 2006; Zhang et al., 2019).

Third, ongoing evaluation activities pertaining to pairing and mentorship are suggested. Specifically, nursing leaders could follow up with mentors and mentees to determine the stage of the relationship, identify potential challenges with the pairing and intervene when necessary. Providing the opportunity to switch pairings without repercussions for either party is recommended by both the literature and the qualitative study results (Chapter 3 & 4).

5.2.3 Individual. Findings have also drawn attention to further suggestions at the level of the individual. First, in order for individuals to be prepared to engage in mentoring relationships, it is suggested both mentors and mentees prepare themselves by attending any preparation workshops or education made available to them within the organization (Chapter 3). Being self-reflective in terms of their motives for entering the relationship and what they wish to gain will assist them to prepare for the pairing process and mentorship. It is suggested mentors' self-reflection would pay particular attention to what knowledge, skills, and experience they currently possess and what type of mentor role they can fulfill (Chapter 2 & 3; Figure 5.1).

Furthermore, it is suggested individuals can support pairing processes and making a connection by being mindful of their schedules. Early communication of any predicted change in

schedule such as a vacation or leave such as maternity leave, is suggested to allow for a plan to be put in place and to prepare both parties for this disruption in the forming relationship (Chapter 3). A clear transfer between mentors with activities to take place while away are suggested as new graduates have shared the experience of having to start all over again in order to demonstrate their skills to a mentor and gain their trust and respect (Chapter 3).

5.2.4 Research. The work of this dissertation has demonstrated a gap in knowledge regarding mentorship pairing processes in general but more specifically, nursing and new graduates during transition to practice. The results of the QIP and the interpretive descriptive study have contributed to the baseline knowledge of current context and practices. However, much work is yet to be done to determine best practices for mentorship pairing processes and monitoring the quality of the mentorship experience. I would suggest conducting two studies. The first would be a multisite randomized controlled trial to answer the question 'What is the most effective mentorship pairing process for new nursing graduates as they transition to practice?' The second study would test the validity of the hybrid model. This would be conducted using interviews and focus groups with stakeholders. Additional research is required to determine not only the best practice in pairing, but to evaluate the resulting relationships. Further work is required to develop and test tools for this purpose. The proposed framework would assist in determining outcomes at the level of the mentee, mentor, relationship and organization. Further additions to this model would include outcomes at the level of the organization. Testing of this model would be a priority and would be a recommended next step in terms of research.

5.3 Conclusion

I used a multi-method approach to examine mentorship pairing processes specific to

nursing new graduates' during transition to practice. In this dissertation, I clearly highlighted the need for: making the mentorship pairing processes more explicit; as well as the creation and validation of tools related to the outcomes of pairing processes and mentorship. Given the limitations of previous new graduate and mentorship models, I propose combining these models to form the New Graduate Mentorship Transition Model as a method of defining and explaining the complexities, stages, characteristics and requirements of mentorship during new nursing graduate transition to practice (Figure 5.1). This dissertation articulated the importance of the role of mentorship during transition to practice and the necessity to launch each relationship successfully. Identifying an effective pairing process could better inform this heavily relied upon intervention and improve the circumstances for individual nurses and organizations helping to advance the profession of nursing through the 21st century.

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Appendices

Appendix A

Glossary of Terms

Conceptual and operational definitions			
Term	Abbreviation	Conceptual Definition	Operational Definition
Career Trajectory	N/A	The pattern of positions held over time, such as movement between units, programs or positions i.e. RN, medicine, RN, ICU, Nurse Educator, ICU).	Career trajectory will be determined by noting the starting position and any leadership positions by title, by year from the HR database. Titles of leadership positions will be summarized by year and in total over five years by participant cohort.
Leadership Positions	N/A	Leadership positions will include: Nurse Educator, Clinical Care Leader, Clinical Manager, Manager, Nurse Specialist, Nurse Liaison, Nurse Researcher, and Clinical Director.	Leadership positions will be determined by titles in the HR database.
Length of time in the NGG	NGG	Length of time in the NGG is defined as the number of weeks spent participating as a new graduate or mentor in the NGG program.	Length of time in the NGG will be determined by the number of participant weeks noted in the NGG database.
Location of Consolidation	N/A	The unit and program and organization where the new graduate completed their final student placement.	Location of consolidation will be determined using the information collected in the NGG database including: consolidated at TOH (yes/no)
New Nursing Graduate	N/A	A nurse who graduated from a school of nursing within the last year. Includes both new graduate guarantee nurses and new graduate direct hire nurses (see terms below).	-
New Graduate Guarantee	NGG	The New Graduate Guarantee is a mentored bridging program for new nursing graduates developed and offered by the Ministry of Health and Long Term Care.	-
New Graduate Guarantee Nurse	NGGN	A nurse who participated in the Ministry of Health and Long Term Care New Graduate Guarantee program as a new graduate. All new graduates who participated in the NGG will be included in the project whether or not they finished the program.	-
New Graduate Direct Hire	NGDH	A nurse who was hired directly into an operational vacancy as a new nursing graduate.	-

Turnover	N/A	Turnover is the proportion of nurses who left the unit, program or organization each year.	Turnover will be calculated by: Number hired (NGGs, NDGHs) – number retained (NGGs, NDGHs) = # terminated Rate of turnover will be calculated by: # terminated over 2 yrs / # hired over 2 yrs
Voluntary termination	N/A	Candidate who choose to resign from their owned position. This may be for reasons such as: relocation to another city, for a position in another organization, or other personal reasons.	Information on voluntary terminations was captured and noted in the NGG excel sheet. This information was shared by the new graduate with the NGG coordinator upon follow-up before exiting the organization.
Involuntary termination	N/A	Candidate is let go from their position and the organization for reasons such as: unsuccessful in obtaining registration, inability to fulfill the role (safety, competency)	Information on involuntary terminations was collected and noted in the NGG excel sheet. Information was shared by managers and / or new graduates with the NGG coordinator prior to /or just after termination.

Appendix B

Ottawa Health Science Network Research Ethics Board/
Conseil d'éthique de la recherche du réseau de science de la santé d'Ottawa

Civic Box 675, 725 Parkdale Avenue, Ottawa, Ontario K1Y 4E9 613-798-5555 extension 16719 Fax : 613-761-4311
http://www.ohri.ca/ohsn-reb

Is your project Research or Quality Improvement? Guideline & Checklist

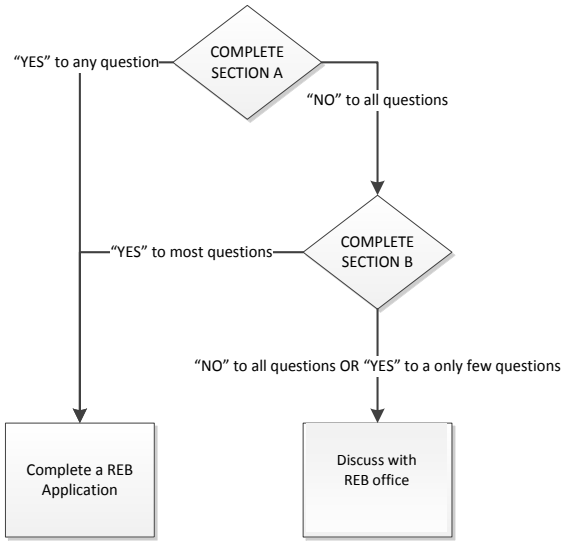
Purpose:

There can be confusion distinguishing between Quality Improvement (QI) and research. The guideline and checklist are tools to help staff/physicians/researchers determine in which category their project lies. It should be noted that in some cases, initiatives that are predominantly QI may have certain elements that make them fall under research. Upon completion of the checklist, the project lead should submit, along with a 1 page summary of the project, to the OHSN-REB Research Ethics Coordinator for Chair review. The final authority as to whether a project requires REB approval always lies with the REB Chair/Vice-Chairs. A copy of the REB letter with the final determination will be shared with the Quality Office for their records.

This Applies To:

Physicians, staff (including staff acting as investigators outside the institution), fellows, residents, volunteers, and students.

Checklist: Does Your Project Require OHSN-REB Review



Checklist: Does Your Project Require OHSN-REB Review?

Project Title:

Answer the questions with a "YES" or a "NO".

SECTION A - **If you answer "YES" to <u>any</u> of the questions in this SECTION A, your project is research. Proceed to submit an REB application through the IRIS system.**	**Yes**	**No**
1. Develop or test the efficacy of a new intervention that has not been studied before, or test hypotheses about issues that are beyond the knowledge of current science?		**No**
2. Prospective assignment of patients/providers into different procedures or therapies (such as randomization).		**No**
3. A control group for whom the procedure or therapy or study intervention is withheld to allow an assessment of its efficacy.		**No**
4. Blinding caregivers to any element of care.		**No**
5. Prospective evaluation of drug, procedure or device not currently approved by Health Canada		**No**
6. Exploring a previously unknown phenomenon with a marketed or approved product (i.e. off label use of a drug/device)		**No**
7. National or provincial registry/database from which a hypothesis will be tested?		**No**
SECTION B - **Continue with the questions in SECTION B below to further assist us to make the determination whether your project is "quality improvement" versus "research requiring REB review".**		
Project Purpose	**Yes**	**No**
a. Is the primary intent of the project to generate information to feedback to the institution?	**Yes**	
b. Test a hypothesis or replicate another researcher's original study?		**No**
c. Establish clinical practice standards where none are already accepted or lead to revisions in practice standards?		**No**
Funding	**Yes**	**No**
d. Is the project funded by an entity (such as a sponsor or granting agency) that makes clear its mission to conduct research, or has a commercial interest in the results of the activity or are funds being requested from institution to support the activity?		**No**
Project involvement	**Yes**	**No**
e. Testing an intervention, care practices or treatments that are not standard		**No**
Project Design	**Yes**	**No**
f. Is the project designed around a fixed protocol not allowing for frequent changes?		**No**
Consent	**Yes**	**No**
g. Will the activity require voluntary informed consent for interventions that are not part of standard clinical care?		**No**
Risks	**Yes**	**No**
h. Is the risk to the participants separate from what is involved in the care they are receiving?		**No**
Publication of Project	**Yes**	**No**
i. Is the primary purpose of the project to produce results for publication in a <u>research</u> journal?		**No**

Appendix C

Consent Form

The Ottawa Hospital | L'Hôpital d'Ottawa

uOttawa

Minimal Risk Informed Consent Form for Participation in a Research Study

Study Title: Understanding pairing and mentorship in the New Graduate Guarantee (NGG) Program

OHSN-REB Number*:* 20180264-01H

Study Members: Robin Devey, RN, MN, PhD(c), Doctoral student, University of Ottawa, School of Nursing, Dawn Stacey RN, PhD, CON(C), Professor, School of Nursing, University of Ottawa

Sponsor: Ottawa Hospital Research Institute

Non-Emergency contact numbers are noted at the end of this document under the section heading "Contacts".

INTRODUCTION

You are being invited to participate in a research study. You are invited to participate in this study because you participated in the New Graduate Guarantee (NGG) program as a new nursing graduate, mentor, clinical manager, or nurse educator. This consent form provides you with information to help you make an informed choice. Please read this document carefully and ask any questions you may have. All your questions should be answered to your satisfaction before you decide whether to participate in this research study.

Please take your time in making your decision. You may find it helpful to discuss it with your friends and family.

Taking part in this study is voluntary. Deciding not to take part or deciding to leave the study later will not result in any penalty or affect current or future employment.

IS THERE A CONFLICT OF INTEREST?

The Principal Investigator Robin Devey worked at the hospital where the study is proposed to be conducted and her position had direct contact with new nursing graduates, mentors clinical managers, and nurse educators. Although she had contact with the potential participants of this study, she will approach participants and their information strictly as a researcher in training at the University of Ottawa. Furthermore, her role at TOH held no position of power over new graduate nurses, mentors, clinical managers or nurse educators. In her role as PhD candidate

and researcher, all information collected through this study will remain entirely confidential and will never be shared in any way with anyone at TOH.

The Co-Investigator Dawn Stacey has no potential conflicts of interest.

WHY IS THIS STUDY BEING DONE?

The purpose of this study is to develop a better understanding of mentorship pairing practices specific to new graduate nurses.

HOW MANY PEOPLE WILL TAKE PART IN THIS STUDY?

It is anticipated that up to 20 new nursing graduates, 20 mentors, 20 clinical managers, and 20 nurse educators will take part in this study, from The Ottawa Hospital.

This study involves 1 interview and the results should be known in about 6 to 9 months. Participants will also be asked if they would like to review and comment on the results.

WHAT WILL HAPPEN DURING THIS STUDY?

You will be asked to attend one interview of about 30-45 minutes in length, at a time and location of your choosing or by phone. During this interview, you will meet with a member of the research team where you will be asked to speak about your experiences with mentorship within the New Graduate Guarantee program.
The interview will be audio recorded to facilitate later transcription.

The information you provide is for research purposes only. Some of the questions are personal. You can choose not to answer questions if you wish. Should you feel distressed as a result of this interview, you may contact Employee and Family Assistance Program (EFAP) by phone, web, or mobile app.at: Morneau Shepell 1-844-880-9142 or at worklife.com where you will be able to access services confidentially.

WHAT ARE THE RESPONSIBILITIES OF STUDY PARTICIPANTS?

If you choose to participate in this study, you will be expected to:

- Participate in one interview to share your experiences with mentorship within the New Graduate Guarantee program.
- Optional – Review the results of the study.

HOW LONG WILL PARTICIPANTS BE IN THE STUDY?

Your participation on this study will last for a single interview of about 30 to 45-minutes (new nursing graduate and mentor) or 20-30 minutes (clinical manager and nurse educator) *plus the time to review the study results should you wish to do so.*

CAN PARTICIPANTS CHOOSE TO LEAVE THE STUDY?

You can choose to end your participation in this research (called withdrawal) at any time without having to provide a reason. If you choose to withdraw from the study, you are encouraged to contact the research team.

You may withdraw your permission to use information that was collected about you for this study at any time by letting the research team know. However, this would also mean that you withdraw from the study.

If you decide to leave the study, you can ask that the information that was collected about you not be used for the study. Let the research team know if you choose this.

CAN PARTICIPATION IN THIS STUDY END EARLY?

Your participation on the study may be stopped early, and without your consent, if the Ottawa Health Science Network Research Ethics Board withdraws permission for this study to continue. If you are removed from this study, the research team will discuss the reasons with you.

WHAT ARE THE RISKS OR HARMS OF PARTICIPATING IN THIS STUDY?

There are no medical risks to you from participating in this study but taking part may make you feel uncomfortable while discussing your experiences. You may choose not to answer questions or leave the interview at any time if you experience any discomfort.

WHAT ARE THE BENEFITS OF PARTICIPATING IN THIS STUDY?

You may not receive direct benefit from participating in this study. We hope the information learned from this study will help other nurses participating in the New Graduate Guarantee or engaging in mentoring relationships in the future.

HOW WILL PARTICIPANT INFORMATION BE KEPT CONFIDENTIAL?

If you decide to participate in this study, the research team will only collect the information they need for this study.

Records identifying you at this centre will be kept confidential and, to the extent permitted by the applicable laws, will not be disclosed or made publicly available, except as described in this consent document.

Authorized representatives of the following organizations may look at your original (identifiable) records at the site where these records are held, to check that the information collected for the study is correct and follows proper laws and guidelines:

- The Ottawa Health Science Network Research Ethics Board who oversees the ethical conduct of this study
- Ottawa Hospital Research Institute, to oversee the conduct of research at this location

During the discussions, participants will be encouraged to refrain from using names. If names or other identifying information is shared during the discussion, it will not be included in the written records.

The audio recordings will be stored in a secure location and deleted after transcription has been completed. Transcriptions of the audio recordings will be deleted/shredded after 10 years.

If the results of this study are published, your identity will remain confidential. It is expected that the information collected during this
study will be analyzed and published and/or presented to the scientific community at meetings and in journals. Findings, if relevant, will be used to inform the pairing process for the New Graduate
Program at The Ottawa Hospital.

Your de-identified data from this study may be used for other research purposes. If your study data is shared with other researchers, information that links your study data directly to you will not be shared.

Even though the likelihood that someone may identify you from the study data is very small, it can never be completely eliminated.

WHAT IS THE COST TO PARTICIPANTS?

Participation in this study will not involve any additional costs to you.

ARE STUDY PARTICIPANTS PAID TO BE IN THIS STUDY?

No, participants will not be paid to be in this study.

WHAT ARE THE RIGHTS OF PARTICIPANTS IN A RESEARCH STUDY?

You will be told, in a timely manner, about new information that may be relevant to your willingness to stay in this study.

You have the right to be informed of the results of this study once the entire study is complete. If you would like to review or be informed of the results of this study, please let us know how you would like to be contacted at the time of your interview.

Your rights to privacy are legally protected by federal and provincial laws that require safeguards to ensure that your privacy is respected.

By signing this form, you do not give up any of your legal rights against the research team or involved institutions for compensation, nor does this form relieve the research team or their agents of their legal and professional responsibilities.

You will be given a copy of this signed and dated consent form prior to participating in this study.

WHOM DO PARTICIPANTS CONTACT FOR QUESTIONS?

If you have questions about taking part in this study, you can talk to the primary investigator who oversees the study at this institution. That person is:

Robin Devey _____ _____
Principal Investigator Name Telephone

If you have questions about your rights as a participant or about ethical issues related to this study, you can talk to someone who is not involved in the study at all. Please contact The Ottawa Health Science Network Research Ethics Board, Chairperson.

Study Title: Understanding pairing and mentorship in the New Graduate Guarantee (NGG)

SIGNATURES

- All my questions have been answered,
- I understand the information within this informed consent form,
- I have read, or someone has read to me, each page of this participant informed consent form,
- I do not give up any of my legal rights by signing this consent form,
- I agree to take part in this study.

Signature of Participant	Printed Name	Date

Investigator or Delegate Statement

I have carefully explained the study to the study participant. To the best of my knowledge, the participant understands the nature, demands, risks and benefits involved in taking part in this study.

Signature of Person Conducting the Consent Discussion	Printed Name and Role	Date

Appendix D

New Nursing Graduate Interview Guide

Interviewer Instructions

- Introduce yourself
- Review consent
- Answer any questions the participant may have
- Remind participant of confidentiality and to not use names during the interview
- Ask participant to select a pseudonym for the purposes of the interview

Demographics

Date entered the new grad program? (Month/Year) _____
Number of weeks spent in the NGG: _____
Did you take a leave longer than three weeks during the NGG? Yes □ No□
If yes, how long were you on leave: _____
Years of experience as a nurse: # of Years_____# of Months_____
Years of experience at TOH: # of Years_____# of Months_____
Years of experience in the specialty: # of Years_____# of Months_____
Years of experience on the unit: # of Years_____# of Months_____
Year participated in the NGG: _____ Unit: _____
Type position transferred into after the NGG:
FT □ PT □ Casual □ Permanent □ Temporary □
Position type currently held:
FT □ PT □ Casual □ Permanent □ Temporary □
Age (OR year of birth): _____
Gender:_____
Gender of mentor you were paired with: _____

Interview Questions	
	New Nursing Graduates
1.	Tell me about your transition from student nurse to practicing RN *Prompts: How did it feel? What kind of challenges did you experience? What kind successes did you experience?*
2.	Tell me about your experience as a new graduate being paired with a mentor. *Prompts: What was it like being mentored? Did it feel different than your placements in school? If so, in what way was it different?*
3.	Please describe how you were paired with your mentor. *Prompt: Walk me through the process of how you were paired. How did you first meet? What did that process look like?*
4.	How would you describe your mentor? *Prompts: What characteristics and attributes contribute to their role as a mentor? What characteristics and attributes do not contribute to their role as a mentor?*
5.	How did you get to know each other/build a relationship?
6.	How would you describe your relationship with your mentor? *Prompts: How would you describe your relationship in terms of communication? What kind of challenges if any have you experienced? What opportunities has your mentor provided to you?*
7.	What kinds of activities have you engaged in since completing the NGG? *Prompts: Have you continued your education? (workshops, courses, certifications, graduate degree) Do you belong to any associations, committees? If so, did your mentor encourage you to pursue these activities or highlight opportunities*

8.	Do you still consider your mentor your mentor? *<u>Prompts</u>: Do you still maintain a relationship with your mentor? Have you found another informal mentor?*
9.	In an ideal world how would mentors and new nursing graduates be paired? *<u>Prompt</u>: What would that process look like? What can we do within the New Graduate Guarantee Program at TOH to improve the process of pairing and support the building of mentoring relationships?*

Appendix E

Mentor Interview Guide

Interviewer Instructions

- Introduce yourself
- Review consent
- Answer any questions the participant may have
- Remind participant of confidentiality and to not use names during the interview
- Ask participant to select a pseudonym for the purposes of the interview

Demographics

Date you became a mentor? (Month/Year) _____
Years of experience as a nurse: # of Years_____# of Months_____
Years of experience at TOH: # of Years_____# of Months_____
Years of experience in the specialty: # of Years_____# of Months_____
Years of experience on the unit: # of Years_____# of Months_____
Year(s) participated in the NGG as a mentor: _____ Unit: _____
Position type currently held:
FT □ PT □ Casual □ Permanent □ Temporary □
Age (OR year of birth): _____
Gender: _____
Gender of the new graduate you were paired with: _____

Interview Questions	
	Mentors
1.	Tell me about how you became a mentor? *Prompts: Did you volunteer to be a mentor? Were you asked to be a mentor? What was your preparation? Courses? Self-assessment form? Experience as preceptor? Participated in training at TOH for preceptors?*
2.	Tell me about your experience as a mentor being paired with a new graduate. *Prompts: What was it like being mentor? Did it feel different than being paired with a student? Placements in school? If so, in what way was it different?*
3.	Please describe how you and your new nursing graduate were paired. *Prompt: What did that process look like?*
4.	How would you describe yourself as a mentor? *Prompts: What characteristics and attributes contribute to your role as a mentor? What characteristics and attributes do not contribute to their role as a mentor?*
5.	How did you get to know each other/build a relationship?
6.	How would you describe your relationship with your new graduate? *Prompts: How would you describe your relationship in terms of communication? What kind of challenges if any have you experienced? What opportunities have you provided to your mentee? Challenging assignments, experiences outside the unit,*
7.	Are you engaged in professional development activities? Prompts: *Have you continued your education? (workshops, courses, certifications, graduate degree) Do you belong to any associations, committees? If so, did anyone encourage you to pursue these activities or highlight opportunities? Would you consider that person a mentor?*
8.	Do you still consider yourself a mentor to the new graduate with whom you were paired? *Prompts: Do you still maintain a relationship with the new graduate with whom you were paired? Are you an informal mentor to others?*
9.	In an ideal world how would mentors and new nursing graduates be paired? *Prompt: What would that process look like? What can we do within the New Graduate Guarantee Program at TOH to improve the process of pairing and support the building of a mentoring relationship?*

Appendix F

Clinical Manager Interview Guide

Interviewer Instructions

- Introduce yourself
- Review consent
- Answer any questions the participant may have
- Remind participant of confidentiality and to not use names during the interview
- Ask participant to select a pseudonym for the purposes of the interview

Demographics

Professional designation:_____
Years of experience as a Registered Nurse: # of Years_____# of Months_____
Years of experience as a Clinical Manager: # of Years_____# of Months_____
Years of experience at TOH: # of Years_____# of Months_____
Years of experience in the specialty: # of Years_____# of Months_____
Years of experience on the unit: # of Years_____# of Months_____
Position type currently held:
FT □ PT □ Casual □ Permanent □ Temporary □
Age (OR year of birth): _____
Gender: _____

Interview Questions	
	Mentors
1.	Please describe how mentors and new nursing graduates were paired when participating in the NGG. *Prompt: What did that process look like? Who was involved in that decision making process? Who had final say?*
2.	How did they get to know each other/build a relationship? *Prompt: What are the role expectations you have for each other? Were there educational activities provided?*
3.	In an ideal world how would mentors and new nursing graduates be paired? *Prompt: What would that process look like? Are there any organizational or system barriers or facilitators? What can we do within the New Graduate Guarantee Program at TOH to improve the process of pairing and support the building of a mentoring relationship?*

Appendix G

Nurse Educator Interview Guide

Interviewer Instructions

- Introduce yourself
- Review consent
- Answer any questions the participant may have
- Remind participant of confidentiality and to not use names during the interview
- Ask participant to select a pseudonym for the purposes of the interview

Demographics

Years of experience as a Registered Nurse: # of Years_____# of Months_____
Years of experience as a Nurse Educator: # of Years_____# of Months_____
Years of experience at TOH: # of Years_____# of Months_____
Years of experience in the specialty: # of Years_____# of Months_____
Years of experience on the unit: # of Years_____# of Months_____
Position type currently held:
FT □ PT □ Casual □ Permanent □ Temporary □
Age (OR year of birth): _____
Gender: _____

Interview Questions	
	Mentors
1.	Please describe how mentors and new nursing graduates were paired when participating in the NGG. *Prompt: What did that process look like? Who was involved in that decision making process? Who had final say?*
2.	How did they get to know each other/build a relationship? *Prompt: What are the role expectations you have for each other? Were there educational activities provided?*
3.	In an ideal world how would mentors and new nursing graduates be paired? *Prompt: What would that process look like? Are there any organizational or system barriers or facilitators? What can we do within the New Graduate Guarantee Program at TOH to improve the process of pairing and support the building of a mentoring relationship?*

Appendix H

Search strategy

Ovid MEDLINE(R) Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) 1946 to Present (Search conducted on March 13, 2018).

Search	Query	Records retrieved
#1	exp Nursing/	241534
#2	exp Nurses/	81854
#3	nurs*.ti,ab.	406379
#4	#1 or #2 or #3	549400
#5	Education, Nursing, Graduate/	7338
#6	graduate*.ti,ab.	39564
#7	#5 or #6	45054
#8	Program Evaluation/	55845
#9	(program* and (evaluat* or effective* or sustainabilit* or appropriate* or process* or assess*)).ti,ab.	389824
#10	#8 or #9	421195
#11	Mentors/	9460
#12	exp Preceptorship/	4614
#13	exp Mentoring/	503
#14	mentor*.ti,ab.	12395
#15	mentee*.ti,ab.	602
#16	preceptor*.ti,ab.	3537
#17	residency*.ti,ab.	22251

#18	residencies*.ti.ab.	2253
#19	#11 or #12 or #13 or #14 or #15 or #16 or #17 or #18	44566
#20	#4 and #7 and #10 and #19	489
No limitations have been placed on this search.		

Appendix I

Excluded Citations

First Author (Year), Title
No pairing process (n= 88 citations)
Aggar, C. et al. (2017) Australia's first transition to professional practice in primary care program for graduate registered nurses: a pilot study.
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Wrong intervention (n= 5)
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Wrong study design (n= 72)

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