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The Effect of Authentic Leadership and New Graduate Support on New Graduate Nurses' Job Satisfaction

Supervisor: Dr. Michael Kerr, *The University of Western Ontario*
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Abstract

The purpose of this study was to test a theoretical model linking authentic leadership to new graduate nurses' job satisfaction through its effect on new graduate support. This study was a secondary analysis of Time 1 baseline data collected in a two-wave national study of Canadian new graduate nurses, which used a non-experimental, predictive survey design. A convenience sample of 215 new graduate nurses with less than two years of experience, working in direct care, was obtained through The College of Nurses of Ontario. Hayes' PROCESS macro for SPSS, version 3 was used to test the hypothesized simple mediation model. Overall, the model accounted for approximately 31% of the variance in Ontario new graduate nurses' job satisfaction. Moreover, all four hypothesized direct and indirect relationships were found to be positive and significant. Findings suggested that authentic nursing leaders may contribute to improved new graduate support and new graduate nurse job satisfaction.

Keywords: authentic leadership, new graduate support, job satisfaction, retention, turnover, new graduate nurse, registered nurses, transition experience, nursing shortage

Summary for Lay Audience

Canada, like many other developed countries, is facing a serious shortage of nurses due its aging population, aging nursing workforce, higher workloads, limited resources, and stressful working conditions. New graduate nurses have been recognized as precious health human resources that are fundamental in addressing this shortage. While evidence suggests the significant and positive influence of authentic leaders on new graduate nurses job satisfaction, it is important to understand the mechanisms that mediate this relationship.

This study examined the effect of authentic leadership on new graduate nurses' job satisfaction using data collected in a two-wave national study of Canadian new graduate nurses. This study used data from a sample of 215 new graduate nurses with less than two years of experience, working in direct care in Ontario. New graduate nurses were sent a survey in the mail and instructed to rate their nurse managers' authentic leadership, their perceptions regarding new graduate support in the workplace, as well as their degree of job satisfaction.

Overall, this study found that the rather new relational leadership style, authentic leadership, had a positive influence on Ontario new graduate nurses' job satisfaction. The findings of this study suggested that authentic leaders can improve new graduate nurses' job satisfaction by providing new graduate support in the workplace. New graduate support incorporates the specific supports essential for the successful transition of new graduate nurses, including high quality managers, preceptors and mentors, encouragement and constructive feedback, positive communication amongst staff, a supportive unit culture, as well as opportunities for professional growth and development.

Healthcare and educational organizations should collaborate on ways to ensure new graduate nurses are supported in the workplace, especially during their first two years of practice. In addition, they should prioritize the planning, recruitment, development, and evaluation of nurse managers, due to nurse managers' ability to improve the work environment, as well as the job satisfaction of their front-line nursing staff. In doing so, they will contribute to the creation of a sustainable nursing workforce that is able to meet the healthcare needs of the future.

Co-Authorship Statement

Dr. Michael Kerr and Dr. Carol Wong will be co-authored on any publications stemming from this master's thesis.

Dedication

This thesis is dedicated with love to my loving family, and to new graduate nurses worldwide.

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Chapter 1

Introduction

As the largest occupational group in health globally, the nursing workforce plays a fundamental and varied role in the healthcare system (World Health Organization [WHO], 2017). Nurses are involved in the promotion of health and prevention of illness among the acutely and chronically ill, they work with the disabled and dying, they are key to patient and health systems management, and are also active in education, and research, among many other activities (International Council of Nurses [ICN], 2021). According to the Canadian Institute for Health Information's ([CIHI], 2020) pan-Canadian statistics on regulated nurses, there was a total supply of 300,699 registered nurses in Canada in 2019, with only a 1.1% growth from the preceding year. A little over one-third of the national supply of nurses ($n=103,887$) are registered in Ontario (CIHI, 2020). Despite Ontario being Canada's most populous province, it is concerning that it has the smallest proportion of nurses per 100,000 population ($n = 725$) in Canada, especially as compared to other populous provinces such as Quebec ($n = 866$), Alberta ($n = 834$), and British Columbia ($n = 762$; CIHI, 2020). These statistics are even more important when one considers that individuals 65 years and older are estimated to account for one-quarter of the Canadian population by 2036, as it projects a large proportion of individuals who may require healthcare services (CIHI, 2020; Statistics Canada, 2020). This chronic nursing supply issue in Ontario requires attention, as the delivery of optimal healthcare is only possible when there is a secure and adequate supply of competent healthcare professionals (Canadian Nurses Association [CNA], 2009; Registered Nurses Association of Ontario [RNAO], 2021). Presently, Canada, like many other developed countries, is facing a serious shortage of nurses due to a series of factors,

including an aging population, aging nursing workforce, higher workloads, limited resources, and stressful working conditions, exacerbated by growing financial pressures (RNAO, 2017; WHO, 2011). Not only does this shortage have negative consequences for the population and healthcare organizations, but also for the nursing workforce (Chachula et al., 2015; Laschinger et al., 2012; Lu et al., 2012). Certainly, one cannot disregard the massive healthcare challenges brought on by the COVID-19 pandemic. The pandemic has revealed the long-term under-investment of governments in their healthcare workers, especially nurses, and has resulted in a grossly inadequate supply of nurses and resources (Catton, 2020). These supply issues have undoubtably intensified the challenges associated with this worldwide healthcare emergency and highlights the need to build a strong, experienced, and sustainable nursing workforce, and is only possible when governments demonstrate their genuine value of the nursing profession (Catton, 2020). Nursing is critical to the health and well-being universally; without nursing, the prosperity of economies would be threatened (Catton, 2020; Nagle, 2021; RNAO, 2021). Going forward, governments should provide nurses with adequate support and compensation, and should also safeguard new graduate nurses (NGNs), as they are the nurses of the future.

The rate of NGN turnover, especially in the first year of employment has presented a significant and complex issue for healthcare systems and the nursing profession as a whole (Cho et al., 2012; Duffield et al., 2014; Lalonde & McGillis Hall, 2016; Spence Laschinger et al., 2019). One of the key factors influencing this phenomenon is NGNs' sense of job satisfaction (Fallatah & Laschinger, 2016; Giallonardo et al., 2010; Laschinger et al., 2012; Missen et al., 2014). In response to these findings, nursing leaders have shifted their focus to developing strategies to improve

nurse transition experiences, their job satisfaction, retention, and reduce the turnover of NGNs, as these strategies have demonstrated positive outcomes for NGNs, patients, and organizations (Cummings et al., 2018; Fallatah & Laschinger, 2016; Halfer et al., 2008; RNAO, 2017; Rush et al., 2019; WHO, 2011). Given the importance of successful NGN transition, this study examined the effect of authentic leadership and new graduate support on Ontario NGNs' job satisfaction.

Background

NGNs are commonly defined in the literature as those with less than two years of practice experience (Laschinger et al., 2012). The findings of numerous studies validate that this transition period is a time of stress, role adjustment, and reality shock for NGNs (Casey et al., 2004; Duchscher, 2008; Kramer, 1974; Regan et al., 2017; Rush et al., 2019). Upon entering the workforce, NGNs are often faced with the realization of being unprepared and lacking the proficiency and confidence needed to navigate the increasingly acute and complex healthcare environments, as well as the responsibilities that accompany this role (Duchscher, 2008). These early realizations frequently lead to stress, job dissatisfaction, and turnover intentions in NGNs (Casey et al., 2004; Peterson et al., 2011). A key strategy to ensure NGNs experience a smooth and successful transition into the workplace is to promote a positive and healthy work environment, which includes the specific supports required for successful transition of NGNs: high quality managers, preceptors and mentoring, encouragement, positive communication, constructive feedback, a supportive unit culture, and opportunities for professional growth and development (Casey et al., 2004; Fink et al., 2008; Chachula et al., 2015; Laschinger, 2012a; Rush et al., 2019). In general, work environments characterized by ineffective leadership and poor working conditions that lack support, empowerment

structures, and healthy relationships, have been shown to negatively influence the job satisfaction and turnover of NGNs (Buffington et al., 2012; Laschinger, 2012a; O'Brien-Pallas et al., 2010). Therefore, every effort should be made to understand the unique factors that influence retention and job satisfaction of NGNs.

New Graduate Support

The growth of scientific inquiry concerning the concept of support over the years has resulted in a proliferation in the ways it is conceptualized and operationalized. However, according to Casey et al. (2004), the developers of the *Casey Fink Graduate Nurse Experience Survey (CFGNES),* support is the extent to which NGNs believe that they are assisted, encouraged, and provided with feedback by their preceptor, peers, and managers (Laschinger et al., 2012). Thus, the presence of support in the workplace provides NGNs the opportunity to develop confidence and competence, to practice their skills, and to fulfill the responsibilities associated with their nursing role (Casey et al., 2004). One of the most highly discussed relational support strategies in the nursing literature is new graduate transition programs. These were developed to provide support and educate NGNs during their first year of professional practice, and improve their job satisfaction, ultimately improving staff retention and turnover rates (Beecroft et al., 2008; Casey et al., 2004; Halfer et al., 2008; Lalonde & McGillis Hall, 2016; Missen et al., 2014; Parker et al., 2014; Rush et al., 2015; Williams et al., 2007). Similarly, encouragement, feedback from managers, preceptors, peers, and nursing staff in the workplace are other forms of relational support that have been recognized as fundamental components of new graduate support (Casey et al., 2004; Fink et al., 2008; Rush et al., 2013; Rush et al., 2019). The future of the nursing profession depends on the successful transition and satisfaction of NGNs; thus, it is crucial to preserve their hope and eliminate

negative and toxic working environments through constant interpersonal support and the provision of resources for growth (Chachula et al., 2015).

Authentic Leadership

The presence of quality nursing leadership in the Canadian healthcare system is essential due to its immediate impact on the lives of front-line nursing staff and the Canadian population it serves (CNA, 2009). Existing literature within the field of nursing has suggested that nurse managers play a pivotal role in the immediate lives of nurses as they are responsible and accountable for overseeing the day-to-day unit operations, which include patient safety, ensuring accreditation targets are met, recruiting nursing staff, increasing unit level job satisfaction, reducing turnover, and supervising multigenerational nursing staff, among others (Little et al., 2018). In light of the complexities and pressures that exist in healthcare, the role of the nurse manager is rather demanding, as they must balance their responsibilities and accountabilities among their nursing staff and those in senior leadership positions (Little et al., 2018). However, due to their position within the organization and in the clinical setting, nurse managers are well positioned to foster a supportive work environment, through which they can support NGN transition and positively influence the perceptions, attitudes, and behaviours of nursing staff, in addition to their roles for patient and organizational outcomes (Cummings et al., 2018; Little et al., 2018). According to the CNA (2009), effective nurse leaders are "innovative and visionary...leaders who understand and hold themselves accountable for creating vibrant, exciting practice settings in which nurses can deliver safe, accessible, timely and high-quality care for the Canadians they serve" (p.1). The findings of previous research suggest that when nurse leaders engage NGNs in unit decision-making and seek their input on how leadership can better support their transition

experience, nurse leaders can foster inclusive cultures that allow for NGNs to develop their professional nursing roles, gain expertise, and experience satisfaction in their new role (Thompson et al. 2011, Fallatah & Laschinger, 2016; Gregg et al. 2013). In order to meet the healthcare needs of the future, there must be a sufficient supply of nurses (CNA, 2009). One leadership style that has gained a great deal of scholarly interest since its inception in 2003 and has been empirically linked to improvement of employee work attitudes and behaviours, in addition to organizational outcomes, is authentic leadership (Alilyyani et al., 2018). Authentic leadership is defined as a "pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development" (Walumbwa et al., 2008, p. 94). While this leadership style has been linked to increased job satisfaction among NGNs, no study has examined the mediating role of new graduate support between authentic leadership and job satisfaction.

Job Satisfaction

Job satisfaction is conceptually understood as the affective orientation that an employee has towards his/her job (Lu et al., 2012; Price, 2001). The concept of job satisfaction has received considerable attention in both nursing and management literature for many years. However, only recently has greater attention been paid to the job satisfaction of NGNs, as they have been recognized as precious health human resources that are fundamental in addressing worldwide nursing shortage (Alilyyani et al., 2018; Buerhaus et al., 2009; Ebrahimi et al., 2017; Laschinger, 2015). A variety of situational factors, including structural empowerment (Boamah et al., 2017; Read &

Laschinger, 2015; Spence Laschinger & Fida, 2015; Wong & Laschinger, 2013),

supportive professional practice environments (Fallatah & Laschinger, 2016; Laschinger

and Fida, 2015), and authentic leadership (Aboshaiqah, 2015; Baek et al., 2019; Boamah

et al., 2017; Fallatah & Laschinger, 2016; Giallonardo et al., 2010; Laschinger et al.,

2012; Rahimnia & Sharifirad, 2015; Read & Laschinger, 2015; Spence Laschinger &

Fida, 2015; Wong & Laschinger, 2013; Wong et al., 2020) have been positively

associated with NGNs' job satisfaction (Alilyyani et al., 2018; Laschinger et al., 2016a).

Moreover, the findings of numerous studies suggest that job satisfaction plays a major

role in nurses' decisions to continue working not just within an organization, but also in

the profession as a whole. These decisions are often referred to using various terms, such

as nurse retention, turnover intentions, and turnover (Collard et al., 2020; Lu et al., 2012;

Peterson et al., 2011; Wong & Laschinger, 2013)

Purpose and Significance

The purpose of this study was to test a theoretical model linking authentic

leadership to NGNs' job satisfaction through its effect on new graduate support. While

many studies have already explored the relationship between authentic leadership and job

satisfaction among both seasoned and NGNs', no study to date has examined the

influence of authentic leadership on new graduate support using the Casey-Fink Graduate

Nurse Experience Survey (CFGNES), and their combined effect on NGNs' job

satisfaction. Given the persistent nursing shortage in Canada, the increasing and complex

demands of the nursing workforce, and Ontario having the poorest supply of registered

nurses in the nation, it is imperative that we gain a deeper understanding of the factors

influencing NGNs job satisfaction, due to its association with key patient, staff, and

organizational outcomes. The findings of this study may have essential implications for

leadership practice, as they will contribute to the body of knowledge on factors influencing NGNs' job satisfaction, which can help inform future approaches to enhance job satisfaction of NGNs, and in turn can help to improve retention and reduce turnover rates of NGNs. Furthermore, the findings will be useful to guide the recruitment, training, and evaluation of nurse managers, since it is evident that they play a pivotal role in shaping the work environment and outcomes of nursing staff, patients, as well as the organization.

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Chapter 2

Manuscript

Background and Significance

As the largest occupational group in health globally, the nursing workforce plays a fundamental and varied role in the healthcare system (WHO, 2017). Nurses are frequently acknowledged for their active involvement in the promotion of health and prevention of illness among the acutely and chronically ill, disabled, and dying, although, nurses also play a major role in advocacy, the promotion of safe environments, patient and health systems management, policy formation, and education and research (ICN, 2021). In order for the nursing workforce to meet the healthcare needs of the population, there must be an adequate number of nurses (CNA, 2009). Unfortunately, Canada, like many other developed countries, is faced with a critical nursing shortage due to a variety of factors, including the aging population, an aging nursing workforce, higher workloads and stressful working conditions that are exacerbated by growing financial pressures (RNAO, 2017; WHO, 2011). Thus, the retention of the nursing workforce has become a pressing concern and an international priority (WHO, 2011). The COVID-19 pandemic has revealed the long-term under-investment of governments in their healthcare workers, especially nurses, and has resulted in a grossly inadequate supply of nurses and resources (Catton, 2020). This worldwide healthcare emergency has highlighted the need to build a strong, experienced, and sustainable nursing workforce (Catton, 2020; Nagle, 2021; RNAO, 2021). According to the Conference Board of Canada (2017), the demand for nurses to provide care to Canada's aging population is estimated to increase from approximately 64,000 nursing jobs in 2011 to more than 142,000 nursing jobs in 2035. In light of the current global nursing shortage, efforts to improve the recruitment and

retention of NGNs in the last decade have become more important than ever. Moreover, these efforts will help secure an adequate supply of nurses and ensure the viability of healthcare delivery in Canada can be maintained (Weidner et al., 2012; WHO, 2017).

NGNs have been identified as a precious health human resource and are acknowledged as a key element in addressing the nursing shortage (Buerhaus et al., 2009; Ebrahimi et al., 2017). Unfortunately, the transition from student nurse to NGN has been documented as a period of high of stress, role adjustment, and a reality shock for many (Casey et al., 2004; Coyne et al., 2020). Previous studies have revealed the high turnover rates for NGNs in their first year of employment (Cho et al.,2012). Kovner and Brewer (2012) discovered that approximately 18% of NGNs left their first nursing job within their first year of employment, followed by 26% within two years, and 43% leaving within three years. Moreover, in a study of new graduate Swedish nurses, Rudman et al. (2014) found that 27% of the new graduate participants reported high levels of burnout and intended to leave the profession after one year, followed by 45% after three years, and 43% after five years of employment. Similarly, turnover rates of NGNs in Canada have been reported to be as high as 61. 5% (Lavoie-Tremblay et al. 2008), with an overall turnover rate of 19.9% in Canadian hospitals (O'Brien-Pallas et al. 2010). These turnover rates are suggested to be a result of inadequate preparation and support for NGNs during their transition to professional nursing practice (Parker et al. 2014).

While these values have slightly improved over the years, the attrition rates of NGNs combined with the growing nursing shortage poses serious financial and human resource concerns for nursing management (Bowles & Candela, 2005; Laschinger et al., 2016a; Rush et al., 2013). The financial burden of NGN turnover on the Canadian healthcare system is estimated at $25,000 per position replaced largely due to the cost of

recruitment, hiring, orientation, as well as decreased productivity of new hires, and replacement costs during vacation (Berry & Curry, 2012; O'Brien-Pallas et al., 2008). Additionally, Duffield et al.'s (2014) comparative review of turnover rates and costs across countries indicates that turnover for one nurse position in Canada costs $26,652. High nurse turnover has been shown to disrupt healthcare teams and present a serious risk to patient care (Laschinger et al., 2016a; O'Brien-Pallas et al., 2008). Since nurses are fundamental for the future of the Canadian healthcare system, they should be provided with supportive workplace experiences throughout the first few years of employment while they adapt to the complexities of modern-day nursing (Pineau-Stam et al., 2015).

The high turnover of NGNs during their first year of practice has been linked to problematic work environments (Laschinger et al., 2016a; Scott et al., 2008). Findings suggest that NGNs often receive inadequate support and preparation during their early work experiences, which makes it difficult to develop clinical skills, clinical judgement, and a positive self-concept, as well as understand the inner-workings of organizations (Lalonde & McGillis-Hall, 2016; Parker et al., 2014; Regan et al., 2017; Spence Laschinger & Fida 2015). Moreover, NGNs are entering workplaces struggling with inadequate resources, increasing patient acuity, staffing shortages, and rapidly changing technologies; it is no wonder that NGNs may feel overwhelmed and alone (Coyne et al., 2020). NGNs require considerable support, especially during the first 12 to 18 months (Casey et al., 2004; Coyne et al., 2020). The persistent worldwide nursing shortage has accelerated healthcare leaders' administration efforts to ensure NGNs experience a smooth and successful transition into the workplace (Rush et al., 2015). Situational factors, including support from co-workers and supervisors, structural empowerment, authentic leadership, and adequate staffing, have been shown to influence NGNs' job

satisfaction (Laschinger, 2008; Laschinger et al., 2016ab; Peterson et al., 2011; Scott et al., 2008). With this in mind, researchers must look to further understand the factors that contribute to the development of positive and healthy work environments that support NGNs in the workplace and positively impact their job satisfaction (Chachula et al., 2015; Laschinger et al., 2016ab).

Effective leadership has been recognized as an important factor for creating optimal work environments for nurses and improving their job satisfaction (Cummings et al., 2018). Cummings et al.'s (2018) systematic review found that relational leadership styles were more effective than task-focused leadership styles in improving nurses' job satisfaction, leader satisfaction, perceived level of support, ratings of leader, unit and team effectiveness, and staff retention. Authentic leadership has been shown to influence a variety of positive outcomes (Alilyyani et al., 2018). Authentic leaders demonstrate high levels of self-awareness and present themselves honestly to their followers by behaving in a way that is in line with their personal, moral, and ethical standards. They seek understanding from a variety of sources before making a final decision (Avolio & Gardner, 2005). Furthermore, they are able to promote the adoption of these behaviours by their followers, allowing them to experience the positive psychological capacities of hope, trust, positive emotions and optimism, which in turn positively followers' attitudes and behaviours in the workplace, cultivating supportive and positive work environments (Avolio et al., 2004; Gardner et al., 2005; Spence Laschinger et al., 2018). Therefore, managers in healthcare organizations play an essential role in creating supportive work environments (Alilyyani et al., 2018; Cummings et al., 2018). Job dissatisfaction has been shown to increase the likelihood of NGNs to move to other units, organizations, or even leave the profession as a whole (Chachula et al., 2015; Peterson et al., 2011; Scott et

al., 2008). It is therefore logical that the creation of a work environment that supports NGNs' successful transition into their new role can positively influence NGNs job satisfaction as well as their turnover and retention (Laschinger et al., 2012; Peterson et al., 2011).

Research on Ontario NGNs with respect to the link between authentic leadership, new graduate support and job satisfaction is limited. While some studies have examined NGNs at a national level (Chachula et al., 2015; Rush et al., 2015), very few studies have been done using Ontario NGNs (Lalonde & McGillis Hall, 2016; Laschinger et al., 2012; Wong & Laschinger, 2013). In the absence of such data, we are left with an inaccurate representation of Ontario NGNs. Furthermore, with Ontario having the lowest supply of registered nurses in Canada per 100,000 population ($n = 725$), it is essential every effort is made to gain insight on the relationships being examined (CIHI, 2020). By doing so, healthcare administrators can make informed decisions to facilitate positive change. The purpose of this study was to examine the mediating effect of new graduate support on the relationship between nurse managers' authentic leadership and NGNs' job satisfaction. The results of this study will contribute to the body of literature on authentic leadership in the context of NGNs. Gaining a deeper understanding of the experiences of this nursing population will be worthwhile, as it can be used to inform practices related to the recruitment, preparation, and evaluation of nursing leaders. Furthermore, the literature highlights the fundamental role of nurse managers in shaping the supportiveness of work environments, as well as the job satisfaction of NGNs. The findings of this study can help inform approaches to support NGNs as they transition into their professional role in addition to strategies that can be applied by nurse managers to enhance the job satisfaction of NGNs, which in turn can positively impact turnover and retention rates of

this nursing population.

Theoretical Framework

Avolio's authentic leadership theory provides a valuable framework for understanding how authentic leadership can give rise to positive organizational outcomes, specifically NGNs' job satisfaction (Avolio et al., 2004). Authentic leadership is defined as a "pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development" (Walumbwa et al., 2008, p. 94). Authentic leaders are trustworthy individuals who are confident, hopeful, resilient, and of high moral character who aspire to establish healthy ethical work environments, build trusting relationships with their followers, as well as enhance follower work attitudes and behaviours (Avolio et al., 2004, Avolio & Gardner, 2005). This leadership theory is based on the psychological construct of authenticity (Kernis, 2003). Authenticity can be understood through the aphorisms of ancient Greek philosophers, which suggest the essence of authenticity is "to know, accept, and remain true to one's self" (Avolio et al., 2004, p.802). According to Erickson (1995), authenticity can best be understood as a continuum, whereby the more individuals remain true to their core values, identities, preferences, and emotions, the more authentic they become.

The theory of authentic leadership is comprised of four components that are crucial for successful leadership: *self-awareness, relational transparency, internalized moral perspective,* and *balanced processing*. An integral part of authentic leadership is *self-awareness,* which is a process where one continually gains a deeper understanding of

their strengths, limitations, core values, emotions, motives, and goals, enabling them to

develop more honest relationships with those around them (Avolio & Gardner, 2005;

Walumbwa et al., 2008). Self-awareness is an evolving process and can be enhanced

through continual self-reflection. In addition, leaders can request feedback on how they

are perceived by and impact others in order to become more self-aware and guide their

future actions appropriately (Avolio & Gardner, 2005; Kernis, 2003). Next, *relational*

transparency refers to authentic leaders' willingness to share their authentic self with

others by openly sharing information and appropriately disclosing their thoughts,

feelings, core values, motives, and faults (Gardner et al., 2005; Walumbwa et al., 2008).

Relational transparency is a key component of authentic leadership, as it fosters an

environment of trust and openness between leaders and their followers, and encourages

followers to reciprocate openness (Gardner et al., 2005; Kernis, 2003; Walumbwa et al.,

2008; Wong & Cummings, 2009). While leaders often face group, organizational, and

societal pressures, authentic leaders act in accordance with their *internalized moral*

perspective, rather than acting in a way to please others, receive rewards, or avoid

punishment (Walumbwa et al., 2008; Wong & Cummings, 2009). This sort of self-

regulation is guided by one's internal moral standards and values. Followers' trust in

leaders is gained when their leaders' decision making and behaviours are consistent with

their internalized values (Avolio & Gardner, 2005; Walumbwa et al., 2008; Wong &

Cummings, 2009). Lastly, authentic leaders exemplify *balanced processing* when they

objectively evaluate all pertinent data and solicit opposing viewpoints from others before

choosing their course of action. Authentic leaders are not diverted from their mission by

self-protective motives (Gardner et al., 2005; Walumbwa et al., 2008; Wong &

Cummings, 2009).

According to Gardner et al. (2005) authentic leaders play a fundamental role in facilitating follower development. By positively modelling the four components of authentic leadership, authentic leaders foster an environment where the development of authenticity among their followers is possible (Avolio & Gardner, 2005). Avolio et al (2004) proposed that authentic leaders influence the attitudes (e.g., commitment, job satisfaction, meaningfulness, and engagement) and behaviours (e.g., job performance, extra effort, withdrawal behaviours) of followers through "the key psychological processes of identification, hope, positive emotions, optimism, and trust" (Avolio et al., 2004, p.815). However, the influence of the authentic leader becomes more powerful and motivational through the development of follower's personal identification with their leader and social identification with their work group (Avolio et al., 2004). *Personal identification* refers to a process whereby followers come to define themselves by the positive attributes modelled by their leader, whereas *social identification* refers to a process whereby followers view their membership to a specific group to be an essential part of their identity (Avolio et al., 2004). Once follower identification is achieved, Avolio et al. (2004) are then able to experience the positive psychological capacities of hope, trust, positive emotions, and optimism (Avolio et al., 2004). *Hope* is established when authentic leaders share consistent positive affirmations with followers throughout the pursuit to achieve shared goals (Avolio et al., 2004). Authentic leaders must also gain the trust of their followers by encouraging transparent communication, demonstrating individualized concern, and respecting the diverse viewpoints of their followers (Avolio et al., 2004). Furthermore, authentic leaders are likely to elicit various *positive emotions* among their followers by encouraging their personal growth and development of trusting relationships in the workplace (Avolio et al., 2004). By modelling the desired positive

emotions, authentic leaders are able to influence followers' *optimism*, a mindset that

enables followers to view events in a positive manner and expect the most favourable

outcomes (Avolio et al., 2004). Finally, enhancing the optimism of followers can

positively influence follower's *work attitudes* (e.g., commitment, job satisfaction,

meaningfulness, and engagement) and *work behaviours* (e.g., job performance, extra

effort, withdrawal behaviours; Avolio et al., 2004). It is important to note that followers

are not only passive recipients of the authentic leader's influence, rather they are also co-

producers of the authentic relationship established between the leader and their followers

(Leroy et al., 2015; Shamir, 2007). Over time, followers will develop more autonomous

regulation and work in cooperation with their leader to achieve mutual goals (Gardner et

al., 2005).

The three main study variables (i.e., authentic leadership, new graduate support,

and NGN job satisfaction) are consistent with the propositions of Avolio et al.'s (2004)

authentic leadership theory. Therefore, there is reason to believe that when nurse

managers role model positive behaviours for their followers in the workplace, it can

stimulate the identification of NGNs and nursing staff with their manger in the workplace

(Avolio et al., 2004; Gardner et al., 2005). Through identification, NGNs and nursing

staff are able to experience the positive psychological states of hope, trust in the manager,

positive emotions, and optimism, which in turn can positively impact the attitudes (i.e.,

job satisfaction) and behaviours (i.e., job performance) of NGNs, and ultimately their

retention (Avolio et al., 2004; Gardner et al., 2005). Furthermore, authentic leadership

has been shown to positively influence job satisfaction of NGNs through structurally

empowering environments, which are conditions that provide NGNs access to

information, support, resources, and *opportunities for learning and professional*

development (Kanter, 1977; 1993). Kanter (1993) maintains that when employees have access to such working conditions, they are empowered to accomplish their work in meaningful ways. The components of structural empowerment, specifically *support* and *opportunity*, have been positively associated with NGNs' ratings of job satisfaction (Wong & Laschinger, 2013) and such components are similar to items within the CFGNES-SUPP (see Appendix A.02). Like Kanter (1993), Avolio and Gardner (2005) suggest a positive organizational context is created when leaders provide access to information, resources, support, and equal opportunity. Moreover, in order for leaders and followers to effectively accomplish their work, leaders must promote an organizational climate that is inclusive and supports the everlasting growth of leaders and their followers (Avolio & Gardner, 2005). Because of these similarities, it is reasonable to propose that the authentic leadership of nurse managers can positively influence the job satisfaction of NGNs by providing new graduate support, characterized by the following supports: supportive nursing staff, preceptors, and managers, feedback and encouragement from preceptors, positive role modeling in the workplace, opportunities for skill development, realistic expectations and feelings of confidence (Casey et al., 2004; See Appendix A.02).

Literature Review

The following literature review provides a comprehensive overview of the current state of knowledge that exists for the interrelationships between each of the three main study variables, namely authentic leadership, new graduate support, and job satisfaction as they pertain to NGNs. A general overview of the current status of knowledge on authentic leadership, new graduate support, and job satisfaction is provided to the reader to serve as a foundation. Furthermore, the use of these concepts in the literature are

presented. In addition, the relationships among the main study variables are emphasised for the purpose of providing rationale for this study. To conclude, a summary highlighting the gaps in the literature are presented.

Authentic Leadership

Authentic leadership is a relatively new positive relational leadership style that has been empirically linked to employee work attitudes and behaviours, as well as organizational outcomes (Alilyyani et al., 2018). Authentic leadership is proposed as the root component of effective leaderships that is necessary to build trust and elicit positive emotions in followers (Avolio et al., 2004). The authentic leadership theory has gained a great deal of scholarly interest since it was introduced in 2003 due to the growing desire for positive leaders, which stemmed from issues regarding the ethical misconduct of prominent leaders, as well as corporate and government malfeasance (Gardner et al., 2011). Such issues revealed the need for a novel, values-based leadership style that focused on authenticity (Gardner et al., 2011).

The study of authentic leadership in healthcare and nursing has grown significantly in the last decade; however, the literature remains limited (Alilyyani et al., 2018). Alilyyani et al., (2018) conducted a systematic review of authentic leadership in nursing and healthcare, which included 21 studies reported in 38 manuscripts. The findings of this review provided further evidence for international research efforts involving authentic leadership, specifically in healthcare (Alilyyani et al., 2018). While a majority of the studies included were based in Canada and the United States, there were also a collection of studies completed in India (Malik & Dhar, 2017; Malik, Dhar, & Handa, 2016), South Africa (Coxen et al., 2016; Stander et al., 2015), Iran (Rahimnia & Sharifirad, 2015), and Belgium (Mortier et al., 2016). Nursing scholars have made great

efforts to expand their knowledge by studying authentic leadership in the context of different nursing populations, such as NGNs (Boamah et al., 2017; Giallonardo et al., 2010; Fallatah & Laschinger, 2016; Laschinger et al., 2012; Read & Laschinger, 2013; Laschinger et al., 2016a; Read & Laschinger, 2015; Wong & Laschinger, 2013), staff nurses (Aboshaiqah, 2015; Mortier et al., 2016; Spence Laschinger & Fida, 2015; Wong et al., 2010; Wong & Laschinger, 2013; Wong et al., 2020). However, Alilyyani et al. (2018) reported several gaps and future research priorities, including the apparent need for nurse researchers to explore the antecedents of authentic leadership, such as potential predictors and strategies to develop authenticity in leaders, as well as additional mediating factors in order to inform the practice of authentic leadership (Alilyyani et al., 2018).

Authentic Leadership and Job Satisfaction

There is a growing body of evidence to support the positive relationships between authentic leadership and followers' work attitudes and behaviours, especially job satisfaction. Numerous studies in the field of nursing have examined the effect of nurse managers' authentic leadership on NGNs' job satisfaction, both in Canada (Boamah et al., 2017; Fallatah & Laschinger, 2016; Laschinger et al., 2012; Read & Laschinger, 2015; Spence Laschinger & Fida, 2015; Wong & Laschinger, 2013; Wong et al., 2020) and internationally (Aboshaiqah, 2015; Baek et al., 2019; Rahimnia & Sharifirad, 2015).

The effect of authentic leadership on NGNs' job satisfaction has been supported in the literature as having a direct relationship, as well as an indirect relationship through other work-related factors. For instance, in a study of 342 NGNs working in Ontario acute care hospitals by Laschinger et al (2012), authentic leadership was indirectly associated with job satisfaction through workplace bullying and emotional exhaustion (β

= 0.13, *p <0.05*). In addition, authentic leadership, workplace bullying, and emotional exhaustion all had significant direct effects on job satisfaction (Laschinger et al., 2012). Fallatah and Laschinger (2016) provided further support for this relationship in their study of 93 NGNs working in acute care settings in Ontario; however, the findings suggested that authentic leadership was both directly ($\beta = 0.37$, $p < 0.001$), and indirectly associated with job satisfaction through supportive professional practice environment ($\beta = 0.16$, $p < 0.001$). Furthermore, while different from nurse managers, evidence also suggests that preceptors' authentic leadership plays a major role in predicting organizational outcomes, including job satisfaction and turnover intentions (Giallonardo et al., 2010). For example, in a sample for 170 NGNs working in acute care in Ontario, Giallonardo et al. (2010) found that preceptors' authentic leadership was directly ($\beta = 0.29$, p < .001) related to NGNs' job satisfaction. Therefore, it is reasonable to suggest that when nurse managers exhibit authentic leadership behaviours in the workplace, they are able to positively influence NGNs' job satisfaction. In order to further our understanding of this relationship, potential mediating factors must be explored.

New Graduate Support

The growth of scientific inquiry concerning the concept of support over the years has resulted in a proliferation in the ways it is conceptualized and operationalized. Moreover, the concept of support been discussed both within and beyond the nursing profession. Although it is clear from the nursing literature that nurses provide support for the patients in their care, few studies have addressed the concept of support for nurses, despite their influence on health care (Sheffield, 2018). Providing support to nurses throughout their career is essential to maintain a healthy and sustainable nursing workforce (Sheffield, 2018). Many types of support have been examined in the nursing

literature and can be classified as being either structural or relational in nature. Structural supports are generally those associated to salary, opportunities for professional development in the workplace, and orientation and length of orientation (Coyne et al., 2020; Lin et al., 2014; Rush et al., 2015). In contrast, relational support involves coaching, feedback and encouragement from leader, preceptor, peers, or colleagues, emotional support, positive role-models (Buffington et al., 2012; Casey et al., 2004; Rush et al., 2015). Casey et al. (2004) provided a more in depth understanding of support through the development of the *CFGNES,* and the subscale used to measure the proposed mediator, new graduate support (CFGNES-SUPP), measures relational support for NGNs. According to Casey et al. (2004), support is the extent to which NGNs believe that they are assisted, encouraged, and provided with feedback by their preceptor, peers, and managers (Casey et al., 2004). Thus, the presence of support in the workplace provides NGNs the opportunity to develop confidence and competence, to practice their skills, and to fulfill the responsibilities associated with their nursing role (Casey et al., 2004). Since this study is focused on a type of relational support, the remainder of this section will provide evidence for the relational supports examined in NGNs.

The literature concerning the experience of NGNs as they transition from student nurses to professional nurses, has been a growing topic of interest for nursing scholars, especially over the last two decades (Parker et al., 2014). Findings of numerous studies validate that this transition period is a time of stress, role adjustment, and reality shock for NGNs (Casey et al., 2004; Duchscher, 2008; Kramer, 1974; Regan et al., 2017; Rush et al., 2019). Several relational support strategies have been developed and implemented by healthcare organizations and educational institutions to facilitate and support the development and integration of NGNs as they transition into the workplace (Casey et al.,

2004; Fink et al., 2008; Halfer et al., 2008; Rush et al., 2013; Rush et al., 2015; Scott et al., 2008). Numerous studies have been conducted in the United States and Canada, using both qualitative and quantitative research methods to provide insight on NGNs' transition in terms of professional practice, socialization, satisfaction and evaluation of transition programs for NGNs (Parker et al., 2014; Regan et al., 2017; Missen et al., 2014). Casey et al. (2004) suggested that the level of clinical knowledge, preceptor support, consistency of preceptor support, nursing leadership and peer support, trusting relationships, opportunity for professional development, as well as length and quality of transitional program, influenced NGNs' transition experience, in a sample of 270 NGNs working in six acute care hospitals in the Denver metropolitan area (Casey et al., 2004). NGNs reported that the most challenging period during their transition took place between six and twelve months after hire and that it took, at minimum, 12 months to feel comfortable and confident in their practice (Casey et al., 2004). Lastly, Williams et al. (2007) proposed that even if participants of the residency program experienced reality shock, it was offset by the constant support provided to NGNs and their favourable view of the residency experience.

Authentic Leadership and New Graduate Support

Based on existing literature, there is a lack of evidence for the relationship between authentic leadership and NGN support. The findings of many studies comment on the important role of those in leadership positions, specifically nurse managers, supervisors, and preceptors. Collard et al.'s (2020) scoping review reveled that poor leadership in the workplace can lead to NGNs feeling undervalued, unmotivated, and dissatisfied with their job (Chiller and Crisp, 2012; Hussein et al., 2017). Furthermore, the findings of this review indicate the importance of supporting new graduate NGNs so

that they feel comfortable asking questions and supported to develop knowledge and skills required to practice independently (Collard et al., 2020). Existing evidence emphasizes the fundamental role of effective leadership, as it sets the tone for the workplace, as well as the learning culture (Chiller and Crisp, 2012; Collard et al., 2020; Phillips et al., 2014; van Rooyen et al., 2018).

In terms of theory, Avolio et al. (2004) proposed that leaders play a crucial role in the creation of positive work environments. Findings of numerous studies conducted in the field of nursing have demonstrated the positive influence of authentic leadership on a variety of situational work environment factors and work experiences, namely, structural empowerment (Boamah et al., 2017; Read & Laschinger, 2015; Spence Laschinger & Fida, 2015; Wong & Laschinger, 2013), professional practice environment (Fallatah & Laschinger, 2016; Spence Laschinger & Fida, 2015), and workplace bullying (Laschinger et al., 2012). Due to the limited knowledge regarding the relationship between authentic leadership and new graduate support, Kanter's (1977; 1993) theory of structural empowerment is one perspective that may provide insight into how authentic leadership can be directly related to new graduate support, as defined by Casey et al. (2004).

According to Kanter, the structures of power in the workplace that are specifically important to the growth of empowerment include: *access to information*, *receiving support*, *access to opportunities for growth, movement, knowledge and skill*, as well as *access to resources.* The power structures of *access to support* and *opportunities for growth* are similar to the CFGNES-SUPP instrument for measuring new graduate support (see Appendix A.02), where access to *support* involves receiving guidance and constructive feedback from superiors, subordinates, and peers in addition to social and emotional support from colleagues (Boamah et al., 2017; Kanter, 1977; Laschinger,

1996; Laschinger et al., 2016b), while access to *opportunities* refers to the possibility for growth and movement within the organization, as well as providing workers with challenges and opportunities for professional development to enhance their knowledge and skills (Boamah et al., 2017; Laschinger et al., 2016a; Laschinger, 2012b). Evidence suggests that support is one component of structural empowerment; when the workplace provides nurses with the support, resources, and information they need to complete tasks and provide optimal patient care, they become empowered, motivated, and more productive and are satisfied with their job (Kanter, 1979; Laschinger, 1996; Laschinger et al., 2001). The opposite is true when NGNs lack access to sources of structural empowerment and support (Kanter, 1993). It is apparent from the literature that authentic leadership has positively influenced situational factors of the work environment, particularly structural empowerment. Due to the similarities that exist between Kanter's (1993) structural empowerment theory and Casey et al.'s (2004) CFGNES-SUPP, it is reasonable to suggest that the presence of authentic leadership in the workplace will enhance new graduate support, despite the limited evidence for this relationship.

Job Satisfaction

The organizational variable, job satisfaction, has received considerable attention in both the nursing and management literature for many years. However, only recently has greater attention been paid to the job satisfaction of NGNs, as they have been recognized as invaluable health human resources that can help mitigate the persisting worldwide nursing shortage (Alilyyani et al., 2018; Ebrahimi et al., 2017; Laschinger, 2015). Job satisfaction is a key factor in the recruitment and retention of nurses and is conceptually understood as the affective orientation that an employee has towards their job (Lu et al., 2012; Price, 2001). Based on empirical literature, job satisfaction among

nurses is suggested to be associated with several organizational, professional, and personal variables (Lu et al., 2012). Lu et al. (2012) conducted a systematic review of literature using 100 published articles, on the job satisfaction of nurses working in hospitals and concluded that job satisfaction of hospital nurses was closely related to the following factors: working conditions and organizational environment, job stress, role conflict and ambiguity, role perception and role content, organizational commitment and professional commitment.

A considerable number of research studies have suggested that NGNs' job satisfaction is a significant predictor of NGNs' turnover intention, which is defined as an employee's voluntary or involuntary movement from their current position to an alternative position, either within or outside of their current organization (Halter et al., 2017). Moreover, findings suggest turnover intention is a strong predictor of NGN turnover rates; the number of nurses who voluntarily leave their position in a single year (O'Brien-Pallas et al., 2008). With this in mind, it is imperative that every effort is made to enhance NGNs' job satisfaction because the sustainability of the nursing workforce depends on it. The behaviours and actions of leaders are fundamental for the job satisfaction of their followers. Job dissatisfaction has been associated with many negative organizational outcomes, such as poor working relationships and increased turnover intentions (Ulrich et al., 2010). Therefore, to improve the satisfaction of nurses, extra attention should be given to the work conditions that promote job satisfaction, and ultimately reduce turnover.

Collectively, the findings provide support for the relationship between authentic leadership and job satisfaction, as well as mediating role of new graduate support because by role modelling positive behaviours to followers in the workplace, whether it be new

gradate nurses, preceptors, or senior nursing staff, authentic nurse managers are able to influence their staff to adopt such behaviours, which can lead to heightened perceptions of a new graduate support and positive change in work attitudes, specifically job satisfaction of NGNs (Avolio et al., 2004). Furthermore, since leaders are responsible for ensuring nurses are supported during their transition to practice through relational supports, such as preceptorships and orientation programs, they influence the supports available in the work environment. With this being said, there is reason to believe that new graduate support mediates the relationship between authentic leadership and NGN job satisfaction.

New Graduate Support and Job Satisfaction

Few studies have provided an in-depth discussion of Casey et al.'s (2004) *Supportive Environment* subscale (CFGNES-SUPP) and its relationship with job satisfaction. One possible explanation for this might be that the CFGNES was designed to measure the transition experiences of NGNs and organizational outcome measures, such as job satisfaction, are accounted for through its professional satisfaction subscale (Casey et al., 2004). Recurring evidence has indicated that NGNs do not feel adequately prepared to take on the role and responsibilities of a professional nurse (Huston et al., 2008; Maben et al., 2006), as many of them feel that they do not have the role-related knowledge skills, clinical judgement, even though they are expected to meet the entry-level competencies outlined by the nursing regulatory bodies at the time of graduation (Rush et al., 2019). Transitional programs, also referred to as NGN residency, orientation, preceptorship, or internship programs, are one of the most highly discussed relational support strategies in the nursing literature (Casey et al., 2004; Lalonde & McGillis Hall, 2016; Missen et al., 2014; Rush et al., 2015; Williams et al., 2007). While these programs

vary in duration, structure, content, and financial support, they are all designed to provide support and educate NGNs during their first year of professional practice, as well as improve their job satisfaction, retention, and turnover (Beecroft et al., 2008; Halfer et al., 2008; Missen et al., 2014; Parker et al., 2014). Halfer et al. (2008) found that job satisfaction was significantly higher in post-internship nurses than pre-internship nurses, which in turn also resulted in reduced turnover. Likewise, Salem Alghamdi and Gazhi Baker's (2020) study using a sample of new graduate Saudi Arabian registered nurses ($n = 95$) working in public hospitals in the Al-Bahah region, found a strong, positive, and statistically significant relationship between new graduate support and job satisfaction ($r = 0.513, p < 0.001$), showing the value of orientation programs. Furthermore, the findings of Scott et al. (2008) suggested that NGNs' first orientation experience is a predictor of their job satisfaction and retention in the first two years; longer orientation programs that support the needs NGNs are suggested to enhance job satisfaction (Scott et al., 2008). Moreover, Rush et al. (2015) identified that orientation programs, greater than four weeks in length, significantly improved NGN participants' transition experience, specifically the communication/leadership, support, and professional satisfaction subscales of the CFGNES. Regardless of the length or type, participation in a new graduate transition program has been shown to significantly improve NGNs' perceptions of support in their work environment, which in turn improves their job satisfaction (Rush et al., 2015).

Another important type of relational support discussed in the literature is encouragement and feedback from managers, preceptors, peers, and nursing staff in the workplace (Casey et al., 2004). A study by Casey et al. (2004) found that 73% of NGNs were satisfied with the positive feedback provided by preceptors, managers, and co-

workers; positive feedback was one of the nine items used to measure job satisfaction in their study. Similarly, the voices of the new graduate residents in Fink et al.'s (2008) qualitative analysis emphasized that mangers, educators, and/or program facilitators need to be present and provide support to NGNs throughout the formal residency program. Furthermore, NGNs expressed the need for a mentor or resource person after six months of starting their professional nursing role in order to help them to continue to develop themselves professionally, acquire necessary skills, and achieve clinical confidence and competence (Fink et al., 2008). Rush et al.'s (2019) integrative review highlighted that support is primarily provided to NGNs during the orientation period by their assigned preceptor(s). Similar to nurse managers, preceptors play a critical leadership role in the workplace, as they have been shown to influence the confidence and competence of NGNs (Casey et al., 2004), and can either hinder or enhance the progression and job satisfaction of NGNs (Rush et al., 2013). Recent findings have identified that the value of preceptorships is more about the quality of the preceptor experience than the quantity of preceptored shifts (Rush et al., 2013). Preceptors who were attentive to providing encouragement and feedback, provided opportunities for learning and growth, and worked to create a supportive environment on the unit, lessened the reality shock for NGNs and improved their overall satisfaction.

Likewise, Chachula et al. (2015) explored the factors and basic psychosocial processes involved in eight newly graduated registered nurses', living in Western Canada, decision to permanently leave the nursing profession within five years. NGNs reported the need to feel welcomed, respected, valued, and accepted in the work environment, and in order to cope with the challenges encountered at work, they require constructive feedback from co-workers, as well as emotional support and debriefing

(Chachula et al., 2015). Furthermore, to promote confidence, proficiency, knowledge acquisition and role identity of NGNs, coaching and mentorship that is constructive and uses non-judgmental communication, and empathy must be provided (Chachula et al., 2015). The findings also suggest that by demonstrating transformational and/or authentic leadership, managers, staff, clinical educators, and nursing faculty are able to compensate for the stress and anxiety NGNs experience in the workplace. The future of the nursing profession depends on the successful transition and satisfaction of NGNs; thus, it is crucial to preserve their hope and eliminate negative and toxic working environments through constant interpersonal support and provision of resources for growth (Chachula et al., 2015). Based on the evidence above, it is reasonable to suggest new graduate support is related to NGNs' job satisfaction.

Summary of the Literature

The findings of this literature review highlight research that has been conducted to date to provide both theoretical and empirical support for this study. The literature provided clear support for the influence of authentic leadership on nurses' job satisfaction and the various factors that have been shown to mediate this relationship. The evidence also demonstrates the value of the relational leadership style of authentic leadership and its positive influence on situational factors that are similar to new graduate support. The findings outlined above highlight the positive impact of support on organizational outcomes, namely job satisfaction. Upon review of the available nursing literature, three gaps were identified. First, while the literature has demonstrated the fundamental role of authentic nursing leadership in creating healthy and supportive work environments for nurses, no study has examined the influence of authentic leadership and new graduate support on NGN' job satisfaction, especially with an instrument, namely the CFGNES-

SUPP subscale, that details the specific attributes of support that are relevant to NGNs'

transition to professional practice. Second, new graduate support has not been published

in Ontario. Third, the Ontario subset of data collected from the original *Starting Out*

study has yet to be examined. As a result, this study seeks to address these gaps by testing

a hypothesized simple mediation model among Ontario NGNs. Filling such gaps can

offer insight into how members of healthcare organizations can empower, support, and

promote job satisfaction of NGNs, as it supports the need for nursing scholars to gain a

deeper understanding of modifiable workplace factors that influence NGNs job

satisfaction as it relates to the retention and transition success of NGNs (Laschinger et al.,

2016ab).

Hypotheses and Rationale

Based on the Avolio et al.'s (2004) authentic leadership theory and the review of

the literature on authentic leadership, new graduate supports and new graduate job

satisfaction, the following model (see Figure 1) and hypotheses were proposed:

H1) Managers' authentic leadership is positively related to NGNs' job satisfaction.

H2) Managers' authentic leadership is positively related to new graduate support.

H3) New graduate support is positively related to NGNs' job satisfaction.

H4) The relationship between authentic leadership and NGNs' job satisfaction is

mediated by new graduate support.

Avolio et al.'s (2004) authentic leadership theory maintains that when authentic

leaders demonstrate self-awareness, internalized moral perspective, balanced processing,

and relational transparency in the workplace, followers begin to both personally and

socially identify with their leader. This identification process promotes the psychological

capacities of hope, trust, positive emotions, and optimism (Avolio et al., 2004). There is a
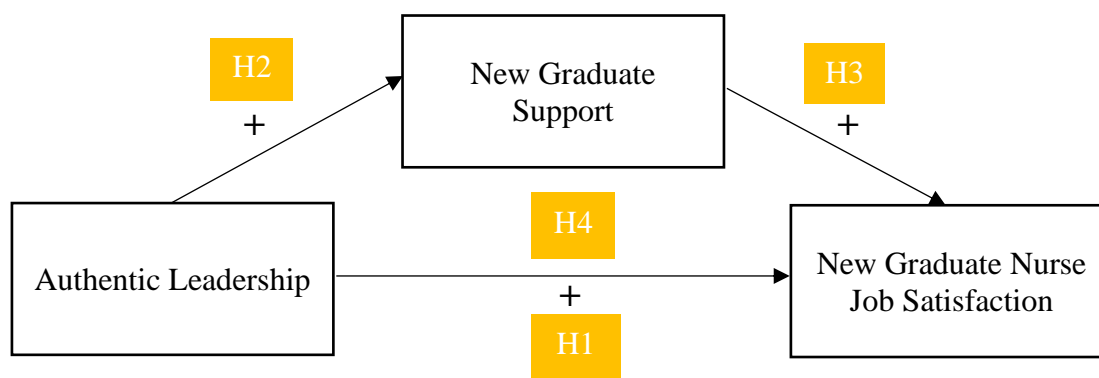
Figure 1: Hypothesized Model

substantial body of evidence to support the relationship between authentic leadership and follower attitudes, namely job satisfaction, both within and outside of the nursing profession, which provides support for the positive relationship between authentic leadership and NGN job satisfaction in the present study (Alilyyani et al., 2018). Moreover, authentic leadership has been associated with many situational variables related to the work environment (Boamah et al., 2017; Fallatah & Laschinger, 2016; Wong & Laschinger). While new graduate support is not part of Avolio et al.'s (2004) current theorized model, Avolio and Gardner (2005) propose that authentic leaders are able to create a positive work environment by demonstrating authentic leadership behaviours and providing followers with access to information, resources. Therefore, there is reason to believe that authentic leadership is positively related to new graduate support. Many situational variables that are viewed as strategies to support NGNs during their transition to professional nursing practice have been associated with enhancing NGNs' job satisfaction (Casey et al., 2004; Halfer et al., 2008; Rush et al., 2015; Rush et al., 2019; Scott et al., 2008). This hypothesis is logical, as when NGNs feel supported in the workplace, they are more likely to be satisfied with their jobs. Finally, new graduate

support is a theoretically suitable mediator of the relationship between authentic

leadership and NGN job satisfaction. Situational variables that are related to support in

the workplace, for instance supportive professional practice environment, have been

shown to mediate this relationship (Fallatah & Laschinger, 2016). Therefore, it is

reasonable to suggest that when nurse managers model authentic leadership behaviours in

the workplace, they are able to create positive, healthy, and supportive work

environments, which in turn influences NGNs' ratings of job satisfaction.

Methods

Design

This study was a secondary analysis of data collected in 2012 for a two-wave

national study of Canadian NGNs titled *Starting Out: Successful Transition and*

Retention in New Graduate Nurses, which examined Canadian NGNs work experiences

and transition to practice (Laschinger et al., 2016a). A non-experimental, predictive

survey design was used in this secondary analysis of data to examine the relationships

among variables, since the study variables cannot be manipulated (Laschinger, 2013;

Polit & Beck, 2017). This study was cross-sectional and used Time 1 baseline data from

the Ontario NGN subset collected between November 2012 and March 2013.

Sample and Setting

The Time 1 sample from the Laschinger et al.'s (2013) *Starting Out* study was

obtained using a disproportionate random sampling method. A sampling frame of all

practicing registered nurses working in direct care, that had graduated in the past year

(i.e., September, 2011), was requested from each of the ten provincial regulatory bodies

to ensure a maximum of four months of practice experience at Time 1 of the survey

(Laschinger, 2013). Based on Laschinger et al.'s (2013) previous surveys in the same

population, a 50% response rate was anticipated. Thus, in order to obtain the desired sample size of 200 NGNs from each province, 400 surveys were sent to NGNs in each provincial regulatory body in Canada (Laschinger, 2013). This sampling method ensured that NGNs from each province were adequately represented in the sample (Laschinger, 2013). The inclusion criteria for this secondary analysis of data included male and female NGNs who, at the time, had graduated within the past two years, with 0 to 24 months of experience at Time 1, working in direct care, and registered with the College of Nurses of Ontario (Laschinger, 2013). Registered practical nurses, clinical educators, managers, and registered nurses who were on a leave of absence were excluded from the study. According to provincial statistics, Prince Edward Island, Nova Scotia, and Newfoundland produced fewer nurses per year; consequently, a census of all available NGNs was requested. However, fewer potential study participants met the inclusion criteria than predicted. As a result, all qualifying NGNs from each of the ten provinces were requested, with some provinces providing more than 400 potential participants. A total sample of 3,906 potential study participants was obtained from the ten provinces. At Time 1, 3,906 surveys were mailed out to NGNs across Canada and resulted in a final sample size of 1,161 NGNs. However, this secondary analysis focused on the Ontario NGN subset at Time 1. In this secondary analysis of data, a convenience sampling method was applied. The College of Nurses of Ontario provided a total of 878 potential study participants who fit the study's aforementioned criteria. Of the 878 surveys distributed to potential study participants, a total of 215 usable surveys were returned at Time 1 for a response rate of 26.2%

A sample size estimate was executed using G*Power 3.1 in order to determine the appropriate sample size to yield a moderate effect size (Faul et al., 2009). Using an alpha

of 0.05, a statistical power level of 0.95 and two predictor variables, a sample size of 107

participants would be required for testing a moderate effect size of 0.15 using multiple

regression analysis (Faul et al., 2009). While this secondary analysis of data used the

PROCESS macro for SPSS, version 3 (Hayes, 2018) to analyze the data collected from

the sample of Ontario NGNs, a sample size estimate was conducted to serve as an

estimate of the subjects required for optimal data analysis. Therefore, the available

sample size of 215 was deemed to be adequate for this analysis.

Instruments

Three standardized self-report instruments were used to measure the three major

study variables (see Appendix A).

Authentic leadership. Authentic leadership was measured in the primary study

using the *Authentic Leadership Questionnaire* (ALQ), which was developed to measure

followers' ratings of the frequency of which their leaders demonstrate authentic

leadership behaviours (Avolio et al., 2007). In addition, NGNs were understood to be the

followers and clinical unit managers as the leaders (Avolio et al., 2007). The 16-items of

the ALQ are divided into four subscales, each of which measure the four key components

of authentic leadership: i) self-awareness (four items), ii) balanced processing (three

items), iii) internalized moral perspective (four items), iv) relational transparency (five

items) (Walumbwa et al., 2008; see Appendix A-01). Participants were instructed to rate

how frequently their leader (immediate supervisor) displays each of the four authentic

leader behaviours on a 5-point Likert scale, ranging from 0 (not at all) to 4 (frequently, if

not always). The items for each of the four subscales are averaged to generate total

subscale score means for each, and an overall authentic leadership score is computed by

taking the average of the four subscale means (Avolio et al., 2007; Walumbwa et al.,

2008). Scores range from 0 to 4, with higher scores indicating higher levels of authentic

leader behaviours (Walumbwa et al., 2008). Construct validity for the ALQ was

established through confirmatory factor analysis and was shown to support the four

components of authentic leadership (Walumbwa et al., 2008). Furthermore, Walumbwa et

al. (2008) established discriminate validity and showed that authentic leadership was

distinct from ethical and transformational leadership. Lastly, the internal consistency of

the ALQ was confirmed by Walumbwa et al. (2008) based on the following Cronbach's

alpha reliability estimates for the ALQ; self-awareness ($a = 0.92$), balanced processing (a

$= 0.81$), internalized moral perspective ($a = 0.76$), and relational transparency ($a = 0.87$).

In this secondary analysis of data, the Cronbach's alpha reliability coefficient for the total

ALQ was 0.97, with subscales ranging from 0.82 to 0.94 (see Table 2).

New graduate support. New graduate support was measured by the CFGNES,

which was developed to measure NGNs' transition experiences and has been used to

evaluate nurse residency/orientation programs (Casey et al., 2004; Casey, 2019; Fink et

al., 2008). This study used the 9-item CFGNES-SUPP, in which items are rated on a 4-

point Likert scale, ranging from 1 (strongly disagree) to 4 (strongly agree) (see Appendix

A-02). A total score of the nine items is then obtained by summing and averaging the

item responses. The content validity of the CFGNES was established by review of expert

nurse directors and educators working in both academic and private hospital settings

(Casey et al., 2004). A substantial and comprehensive literature review supported the

creation of content for the CFGNES (Casey et al., 2004). According to the literature,

NGNs' transition experiences are influenced by feedback and encouragement from

managers and preceptors, positive role-models, supportive nursing staff, and

opportunities for professional growth, to name a few (Casey et al., 2004; Rush et al.,

2019). Discriminant validity was confirmed as the tool discriminated between nurses with varied amounts of experience during the first year of practice (Casey et al., 2004). Exploratory factor analysis yielded a five-factor solution that accounted for 46% of the variation in total scores. The factors were labeled support, patient safety (organizing/prioritizing), stress, communication/leadership, and professional satisfaction, with reliability estimates ranging from 0.71 to 0.90 (Casey et al., 2004; Casey et al., 2021) and Cronbach's alpha internal reliability estimate of 0.89. The Cronbach's alpha reliability estimate for the CFGNES-SUPP subscale was 0.90. Since then, factor analyses have been carried out by nurse researchers, including Williams et al., (2007) and most recently, Casey et al., (2021). The five-factor solution found by Casey et al., (2021) accounted for 49.5% of the total variance between items. The reliability for the five factors, which include job satisfaction, support, role confidence, organize/prioritize care, and professional socialization, ranged from 0.73 to 0.94 (Casey et al., 2021). Moreover, the Cronbach's alpha reliability estimate for the CFGNES-SUPP subscale was 0.83 (Casey et al., 2021). In the present secondary analysis of data, the Cronbach's alpha reliability coefficient for the CFGNES-SUPP subscale was 0.86 (see Table 2).

Job satisfaction. Job satisfaction was measured using the *Michigan Organizational Assessment Questionnaire's Job Satisfaction Subscale* (MOAQ- JSS), which was developed as an alternative to the Job Diagnostic Survey to measure global job satisfaction (Cammann et al.,1983; see Appendix A-03). The 3-items of the MOAQ-JSS are rated on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), with one item reversed scored. Item responses are then summed and averaged to obtain an overall score. Validity of MOAQ-JSS has been demonstrated in numerous studies (Bowling & Hammond, 2008). Bowling and Hammond (2008) demonstrated the

reliability and construct validity of the MOAQ-JSS through meta-analysis, and strongly encourage the use of this tool to assess global job satisfaction. The MOAQ-JSS has also demonstrated acceptable internal consistency in previous studies, which produced Cronbach's alpha reliability of 0.77 (Spence Laschinger & Fida, 2015) and 0.80 (Peterson, 2009). In this secondary analysis of data, the Cronbach's alpha reliability coefficient for the MOAQ-JSS was 0.90 (see Table 2). Lastly, a demographic questionnaire (see Appendix A-04) was used to collect data concerning the participant's age (in years), gender, education, completion of a compressed time frame nursing program, employment status, specialty area, years and months of experience as a registered nurse, years and months at current organization, and years and months on current unit.

Data Collection

Ethics approval for the original study was granted by the University of Western Ontario Ethics Review Board for Health Sciences Research Involving Human Subjects in 2012. Ethics approval for secondary analysis of data was also included in the original approval (see Appendix B). At Time 1, a total of 3,906 survey packages containing a standardized questionnaire, letter of information (Appendix C), and a pre-paid return envelope were mailed to nurses in the ten participating provinces between November 2012 and January 2013. The survey packages also included a $2.00 Tim Horton's coffee shop voucher as a token of appreciation for the participants and their time to complete the mailed questionnaire, as well as ballot for entry into a draw to win for one of four iPads. Participants who chose not to complete the mailed questionnaire were permitted to keep their coffee shop voucher. The Dillman Total Design Methodology (2000, 2014) was used for data collection and has been shown to reduce respondent burden, increase

response rates, and increase the timeliness and accuracy of pertinent statistical

information (Laschinger, 2013). To increase the return rate, a reminder letter was sent out

to non-respondents four weeks after the original survey mailing, and then a second survey

package was sent to non-respondents four weeks after the reminder letter.

Data Analysis

Data analysis was performed using Statistical Package for Social Sciences (SPSS)

version 25.0 statistical analysis software (IBM, 2017). Little's (1988) Missing

Completely at Random (MCAR) test was performed prior to running data analyses in

SPSS to assess for the frequency and pattern of missing data. Little's (1988) MCAR test

identified whether there was a systematic pattern in relation to the variables of interest

and their outcomes. The MCAR test is a crucial step as it helps identify if there are any

serious concerns that are a result of incomplete data. Performing the MCAR test enhances

precision of calculated statistics by ensuring there is adequate data available for analyses.

In this secondary analysis of data, the null hypothesis for Little's (1988) MCAR test was

that the data were missing completely at random, which indicates that the missing value

(y) neither depends on x nor y, rather the probability of missingness is the same for all

units (IBM Corp, n.d.). Therefore, if data are determined to be MCAR, the null

hypothesis fails to be rejected.

Descriptive statistics were collected in order to gain a concise understanding of

the sample of Ontario NGNs. The descriptive statistics collected from the sample

included mean, standard deviation, as well as minimum and maximum value. The

continuous variables in this study (i.e., age, years of experience as a registered nurse,

years in current organization, and years on current unit) were summarized using

descriptive statistics, while the categorical variables (i.e., gender, education, compressed

time frame program, employment status, and specialty area) were summarized using number (n) and percent. The assumption of normality of the data was examined using skewness and kurtosis analysis and histograms, whereas the assumption of linearity of the data was assessed using scatterplots (Herschel Knapp, 2017). Relationships between the three main study variables (i.e., authentic leadership, new graduate support, and NGN job satisfaction) and continuous demographic variables (i.e., age [in years], years of experience as a registered nurse, years at current organization, and years on current unit) were assessed using Pearson's correlation coefficients. In addition, differences between the three main study variables and the categorical demographic variables, gender and completion of a compressed time frame nursing program, were assessed using t-tests. Group differences among the three main study variables with other categorical demographic variables (i.e., speciality area, and employment status) were assessed using a one-way analysis of variance (ANOVA). No tests were completed on the education variable, as all participants had obtained a BScN degree except for one participant, who had also obtained a master's degree. The internal consistency reliability of instruments and their subscales was calculated using Cronbach's alpha.

Lastly, the PROCESS macro for SPSS, version 3 (Hayes, 2018) was used to test the hypothesized simple mediation model for the direct effect of the independent variable, (i.e., authentic leadership) on the outcome variable (i.e. NGN job satisfaction), as well as the indirect effects of the independent variable on the outcome variable through the proposed mediator variable (i.e., new graduate support). Based on the hypothesized model in this study, PROCESS Model 4 was the most suitable model to conduct the simple mediation analysis as it analyzes both the direct relationship between the independent variable and the outcome variable and the indirect effect of the mediator

variable (Hayes, 2018). The significance for the mediation analysis was set at $p < .05$.

PROCESS, is a software tool that produces unstandardized regression coefficients of a hypothesized model using ordinary least squares (OLS) regression. While the logic of reliance on criteria to establish mediation described by Barron and Kenny (1986) remains both useful and essential in contemporary approaches, it is no longer recommended by those who specialize in mediation analysis (Hayes & Rockwood, 2017). Hayes and Rockwood (2017) recommend that researchers interested in testing mediation hypotheses move toward the modern practice of estimating the indirect effect of X on Y (*ab)*, conducting statistical inferences regarding the product, and understanding that a statistically significant relationship between X and Y is not a requirement of mediation (Hayes & Rockwood, 2017; Hayes & Rockwood, 2020). In PROCESS, bootstrapping is an alternative approach to test the null hypothesis and has been shown to perform better than the Sobel test (Sobel, 1982), which relies on an estimate of the standard error of the indirect effect (*ab)*. Research suggests the Sobel test (Sobel, 1982) has lower statistical power, mainly for the reason that it inappropriately assumes that the sampling distribution of *ab* is normal, which can lead to decision errors and poor confidence intervals (Hayes & Rockwood, 2017; Hayes & Rockwood, 2020). Bootstrapping, however, is a resampling method used to construct confidence intervals for testing the indirect effect (*ab)* in a mediation analysis (Hayes & Rockwood, 2020). Bootstrapping involves repeated random sampling of the dataset (5,000 resamples were used in these analyses), to produce an empirical representation of the sampling distribution of *ab* in addition to a confidence interval for *ab,* using a 95% confidence interval (Hayes & Rockwood, 2017). If the resulting confidence interval is entirely above or below zero, there is evidence of a statistically significant indirect effect. In contrast, a confidence

interval straddling zero would indicate that the indirect effect is not statistically significant, as zero is one of the possible values for the effect (Hayes & Rockwood, 2017).

Results

Prior to running data analyses in SPSS, Little's (1988) MCAR test was performed to assess the frequency and pattern of missing data. Upon assessment of the pattern and frequency of missing data, a fairly substantial number of participants did not answer the questions relating to the length of time, in years, they had been working at their current organization (missing = 26), and on their current unit (missing = 29). The missing data for both of these variables corresponded to the same 26 participants, except an additional three participants chose not to answer the question relating to the length of time working on their current unit. As a result, there is some uncertainty in these three variables when interpreting the means. With respect to the three main study variables, one participant did not provide ratings for authentic leadership and new graduate support variables, therefore less than 1% (n = 1) of the data was identified as missing. The results of the MCAR test suggest the data were missing completely at random, as $p = 0.163$, which is greater than the pre-determined significance level ($p = 0.05$). Therefore, it is appropriate to reject the null hypothesis that data is not missing completely at random. Lastly, the data used was normally distributed.

Sample Characteristics

The demographic characteristics of the sample are presented in Table 1. In this sample of Ontario NGNs, the majority of participants were female (89.8%), baccalaureate prepared (99.5%) registered nurses employed full-time (62.3%), with

Table 1. *Demographic Characteristics of the Sample (N=215)*

Demographics		Frequency (*n*)	Percentage (%)
Gender	Female	193	89.8
	Male	22	10.2
Education	BScN	214	99.5
	Master's Degree in Nursing	1	0.5
Compressed Time Frame	Yes	37	17.2
	No	176	81.9
Employment Status	Full-Time	134	62.3
	Part-Time	71	33
	Casual	8	3.7
Specialty Area	Medical – Surgical	96	44.7
	Critical Care	40	18.6
	Maternal – Child	13	6
	Mental Health	13	6
	Float Pool or Nursing Resource Unit	16	7.4
	Community Health	16	7.4
	Long Term Care	16	7.4
	Geriatric / Rehabilitation	3	1.4

Demographics	*N*	Mean	SD
Age	215	27.61	6.95
Years of Experience as RN	210	1.41	0.36
Years at Current Organization	189	1.27	0.45
Years on Current Unit	186	1.10	0.50

17.2% of participants that were educated through a compressed time frame program. The average age of participants was 27.61 ($SD = 6.95$) years. The most frequently reported areas of employment were medical-surgical units (44.7%) and critical care units (18.6%). Participants reported having, on average, 1.41 ($SD = 0.36$) years of experience as registered nurses, 1.27 ($SD = 0.45$) years of experience at their current organization, and 1.10 ($SD = 0.50$) years of experience on their current unit.

Descriptive Results

The means, standard deviations, Cronbach's alpha reliability coefficients, and Pearson correlations (r) for the main study variables are presented in Table 2, in addition to the scale for each study variable. The results of this secondary analysis of data suggest that Ontario NGNs reported moderate levels of authentic leadership ($M = 2.59$, $SD = 0.93$) in their workplace, and of the four subscales measuring authentic leadership, internalized moral perspective was rated the highest ($M = 2.70$; $SD = 0.96$) and self-awareness was rated the lowest ($M = 2.46$; $SD = 1.10$). Moreover, the results of this study indicate that Ontario NGNs reported moderate to high ratings of their new graduate support ($M = 3.27$, $SD = 0.48$). Lastly, the findings of this study revealed that Ontario NGNs reported moderate to high levels of job satisfaction ($M = 3.93$, $SD = 0.98$).

Relationships Between Demographic Variables and Main Study Variables

No statistically significant relationships were found between the continuous demographic variables (i.e., age, years of experience as a registered nurse, years of experience in current organization, and years of experience on current unit) and the three main study variables (authentic leadership, new graduate support, and NGN job satisfaction; see Table 3). However, statistically significant positive relationships were found between years of experience as a registered nurse and years at current organization

Table 2. *Means, Standard Deviations, Cronbach's Alphas, and Correlations for Main Study Variables and Subscales (N = 215)*

Variable	Scale	*M*	*SD*	*a*	1	1a	1b	1c	1d	2
1. Authentic Leadership (ALQ)	1 = min	2.59	0.93	0.97						
	4 = max									
1a. *Self-Awareness*		2.46	1.10	0.94	0.93*					
1b. *Balanced Processing*		2.56	0.97	0.82	0.94*	0.86*				
1c. *Internalized Moral*		2.70	0.96	0.89	0.91*	0.77*	0.81*			
Perspective										
1d. *Relational Transparency*		2.67	0.96	0.90	0.93*	0.82*	0.82*	0.81*		
2. New Graduate Support	1 = min	3.27	0.48	0.86	0.48*	0.46*	0.48*	0.43*	0.42*	
(CFGNES-SUPP)	4 = max									
3. Job Satisfaction	1 = min	3.93	0.98	0.90	0.47*	0.46*	0.41*	0.46*	0.42*	0.49*
(MOAQ - JSS)	5 = max									

*Note: all correlations were significant * p < 0.01 (two-tailed); a = Cronbach's alpha values.*

($r = 0.70$, $p < 0.001$), years of experience as a registered nurse and years on current unit ($r = 0.44$, $p < 0.001$), and years at current organization and years on current unit ($r = 0.67$, $p < 0.001$). These results are not surprising, as the inclusion criteria for this study required participants to have less than two years of experience as a registered nurse.

A background analysis outlining the possible associations between the three main study variables and the categorical variables can be found in Appendix D. The binary categorical variables were analyzed using t-tests in order to compare reported means of authentic leadership, new graduate support, and job satisfaction provided by Ontario NGNs based on their gender and completion of a compressed time frame nursing program. The results suggest that Ontario NGNs' ratings of authentic leadership did not differ based on gender (Male, $M = 2.70$; Female, $M = 2.58$; $p = 0.56$; $t_{(212)} = -0.59$) or completion of a compressed time frame program (CTF, $M = 2.61$; Non-CTF, $M = 2.58$; $p = 0.86$; $t_{(210)} = 0.17$). Similarly, Ontario NGNs' ratings of new graduate support were not influenced by gender (Male, $M = 3.28$; Female, $M = 3.27$; $p = 0.92$; $t_{(212)} = -0.09$) or completion of a compressed time frame nursing program (CTF, $M = 3.23$; Non-CTF, $M = 3.28$; $p = 0.54$; $t_{(210)} = -0.61$). Moreover, Ontario NGNs' ratings of job satisfaction were no different based on gender (Male, $M = 4.02$; Female, $M = 3.91$; $p = 0.65$; $t_{(213)} = -0.45$) and completion of a compressed time frame program (CTF, $M = 4.03$; Non - CTF, $M = 3.91$; $p = 0.49$, $t_{(211)} = 0.69$).

The non-binary categorical variables were analyzed using ANOVA in order to compare reported means of authentic leadership, new graduate support, and job satisfaction provided by Ontario NGNs based on specialty area and employment status. The results suggest that Ontario NGNs' ratings of authentic leadership did not differ based on the specialty area they were employed in (Medical-Surgical, $M = 2.47$; Critical

Care, $M = 2.41$; Other, $M = 2.78$; $p = .25$, $F_{(7, 204)} = 1.30$) or their employment status

(Full-Time, $M = 2.68$; Part-Time, $M = 2.47$; Casual, $M = 2.46$; $p = 0.27$; $F_{(2, 209)} = 1.13$).

In addition, Ontario NGNs' ratings of new graduate support were not influenced by the

specialty area they were employed in (Medical -Surgical, $M = 3.27$; Critical Care, $M =$

3.24; Other, $M = 3.24$; $p = .40$, $F_{(7, 204)} = 1.04$) or their employment status (Full-Time, M

$= 3.32$; Part-Time, $M = 3.21$; Casual, $M = 3.11$; $p = 0.22$, $F_{(2, 209)} = 1.51$). Finally, Ontario

NGNs' ratings of job satisfaction did not differ based on the specialty area they were

employed in (Medical-Surgical, $M = 3.86$; Critical Care, $M = 3.96$; Other, $M = 3.98$; $p =$

$.62$, $F_{(7, 205)} = 0.77$) or their employment status (Full-Time, $M = 3.98$; Part-Time, $M =$

3.92; Casual, $M = 3.29$; $p = 0.15$, $F_{(2, 210)} = 1.92$).

Correlation Analysis

The correlations among the main study variables are reported in Table 2. First, a

statistically significant positive correlation was found between authentic leadership and

new graduate support ($r = 0.48$, $p < .001$). In addition, a statistically significant positive

correlation was found between authentic leadership and NGN job satisfaction ($r = 0.47$, p

$< .001$). Among the four subscales measuring authentic leadership, new graduate support

was most highly correlated with balanced processing ($r = 0.48$, $p < .001$), whereas job

satisfaction was most highly correlated with both self-awareness ($r = 0.46$, $p < .001$) and

internalized moral perspective ($r = 0.46$, $p < .001$). Lastly, a statistically significant

positive correlation was found between new graduate support and NGN job satisfaction (r

$= 0.49$, $p < .001$).

Table 3. *Correlations Between 3 Main Study Variables and Demographic Variables*

Variable	1	2	3	4	5	6
1. Age						
2. Years of Experience as RN	-0.61					
3. Years at Current Organization	-0.45	0.70*				
4. Years on Current Unit	-0.61	0.44*	0.67*			
5. Authentic Leadership (ALQ)	0.07	0.01	-0.06	-0.05		
6. New Graduate Support (CFGNES-SUPP)	-0.31	-0.01	0.67	-0.04	0.48*	
7. Job Satisfaction (MOAQ- JSS)	0.13	0.04	0.05	0.07	0.47**	0.49*

* p < 0.01 (two-tailed); a = Cronbach's alpha values.

Testing of Hypotheses

PROCESS macro for SPSS, version 3 (Hayes, 2018) was used to test the hypothesized simple mediation model (see Figure 1) for the direct effect of the independent variable, authentic leadership, on the outcome variable, NGN job satisfaction, as well as the indirect effect of the independent variable through the mediator variable, new graduate support, on the outcome variable. No control variables were used in this analysis. Upon analysis of the relationship between the categorical demographic variables and the three main study variables, no statistically significant relationships were found (Appendix D). Consequently, these variables were disregarded as control variables.

The results of the simple meditation model analysis are shown in Table 4. Overall, authentic leadership and the new graduate support variables contributed to approximately 31% of the variance in Ontario NGNs' job satisfaction ($R^2 = 0.31$, $F_{(2, 211)} = 46.5$, $p < .0001$), which suggests that the hypothesized model is effective for predicting NGN job satisfaction. The direct effect between authentic leadership and NGN job satisfaction was positive and significant ($B = 0.318$, $p < .001$), which supports the first hypothesis (see Figure 2). Next, authentic leadership was found to have a positive, direct and significant influence on new graduate support ($B = 0.251$, $p < .001$). In addition, the mediator, new graduate support, was shown to account for 23% of the variance in Ontario NGN job satisfaction ($R^2 = 0.23$, $F_{(1, 212)} = 63.3$, $p < .0001$), which suggests that the model is a good fit for the data. Therefore, the second hypothesis was supported. Similarly, the direct relationship between new graduate support and NGN job satisfaction was positive and significant ($B = 0.684$, $p < .001$), supporting the third hypothesis. Lastly, the indirect effect of authentic leadership on NGNs' job satisfaction through new graduate support was positive ($B = 0.172$) and significant ($CI = 0.097, 0.259$), as the bootstrap confidence interval did not include zero. Therefore, the fourth hypothesis was supported.

Discussion

The purposes of this secondary analysis of data were to examine the relationship between managers' authentic leadership and job satisfaction among Ontario NGNs and determine whether this relationship was mediated by new graduate support. All four hypotheses were supported in this study (see Figure 2). Overall, authentic leadership and new graduate support contributed to approximately 31% of the variance in Ontario NGNs' job satisfaction.

Table 4. *Regression Coefficients, Standard Errors, and Model Summary Information for Simple Mediation Model (N = 214).*

| | Consequent | | | | | |
| | M_1 New Graduate Support | | | Y (New Graduate Nurse Job Satisfaction | | |
Antecedent	Coeff.	*SE*	*p*	Coeff.	*SE*	*p*
X (AL)	0.251	0.032	$< .001$	0.318	0.069	$< .001$
M_1 (NGS)	---	---	---	0.684	0.131	$< .001$
Constant	2.6217	0.087	$< .001$	0.874	0.383	0.023
	$R^2 = 0.23$			$R^2 = 0.31$		
	$F_{(1, 212)} = 63.3, p < .0001$			$F_{(2, 211)} = 46.5, p < .0001$		

Note: (1) All beta coefficients are unstandardized; (2) AL = Authentic Leadership, NGS = New Graduate Support, M = mediator variable, Coeff. = coefficient, *SE* = standard error; R^2 = variance.
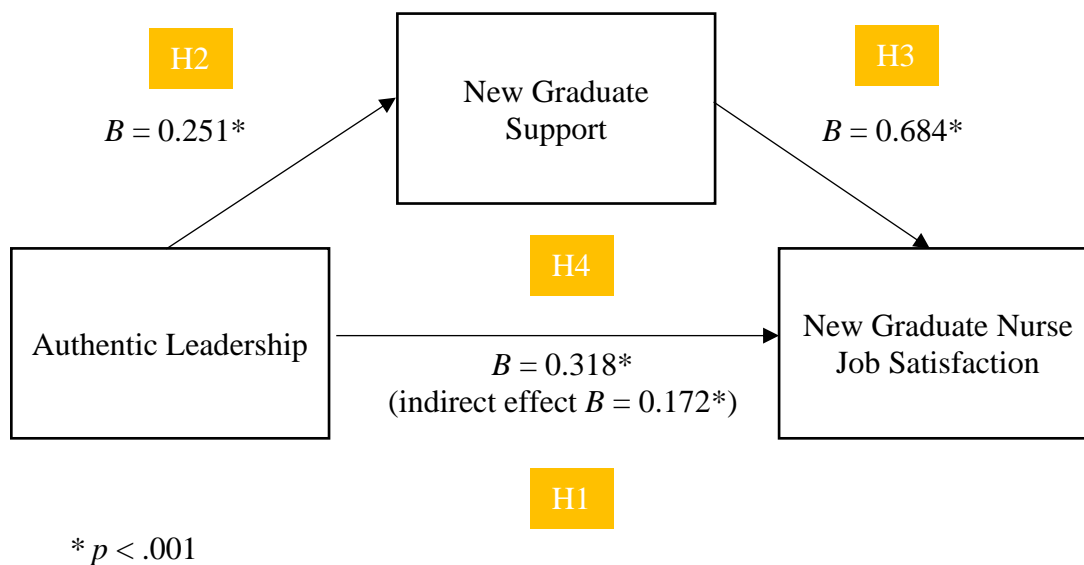

Figure 2. Final Mediation Model

The first study hypothesis predicted that managers' authentic leadership was positively related to NGNs' job satisfaction and was fully supported. First off, this is consistent with the propositions of the authentic leadership theory (Avolio et al., 2004), as authentic leadership was associated with improved follower work attitudes. Moreover, the direct positive relationship found between authentic leadership and job satisfaction in the present study is consistent with earlier findings among NGNs ($\beta = 0.29$, $P < 0.01$; Giallonardo et al., 2010), experienced nurses ($\beta = 0.16$, $P < 0.01$; Wong & Laschinger, 2013), and employees beyond the nursing profession ($\beta = 0.19$, $P < 0.05$; Walumbwa et al., 2008). It is apparent that the daily behaviours exhibited by nurse mangers are fundamental to the job satisfaction of NGNs. All four dimensions of authentic leadership were significantly correlated with job satisfaction, which suggests that by role-modeling self-awareness, balanced processing, internalized moral perspective, and relational transparency, nurse managers are able to build the positive states of NGNs and positively influence their work attitudes, as reflected by their reported job satisfaction (Avolio et al., 2004). However, the findings of this study indicate that the dimensions of self-awareness ($r = 0.46$, $p < .001$) and internalized moral perspective ($r = 0.46$, $p < .001$) were highly related to NGNs' job satisfaction.

Next, authentic leadership was positively related to new graduate support, which supported the second hypothesis. Earlier research has demonstrated positive relationships between nurses' perceptions of their managers and the situational variables influencing nurses' perceptions related to their work environment, for example structural empowerment ($\beta= 0.46$, p < .01; Wong & Laschinger, 2013) and supportive professional practice environments ($\beta= 0.42$, p < .001; Fallatah and Laschinger, 2016). However, no study to date has directly examined the relationship between authentic leadership and the

situational variable, new graduate support, as defined by and measured using the CFGNES-SUPP. This finding fills a gap in the literature, as it is the first study to show a significant positive direct relationship between authentic leadership and new graduate support and speaks to the degree to which it exists in the context of NGNs in Ontario. Authentic leaders are able to create desirable work environments for their followers by exhibiting high moral standards, honesty, and integrity (Avolio et al., 2004). In addition, the findings of this study indicate that NGNs' perceptions about the supportiveness of their work environment are most influenced by the leadership behaviours exhibited by nurse managers' that represent balanced processing ($r =0.48$, $p <.001$) followed by self-awareness ($r =0.46$, $p <.001$).

Furthermore, the third hypothesis that new graduate support was positively related to NGNs' job satisfaction, was also supported. Previous studies using the CFGNES to measure NGNs transition experiences have reported that the support, feedback, and encouragement NGNs receive through an orientation/residency program and from immediate managers, preceptors, staff and peers, is associated with the level of satisfaction they have toward their job. The findings of Rush et al., (2015) suggest that participation in a formal new graduate transition program was associated with higher levels of support and professional satisfaction. Moreover, new graduates who participated in a transition program greater than four weeks significantly outperformed other NGNs on support (*p <0.0001*) and professional satisfaction scores (*p <0.004*) (Rush et al., 2015). Future research should report on each of the subscales of the CFGNES in order to compare findings.

Lastly, the fourth study hypothesis, which proposed that the relationship between authentic leadership and NGNs' job satisfaction was mediated by new graduate support,

was supported. This finding is consistent with Avolio et al.'s (2004) authentic leadership theory, as authentic leaders strive to create healthier work environments for their followers and in doing so, they are able to positively influence the work attitudes and behaviours of their followers. This is first study to examine how new graduate support mediates the relationship between authentic leadership and NGNs job satisfaction. Furthermore, it provides empirical evidence for the positive effect of nurse mangers' authentic leadership on Ontario NGNs job satisfaction both directly, and indirectly through new graduate support that assists NGNs as they transition from student to professional nurse. This finding is particularly important as it adds to the existing knowledge on the situational variables that mediate the relationship between authentic leadership and job satisfaction. It is apparent from the qualitative and quantitative evidence of previous studies that NGNs' need to feel supported by their managers, preceptors, peers and/or nursing staff. This can be achieved from various sources of support, including receiving encouragement and feedback about their work, having positive role-models that they can look to for assistance and guidance, and having frequent access to opportunities in order to become more proficient in their nursing role (Casey et al., 2004). Having adequate support available to NGNs during the first two years of practice satisfies their need for support and in turn, enhances their job satisfaction. With the current state of the nursing workforce, leaders must foster positive unit cultures where NGNs feel supported, welcomed, and safe; failing to do so will compromise the satisfaction and retention of NGNs and the ability of the future nursing workforce to meet the healthcare needs of humanity in the years to come (Regan et al., 2017).

In this study, Ontario NGNs reported that their managers demonstrated moderate

levels of authentic leadership ($M = 2.59$, $SD = 0.93$) in their workplace, and of the four

subscales measuring authentic leadership, internalized moral perspective was rated the

highest ($M = 2.70$; $SD = 0.96$) and self-awareness was rated the lowest ($M = 2.46$; $SD =$

1.10). These findings are slightly higher than findings by Fallatah and Laschinger (2016)

that used Time 1 and Time 2 data collected from Ontario NGNs by Laschinger in 2012.

Fallatah and Laschinger reported that Ontario NGNs perceived their immediate managers

to demonstrate moderate levels of authentic leadership ($M = 2.31$, $SD = 0.79$), and of the

four subscales measuring authentic leadership, internalized moral perspective was rated

the highest ($M = 2.08$, $SD = 0.97$) and self-awareness rated the lowest ($M = 2.44$, $SD =$

0.98). In contrast, in a study of experienced Canadian nurses, Regan et al., (2016)

reported that study participants also provided moderate ratings of their managers

authentic leadership ($M = 2.28$, $SD = 1.04$) with internalized moral perspective rated the

highest ($M = 2.40$, $SD = 1.10$) and self-awareness rated the lowest ($M = 2.09$, $SD = 1.16$).

When compared to experienced nurses, NGNs tend to provide similar, but slightly higher

scores on the ALQ. However, the findings suggest that the behaviours and actions of

nurse managers associated with their internal moral standards and values may be more

noticeable to NGNs and experienced nurses than those associated with their self-

awareness. This particular finding suggests that NGNs' perceptions about the

supportiveness of their work environment has more to do with authentic nurse managers

behaving in congruence with their deeply rooted beliefs in morals and less to do with the

degree to which nurse managers understand their strengths and weaknesses, as well as

their impact on others (Walumbwa et al., 2008). With self-awareness frequently being the

lowest rated component of authentic leadership, such findings may indicate that although

NGNs perceive the action and behaviours of their managers to be authentic in nature,

nurse managers may not truly demonstrate their strong sense self, personal values and beliefs, or their ability to adjust their behaviours through self-reflection and feedback in their daily leadership practices (Gardner, 2005; Avolio et al., 2004). The findings from this study, in combination with previous findings, provides insight into how nurse managers can promote the authenticity of their followers through role-modelling the four components of authentic leadership in the workplace. In doing so, they can enhance the job satisfaction of nursing staff, and in this case, NGNs.

Next, Ontario NGNs reported relatively high ratings of new graduate support (M = 3.27, SD = 0.48). This finding was consisted with the larger national dataset of the *Starting Out* (Spence Laschinger et al., 2018) study. Although many studies have employed the CFGNES instrument, few have provided analyses for the *Supportive Environment* subscale. In a study by Williams et al. (2007) validating the CFGNES, the findings of two cohorts of residents (Alpha sites and Beta sites) indicated that both cohorts of new gradate nurses' perceived level of support increased during the one-year residency program. The Alpha cohort's level of perceived support increased slightly from T1 Entry (Alpha sites: M = 3.28, SD = 0.39) to T2 Midpoint (Alpha sites: M = 3.29, SD = 0.39) to T3 Exit (Alpha sites: M = 3.30, SD = 0.40), however was not statistically significant. In contrast, the Beta cohort of residents demonstrated a statistically significant change in perceived support from T1 Entry (Beta sites: M = 3.23, SD = 0.43) to T2 Midpoint (Beta sites: M = 3.29, SD = 0.41), and from T2 Midpoint to T3 Exit (Beta sites: M = 3.33, SD = 0.45; Williams et al., 2007). In light of the residents' favorable view of the one-year residency program, these results suggest that if NGNs did in fact experience reality shock in their first year of practice, it was buffered by the residency experience (Williams et al., 2007). Rush et al. (2015) also found that NGNs perceived

support was significantly influenced by the length of their orientation program.

In contrast, the findings of Goode et al.'s (2013) study, which examined 10 years of data collected from a NGN residency program in the United States, suggested that there was no statically significant difference ($p= 0.61$) in NGNs perceived support during their time in a one-year in an accredited nurse residency program. NGNs perceived support at T1 Start ($M = 3.28$, $SD = 0.03$) slightly increased at the six-month T2 Midpoint ($M = 3.31$, $SD = 0.03$) following a slight decrease at T3 completion ($M = 3.30$, $SD = 0.03$; Goode et al., 2013). Furthermore, Cline et al.'s (2017) retrospective analysis of 10-years of NGN residency data collected through an internally developed residency program showed that NGNs' perceptions of support, while only moderately changed from their perceived scores at the beginning (T1: $M = 3.36$) were significantly ($p = 0.002$) diminished upon completion of the residency program (T2: $M = 3.29$). Cline et al. (2017) suggest that the decreased score may be associated with NGNs' transition to practice without the support of a preceptor. Lastly, their regression model showed that for every additional unit of support, there was a 0.21 average increase in retention at one-year post hire ($p = 0.041$). These findings are consistent with the present study findings and suggest that enhancing support for NGNs in their first year is an essential strategy to help improve organizational outcomes, mitigate the nursing shortage, and create a sustainable nursing workforce for the future.

The results of this secondary analysis of data of data suggest that by providing new graduate support, authentic leaders are able to increase the job satisfaction of Ontario NGNs. Authentic leadership was shown to significantly and positively influence NGNs' job satisfaction, both directly and indirectly through new graduate support. All four components measuring authentic leadership were almost equally as important in the

presence of new graduate support, which indicates that nurse managers and preceptors who employ relational and follower-centered leadership styles in the workplace are more likely to foster a work environment that supports its staff, especially NGNs, which in turn enhances NGNs' job satisfaction.

Lastly, Ontario NGNs in this study reported moderate to high levels of job satisfaction (M = 3.93, SD = 0.98), which is consistent with previous studies conducted using samples of NGNs. However, it is important to note that studies of NGNs in the existing literature have used various instruments to measure job satisfaction. The MAOQ-JSS (Cammann et al., 1983) has been used in a few studies of NGNs and have demonstrated similar findings. First, in the primary national two-wave *Starting Out* study that provided the Ontario subset of data for this secondary analysis, Laschinger et al. (2016) found that on average, NGNs across Canada experienced high levels of job satisfaction (Time 1: M = 4.05, SD= 0.85, Time 2: M = 3.98, SD = 0.83). Next, two studies of NGNs used Cammann et al.'s (1983) MAOQ-JSS, however, used a 7-point Likert scale, ranging from 3 to 21, instead of the 5-point Likert scale used in the current study. In the first of the two studies, Peterson et al. (2011) reported that NGNs in Ontario had moderate to high levels of job satisfaction, as mean job satisfaction was 16.2 (SD = 3.8). In the second study, Lalonde and McGillis-Hall (2016) found that NGNs from five hospitals in Ontario reported having high job satisfaction (M = 6.36, SD = 0.99). In contrast, using the North Carolina Center for Nursing- Survey of Newly Licensed Nurses (Scott et al., 2008), Fallatah and Laschinger (2016) found that NGNs in Ontario were moderately satisfied with their jobs (M = 3.20, SD = 0.87). The moderate to high scores in the NGN population is positive, however, the mixed findings suggest that there is still work that needs to be done to improve the level of job satisfaction that NGNs experience.

Likewise, studies of experienced nurses have also used Cammann et al.'s (1983) 5-point Likert scale MAOQ-JSS and demonstrated similar findings as those found in studies of NGNs. A study experienced nurses by Spence Laschinger and Fida (2015) found that experienced nurses working in direct care roles in Ontario reported moderate levels of job satisfaction ($M = 3.27$, $SD = 0.87$), which is lower than the findings in studies of NGNs.

Based on previous literature, it is not surprising that authentic leadership was identified as a key factor influencing NGNs' job satisfaction, since this type of relational leadership style can facilitate the development of supportive work environments; when nurse managers model authentic behaviours of self-awareness, internalized moral perspective, balanced processing, and relational transparency in the workplace, it promotes the psychological capacities of NGNs, which include hope, trust, positive emotions and optimism, thereby improving their work attitudes, in this case, being job satisfaction (Casey et al., 2004; Walumbwa et al., 2008).

Limitations

The cross-sectional design of this secondary analysis of data limits inference of causality because data were collected at a single point in time (Polit & Beck, 2008). Next, the generalizability of the sample is limited, as this study only chose to examine NGNs working predominantly in acute care within Ontario, Canada. In addition, the application of these findings from the present study are limited to the Ontario context, the use of different measurement tools to measure variables of interest, as well as different types of theoretical frameworks. Moreover, the data collection method of surveys employed in this study increases the potential for response bias. Research suggests that self-report measures are susceptible to response bias since there is a tendency for individuals to misrepresent themselves by responding in socially desirable ways

(Laschinger et al., 2016a; Polit & Beck, 2017). The 26.2% response rate is also a limitation as it is raises concerns about the representativeness of the sample and what the other responses of other 73.8% of non-respondents would have been. Although well-designed studies using mailed surveys typically achieve response rates of less than 50%, it is possible that low response rates introduce bias because non-response is not random (Polit & Beck, 2017). Literature indicates that NGNs experience a considerable amount of stress, anxiety, and burnout, and therefore, may influence one's desire to participate in a survey (Casey et al., 2004; Duchscher, 2008; Kramer, 1974; Regan et al., 2017; Rush et al., 2019). While there have been studies examining the relationship between "authentic leadership and NGNs' job satisfaction", and "new graduate support and NGNs' job satisfaction", there are no studies that have examined the relationship between authentic leadership and new graduate support using the ALQ (Walumbwa et al., 2008) and the CFGNES (Casey et al., 2004). Furthermore, there is a gap in the literature on how new graduate support, as measured by the CFGNES (Casey et al., 2004) might mediate the relationship between authentic leadership and NGNs' job satisfaction. Lastly, numerous instruments have been used in empirical studies to measure job satisfaction and types of support in the workplace for NGNs; however, this creates some difficulty when it comes to comparing findings and drawing conclusions. Therefore, consistent use of certain instruments will be worthwhile so that findings of future studies can be compared and interpreted with ease.

Conclusion

The findings of this secondary analysis of data provide additional support for the authentic leadership theory (Avolio et al., 2004), as it relates to the influence of nurse managers authentic leadership on NGNs' work attitudes, specifically job satisfaction. The

final simple mediation model demonstrated that nurse managers' authentic leadership was significantly related to NGNs' job satisfaction both directly, and indirectly through its effect on new graduate support. Such findings may suggest that by demonstrating the four components of authentic leadership, which include self-awareness, balanced processing, internalized moral perspective, and relational transparency, nurse managers are able to enhance the sources of support for NGNs during their transition into professional practice and in turn, enhance their job satisfaction. Moreover, the findings of this study provide further evidence to encourage the uptake of authentic leadership theory at the healthcare administration level for the purpose of informing hiring practices, training programs for managers, and performance appraisals, as managers have a significant impact on the supportiveness of the work environment, as well as the job satisfaction of their NGNs. In addition, these findings can help inform the support strategies necessary for the successful transition of NGNs, and their resulting job satisfaction. It is crucial to address the factors contributing to NGNs' job satisfaction, as they are a precious health human resource and fundamental in addressing the nursing shortage (Ebrahimi et al., 2017).

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Chapter 3

Discussion

This secondary analysis of data tested the relationships among nurse managers' authentic leadership, new graduate support and NGNs' job satisfaction in a sample of NGNs with less than two years of experience working in direct care in Ontario. The findings of this study demonstrated that the relationship between authentic leadership and NGNs' job satisfaction was mediated by new graduate support. Moreover, all four hypothesized relationships were supported and found to be positive and significant relationships. Overall, the relationship between authentic leadership and new graduate support accounted for approximately 31% of the variance in Ontario NGNs' job satisfaction. The implications for theory, management practice and policy, education, and recommendations for future research are discussed in this chapter.

Implications for Theory

The findings of the present study contribute to the existing, although limited, body of knowledge on the relational leadership style of authentic leadership in the context of healthcare and nursing (Alilyyani et al., 2018). While the link between authentic leadership and NGNs job satisfaction has been established in earlier studies, this study provides insight on an additional mechanism mediating this relationship. This study is believed to be the first study to explore how nurse manager's authentic leadership influences NGNs' job satisfaction through the mediating role of new graduate support, as measured by the CFGNES-SUPP. First, the positive relationship between nurse manager authentic leadership and NGN job satisfaction found in this study is in line with the proposition of Avolio et al.'s (2004) authentic leadership theory, suggesting that followers' perceptions of their leaders' authentic leadership are positively associated with

followers' job satisfaction (Aboshaiqah, 2015; Laschinger et al., 2012; Walumbwa et al., 2008; Wong & Laschinger, 2013).

Next, new graduate support was found to mediate the relationship between authentic leadership and job satisfaction, adding to Avolio et al.'s (2004) proposed framework, which linked authentic leadership to follower work attitudes and behaviours. This finding contributes to the growing body of literature that has demonstrated the crucial role that work environment factors, including structural empowerment (Wong & Laschinger, 2013) and supportive professional practice environments (Fallatah & Laschinger, 2016) have in mediating the relationship between authentic leaders and follower work attitudes and behaviours. Moreover, this finding warrants further investigation in order to provide a greater understanding of how new graduate support mediates the relationship between authentic leadership and follower work attitudes and behaviours, and its placement within Avolio et al.'s (2004) proposed framework. Having such knowledge will provide leaders within healthcare organizations, such as nurse managers and hospital administrators, with an enhanced awareness of the effects of authentic leadership on outcomes and ways in which managers can boost leader authenticity, as evidence suggests that by positively modelling balanced processing, self-awareness, relational transparency, and internalized moral perspective, leaders can foster the development of their followers. Moreover, this knowledge may encourage leaders to evaluate the strategies currently in place that assist NGNs during their transition into professional nursing practice and make necessary modifications to ensure this precious group is nurtured. In doing so, NGNs will feel more satisfied with their job, consequently reducing turnover and the associated costs for healthcare organizations and building a sustainable nursing workforce.

Implications for Management Practice and Policy

The findings from this study revealed the direct relationship between authentic leadership and NGNs' job satisfaction, as well as the indirect relationship through new graduate support. Therefore, Avolio et al.'s (2004) authentic leadership theory can be applied in practice to enhance the amount of new graduate support in the workplace and in turn, the job satisfaction of NGNs. Over the last year, the healthcare system has faced new challenges as a result of the COVID-19 pandemic, in addition to existing challenges, which include the persisting nursing shortage, aging population, aging nursing workforce, higher workloads and stressful working conditions exacerbated by growing financial pressures (RNAO, 2017; WHO, 2011). Healthcare leaders must do all they can to reduce the costly turnover of nurses, especially NGNs. Based on the findings of the present study, recruiting and developing authentic nurse managers will not only contribute to the creation of a sustainable nursing workforce, but also a workforce that is supported, satisfied, committed, and able to meet the healthcare demands of the future (Avolio et al., 2004; Regan et al., 2017). In order to create a sustainable nursing workforce, leaders and organizations must first strive to understand the needs of the nursing workforce.

The findings of the present study highlight the promising benefits for NGNs and healthcare organizations when the positive relational leadership style of authentic leadership is integrated into the planning, recruitment, development, and evaluation of nurse managers. First, when recruiting for management positions, healthcare leaders should consider whether the candidates exemplify authentic leadership behaviours in their day-to-day practice and whether they are capable of positively influencing the work environment and employee work attitudes (Avolio et al., 2004; Frasier, 2019; Walumbwa et al., 2010; Wong & Walsh, 2020). Staff nurses, who embody authentic leadership, are

exemplary role-models in the workplace, and are familiar with the needs of NGNs and the nursing workforce as a whole, are important candidates to consider. Chiaburu et al. (2011) indicated that identifying leaders whose behaviour are regularly guided by their high morals and ethics will have positive and lasting benefits for organizations. Next, it is of noteworthy mention that the competency of authentic leadership can be learned and/or enhanced through training that incorporates didactic learning sessions accompanied by reflective technique and peer support (Frasier, 2019). A recent study by Frasier (2019) demonstrated that nurse managers participation in a pilot leadership program enhanced their authentic leadership behaviours, with self-awareness showing the greatest improvement. In addition, there was incremental positive change in the direct reports of registered nurses about their managers upon completion of the program in comparison to their already high direct reports regarding their managers authentic leadership behaviours (Frasier, 2019). While this programme shows some promise, future research will need to apply this program in larger cohorts to validate Frasier's (2019) findings. Similarly, Baron's (2016) three-year action-based leadership development program improved both authentic leadership and mindfulness among leaders in various middle-management roles in Quebec, Canada by means of coaching, peer exercises, and investigating real-world issues in leadership. Existing literature indicates that both the support and implementation of formal leadership development programs for nurse managers in healthcare organizations are inconsistent (Frasier, 2019). Therefore, in order to improve new graduate support and the job satisfaction of NGNs, healthcare administrators must advocate for and be willing to invest in the implementation of formal leadership programs for nurse managers to improve their authentic leadership (Collard et al., 2020; Wong & Walsh, 2019).

The development and enrichment of authentic leaders is also possible through the process of reflection and internalization (Baron & Parent, 2015). Healthcare organizations should incorporate regular opportunities for reflective learning for leaders, as it is central to promoting enhanced self-awareness and the realization of one's true authenticity (Baron & Parent, 2015). The practice of self-reflection can provide leaders the opportunity to identify their strengths and weaknesses, personal values, and vision for the future (Murphy, 2012; Shamir & Eilam, 2005).

Through reflection of one's life experiences, leaders are able to identify the origin of their morals and values, how they demonstrate their beliefs in the workplace, and how their actions may have impacted others. By sharing these accounts with followers, leaders demonstrate their relational transparency, which in turn enriches the trust and connection between leaders and their followers (Shamir & Eilam, 2005). Moreover, engaging in self-reflection will provide leaders insight on areas for personal and professional growth, as well as strategies to help strengthen their authentic leadership competencies (Baron & Parent, 2015). Additionally, gathering and evaluating feedback is necessary for the development of authentic leaders (Gardner et al., 2005). Nurse managers must understand how their behaviours and practices are perceived by NGNs in the workplace due to their direct impact on the new graduate experience. It is clear from the literature that nurse managers are able to positively influence situational variables, such as structural empowerment (Wong & Laschinger, 2013) and support for professional practice (Fallatah & Laschinger, 2015) in order to improve organizational outcomes, including NGN job satisfaction, retention, and turnover (Peterson et al., 2011; Laschinger et al., 2012). The process of gathering and evaluating feedback is central to Avolio et al.'s (2004) theory and demonstrates a leaders' balanced processing (Walumbwa et al., 2010).

Leaders must consistently engage in reflective practice to facilitate improvement in their authentic leadership competencies, follower work attitudes and organizational outcomes (Baron & Parent, 2015). Likewise, Penger and Černe (2014) suggested that in order to improve outcomes from the employee's perspective, leaders should work toward enhancing the skills and capacities of authentic leadership. In doing so, leaders will gain the trust of their followers, facilitate the development of authentic behaviors in their followers, positively impact the work environment through the provision of new graduate support, which in turn will lead to observable changes in NGNs job satisfaction. Regular performance appraisals with senior leaders can also provide leaders with opportunities for feedback. However, just like trust in one's nurse manager is important to nursing staff, nurse managers' trust in senior management is also important. In order to grow as nurse leaders, nurse managers must feel that they are in a safe and constructive environment where they can be open and honest, acknowledge their mistakes, and make decisions based on their values and vision, without influence from the organization (Walumbwa et al., 2008).

Implications for Education

The findings of this study clearly demonstrate the significant relationship between nurse manager authentic leadership and NGN job satisfaction through the mediating effect of new graduate support in the workplace. Nurse managers who are considered to be authentic leaders can help mitigate the negative experiences NGNs face by supporting them during their first two years of practice, being a positive role model, and demonstrating authentic leader behaviours, which include self-awareness, balanced processing, relational transparency, and internalized moral perspective, in workplace (Avolio et al., 2004; Wong & Laschinger, 2013). Popular opinion of healthcare

leadership experts suggests that leadership skills are essential, regardless of one's level in healthcare or the context in which they work (MacPhee et al., 2013; Porter-O'Grady, 2011). The research pertaining to the preparation of undergraduate nursing students for leadership roles remains limited (Scammell et al., 2020). Based on the findings of the present study, a more proactive approach to developing authentic leadership in nurses is necessary.

One approach that has been employed at the educational institution level is introducing students to leadership development during their nursing education (Laschinger et al., 2013; Waite et al., 2014) by integrating education on authentic leadership into nursing curriculum at both the undergraduate (Waite et al. 2014) and graduate level (Ericksen, 2009). For example, Waite et al. (2014) implemented an authentic leadership course to an undergraduate nursing program in the United States in efforts to enhance nursing students' self-awareness and self-development. Content was delivered using a variety of techniques, including round table debates, mind mapping and reflective analysis journaling. Upon completion of the course, nursing students expressed extremely positive feedback and acknowledged the importance of introspection associated with authentic leadership for the purpose of personal growth and professional development (Waite et al., 2014). With this in mind, educational and healthcare institutions should prioritize the education of NGNs, and nursing students, with respect to the development of authentic leadership competencies, as knowledge translation can facilitate the development of future healthcare leaders who have the ability to improve the work environment, job satisfaction, as well as patient and organizational outcomes (Alilyyani et al., 2018; Collard et al., 2020; Cummings et al., 2018).

A common theme in the nursing literature positions the leadership education for

undergraduate nursing students in their final year (Scammell et al., 2020). However, Pepin et al. (2011) recommend a more staged approach, which takes place throughout undergraduate nursing education program, because leaving nursing leadership education to the final year implies that leadership is associated with seniority and leaves a short period of time for this self-development (Scammell et al., 2020). Bruner's (2009) spiraled curriculum approach, whereby concepts and skills are revisited on a regular basis, but increase in complexity each time, is an effective method to consider in the future. In addition, a curricular content review to prepare Canadian students for nursing leadership by Ross et al. (2018) identified that while the content determined to accurately reflect leadership competencies, nursing students required clinical placements to supplement their leadership development, including organizational support through the collaborative efforts of healthcare and educational institutions to promote positive learning environments, free of bullying, filled with positive and receptive clinical role models, as well as mentors proficient in leadership (Scammell et al., 2020). A pedogeological approach discussed in the literature to support the development of leadership competence in nursing students is action learning (Demeh & Rosengren, 2015; Foli et al., 2014). Action learning is a dynamic method that promotes the gathering of individuals to support, collaborate and challenge each other for the purpose of learning and growth (Revans, 1971). This method has shown promise in promoting theory-practice integration and enhance leadership education (Scammell et al., 2020).

In contrast, some NGNs decide to pursue graduate studies in the two years following their undergraduate education in order to advance their nursing practice and/or prepare themselves for advanced leadership roles in the future. If nursing graduate programs promote the development of leadership in their graduate students, they will

supply the nursing profession with strong nursing leaders, in both academic and clinical settings, who can facilitate positive change. Lastly, based on the findings of the present study, attention should be given to authentic followership, as it is an essential component and consequence of the authentic leadership process (Gardner et al., 2005; Leroy et al, 2015). Leaders, especially nurse managers, must work to establish and maintain a positive ethical climate in the workplace in order to promote conditions that allow for the continual learning, and growth of leaders and their followers (Gardner et al., 2005). If nurse managers, preceptors, nursing staff on the unit exhibit authentic leadership in the workplace, it is likely that NGNs will feel better supported, and in turn have higher job satisfaction (Avolio et al., 2004; Casey et al., 2004).

Recommendations for Future Research

This study is believed to be the first to link Avolio et al.'s (2004) theory of authentic leadership with new graduate support using the CFGNES-SUPP developed by Casey et al.'s (2004). The results of this study provide evidence for the relationship between authentic leadership and job satisfaction among NGNs through the mediating role of new graduate support, in a representative sample of Ontario NGNs working in direct care. While the results of this study are promising, further research is warranted in order to gain deeper insight into the experience of this particular group of nurses.

First, the generalizability of the findings of this secondary analysis of data are limited due to the study's strict focus on Ontario NGNs. While additional research on this group is needed, it is also necessary and worthwhile for future researchers to examine the mediating role of new graduate support on a larger scale. Polit and Beck (2017) suggest the replication of studies in order to determine if the findings will remain true, thus, creating stronger evidence for the mediation relationship uncovered in this study.

Therefore, future studies should examine this model in larger sample of Canadian NGNs by replicating this study using a random sample from different provinces in order to compare and contrast findings. Future research must ensure consistent use of the CFGNES instrument to measure new graduate support. Conducting this study at both national and international levels would also be worthwhile, as it would allow researchers and administrators compare findings and further understand the factors at play. Future research should also consider exploring these variables with equal representation of all nursing specialties, as well as different work cultures in order to enhance the generalizability of study findings since the majority of nurses in this study were employed in acute care settings. Likewise, it is important that the sample is representative of the nursing population in order to ensure generalizability of study findings and determine whether the demographic characteristic of gender should be controlled for. It should also be noted that the cross-sectional design of this study limits inference and causality, as the data represents a single point in time. Therefore, nurse researchers are encouraged to conduct longitudinal and experimental studies to further illuminate the role of authentic leadership, its association with new graduate support and NGN job satisfaction, and to help identify changes over time.

Considering the large majority of the literature surrounding authentic leadership is quantitative in nature, conducting more qualitative and mixed-methods research can improve and substantiate research findings and capture the richness of the personal experience, as well as the subtle nuances that are unable to be captured through quantitative methods. This can be done by applying descriptive phenomenological research methods, such as guided interviews to explore the relationships among authentic leadership, new graduate support, and job satisfaction. Phenomenology is uniquely

positioned to aid healthcare scholars discover the lived experience of others (Neubauer et al., 2019). This will allow NGNs to provide information about how they gauge the authenticity or lack of, in their managers, and share what they feel to be the crucial elements for support in the first two years in their professional nursing role. Research initiatives should also focus on authentic leadership training and education programs. While it appears that these programs are valuable to healthcare organizations and their nursing leaders, it is unlikely that funds will be allotted for such programs without concrete evidence of their effectiveness. To date, research pertaining to training programs and frameworks to support the development of authentic leadership are limited. Having such knowledge would help facilitate the development of authentic leaders during their nursing studies or working in a professional organization. While the findings of the study supported the mediating role of new graduate support in the relationship between nurse managers' authentic leadership and NGNs job satisfaction, it is essential that nursing scholars continue to carry out more studies in order to identify additional mediators of this relationship in order to improve and to inform future practices. Likewise, nursing scholars should prioritize understanding the antecedents of authentic leadership in order to guide leadership practice (Alilyyani et al., 2018).

Conclusion

In conclusion, the findings of this study provide preliminary understanding of the mediating role of new graduate support in the relationship between nurse managers' authentic leadership and job satisfaction in Ontario NGNs. These findings contribute to the limited body of knowledge on the role of nurse managers authentic leadership, new graduate support, and NGN job satisfaction. As a result, healthcare and educational organizations must collaborate on ways to ensure their NGNs are supported in the

workplace during their transition from student to professional roles. The development and presence of authentic nurse managers, within healthcare and nursing, can have a positive influence on the work environments and the work attitudes of their followers, which in turn can contribute to the creation of a sustainable nursing workforce for the future.

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Appendix A

Study Instruments

Appendix A. 01

Authentic Leadership Questionnaire (Walumbwa et al., 2008)

Not at All	Once in a While	Sometimes	Fairly Often	Frequently, if not Always
1	2	3	4	5

My leader …

1. Says exactly what he or she means   1   2   3   4   5

2. Admits to mistakes when they are made   1   2   3   4   5

3. Encourages everyone to speak their mind   1   2   3   4   5

4. Tells you the hard truth   1   2   3   4   5

5. Displays emotions exactly in line with feelings   1   2   3   4   5

* Note: Due to copyright restrictions, only five items of the Authentic Leadership Questionnaire are included in this thesis.

Legend:
Self-Awareness: 4 items
Balanced Processing: 3 items
Relational Transparency: 5 items
Internalized Moral Perspective: 4 items

Appendix A. 02

Casey-Fink Graduate Nurse Experience Survey: Supportive Environment

(Casey, Fink, Krugman, & Propst, 2004)

Strongly Disagree 1	Disagree 2	Agree 3	Strongly Agree 4

1. I feel at ease asking for help from other RNs on the unit.   1   2   3   4

2. I feel my <u>preceptor</u> provides encouragement and feedback at my work. 1   2   3   4

3. I feel staff is available to me during new situations and procedures.   1   2   3   4

4. I feel supported by the nurses on my unit.   1   2   3   4

5. I have opportunities to practice skills and procedures more than once. 1   2   3   4

6. I feel the expectations of me in this job are realistic.   1   2   3   4

7. There are positive role models for me to observe on my unit.   1   2   3   4

8. My <u>preceptor</u> is helping me to develop confidence in my practice.   1   2   3   4

9. I feel my <u>supervisor</u> provides encouragement and feedback about   1   2   3   4
    my work.

*_Note:_ Item 10 was removed, but was used for other purposes, see package questionnaire.

Appendix A. 03

Michigan Assessment of Organizations Questionnaire – Job Satisfaction Subscale

(Cammann, Fichman, Jenkins, & Klesh, 1983)

Strongly Disagree	Disagree	Hard to Decide	Agree	Strongly Agree
1	2	3	4	5

1. All in all, I am satisfied with my job. 1 2 3 4 5

2. In general, I don't like my job. 1 2 3 4 5

3. In general, I like working here. 1 2 3 4 5

*2 = Reverse Coded

Appendix A. 04

Demographics Questionnaire

1. Gender:
   - ☐ Female
   - ☐ Male

2. Age (in years): _____

3. Date of Graduation (Month, Year):

   _____

4. Degree Received:
   - ☐ BScN
   - ☐ Other:

   _____

5. Date of Hire (as a New Graduate Nurse):

   _____

6. My immediate supervisor is:
   - ☐ A Registered Nurse
   - ☐ Other (please explain):

   _____

7. Speciality area of your current unit:
   - ☐ Medical-Surgical
   - ☐ Critical Care
   - ☐ Maternal-Child
   - ☐ Mental Health

8. Current employment status:
   - ☐ Full Time
   - ☐ Part Time
   - ☐ Casual

9. My preferred employment status
   - ☐ Full Time
   - ☐ Part Time
   - ☐ Casual

10. How many patients were on your unit during your last shift? (#)

    _____

11. How many of these patients were assigned to you? (#)

    _____

12. In the last month, how often has short staffing affected your ability to meet your patients'/clients' needs?
- ☐ Never
- ☐ Once or Twice a Month
- ☐ Weekly
- ☐ Several Times a Week
- ☐ Daily

13. How long have you worked:
- ☐ As an RN:
- ☐ As an RN at your current organization
- ☐ As an RN on your current unit

14. Average hours worked per week?
- ☐ Less than 20 hours
- ☐ 20 – 39 hours
- ☐ Over 40 hours

15. In the past year, has the amount of overtime required of you:
- ☐ Increased
- ☐ Remained the Same
- ☐ Decreased
- ☐ Not Applicable

16. In the past year, how many times have you missed work due to illness/disability?
- ☐ ____# of times

17. In the past year, what is the most common reason you missed work? (Choose only ONE)
- ☐ Physical illness
- ☐ Injury (work related)
- ☐ Family situation
- ☐ Mental health day

18. How long do you expect to stay in your current nursing position? (in years)
_____

19. How long do you expect to stay in the profession? (in years)
_____

Appendix B

Ethics Approval

Use of Human Participants - Ethics Approval Notice

Research

Western

Principal Investigator: Dr. Heather Laschinger
File Number:102638
Review Level: Delegated
Approved Local Adult Participants:4940
*Approved Local Minor Participants:*0
Protocol Title:STARTING Out: Successful Transition and Retention in New Graduate Nurses
Department & Institution: Health Sciences\Nursing,Western University
Sponsor: Canadian Institutes of Health Research

Ethics Approval Date: June 12, 2012 **Expiry Date:**March 31, 2016
Documents Reviewed & Approved & Documents Received for Information:

Document Name	Comments	Version Date
Western University Protocol		
Advertisement	APPENDIX C: Focus Group Recruitment Posters	
Letter of Information	Survey Letter of Information - New Graduates	2012/05/04
Letter of Information & Consent	Focus Group Letter of Information and Consent - New Graduates	2012/05/30
Letter of Information & Consent	Focus Group Letter of Information and Consent - Experience Nurses	2012/05/30
Letter of Information	Survey Letter of Information - Experienced Nurses	2012/05/04

This is to notify you that The University of Western Ontario Research Ethics Board for Health Sciences Research Involving Human Subjects (HSREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the Health Canada/ICH Good Clinical Practice Practices: Consolidated Guidelines; and the applicable laws and regulations of Ontario has reviewed and granted approval to the above referenced revision(s) or amendment(s) on the approval date noted above. The membership of this REB also complies with the membership requirements for REB's as defined in Division 5 of the Food and Drug Regulations.

The ethics approval for this study shall remain valid until the expiry date noted above assuming timely and acceptable responses to the HSREB's periodic requests for surveillance and monitoring information. If you require an updated approval notice prior to that time you must request it using the University of Western Ontario Updated Approval Request Form.

Members of the HSREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the HSREB.

The Chair of the HSREB is Dr. Joseph Gilbert. The HSREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000940.

Signature

Ethics Officer to Contact for Further Information

Janice Sutherland	Grace Kelly	Shantel Walcott

This is an official document. Please retain the original in your files.

Appendix C

Letter of Information and Consent

Project Title: STARTING Out: Successful Transition and Retention in New Graduate Nurses

Principal Investigator:
Heather K. Laschinger, RN, PhD, FAAN, FCAHS - The University of Western Ontario

SURVEY LETTER OF INFORMATION FOR NEW GRADUATE NURSES

Invitation to Participate
You are being invited to participate in this research study examining new graduate nurses' transition to practice because you are newly graduated practicing registered nurse and we would like to hear your feedback about your transition experience.

Purpose of the Letter
The purpose of this letter is to provide you with information required for you to make an informed decision regarding participation in this research.

Purpose of the Study
The purpose of this study is to describe new graduate nurses' worklife experiences in Canadian health care settings in the first two years of practice and to examine predictors of job and career satisfaction and turnover intentions across this timeframe. Additionally we would like to gain an increased understanding of the current nursing work environment through the lens of experienced nurses across the country.

Inclusion Criteria
In order to participate in this research project you must be a practicing registered nurse who has graduated sometime after January 01st, 2011.

Study Procedures
If you agree to participate, you will be asked to complete the included survey consisting of questions examining the influence of the current nursing work environment on your transition to the full professional role. It is anticipated that the entire task will take approximately 20 minutes of your time. This survey has been sent to 400 newly graduated nurses in each province across Canada, and 1600 experienced nurses across the country. Once you have completed your survey, please place it in the self-addressed

envelope provided and put it in the mail. You may keep the enclosed $2 Tim Hortons card whether or not you choose to complete the survey. If you choose to participate you will receive a follow-up survey one year later to track your transition experience across time.

Possible Risks and Harms
There are no known or anticipated risks associated with participating in this study. There is a chance that you may feel uncomfortable answering questions about your work environment on the survey. Care will be taken to ensure confidentiality of survey data and we will respect your privacy. Also, you will not have to answer any questions if you feel uncomfortable. You may refer to your Employee Assistance Plan representative if you need to talk to someone further about these issues.

Possible Benefits
We cannot guarantee you any direct benefits as a result of your participation in this study. However, this study will indicate personal and situational factors that influence new graduate and nurses' satisfaction and intentions to remain in their jobs and the profession within the first two years of practice. This information can be used to retain a satisfied and engaged workforce.

In addition, further knowledge of the value and benefits of formal nursing graduate transition support programs across Canada will be discussed. As a result, this information can be used to inform policy and organizational initiatives that will attract and retain new graduate nurses. Lastly, the feedback from experienced nurses across the country regarding current nursing work environments will enable us to frame the results within different cohorts of nurses.

Compensation
You have received a $2 Tim Hortons card as a token of appreciation for your time to complete the questionnaire. You may keep the enclosed $2 Tim Hortons card whether or not you choose to complete the survey.

Voluntary Participation
Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no effect on your future employment.

Confidentiality and Privacy
As a participant you will be given a personal identification number (PIN) in order to link your data across timeframes for the survey. The Researchers at The University of Western Ontario will link study PINs to your name only for the purposes of distributing information letters and surveys to you. Data will be sent directly to Western with only the PIN as the identifier. All participant names and assigned PINs will be destroyed as soon as the data collection is complete. The survey distribution will consist of the survey

included here, a reminder letter four weeks later to non-respondents, and finally a second distribution of the survey asking non-respondents to complete the survey if they haven't yet done so.

All data collected will remain confidential and accessible only to the investigators of this study. If the results are published, your name will not be used. If you choose to withdraw from this study, your data will be removed and destroyed from our database. Representatives of The University of Western Ontario Health Sciences Research Ethics Board may contact you or require access to your study-related records to monitor the conduct of the research.

Contacts for Study Questions or Problems
If you require any further information regarding this research project or your participation in the study you may contact Dr. Heather Laschinger

If you have any questions about your rights as a research participant or the conduct of this study, you may contact The Office of Research Ethics

Consent
Completion of the survey is indication of your consent to participate.

Sincerely,

Heather K. Spence Laschinger, RN, PhD, FAAN, FCAHS
Distinguished University Professor
Nursing Research Chair in Health Human Resource Optimization

This letter is yours to keep for future reference.

Appendix D

Background Analysis:

Correlations Between Main Study Variables and Categorical Variables

Variables		Authentic Leadership (ALD)		New Graduate Support (CFGNES-SUPP)		Job Satisfaction (MAOQ-JSS)	
		M	*p* value	*M*	*p* value	*M*	*p* value
Categorical Variables (t-test)	Female (Gender)	2.58	0.56	3.27	0.92	3.92	0.65
	Male (Gender)	2.70		3.28		4.02	
	Yes (CTF)	2.61	0.86	3.23	0.54	4.03	0.49
	No (CTF)	2.58		3.28		3.91	
Categorical Variables (ANOVA)	Medical-Surgical (Specialty Area)	2.47	0.25	3.27	0.40	3.86	0.62
	Critical Care (Specialty Area)	2.41		3.24		3.96	
	Other (Specialty Area)	2.78		3.24		3.98	
	Full-Time (Employment Status)	2.68	0.27	3.32	0.22	3.98	0.15

a = 0.05; *t-test conducted for binary categorical variables; ANOVA conducted for non-binary categorical variables*

Appendix E

Permission to Use the Authentic Leadership Questionnaire

www.mindgarden.com

To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material;

Instrument: Authentic Leadership Questionnaire (ALQ)

Authors: Bruce J. Avolio, William L. Gardner, and Fred O. Walumbwa

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for his/her thesis research.

Five sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any other published material.

Sincerely,

Robert Most
Mind Garden, Inc.
www.mindgarden.com

Curriculum Vitae

Name: Stephanie Prtenjaca

Post-Secondary Education and   Master of Science in Nursing, MScN
Degrees: Western University
                                       London, Ontario, 2017-2021

                                       Bachelor of Science in Nursing, BScN
                                       Western University
                                       London, Ontario, 2015-2017

                                       Honors Specialization in Kinesiology, BA
                                       Western University
                                       London, Ontario, 2011-2015

Honours and Awards: London Health Science Centre Auxiliary Scholarship,
                                       2021

                                       Western Graduate Research Scholarship
                                       Arthur Labatt School of Nursing, 2017 – 2019

                                       Ontario Graduate Scholarship, 2018 – 2019

Related Work Experience: Registered Nurse
                                       Critical Care Trauma Centre, Victoria Hospital,
                                       London Health Sciences Centre, 2021 – Present

                                       Registered Nurse
                                       Orthopaedics, University Hospital, London Health
                                       Sciences Centre
                                       2017 – 2021

                                       Continuous Quality Improvement (CQI) Team
                                       Member (Unit Level)
                                       Orthopaedics, University Hospital, London Health
                                       Sciences Centre
                                       2017 – 2021

                                       Graduate Teaching Assistant
                                       Western University, London, Ontario, Canada
                                       2017 – 2018

Professional Memberships: College of Nurses of Ontario, 2017 – Present

                                       Registered Nurses of Ontario (RNAO), 2017 – Present