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Authentic Leadership and Workplace Bullying Among Experienced Registered Nurses: Testing a Double Mediation Model

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Abstract

The aims of this study were to assess the relationship between managers' authentic leadership and workplace bullying among experienced registered nurses and examine whether this relationship is mediated by psychological capital and professional practice environment. This study was a secondary analysis of baseline survey data using a non-experimental, correlational design. A random sample of 478 nurses was obtained from Alberta, Nova Scotia, and Ontario. The hypothesized double mediation model was tested using PROCESS for SPSS. Overall, the model accounted for 23.2% of the variance in bullying. Significant direct effects were found between authentic leadership and psychological capital, professional practice environment, and bullying as well as between professional practice environment and bullying. An indirect effect was found between authentic leadership and bullying through professional practice environment but not psychological capital. Findings may be useful to inform strategies to address bullying as well as the hiring, training, and evaluation of managers.

Keywords: authentic leadership, mediation, nursing leadership, professional practice environment, psychological capital, registered nurses, work environment, workplace bullying

Co-Authorship Statement

Any publications resulting from this thesis will be co-authored by Drs. Carol A. Wong and Emily A. Read.

Dedication

This thesis is dedicated to those who experience workplace bullying.

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Chapter 1

Introduction

In 2015, the Canadian Nurses Association and Canadian Federation of Nurses Unions released a joint position statement to express concern regarding increased workplace bullying and to highlight the need for respectful work environments. In order to practice in Canada, registered nurses must adhere to the Canadian Nurses Association's (2017) *Code of Ethics for Registered Nurses*. As per this code, nurses are required to promote justice and have an ethical responsibility to "refrain from any form of workplace bullying" (Canadian Nurses Association, 2017, p. 15). This is a new addition to the code since it was last updated nearly a decade before (Canadian Nurses Association, 2008), signaling the significance of this issue in the nursing profession in Canada.

Workplace bullying is defined as "repeated and prolonged exposure to predominantly psychological mistreatment, directed at a target who is typically teased, badgered and insulted, and who perceives himself or herself as not having the opportunity to retaliate in kind" (Hauge, Skogstad, & Einarsen, 2009, p. 350). Perpetrators may commit bullying acts that are work-related (e.g., withholding information and excessive monitoring), person-related (e.g., humiliating and gossiping), and physically intimidating (e.g., finger-pointing and shoving; Einarsen, Hoel, & Notelaers, 2009). In the nursing literature, a wide range of workplace bullying prevalence rates have been reported; for instance, Sauer and McCoy (2017) noted a range of 27 to 80%. Moreover, Duncan, Rodney, and Thorne (2014) stated that workplace bullying has increased over time. Perpetrators of nurse bullying include nurse managers, charge nurses, senior nurses, and

other staff nurses (Castronovo, Pullizzi, & Evans, 2016; Wilson, 2016). Additional sources of nurse bullying include physicians as well as patients and their families (Vessey, Demarco, Gaffney, & Budin, 2009).

Work has been undertaken to address this phenomenon. For instance, the Registered Nurses' Association of Ontario (2009) published best practice guidelines for *Preventing and Managing Violence in the Workplace*, a document that addresses strategies for dealing with workplace bullying. In 2009, the Government of Ontario passed the *Occupational Health and Safety Amendment Act (Violence and Harassment in the Workplace)*. Although not specific to bullying, the act covers bullying behaviours. This legislation requires organizations to enact and prominently post policies regarding workplace violence and harassment as well as establish protocols for reporting and investigating allegations of negative behaviours (Government of Ontario, 2009). Although these are promising and meaningful actions, bullying remains an issue in the nursing profession, and more work is required (Duncan et al., 2014).

Addressing workplace bullying is an important endeavour as it has been linked to a variety of negative outcomes. Bullying has been found to negatively impact nurses; for instance, it has been reported to lead to decreased physical and mental health (Read & Laschinger, 2013; Sauer & McCoy, 2017), higher job stress (Oh, Uhm, & Yoon, 2016), and increased burnout (Allen, Holland, & Reynolds, 2015; Giorgi et al., 2016). Meanwhile, more frequent patient adverse events have been reported because of bullying (Spence Laschinger, 2014). Organizations have also been negatively influenced by this phenomenon. Bullying has been linked to decreased work productivity (Berry, Gillespie, Gates, & Schafer, 2012), lower job satisfaction (Olsen, Bjaalid, & Mikkelsen, 2017), and

increased job turnover intentions (Johnson & Rea, 2009; Yeun & Han, 2016). Additionally, negative consequences for individuals, such as poor health (Hogh, Mikkelsen, & Hansen, 2011), and organizations, such as absenteeism and turnover (Hoel, Sheehan, Cooper, & Einarsen, 2011), have also been reported beyond the nursing profession.

Bullying is not only troubling because of its impact on nurses, patients, and organizations but also because of its financial fallout. For example, nursing turnover results in recruitment, training, and other costs that total approximately $25,000 per case (Duffield, Roche, Homer, Buchan, & Dimitrelis, 2014; O'Brien-Pallas, Tomblin Murphy, & Shamian, 2008). Meanwhile, adverse patient events, such as falls, can also lead to significant costs (Morello et al., 2015; Zecevic et al., 2012). Zecevic et al. (2012) studied Canadian patients who had sustained a serious injury resulting from an in-hospital fall and found that, on average, their healthcare costs were $30,696 higher than those of similar patients who did not fall. The indirect financial consequences of bullying are particularly troubling in the context of rising Canadian healthcare costs. According to the Canadian Institute for Health Information (2017), in 2017, $242 billion ($6,604 per Canadian) was projected to be spent on health, representing an increase of 3.9%.

Learning about the consequences of bullying is necessary to appreciate its seriousness; however, this study focused on attaining a heightened understanding of its antecedents as this is needed to inform meaningful strategies to address bullying (Vartia & Leka, 2011). Leadership styles have been reported as predictors of bullying in the nursing literature (Bortoluzzi, Caporale, & Palese, 2014; Spence Laschinger & Fida, 2014; Spence Laschinger, Wong, & Grau, 2012) and beyond (Hauge et al., 2011;

Nielsen, 2013). Authentic leadership, a relational leadership style characterized by self-awareness, moral and ethical conduct, and just decision-making (Avolio, Gardner, Walumbwa, Luthans, & May, 2004; Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008), has been linked to lower bullying among new graduate nurses (Spence Laschinger & Fida, 2014; Spence Laschinger et al., 2012); however, this relationship has not been examined among experienced nurses. Leaders have important roles to play in addressing bullying. They should intervene quickly when negative behaviours arise and act as role models by not perpetrating bullying behaviours (Rayner & Lewis, 2011).

Personal factors, such as issues related to self-esteem and social competence, have also been found to be associated with bullying (Zapf & Einarsen, 2011). A positive personal factor that has been linked to decreased bullying in the nursing literature is psychological capital (Spence Laschinger & Grau, 2012). Individuals with higher psychological capital are better able to attain success when pursuing goals, even in the face of adversity, as they are self-efficacious, optimistic, hopeful, and resilient (Luthans, Youssef, & Avolio, 2007). This positive psychological state was assessed in this study because it has been previously shown to lead to lower bullying (Spence Laschinger & Grau, 2012), and it can be developed by followers through effective leader role modelling (Avolio et al., 2004; Gardner, Avolio, Luthans, May, & Walumbwa, 2005).

Creating a healthy work environment must be a top priority for nursing leaders, especially at a time when there are many workplace challenges, such as heavy workloads and patients who require increasingly complex care (Duncan et al., 2014). In the nursing literature, leadership styles have been found to influence work environment factors (Cummings et al., 2018), and work environment factors have been found to influence

bullying (Howell, 2016). The Registered Nurses' Association of Ontario (n.d.) has endorsed the importance of establishing healthy work environments. They released a series of best practice guidelines to empower stakeholders to create more positive work environments. A professional practice environment is a workplace where registered nurses can practice with autonomy, feel in control of their practice, and have positive relationships with physicians (Aiken & Patrician, 2000). A positive work environment has been linked to decreased workplace bullying in previous research (Yokoyama et al., 2016; Yun, Kang, Lee, & Yi, 2014).

Considering the need to create healthy work environments and decrease workplace bullying, authentic leadership theory was selected as the framework to guide this study (Avolio et al., 2004). According to this theory, there are four components that together deem a leader to be authentic. These are self-awareness, internalized moral perspective, balanced processing, and relational transparency (Walumbwa et al., 2008). Authentic leaders engage in self-reflection to ensure they understand their influence on others, act in congruence with their moral and ethical beliefs, and make just decisions that take various viewpoints into account (Gardner et al., 2005; Walumbwa et al., 2008). Authentic leaders role model positive behaviours for their followers who, in turn, identify with their leader and their workplace (Avolio et al., 2004; Gardner et al., 2005). Through identification, followers then experience positive psychological states (i.e., hope, trust in the manager, positive emotions, and optimism) and, in turn, positive changes in attitudes and behaviours (Avolio et al., 2004).

Purpose and Significance

Since bullying is a behaviour that could reasonably be deterred through positive leadership and because a negative relationship between authentic leadership and workplace bullying has been found among new graduate nurses (Spence Laschinger & Fida, 2014; Spence Laschinger et al., 2012), authentic leadership theory (Avolio et al., 2004) was utilized to frame this study. The purposes of this study were to i) examine whether workplace bullying is influenced by authentic leadership among experienced registered nurses and ii) test whether two concepts, namely, psychological capital and professional practice environment, mediate this relationship.

Workplace bullying has been well studied, but continued research is needed to better understand how to prevent and mitigate it. In addition to its negative impact on nurses, patients, and healthcare organizations, a concerted effort is required to address bullying because of its troubling financial implications (Howell, 2016). All registered nurses deserve to go to work without fear of being bullied. Understanding the antecedents of bullying is important because it provides the knowledge necessary to enact meaningful strategies to address this phenomenon (Vartia & Leka, 2011).

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Chapter 2

Manuscript

Workplace bullying is a serious issue with negative consequences for the nursing profession in Canada and abroad (Canadian Nurses Association & Canadian Federation of Nurses Unions, 2015; Duncan, Rodney, & Thorne, 2014; International Council of Nurses, 2007; Spector, Zhou, & Che, 2014). Bullying is defined as the methodical perpetration of negative behaviours, such as gossiping, making offensive remarks, and finger-pointing, against a less powerful individual on a recurring basis (Einarsen, Hoel, Zapf, & Cooper, 2011; Einarsen, Hoel, & Notelaers, 2009). Nurses may experience bullying from several sources, such as nurse colleagues, charge nurses, managers, physicians, patients, and patients' family members (Vessey, Demarco, Gaffney, & Budin, 2009). In an international review consisting of 10 samples of nurses (n = 9,388) spanning the globe, the average bullying rate was 37.1% (SD = 25.2%), with a range from 4.5 to 86.5% (Spector et al., 2014). Meanwhile, in a recent Canadian nursing study (n = 336) by Spence Laschinger (2014), the average bullying score was 1.45 (SD = 0.59), falling between 1 (*never*) and 2 (*now and then*) on a scale from 1 (*never*) to 5 (*daily*; Einarsen et al., 2009). Although the relative infrequency of bullying found by Spence Laschinger (2014) may appear reassuring, the importance of preventing and managing bullying must not be negated as all employees deserve a workplace free of harm. Examining bullying is a valuable undertaking as this phenomenon has been linked to numerous negative sequelae for nurses, patients, and healthcare organizations, including increased post-traumatic stress disorder symptomology among nurses (Spence Laschinger & Nosko, 2015), increased errors and adverse patient events (Purpora, Blegen, & Stotts, 2015),

decreased perceptions of patient safety (Oh, Uhm, & Yoon, 2016), and higher job turnover intentions (Read & Laschinger, 2013; Simons, 2008). Moreover, the financial fallout associated with such outcomes is troubling as Canada has high healthcare costs (Canadian Institute for Health Information, 2017), and there are concerns about the financial sustainability of the healthcare system (Barua, Palacios, & Emes, 2017). For instance, on average, $25,000 is the estimated cost to replace a registered nurse who leaves his or her organization in Canada (Duffield, Roche, Homer, Buchan, & Dimitrelis, 2014; O'Brien-Pallas, Tomblin Murphy, & Shamian, 2008).

The aforementioned ramifications of bullying highlight the importance of attaining a better understanding of its antecedents in order to enact more meaningful prevention and mitigation strategies (Vartia & Leka, 2011). Many individual (Zapf & Einarsen, 2011), social (Neuman & Baron, 2011), and organizational factors (Salin & Hoel, 2011) have been shown to lead to bullying in the workplace. For instance, managers' leadership styles, organizational culture and climate, and work organization factors (e.g., increasing pressure and stress) have been reported as antecedents in the literature (Hutchinson, Wilkes, Jackson, & Vickers, 2010; Salin & Hoel, 2011; Trépanier, Fernet, Austin, & Boudrias, 2016). Such antecedents and the reality of the challenges currently facing the nursing profession, such as high nurse fatigue, heavy workloads, and high patient complexity (Duncan et al., 2014), signal that policymakers should prioritize the creation of healthier work environments to address bullying.

Leadership is known to play a fundamental role in shaping nursing work environments (Cummings et al., 2018). Cummings and colleagues (2018) conducted a systematic review of the nursing literature and found that relational leadership styles,

rather than task-focused leadership styles, promoted better nursing work environment and workforce outcomes, such as positive relations among staff, better staff health, and higher productivity.

Authentic leadership (Avolio, Gardner, Walumbwa, Luthans, & May, 2004) is one such relational leadership style associated with positive outcomes in nursing (Alilyyani, Wong, & Cummings, 2018). Authentic leaders possess an awareness of their strengths, weaknesses, and values, and they comprehend how they are perceived by others. They willingly share their values and opinions with their staff and encourage them to reciprocate such openness. Authentic leaders also act morally and make just decisions based on the input of both those who agree and disagree with them. By role modelling these behaviours, authentic leaders positively influence their staff to embrace this way of being, leading to constructive changes in their attitudes and behaviours at work (Avolio et al., 2004; Gardner, Avolio, Luthans, May, & Walumbwa, 2005; Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008).

The link between authentic leadership and positive staff outcomes has been shown in nursing (Alilyyani et al., 2018) and beyond (Gardner, Cogliser, Davis, & Dickens, 2011). Authentic leadership has been found to directly and negatively influence bullying among new graduate nurses (Spence Laschinger & Fida, 2014b; Spence Laschinger, Wong, & Grau, 2012). This is logical as the perpetuation of bullying is incongruent with the values of authentic leaders. Additionally, authentic leadership has positively influenced both personal and situational factors among nurses (Alilyyani et al., 2018). A review of the literature did not reveal any studies examining the relationship between authentic leadership and bullying among experienced nurses or exploring the

mechanisms mediating this relationship. Authentic leadership theory was used to frame this study to address these gaps in the literature in a meaningful way (Avolio et al., 2004). Avolio et al. (2004) proposed that authentic leaders can help create healthier work environments as well as guide staff toward developing better personal resources and engaging in less negative behaviours. Considering this and the associated gap in the bullying literature, two mediators were assessed in this study, a personal factor, psychological capital, as well as a situational factor, professional practice environment. Psychological capital is a positive state characterized by an individual being self-efficacious, optimistic, hopeful, and resilient. Those with high psychological capital are better equipped to achieve success in an endeavour, even when faced with roadblocks and adversity along the way (Luthans, Youssef, & Avolio, 2007). Professional practice environments are nursing workplaces with organizational characteristics that promote nurses' autonomy, control, and positive relationships with physicians (Aiken & Patrician, 2000).

The purposes of this study were to assess the relationship between authentic leadership and bullying among experienced nurses as well as examine whether psychological capital and professional practice environment mediate this relationship. Enhancing knowledge about bullying is an important endeavour as it may inform better strategies to prevent and mitigate bullying in the workplace, which, in turn, may alleviate its negative consequences for nurses, patients, and organizations. Meanwhile, an increased understanding of authentic leadership in nursing may prove useful in informing human resources practices related to hiring, training, and evaluating leaders.

Theoretical Framework

The theoretical framework for this study was authentic leadership theory (Avolio et al., 2004). Authentic leadership is "a pattern of transparent and ethical leader behavior that encourages openness in sharing information needed to make decisions while accepting followers' inputs" (Avolio, Walumbwa, & Weber, 2009, p. 423). Authentic leaders are trustworthy, hopeful, resilient, optimistic, and high in moral capacity. They aim to build trusting relationships with their followers, create healthier work environments, and guide their followers to achieve accomplishments and attain greater authenticity (Avolio et al., 2004; Gardner et al., 2005; May, Chan, Hodges, & Avolio, 2003).

Authentic leadership is conceptualized as encompassing four components, namely, *self-awareness*, *relational transparency*, *internalized moral perspective*, and *balanced processing* (Walumbwa et al., 2008). Authentic leaders strive to attain enhanced *self-awareness*, a profound understanding of their strengths, weaknesses, values, motives, and goals, by regularly engaging in self-reflection. This process also involves leaders seeking feedback from others to obtain a clearer understanding of how they are perceived by and impact others. With these insights, authentic leaders can ground their actions in a meaningful way (Avolio & Gardner, 2005; Gardner et al., 2005; Walumbwa et al., 2008). Next, *relational transparency* encompasses authentic leaders voluntarily sharing, when appropriate, their genuine thoughts and feelings with others. Moreover, they may embody this component of authentic leadership by willingly admitting their mistakes. Through such actions, authentic leaders encourage their followers to reciprocate openness, leading to more trusting and open relationships

(Gardner et al., 2005; Walumbwa et al., 2008). At work, leaders face pressures from others in their organization as well as society in general to take certain actions. However, authentic leaders possess an *internalized moral perspective*, meaning that their actions are guided by their true morals and values without being swayed by others, leading to congruence between their beliefs and decisions (Walumbwa et al., 2008). Finally, authentic leaders make decisions through *balanced processing*, that is, they weigh various points of view, even those that are different than their own, before deciding on a way of thinking or course of action. Moreover, they do this in a genuine way that is objective (Gardner et al., 2005; Walumbwa et al., 2008).

Through role modelling these positive behaviours, authentic leaders promote the development of authenticity among followers. Followers may think positively of their leaders' behaviours and start enacting these behaviours themselves (Gardner et al., 2005). According to this theory, in response to leaders' authenticity, followers experience two types of identification, namely, personal identification with their leader and social identification with their workgroup (Avolio et al., 2004). Personal identification refers to followers feeling a sense of connection with their leader and, in turn, embodying their leader's positive attributes. Meanwhile, social identification with the workgroup involves followers feeling a sense of belonging at their organization (Avolio et al., 2004). Through identification with their leader and workgroup, Avolio et al. (2004) proposed that followers experience the following positive states: hope, trust in the leader, positive emotions, and optimism. These positive states act as mediators between followers' personal and social identification and positive work attitudes (e.g., commitment and job satisfaction) and behaviours (e.g., job performance and extra effort; Avolio et al., 2004).

The variables used in this study, including the two proposed mediators, psychological capital and professional practice environment, are congruent with the propositions of authentic leadership theory. First, psychological capital is a positive state characterized by four main components: self-efficacy, optimism, hope, and resiliency (Luthans, Youssef, et al., 2007). Two of these characteristics, optimism and hope, are also mediators in the authentic leadership model between identification and followers' work attitudes and behaviours (Avolio et al., 2004). Followers are proposed to become more optimistic and hopeful through the role modelling of these positive states by authentic leaders (Gardner et al., 2005). Second, professional practice environment is a suitable mediator in accordance with this theory as an overarching goal of authentic leaders is to create healthier work environments (Avolio et al., 2004). Furthermore, establishing a professional practice environment characterized by autonomy, control, and positive relationships between nurses and physicians (Aiken & Patrician, 2000) would be reasonably aided by having an authentic leader. For instance, authentic leaders empower followers by helping them develop strengths and autonomy and by showing them how to build trusting and open relationships (Gardner et al., 2005). Although not identified in the original theory, bullying fits with the final component of the model as an example of a work behaviour, albeit a negative one (Avolio et al., 2004). Authentic leaders role model positive interactions with others, which may discourage bullying behaviours (Avolio et al., 2004).

Literature Review

In the following literature review, a section is dedicated to each of the four main study variables, that is, authentic leadership, psychological capital, professional practice

environment, and workplace bullying. In this literature review, definitions are provided, and an overview of the general management and nursing literature is presented. Moreover, the relationships among variables are highlighted in order to provide justification for this study. Finally, a summary of key findings, including a discussion of gaps in the literature, is presented.

Authentic Leadership

Since its inception in 2003, authentic leadership theory has garnered much attention, in part because of a desire for more positive leadership in the face of many issues related to corporate ethics breeches (Gardner et al., 2011; Luthans & Avolio, 2003). In fact, in a systematic review, Gardner et al. (2011) reported on 91 publications about authentic leadership. Findings showed that this leadership style has been studied worldwide and across various disciplines, including business, education, management, psychology, and nursing, among others (Gardner et al., 2011). In the context of healthcare, authentic leadership has become a relatively popular research topic. Alilyyani et al. (2018), in a systematic review of authentic leadership in healthcare, reported on 38 manuscripts representing 21 studies to date. In nursing, it has been studied in countries around the world, including Belgium (Mortier, Vlerick, & Clays, 2016), India (Malik, Dhar, & Handa, 2016), Iran (Rahimnia & Sharifirad, 2015), and the United States (Johnson, 2015). However, a substantial majority of the literature about authentic leadership in nursing hails from Canada (Alilyyani et al., 2018). Scholars in nursing have almost exclusively studied its consequences, rather than its antecedents (Alilyyani et al., 2018), with a number of studies examining explicit theory propositions, such as the relationship between authentic leadership and personal identification with the leader

(Wong, Spence Laschinger, & Cummings, 2010) and trust in the manager (Wong & Giallonardo, 2013). Among nurses, authentic leadership has been assessed in relation to a wide range of outcomes, including personal psychological states and situational factors (Alilyyani et al., 2018).

Through role modelling, authentic leaders help their staff to attain higher positive psychological states (Gardner et al., 2005), such as personal and organizational identification (Fallatah, Laschinger, & Read, 2017), trust (Coxen, van der Vaart, & Stander, 2016), and psychological capital (Stander, de Beer, & Stander, 2015). The association between authentic leadership and psychological capital has been examined in the past, both within (Malik & Dhar, 2017; Spence Laschinger & Fida, 2014a; Stander et al., 2015) and beyond the nursing profession (Rego, Sousa, Marques, & Cunha, 2012; Woolley, Caza, & Levy, 2011). For example, outside of nursing, Woolley et al. (2011) found that authentic leadership was positively related to psychological capital ($\beta = .54$, $p < .05$) among 828 working adults in New Zealand. In nursing, Spence Laschinger and Fida (2014a) reported a positive association between these variables ($\beta = .26$, $p = .04$) among 205 new graduate nurses in Ontario, Canada. Meanwhile, Malik and Dhar (2017) provided further support as there was a positive relationship between authentic leadership and psychological capital in their study of 520 nurses in India ($B = 0.423$, $p < .001$). It is reasonable to suggest that when nurses have high psychological capital, they would not bully others. Furthermore, those with high psychological capital may have the resources necessary to respond to bullying behaviours in a meaningful and positive way (Cassidy, McLaughlin, & McDowell, 2014).

A key aspect of authentic leadership theory is that leaders facilitate the creation of healthier work environments (Avolio et al., 2004). Authentic leadership has been linked to various situational factors in the nursing literature (Alilyyani et al., 2018), including professional practice environment (Fallatah & Laschinger, 2016; Regan, Laschinger, & Wong, 2016; Spence Laschinger & Fida, 2015). For instance, Spence Laschinger and Fida (2015) reported a positive correlation between authentic leadership and professional practice environment ($r = .34$, $p < .05$) among a sample of 723 nurses in Ontario, Canada. Meanwhile, of particular interest for the present study is an examination of 220 experienced nurses in which Regan et al. (2016) also found a positive correlation between these variables ($r = .43$, $p < .01$). Further support for this relationship was reported by Fallatah and Laschinger (2016), in a cross-sectional study of new graduate nurses ($n = 93$), who found a positive association between these two concepts ($\beta = .42$, $p < .001$). Collectively, these findings provided support for the hypothesized relationship between authentic leadership and professional practice environment in this study.

The relationship between authentic leadership and workplace bullying has been examined in the general management literature. For instance, Nielsen (2013) studied the relationship between three leadership styles (i.e., laissez-faire, transformational, and authentic leadership) and workplace bullying among the employees of two Norwegian shipping companies ($n = 594$). The likelihood of being exposed to bullying behaviours varied by leadership style. Those with authentic leaders were less likely to be bullied ($OR = 0.5$, $p < .05$) than those with either transformational ($OR = 0.58$, $p < .05$) or laissez-faire leaders ($OR = 3.25$, $p < .001$).

In nursing, authentic leadership has been shown to be protective against disruptive workplace behaviours, for instance, incivility (i.e., negative behaviours that are low in intensity; Andersson & Pearson, 1999; Read & Laschinger, 2013) and bullying (Read & Laschinger, 2013; Spence Laschinger & Fida, 2014b; Spence Laschinger et al., 2012). For example, Read and Laschinger (2013) reported a correlation between authentic leadership and incivility from coworkers (r = -.24, p < .05) and supervisors (r = -.32, p < .05) in a sample of 342 new graduate nurses. Meanwhile, in a cross-sectional study of the same sample, Spence Laschinger et al. (2012) noted a negative relationship between authentic leadership and workplace bullying (β = -.34, p < .05). Moreover, Spence Laschinger and Fida (2014b) provided additional support for this relationship using a time-lagged analysis that showed higher authentic leadership at baseline was related to less workplace bullying a year later (β = -.26, p < .05) among 205 new graduate nurses. The direct relationship between authentic leadership and decreased workplace bullying is logical as the perpetration of bullying is incongruent with the behaviours of authentic leaders. Additionally, when followers enact the behaviours of their ethical and moral leaders, they are also logically less likely to bully their counterparts (Walumbwa et al., 2008). Direct supervisors have been found to be bullies. For instance, in a study by Vessey et al. (2009), 14% of respondents reported that the perpetrator of bullying against them was a nurse manager, showing the importance of having moral and ethical leaders. Furthermore, when employees experience bullying, if they have an authentic leader, they may feel more comfortable bringing an allegation forward to be addressed, rather than continuing to be subjected to negative behaviours. These findings, both within and

beyond the nursing profession, provided support for the proposed relationship between authentic leadership and workplace bullying in the present study.

Psychological Capital

According to Luthans, Youssef, et al. (2007), psychological capital is a positive psychological state. Those high in psychological capital are able to combat challenges meaningfully and successfully as they are self-efficacious, optimistic, hopeful, and resilient. They take on challenges confidently, believe in their ability to succeed, and are able to persevere in the face of obstacles (Luthans, Youssef, et al., 2007). Personal factors, both related to targets and perpetrators, have been antecedents of workplace bullying in the literature. For instance, Zapf and Einarsen (2011) reported that workplace bullying has been found to be precipitated by issues related to individuals' self-esteem and social competence. Bullies may, for example, lack self-awareness regarding how they impact others, and targets may lack assertiveness (Zapf & Einarsen, 2011).

The influence of psychological capital on negative workplace behaviours has been reported in the general management literature (Avey, Reichard, Luthans, & Mhatre, 2011; Cassidy et al., 2014). For instance, among employees in the United Kingdom (n = 2,068), Cassidy et al. (2014) noted that there was a negative correlation between bullying and the four psychological capital components of self-efficacy (r = -.36, p < .01), hope (r = -.37, p < .01), resiliency (r = -.31, p < .01), and optimism (r = -.37, p < .01).

Meanwhile, in the nursing literature, psychological capital has been found to be related to decreased negative behaviours. Laschinger, Wong, Regan, Young-Ritchie, and Bushell (2013) examined new graduate nurses (n = 272) and found that resiliency, a component of psychological capital, was correlated with coworker incivility (r = -.19, p <

.05). However, resiliency was not significantly correlated with supervisor or physician incivility. Meanwhile, self-efficacy, based on the work of Bandura, was assessed in relation to incivility in a study of 596 nurses in Canada by Fida, Spence Laschinger, and Leiter (2018). They reported self-efficacy to be related to coworker (β = -.23, p < .01) and supervisor incivility (β = -.11, p < .05); however, no significant relationship was found with physician incivility. Psychological capital has also been linked to bullying in the nursing literature. Spence Laschinger and Grau (2012), in a study of new graduate nurses (n = 165), found a negative association between psychological capital and bullying (r = -.20, p < .01). In the final study model, positive psychological capital was associated with increased areas of worklife fit (β = .44, p < .05), and areas of worklife fit was associated with less bullying (β = -.56, p < .05). Of interest for the present study of experienced nurses, among experienced nurses in Ontario, Canada (n = 631), Spence Laschinger and Nosko (2015) found a negative correlation between psychological capital and bullying (r = -.29, p < .05). Logically, those who are self-efficacious, hopeful, resilient, and optimistic would be less likely to engage in the perpetration of negative behaviours. Furthermore, they would reasonably be able to contend with negative behaviours against them in a constructive way. Collectively, this evidence shows that psychological capital is a potential mediator for this study.

Professional Practice Environment

Professional practice environment is a plausible mediator between authentic leadership and bullying as the influence of situational factors on bullying is theoretically sound and has been shown in the literature (Salin & Hoel, 2011). Establishing healthy work environments is an important goal of authentic leaders in Avolio et al.'s (2004)

theory. Therefore, including professional practice environment as a mediator is appropriate. Professional practice environments for nurses are workplaces where they are able to be autonomous (e.g., in making work decisions) and in control (e.g., appropriate nurse staffing levels). Furthermore, such an environment is characterized by nurses being supported by their organization and having positive relationships with physicians (Aiken & Patrician, 2000).

A number of work environment factors related to professional practice environment have been shown to influence bullying in the workplace. For instance, in a study of new graduate nurses (n = 415), Spence Laschinger, Grau, Finegan, and Wilk (2010) found a relationship between structural empowerment and decreased workplace bullying (β = -.37, p < .05). Since a component part of both structural empowerment and professional practice environments is support, this finding is relevant to the proposed relationship between professional practice environment and workplace bullying in the present study. Spence Laschinger et al. (2010) found a negative relationship between support and workplace bullying (r = -.23, p < .01). Another aspect of professional practice environment is that care is delivered by a sufficient number of nurses (Aiken & Patrician, 2000). The link between nurse staffing and workplace bullying has been shown in the literature. Bortoluzzi, Caporale, and Palese (2014) examined nurses in Italy (n = 175) and found that those who were at risk of bullying reported a nursing staff shortage more often than those who were not at risk (M = 32.1 vs. M = 14.7, p = .05). Meanwhile, among new graduate nurses in Ontario, Canada (n = 165), Spence Laschinger and Grau (2012) found that person-job match in the six areas of worklife (i.e., workload, control, reward, community, fairness, and values) was associated with less

workplace bullying (β = -.56, p < .05). Of particular interest in the present study is control because it is a vital component of a professional practice environment (Aiken & Patrician, 2000). Quine (2001) studied workplace bullying among 396 nurses in England and found that those who experienced bullying, in comparison to those who did not, reported greater role ambiguity (M = 2.5 [SD = 1.2] vs. M = 1.9 [SD = 0.9], p < .001) and lower job control (M = 16.5 [SD = 4.3] vs. M = 19.5 [SD = 2.5], p < .001). These findings demonstrate the influence work environment factors, both positive and negative, can have on workplace bullying, providing support for the inclusion of professional practice environment in the present study.

The relationship between work environment and workplace bullying was studied by Yun, Kang, Lee, and Yi (2014) in the South Korean context among intensive care unit nurses (n = 134), and they found that a positive nursing work environment (measured by institutional support, head nurses' leadership, basic work system, and interpersonal relationships) was associated with decreased bullying (β = -.33, p < .001). Moreover, Yokoyama et al. (2016) investigated the relationship between professional practice environment and workplace bullying among 825 Japanese nurses, and they reported relationships between less workplace bullying and nurse manager ability, leadership, and support of nurses (OR = 0.59, p = .01) as well as staffing and resource adequacy (OR = 0.55, p = .02). Collectively, these organizational findings support the use of professional practice environment as a predictor and mediator of bullying in the present study.

Workplace Bullying

Since workplace bullying is the outcome variable in the present study, this section will highlight its antecedents, both from the general management and nursing literature,

as they relate to leadership. Workplace bullying is the perpetration of negative behaviours against others at a place of employment (Einarsen et al., 2011). Leading workplace bullying scholars, Einarsen et al. (2009), categorized bullying behaviours into the following types: i) work-related, ii) person-related, and iii) physically intimidating bullying. Work-related bullying behaviours include withholding information, ignoring the opinions of others, and excessive monitoring. Meanwhile, person-related bullying behaviours include excluding others, continually criticizing the errors of others, gossiping, and spreading rumours. Physically intimidating bullying refers to acts such as finger-pointing and shoving (Einarsen et al., 2009). Another important aspect of bullying is that it involves a power differential, that is, the perpetrator targets an individual who is less powerful and unable to retaliate (Einarsen et al., 2011; Hauge, Skogstad, & Einarsen, 2009). It is important to note that solitary negative behaviours do not constitute bullying. Bullying is methodical in nature, sustained over time, and regularly occurring (Einarsen et al., 2011). As an example, Einarsen et al. (2011) stated that negative behaviours are to occur weekly for about half a year to be considered bullying. According to Keashly and Jagatic (2011), there are various terms in the literature to describe negative workplace behaviours, including workplace bullying, harassment, workplace incivility, and generalized workplace abuse. To avoid confusion and promote meaningful comparisons among findings, workplace bullying in this thesis is primarily based on the work of Einarsen et al. (2009).

Workplace bullying has been widely studied in the general management literature. It has been examined globally, with studies emanating from countries such as Canada (Dussault & Frenette, 2015), China (McCormack, Casimir, Djurkovic, & Yang, 2006),

New Zealand (Bentley et al., 2012), Norway (Skogstad, Torsheim, Einarsen, & Hauge, 2011), and the United States (Lutgen-Sandvik, Tracy, & Alberts, 2007). In the nursing literature, workplace bullying has been studied in Australia (Hutchinson et al., 2010), Canada (Spence Laschinger & Grau, 2012), Italy (Giorgi et al., 2016), South Korea (Oh et al., 2016), and the United States (Berry, Gillespie, Gates, & Schafer, 2012), among other countries. In a systematic review of the literature regarding the antecedents of nursing workplace bullying, Howell (2016) found that it was influenced by individual, social, organizational, and societal factors.

Previously, in the authentic leadership section of this literature review, the relationship between authentic leadership and workplace bullying was discussed at length. Other leadership styles have also been studied in relation to workplace bullying, both within and beyond the nursing literature. These will be discussed to provide additional support for the ability of leaders to influence bullying in the workplace.

In the general management literature, Hoel, Glasø, Hetland, Cooper, and Einarsen (2010), in a study of 5,288 employees in Great Britain, examined the influence of four leadership styles on bullying. Self-reported bullying was influenced positively by non-contingent punishment ($\beta = .46$, $p < .001$) and laissez-faire leadership ($\beta = .06$, $p < .001$). Meanwhile, observed bullying was found to be related to autocratic ($\beta = .31$, $p < .001$) and laissez-faire leadership ($\beta = -.08$, $p < .001$). Moreover, Hauge et al. (2011) conducted a Norwegian study of 685 departments across various sectors containing 10,652 employees. They found fair and supportive leadership to be negatively related to workplace bullying ($\beta = -.46$, $p < .01$). These findings demonstrate the ability of leaders

to positively or negatively, depending on their leadership style, influence workplace bullying.

Meanwhile, in the nursing literature, Yun et al. (2014) studied the relationship between head nurses' leadership (measured with items related to, for instance, communication and quality of role modelling) and workplace bullying among South Korean nurses (n = 134). Victims of bullying rated head nurses' leadership lower than those who were not bullied (M = 3.07±0.59 vs. M = 3.52±0.52, p = .002). Moreover, among 175 Italian nurses, Bortoluzzi et al. (2014) reported that nurses not at risk of being bullied (n = 113) rated their leaders higher on each component of empowering leadership than those who were at risk (n = 59). Empowering leadership shares similarities with authentic leadership (e.g., leading by example), suggesting support for the present study of authentic leadership and workplace bullying.

Summary of the Literature

This literature review highlighted the logical, theoretical, and empirical soundness of this study. The literature showed support for the influence of leadership on bullying in the workplace, including the use of relational leadership styles, such as authentic leadership, to decrease bullying (Spence Laschinger & Fida, 2014b; Spence Laschinger et al., 2012). Moreover, the evidence showed clear support for the influence of authentic leadership on personal and situational factors (Alilyyani et al., 2018). Furthermore, the ability of personal and situational factors to influence workplace bullying has also been demonstrated (Howell, 2016). Therefore, the use of both a personal factor and a situational factor as mediators between authentic leadership and workplace bullying was warranted. This review revealed two main literature gaps for nursing: i) the relationship

between authentic leadership and workplace bullying has only been examined among new graduate nurses (Spence Laschinger & Fida, 2014b; Spence Laschinger et al., 2012) and ii) little is known about the mechanisms mediating the relationship between authentic leadership and workplace bullying. As such, in this study, mediation was tested among experienced nurses to address these gaps.

Hypotheses and Rationale

Based on the preceding literature review and Avolio et al.'s (2004) authentic leadership theory, the following hypotheses and model (see Figure 1) were generated:

1. Managers' authentic leadership is negatively related to workplace bullying.
2. Managers' authentic leadership is positively related to nurses' psychological capital and professional practice environment.
3. Nurses' psychological capital and professional practice environment are negatively related to workplace bullying.
4. The relationship between managers' authentic leadership and workplace bullying is mediated by nurses' psychological capital and professional practice environment.

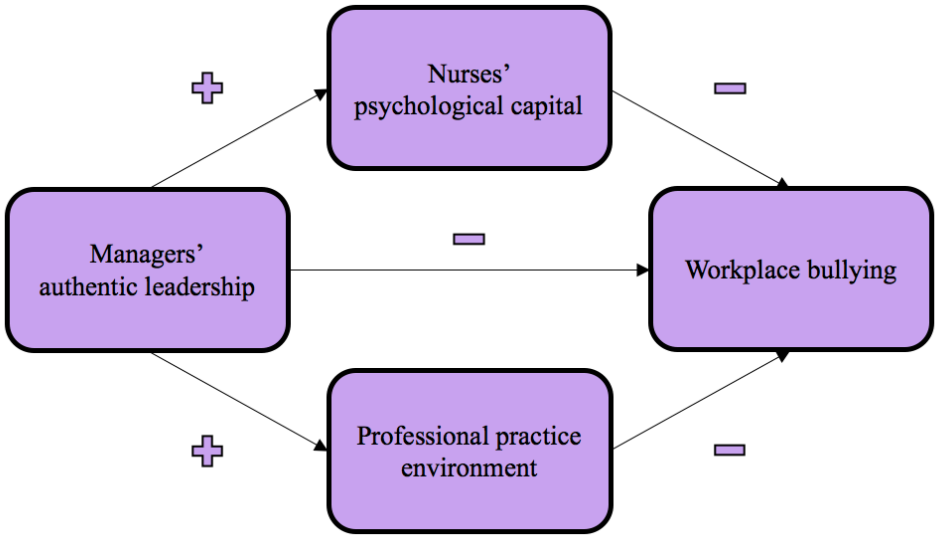


Figure 1. Hypothesized model

These hypotheses are supported by the literature and are congruent with authentic leadership theory (Avolio et al., 2004). According to Avolio et al. (2004), authentic leadership is proposed to change follower behaviours in a positive way. Therefore, authentic leadership was reasonably hypothesized to decrease workplace bullying, a negative follower behaviour. This hypothesis was further supported by the literature as relational leadership styles, including authentic leadership, have been found to positively influence follower behaviours (Alilyyani et al., 2018; Cummings et al., 2018). Moreover, in previous research, scholars have found a negative relationship between authentic leadership and workplace bullying in new graduate nurses (Spence Laschinger & Fida, 2014b; Spence Laschinger et al., 2012). Furthermore, this hypothesis was logical as leaders who possess self-awareness and act morally and ethically are not anticipated to perpetrate bullying behaviours.

In authentic leadership theory, the relationship between authentic leadership and follower behaviours is mediated by several mechanisms, including psychological capital components (Avolio et al., 2004; Luthans, Youssef, et al., 2007). Therefore, proposing that psychological capital acts as a mediator of the relationship between authentic leadership and workplace bullying was a reasonable hypothesis based on theory. When followers attain higher positive states as a result of their leaders' role modelling (Avolio et al., 2004), they are logically less likely to perpetrate bullying behaviours and more likely to respond to scenarios where they are being bullied in a constructive way. The second mediator in the present study, professional practice environment, is also a theoretically suitable mediator as authentic leaders facilitate healthier work environments, promote autonomy among followers, and demonstrate how to interact positively with

others (Avolio et al., 2004; Gardner et al., 2005). These positive outcomes are reflective of a good professional practice environment (Aiken & Patrician, 2000). When nurses are granted higher autonomy, it is logical to suggest that they experience fewer bullying behaviours, such as having their work monitored excessively (Einarsen et al., 2009). Furthermore, this hypothesis was logical as when nurses have positive relationships with others, bullying is presumably less likely to occur.

Finally, the selection of these mediators was based on previous research. Past findings showed that authentic leadership was positively associated with psychological capital (Spence Laschinger & Fida, 2014a) and professional practice environment (Fallatah & Laschinger, 2016). Meanwhile, these factors were found to be negatively associated with workplace bullying (Spence Laschinger & Grau, 2012; Yokoyama et al., 2016).

Methods

Design

This study was a secondary analysis of baseline data of experienced nurses from the *Authentic Leadership for New Graduate Nurse Success* study authored by Laschinger, Wong, Finegan, and Fida (2015). For this study, a non-experimental, correlational design was utilized. This design was suitable as the aim of this study was to explore the relationships among variables without variable manipulation (Polit & Beck, 2017).

Sample and Setting

The respective provincial licensing bodies in Alberta, Nova Scotia, and Ontario were used to obtain a random sample of 400 registered nurses per province for a total of 1,200 potential participants. The inclusion criteria were: i) registered nurses with three or

more years of service (to be considered experienced), ii) current full-time, part-time, or casual employment in direct patient care in Alberta, Nova Scotia, or Ontario, and iii) proficiency in the English language. Nurses in manager, educator, coordinator, and advanced practice roles as well as those on leave from work were excluded. A total of 478 completed surveys were returned for a response rate of 39.8%.

To determine the appropriate sample size for this study, G*Power 3.1 was used to conduct a power analysis (Faul, Erdfelder, Buchner, & Lang, 2009). With an alpha of .05, a power level of .80, and three predictors, a sample size of 77 nurses was required to obtain a moderate effect size of .15 using multiple regression (Faul et al., 2009). Therefore, 478 participants was a sufficient sample size for this analysis.

Sample Characteristics

The demographic results are displayed in Table 1. The majority of participants in this study were female (91.6%), held a bachelor's degree (50.5%), and worked full-time (54.9%). The most frequently reported areas of employment were medical and surgical units (42%) and critical care areas (29%). This sample was fairly evenly split by province among Alberta, Nova Scotia, and Ontario. The average age of participants in this study was 45.6 years (*SD* = 11.1). On average, participants had worked as registered nurses for 20.3 years (*SD* = 11.8), at their current organization for 14.8 years (*SD* = 10.3), and on their current unit for 9.8 years (*SD* = 8.3).

Instruments

The following four standardized measurement tools were utilized in this study: i) *Authentic Leadership Questionnaire* (ALQ; Avolio, Gardner, & Walumbwa, 2007; see Appendix A), ii) *Psychological Capital Questionnaire* (PCQ; Laschinger et al., 2015;

Table 1

Demographic Results (N = 478)

Demographic		Frequency (*n*)	Percent (%)
Gender	Female	438	91.6
	Male	40	8.4
Province	Nova Scotia	166	34.7
	Ontario	160	33.5
	Alberta	152	31.8
Highest degree in nursing	Bachelor's degree	241	50.5
	College diploma	197	41.3
	Graduate degree	39	8.2
Employment status	Full-time	259	54.9
	Part-time	170	36.0
	Casual	43	9.1
Specialty area	Medical surgical	200	42.0
	Critical care	138	29.0
	Maternal child	62	13.0
	Community	45	9.5
	Mental health	27	5.7
	Other	4	0.8
Demographic	*n*	*M*	*SD*
Age	475	45.6	11.1
Years in nursing	467	20.3	11.8
Years at current org.	437	14.8	10.3
Years on current unit	422	9.8	8.3

Luthans, Youssef, et al., 2007; see Appendix B), iii) *Nursing Work Index – Revised* (NWI-R; Aiken & Patrician, 2000; Laschinger et al., 2015; see Appendix C), and iv) *Negative Acts Questionnaire – Revised* (NAQ-R; Einarsen et al., 2009; Laschinger et al.,

2015; see Appendix D). Demographic information was also collected from participants (see Appendix E).

Authentic leadership. The ALQ was developed by Avolio et al. (2007) to measure followers' ratings of the frequency with which their leaders exhibit authentic behaviours (Walumbwa et al., 2008). This tool contains 16 items, which are divided into four subscales: i) self-awareness (four items), relational transparency (five items), internalized moral perspective (four items), and balanced processing (three items; Walumbwa et al., 2008). Participants are expected to rate the frequency with which their leader portrays authentic leader behaviours on a 5-point Likert scale from 0 (*not at all*) to 4 (*frequently, if not always*; Avolio et al., 2007; Walumbwa et al., 2008). Subscale means are computed, and an overall authentic leadership score is calculated by taking the average of the four subscale means. Construct validity was established using confirmatory factor analysis, which supported the four-factor structure (Walumbwa et al., 2008). Additionally, Walumbwa et al. (2008) established discriminate validity, showing that authentic leadership was distinguishable from ethical and transformational leadership. The Cronbach's alphas of the subscales ranged from .70 to .92 (Walumbwa et al., 2008). In the present study, Cronbach's alpha for authentic leadership was .97 and ranged from .89 to .95 for the subscales (see Table 2).

Psychological capital. The PCQ is a 24-item questionnaire developed by Luthans, Youssef, et al. (2007) to assess psychological capital, that is, how hopeful, resilient, self-efficacious, and optimistic respondents feel. This questionnaire consists of four subscales, one for each of the aforementioned positive states. A 12-item version of the PCQ was developed by Norman, Avolio, and Luthans (2010) and showed an overall

alpha reliability of .93. For the purpose of the primary study, Laschinger et al. (2015) also used a 12-item PCQ scale with three items per subscale. These items were measured on a six-point Likert scale from 1 (*strongly disagree*) – 6 (*strongly agree*; Luthans, Youssef, et al., 2007). The means of items are calculated per subscale, and an overall psychological capital score is the mean of the four subscale scores. Luthans, Avolio, Avey, and Norman (2007) conducted a confirmatory factor analysis and found support for the four-factor structure of psychological capital, thereby establishing construct validity. The following range of Cronbach's alphas were found by Luthans, Avolio, et al. (2007): overall psychological capital (.88-.89), hope (.72-.80), resiliency (.66-.72), self-efficacy (.75-.85), and optimism (.69-.79). In the present study, the Cronbach's alpha for psychological capital was .89, with Cronbach's alphas for the subscales ranging from .75 to .85 (see Table 2).

Professional practice environment. A subset of six items from the NWI-R, a 57-item tool developed by Aiken and Patrician (2000) was used to measure professional practice environment. The original tool has acceptable reliability with a Cronbach's alpha of .96 for the full NWI-R, with subscales ranging from .84 to .91 (Aiken & Patrician, 2000). Construct validity was established as the tool is able to distinguish between magnet hospitals (i.e., hospitals known to have professional practice environments) and control hospitals (Aiken & Patrician, 2000). The items used in this subset from the NWI-R measure control, autonomy, and teamwork. Respondents were requested to rate each item on a four-point Likert scale from 1 (*strongly disagree*) – 4 (*strongly agree*). This measure is scored by taking the average of all items. Regan et al. (2016) used this shortened version of the NWI-R and reported acceptable reliability with

a Cronbach's alpha of .82. The validity of this shortened tool was shown through an exploratory factor analysis using principal components extraction that supported a one-factor solution explaining 52% of the variance, with all items loading above .50 (Regan et al., 2016). The Cronbach's alpha in the present study for professional practice environment was .77.

Workplace bullying. The NAQ-R, which was developed by Einarsen et al. (2009), was used to measure workplace bullying. The purpose of this scale is to measure the frequency with which employees experienced bullying behaviours within the past six months (Einarsen et al., 2009). This questionnaire contains 22 items, which are divided into the following three subscales: i) person-related bullying (12 items), work-related bullying (7 items), and physically intimidating bullying (3 items). However, for this study, a shortened version was used that included only two subscales and fewer items: i) work-related bullying (five items) and ii) person-related bullying (five items). Participants were asked to rate items on a Likert scale from 1 (*never*) to 5 (*daily*). A separate score was calculated for each subscale by taking the average of its items, and a full NAQ-R score was obtained by taking the average of all items. The full NAQ-R's reliability was assessed, and its Cronbach's alpha value was .90. Meanwhile, the construct validity was established for the three-factor original tool using confirmatory factor analysis (Einarsen et al., 2009). In this study, the Cronbach's alpha was .86 for workplace bullying, .71 for person-related bullying, and .78 for work-related bullying.

Demographic information was collected for this study, including gender, age (in years), whether the participant completed a compressed time frame nursing program,

education, employment status, specialty area, and years working as a registered nurse, at their current organization, and on their current unit.

Data Collection

In August 2014, ethics approval for the primary study was granted by the Health Science Research Ethics Board at Western University (see Appendix G). A self-report questionnaire, letter of information (see Appendix H), and return-addressed stamped envelope were mailed to potential participants. Additionally, they received a ballot to enter for a chance to win an iPad mini (one per province) and a $2 gift card for a national coffee shop chain. A modified Dillman (2007) approach was used for data collection to promote a favourable response rate. This included a reminder letter being sent to non-responders at three weeks and a second study package being sent to non-responders after another three weeks.

Data Analysis

Data were analyzed using SPSS (version 25). Additionally, to test the hypothesized parallel double mediation model, an SPSS macro, PROCESS (version 3; Hayes, 2018), was employed. To gain an enhanced understanding of the sample, descriptive statistics were obtained. Frequencies were examined for categorical variables (i.e., gender, province, education, employment status, and current specialty area) and descriptives were assessed for continuous variables (i.e., scales, subscales, age, and length of time in the profession, at the current organization, and on the current unit). The descriptives obtained were mean, standard deviation, minimum value, maximum value, skewness, and kurtosis. The amount of missing data was assessed through an examination of frequencies for all variables and items. For this study, significance was

set at $p < .05$. The normality of distribution was assessed using histograms, Q-Q plots, and skewness and kurtosis statistics. A reliability analysis was conducted to obtain the Cronbach's alpha coefficient for each scale and subscale in order to assess internal consistency reliability (Kellar & Kelvin, 2013).

Pearson's correlations were examined among main study variables, subscales, and continuous demographic variables. Independent samples *t* tests were conducted to assess for significant differences in main study variables by binary gender. Next, one-way analysis of variance (ANOVA) tests were computed to examine for significant differences in main study variables by categorical demographic variables. Finally, the PROCESS macro for SPSS (Hayes, 2018) was used to test the hypothesized double mediation model for direct and indirect effects. Both ordinary least squares regression and confidence intervals of 95% using the percentile method were computed with bootstrapping using 5000 samples in this macro to obtain unstandardized model coefficients (Hayes, 2018).

Results

Descriptive Results

In Table 2, the means, standard deviations, and Cronbach's alpha coefficients are listed for each scale and subscale. Less than 2% of data were missing for the main study variables, so no action was taken. In this study, participants reported moderate authentic leadership ($M = 2.33$, $SD = 1.04$). Among the authentic leadership subscales, participants rated internalized moral perspective the highest ($M = 2.53$, $SD = 1.04$) and self-awareness the lowest ($M = 2.10$, $SD = 1.19$). These findings closely reflect those of Regan et al. (2016), who also studied Canadian experienced nurses. Regan et al. (2016) reported

slightly lower authentic leadership (M = 2.28, SD = 1.04), with the highest rated subscales being internalized moral perspective (M = 2.40, SD = 1.10) and relational transparency (M = 2.40, SD = 1.03) and the lowest rated subscale being self-awareness (M = 2.09, SD = 1.16).

Participants rated psychological capital relatively high (M = 4.81, SD = 0.66). Among the subscales, they rated their resiliency the highest (M = 5.10, SD = 0.73), followed by hope (M = 4.93, SD = 0.79), self-efficacy (M = 4.80, SD = 0.83), and optimism (M = 4.42, SD = 1.00). Spence Laschinger and Nosko (2015) found lower psychological capital in a similar sample of experienced nurses (M = 4.30, SD = 0.32). In response to items regarding professional practice environment, participants generally rated aspects of their environment as moderate (M = 2.66, SD = 0.55). This is slightly lower than the score (M = 2.84, SD = 0.60) found by Regan et al. (2016). Bullying was relatively infrequent in this study, occurring between *never* and *now and then* (M = 1.65, SD = 0.65). Work-related bullying (M = 1.84, SD = 0.79) was found to be more frequent than person-related bullying (M = 1.46, SD = 0.58). In a Canadian study of nurses, although not specific to experienced nurses, Spence Laschinger (2014) reported an average bullying score of 1.45 (SD = 0.59), a figure slightly lower than in this study.

Relationships Between Demographic Variables and Main Study Variables

There was a significant difference in bullying based on gender ($t_{(475)}$ = 3.11, p = .002). Males (M = 1.96, SD = 0.71) reported being bullied more often than females (M = 1.63, SD = 0.64). Ratings of authentic leadership varied by education level ($F_{(2, 474)}$ = 3.996, p = .019), as those with a bachelor's degree rated their leaders as more authentic (M = 2.45, SD = 0.99) than those with a college diploma (M = 2.17, SD = 1.05). Bullying

also differed by education ($F_{(2, 473)} = 3.982$, $p = 0.019$), as those with a graduate degree reported being bullied more frequently ($M = 1.85$, $SD = 0.72$) than those with a bachelor's degree ($M = 1.58$, $SD = 0.57$). Meanwhile, participants differed on psychological capital by employment status ($F_{(2, 465)} = 5.018$, $p = .007$), with those employed full-time ($M = 4.90$, $SD = 0.63$) reporting higher psychological capital than those who were employed part-time ($M = 4.70$, $SD = 0.61$). Meanwhile, professional practice environment scores varied by province ($F_{(2, 475)} = 3.598$, $p = .028$). These ratings were higher in Alberta ($M = 2.74$, $SD = 0.51$) than in Ontario ($M = 2.58$, $SD = 0.58$). In this study, age was positively related to psychological capital ($r = .23$, $p < .01$). Years of registered nursing practice was negatively related to authentic leadership ($r = -.10$, $p < .05$) and positively correlated with psychological capital ($r = .21$, $p < .01$). Meanwhile, years of employment at current organization was positively associated with psychological capital ($r = .12$, $p < .05$) as was years of employment on current unit ($r = .13$, $p < .01$), which was also negatively correlated with workplace bullying ($r = -.12$, $p < .05$).

Correlation Analysis Among Main Study Variables

Correlations among main study variables are reported in Table 2. Authentic leadership was positively related to psychological capital ($r = .30$, $p < .01$) and professional practice environment ($r = .37$, $p < .01$), and it was negatively correlated with workplace bullying ($r = -.41$, $p < .01$). Among the psychological capital subscales, authentic leadership was most positively related to optimism ($r = .35$, $p < .01$). Meanwhile, authentic leadership was more highly correlated with work-related ($r = -.42$, $p < .01$) than person-related bullying ($r = -.34$, $p < .01$). Psychological capital was more

Table 2

Means, Standard Deviations, Cronbach's Alphas, and Correlations for Main Study Variables and Subscales (N=478)

Variable	*M*	*SD*	*α*	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Authentic Leadership	2.33	1.04	.97													
2. Balanced Processing	2.24	1.14	.89	.94**												
3. Internalized Moral Perspective	2.53	1.04	.91	.95**	.87**											
4. Relational Transparency	2.43	1.02	.91	.93**	.81**	.87**										
5. Self-Awareness	2.10	1.19	.95	.95**	.87**	.85**	.84**									
6. Psychological Capital	4.81	0.66	.89	.30**	.28**	.30**	.29**	.27**								
7. Hope	4.93	0.79	.84	.25**	.25**	.27**	.24**	.22**	.82**							
8. Optimism	4.42	1.00	.85	.35**	.34**	.34**	.32**	.32**	.81**	.54**						
9. Resiliency	5.10	0.73	.75	.13**	.11*	.14**	.14**	.11*	.73**	.49**	.48**					
10. Self-Efficacy	4.80	0.83	.81	.17**	.16**	.17**	.16**	.15**	.76**	.57**	.43**	.39**				
11. Prof. Prac. Environment	2.66	0.55	.77	.37**	.36**	.35**	.35**	.35**	.33**	.30**	.35**	.11*	.24**			
12. Bullying	1.65	0.65	.86	-.41**	-.40**	-.41**	-.38**	-.37**	-.24**	-.27**	-.26**	-.10*	-.10*	-.38**		
13. Person-Related Bullying	1.46	0.58	.71	-.34**	-.33**	-.35**	-.31**	-.30**	-.17**	-.21**	-.17**	-.06	-.08	-.30**	.92**	
14. Work-Related Bullying	1.84	0.79	.78	-.42**	-.41**	-.42**	-.39**	-.38**	-.26**	-.28**	-.29**	-.11*	-.11*	-.40**	.96**	.77**

**$p < .01$; *$p < .05$

strongly correlated with work-related (r = -.26, p < .01) than person-related bullying (r = -.17, p < .01). Moreover, psychological capital was negatively related to overall workplace bullying (r = -.24, p < .01). Workplace bullying was more highly associated with the hope (r = -.27, p < .01) and optimism (r = -.26, p < .01) subscales of psychological capital than the resiliency (r = -.10, p < .05) and self-efficacy (r = -.10, p < .05) subscales. The relationships between person-related bullying and resiliency and self-efficacy were not significant. Finally, professional practice environment was negatively related to workplace bullying (r = -.38, p < .01), with a stronger association with work-related (r = -.40, p < .01) than person-related bullying (r = -.30, p < .01).

Testing of Hypotheses

Hayes' (2018) SPSS macro, PROCESS, was used to test the double mediation model. No controls were used in this model as no theoretical grounding for doing so was revealed in the literature review. Overall, authentic leadership, psychological capital, and professional practice environment contributed to 23.2% of the variance in workplace bullying ($F_{(3, 469)}$ = 47.282, p < .001; see Table 3). The direct pathway between authentic leadership and workplace bullying was negative and significant (B = -0.191, p < .001), supporting the first hypothesis (see Figure 2). Meanwhile, authentic leadership had a positive, direct impact on both psychological capital (B = 0.189, p < .001) and professional practice environment (B = 0.193, p < .001). Thus, the second hypothesis was supported. The direct relationship between psychological capital and bullying was not significant in this model (B = -0.065, p = .137). However, the direct relationship between professional practice environment and bullying was negative and significant

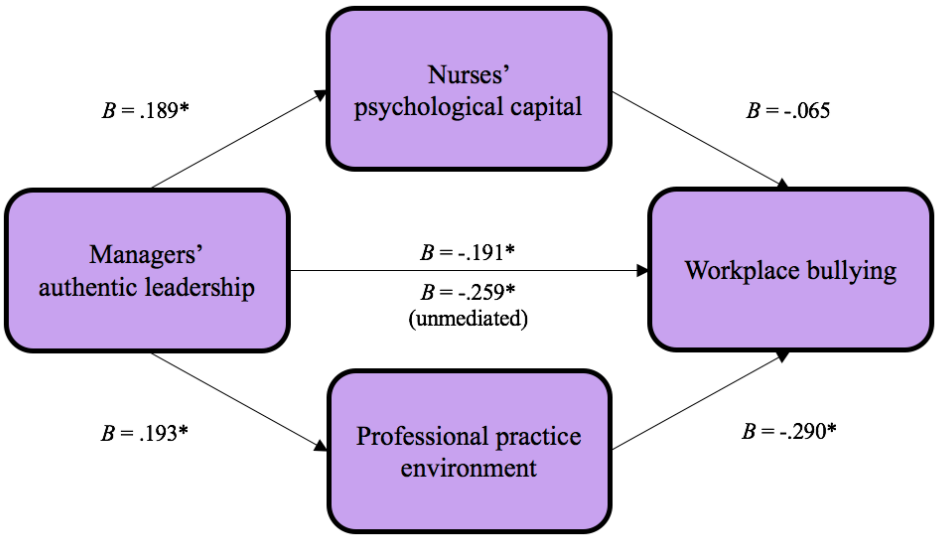
Table 3

Regression Coefficients, Standard Errors, and Model Summary Information for the Double Mediation Model (n=473).

	Consequent								
	M_1 (PC)			M_2 (PPE)			Y (BULLYING)		
Antecedent	Coeff.	*SE*	*p*	Coeff.	*SE*	*p*	Coeff.	*SE*	*p*
X (AL)	0.189	0.028	< .001	0.193	0.023	< .001	-0.191	0.028	< .001
M_1 (PC)	—	—	—	—	—	—	-0.065	0.043	.137
M_2 (PPE)	—	—	—	—	—	—	-0.290	0.054	< .001
Constant	4.375	0.071	< .001	2.210	0.058	< .001	3.178	0.207	< .001
	$R^2 = 0.088$			$R^2 = 0.134$			$R^2 = 0.232$		
	$F_{(1, 471)} = 45.475$, $p < .001$			$F_{(1, 471)} = 72.710$, $p < .001$			$F_{(3, 469)} = 47.282$, $p < .001$		

Note. (1) all beta coefficients are unstandardized; (2) AL = authentic leadership; PC = psychological capital; PPE = professional practice environment; *M* = mediator; Coeff. = coefficient, *SE* = standard error; R^2 = variance

(B = -0.290, p < .001). Therefore, the third hypothesis was partially supported. The unmediated effect of authentic leadership on bullying was significant (B = -0.259, p < .001).



* p < .001

Figure 2. Final model

The indirect effect of authentic leadership on bullying through psychological capital (B = -0.012) was not significant as the bootstrapping confidence interval [-0.032, 0.005] included zero. Meanwhile, the mediating effect of professional practice environment was supported as the indirect effect of authentic leadership on bullying through professional practice environment (B = -0.056) resulted in a confidence interval that did not include zero [-0.086, -0.031]. Therefore, the final hypothesis was partially supported.

Discussion

The purposes of this study were to examine the relationship between managers' authentic leadership and workplace bullying among experienced registered nurses and assess whether this relationship is mediated by nurses' psychological capital and

professional practice environment. The hypotheses were mostly supported in this study. However, a significant relationship was not found between psychological capital and workplace bullying, and psychological capital did not mediate the relationship between authentic leadership and workplace bullying. Overall, the model accounted for 23.2% of the variance in workplace bullying.

The direct negative relationship between authentic leadership and bullying found in this study of experienced nurses is supportive of previous findings regarding this relationship among new graduate nurses (Spence Laschinger & Fida, 2014b; Spence Laschinger et al., 2012) and employees outside the nursing profession (Nielsen, 2013). Furthermore, this finding is consistent with authentic leadership theory, as in this study, authentic leadership was associated with lower negative follower behaviour, that is, bullying (Avolio et al., 2004). The positive relationship found between authentic leadership and psychological capital is also consistent with earlier research (Malik & Dhar, 2017; Spence Laschinger & Fida, 2014a) and Avolio et al.'s (2004) authentic leadership theory, which proposed a positive association between authentic leadership and components of psychological capital. Meanwhile, as expected based on earlier research and theory, authentic leadership was positively associated with professional practice environment (Avolio et al., 2004; Fallatah & Laschinger, 2016).

The absence of a significant relationship between psychological capital and workplace bullying is inconsistent with previous research (Spence Laschinger & Grau, 2012) as well as the authentic leadership model by Avolio et al. (2004), which contains psychological capital components as mediators of the relationship between authentic leadership and follower behaviours. However, the relationship between psychological

capital and workplace bullying found by Spence Laschinger and Grau (2012) was through areas of worklife fit. Meanwhile, professional practice environment was associated with decreased bullying in the present study, a finding that is congruent with previous research (Yokoyama et al., 2016).

The hypothesis that psychological capital mediates the relationship between authentic leadership and workplace bullying was not supported. However, psychological capital has been shown as a significant mediator in the past. Malik and Dhar (2017) found that it mediated the relationship between authentic leadership and extra role behaviours (e.g., providing emotional support) among nurses in India. Alternatively, psychological capital may be influential in how individuals respond to bullying behaviours. When nurses are hopeful, resilient, self-efficacious, and optimistic (Luthans, Youssef, et al., 2007), they may be well-prepared to respond to bullying behaviours in a constructive way. With this in mind, it is reasonable to suggest that psychological capital may be a more suitable mediator for relationships where workplace bullying is the antecedent. As such, it may be a suitable mediator between workplace bullying and consequences of bullying. For instance, among employees in the United Kingdom, Cassidy et al. (2014) found that psychological capital mediated the relationship between workplace bullying and well-being. Higher psychological capital lessened the negative impact of workplace bullying on well-being.

Meanwhile, professional practice environment mediated the relationship between authentic leadership and workplace bullying in this study. This is consistent with authentic leadership theory as authentic leaders aim to create healthier work environments (Avolio et al., 2004). Furthermore, it is logical that when nurses are

granted autonomy, they may be placed in fewer scenarios where bullying may arise. These findings suggest that when leaders are considering strategies to counteract workplace bullying, they may benefit from focusing on changing situational work environment factors rather than personal psychological state factors. Understanding the mechanisms by which authentic leadership impacts workplace bullying may be helpful in the development of strategies to address this issue.

Authentic leaders may decrease bullying in the workplace through positive role modelling of acceptable behaviours and the creation of healthier work environments (Avolio et al., 2004; Spence Laschinger & Fida, 2014b). Furthermore, authentic leaders exhibit relational transparency, that is, they are open and honest with others about their ideas and feelings (Walumbwa et al., 2008). Therefore, logically, they are likely to be willing to intervene when they notice bullying behaviours or when bullying behaviours are brought to their attention. Such leaders are logically likely to give an honest account of their feelings about the behaviours to the bullies and share what they feel are acceptable and unacceptable workplace behaviours (Spence Laschinger & Fida, 2014b; Walumbwa et al., 2008). It is important that leaders be proactive in dealing with bullying behaviours, refrain from engaging in negative behaviours (Rayner & Lewis, 2011), and be committed to mitigation strategies (Vartia & Leka, 2011). Moreover, authentic leaders engage in balanced processing in that they take a range of opinions into account when making decisions. Therefore, it is reasonable to believe that they are likely to be effective in conducting reviews into bullying allegations. They would be willing to examine the viewpoints of the perpetrator and the victim fairly and come to a reasonable and objective opinion regarding the path forward (Walumbwa et al., 2008). Hoel and

Einarsen (2011) noted the importance of objectivity and seeking various viewpoints when investigating bullying claims. Acting this way would result in fair decisions and set precedent on the unit, showing that bullying behaviours are unlikely to be tolerated in the future (Hoel & Einarsen, 2011).

In this study, nurses reported that their managers exhibited moderate authentic leadership, a finding consistent with previous research on experienced nurses (Regan et al., 2016). However, the authentic leadership score in this study is substantially lower than that reported in other studies of, for example, teachers (Shapira-Lishchinsky & Tsemach, 2014) and service industry employees (Leroy, Palanski, & Simons, 2012). This moderate score suggests that there is an opportunity for senior administrators to help managers improve by providing authentic leadership education and training. Meanwhile, bullying was reported as being relatively infrequent in this study but slightly more frequent than in a study by Spence Laschinger (2014), who studied both new graduate and experienced nurses without categorizing them by experience. As stated earlier, the relative infrequency of bullying may appear encouraging, however, it is of grave importance to address any frequency of bullying as it is related to many negative outcomes.

In this study, internalized moral perspective was the highest rated authentic leadership component while self-awareness was the lowest. Having internalized moral perspective means that authentic leaders act in congruence with their moral and ethical beliefs (Walumbwa et al., 2008). It is reasonable to suggest that they believe that bullying is wrong. Since authentic leaders act in congruence with their beliefs, it is reasonable to suggest that they would role model positive behaviours and take action to

address bullying behaviours in their workplace. The lower self-awareness rating is concerning as those who are self-aware engage in regular self-reflection to gain an appreciation of how they have an impact on others (Gardner et al., 2005). Those with lower self-awareness may be perpetrating negative behaviours without insight into how those behaviours impact others. Through feedback, leaders can come to understand whether they are viewed as being tolerant or intolerant of bullying (Walumbwa et al., 2008). Those who are self-aware may recognize that they are weak when it comes to addressing negative behaviours and seek guidance.

In light of these findings, there are implications for administrators, educators, and researchers. First, hospital administrators may find it useful to use authentic leadership as a framework for hiring and training nurse managers (Walumbwa et al., 2008). May et al. (2003) stated that choosing leaders who have a strong desire to be authentic is important and beneficial. Furthermore, the ALQ could be used as part of leaders' annual evaluations (May et al., 2003; Walumbwa et al., 2008). Nurse educators should teach undergraduate students about authentic leadership as authentic behaviours are important for all nurses to embrace (Shrivastava, 2018; Waite, McKinney, Smith-Glasgow, & Meloy, 2014). Finally, further research is necessary to test such a model in a longitudinal fashion and among nurses working in other settings, such as long-term care, to see whether these promising findings hold true.

Limitations

First, due to the correlational and cross-sectional nature of this study, causality cannot be inferred (Polit & Beck, 2017). However, this is partially addressed by having the study grounded in theory and with co-variation in the study variables (Taris, 2000).

Second, since this study involved the use of self-report measurement tools, there was the potential for response bias (Polit & Beck, 2017). Third, although the generalizability of findings in this study is promoted through the use of three geographically distinct provinces, it is limited due to only examining experienced registered nurses in hospital and community settings in the Canadian context. Fourth, in this study, there was a relatively equal number of participants from Alberta, Nova Scotia, and Ontario; therefore, provinces with smaller populations of nurses (e.g., Alberta and Nova Scotia) were overrepresented in the study sample.

Conclusion

In conclusion, authentic leadership was associated with lower workplace bullying as well as higher psychological capital and professional practice environment. Moreover, the influence of authentic leadership on workplace bullying was found to be both direct as well as indirect through professional practice environment. These findings provide further evidence to encourage healthcare administrators to use authentic leadership theory to inform hiring practices, manager training, and performance appraisals. Furthermore, these findings may help inform strategies to prevent and manage workplace bullying in healthcare organizations. Continued nursing leadership education and research is necessary to ascertain that stakeholders are prepared to address this issue and to ensure all nurses have a workplace free of bullying.

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Chapter 3

Discussion

In this study, psychological capital and professional practice environment were tested as mediators of the relationship between authentic leadership and workplace bullying among experienced registered nurses. Authentic leadership was associated with lower workplace bullying both directly and indirectly, and only professional practice environment mediated the relationship. Overall, the model accounted for 23.2% of the variance in workplace bullying. Implications for each of the following are discussed: theory, management practice and policy, education, and future research.

Implications for Theory

Findings from this study provide additional support for the influence of managers' leadership styles, specifically authentic leadership, on staff nurse behaviours. Moreover, the results of this study contribute to the limited body of research showing that healthcare managers' authentic leadership is associated with lower workplace bullying. This may be the first nursing study to contribute to an understanding of the mechanisms mediating this relationship. However, it is important to interpret these results with caution as bullying was self-rated, and it was not reported whether perpetrators and victims had the same manager.

Avolio, Gardner, Walumbwa, Luthans, and May's (2004) authentic leadership theory is partially supported by the findings of this study. The negative relationship between authentic leadership and workplace bullying in this study supports Avolio et al.'s (2004) proposition that authentic leaders are able to decrease their followers' negative workplace behaviours. Additional support for the theory is derived from the

positive association of authentic leadership with psychological capital and professional practice environment in this study. However, psychological capital did not significantly directly associate with workplace bullying or mediate the relationship between authentic leadership and workplace bullying. These findings are incongruent with authentic leadership theory (Avolio et al., 2004). However, psychological capital may be a suitable mediator for other follower behaviours, and further investigation is required to assess its suitability as a mediator of the relationship between authentic leadership and bullying. Professional practice environment, the mediator supported in this study, adds to Avolio et al.'s (2004) authentic leadership model, which originally included personal and social identification, positive states, and follower work attitudes as mediators between authentic leadership and follower behaviours. This situational factor merits additional research to increase understanding of its fit within the authentic leadership model. Professional practice environment may serve as a contextual factor that mediates the relationship between authentic leadership and follower behaviours, which would be a valuable addition to the theory.

These findings also add to the growing evidence showing that work environment factors act as mediators of authentic leadership and follower outcomes. For instance, structural empowerment (Wong & Laschinger, 2013) and person-job match in the six areas of worklife (Bamford, Wong, & Laschinger, 2013) have been shown to mediate such relationships.

Implications for Management Practice and Policy

Findings from this study showed that authentic leadership was both directly and indirectly related to workplace bullying. Therefore, some changes may allow leaders to

directly decrease bullying while others may require leaders to influence bullying through positive changes in work environments. In light of the positive benefits of authentic leadership, both in this study and in previous research (Alilyyani, Wong, & Cummings, 2018; Gardner, Cogliser, Davis, & Dickens, 2011), those in positions of authority should ensure that human resources decisions are made with authentic leadership in mind. For instance, when evaluating candidates for management positions, human resources professionals should take into account whether candidates embody or are committed to authentic leadership behaviours (May, Chan, Hodges, & Avolio, 2003). Furthermore, effort should reasonably be put into identifying staff nurses who display authenticity as potential nurse leaders. Additionally, performance appraisals should assess whether managers enact behaviours associated with authentic leadership (May et al., 2003). Conducting performance appraisals regularly would provide an opportunity for leaders to obtain feedback, an important aspect of increasing self-awareness (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008). Senior administrators should also create an environment where unit managers feel they are able to be open and honest, admit mistakes, and make value-based decisions without undue influence from the organization, all of which are important to leading in an authentic way (Walumbwa et al., 2008).

According to Gardner, Avolio, Luthans, May, and Walumbwa (2005), individuals are able to develop authentic leadership, and as such, healthcare organizations should provide authentic leadership training and education. The authentic leadership model is a useful tool to guide the development of authentic leadership programs and the *Authentic Leadership Questionnaire* is a valid and reliable way to evaluate whether programming was effective (Walumbwa et al., 2008). Authentic leadership training has been examined

in several studies (Baron, 2016; Shapira-Lishchinsky, 2014). Baron (2016) conducted a three-year longitudinal study of Canadian middle managers in relation to an authentic leadership training program. This program involved 15 days of training and nine peer coaching sessions each year. Managers learned about theory and participated in action learning activities related to understanding and enacting components of authentic leadership (Baron & Parent, 2015). They reported higher authentic leadership after each year of the program (Baron, 2016). Meanwhile, Shapira-Lishchinsky (2014) found that role play simulation of ethical scenarios based on aspects of authentic leadership may promote its uptake among nurses. Learning about authentic leadership should reasonably be included in orientation sessions for new managers, and ongoing training should reasonably be provided. May et al. (2003) described the importance of upper administration endorsing authentic leadership training and making sure the necessary resources are made available.

Considering the findings of this study, policies and other strategies to address workplace bullying should take the role of leaders into account. Authentic leaders have an internalized moral perspective, that is, their actions are congruent with their ethical and moral beliefs (Walumbwa et al., 2008). Such moral leaders are likely to condemn bullying behaviours and take action to address them as well as enforce relevant policy. May et al. (2003) reported that the moral aspect of authentic leadership can be developed through training related to moral capacity, moral courage, and moral resiliency; through, for instance, discussions and self-reflection related to leaders' impact on their staff and role plays that contain content about moral dilemmas, morality can be developed (May et al., 2003). Meanwhile, Rayner and Lewis (2011) wrote that frontline managers should be

proactive in identifying negative behaviours and intervening early to avoid further issues. It is reasonable to suggest that an authentic leader would be willing to take swift action. According to Vartia and Leka (2011), strategies aimed at addressing bullying should involve an understanding of its antecedents and should be based on theory and evidence. Therefore, taking authentic leadership (Avolio et al., 2004) into account when addressing bullying is a valuable endeavour.

Authentic leaders may advocate for useful programming, such as cognitive rehearsal training so staff know how to respond to bullying events (Stagg, Sheridan, Jones, & Speroni, 2011) as well as zero tolerance policies (Meloni & Austin, 2011). According to Hoel and Einarsen (2011), a thorough, objective, and fair process is necessary when investigating bullying complaints. Such a process may be aided by authentic leaders as they engage in balanced processing and have internalized moral perspective (Walumbwa et al., 2008). Moreover, this process should be grounded in objectivity, fairness, and reasonableness, and involve seeking various viewpoints about the alleged behaviour (Hoel & Einarsen, 2011). When cases of bullying are thoroughly investigated in such a way, it sets the tone for the organization. Employees then know that bullying behaviours are unacceptable, which may help prevent future cases (Hoel & Einarsen, 2011). Furthermore, processes related to bullying should be guided by policy (Rayner & Lewis, 2011). Rayner and Lewis (2011) noted that leaders play an important part in whether or not policies are successful or live up to their full potential. For instance, leaders should respond to cases of negative acts without delay, and upper management should consult with managers to ensure that they have the support necessary to respond to bullying in an effective way (Rayner & Lewis, 2011). Meloni and Austin

(2011) found that a zero tolerance of bullying policy, in conjunction with other programming, was associated with staff being more likely to feel that reports of bullying would be handled appropriately and that managers do not engage in bullying behaviours themselves.

Implications for Education

There is value in teaching undergraduate (Shrivastava, 2018; Waite, McKinney, Smith-Glasgow, & Meloy, 2014) and graduate students (Eriksen, 2009) about authentic leadership. For instance, Waite et al. (2014) studied an authentic leadership course for undergraduate nursing students. Faculty taught students about topics related to self-awareness and self-regulation. A variety of techniques were used to deliver content, including mind mapping and reflective analysis journaling. Analysis revealed that following the course, students felt that they better understood, for instance, their personal traits and values. Providing opportunities for students to learn about authenticity is a meaningful way to help them prepare to enter the workforce.

Furthermore, education is important in the workplace. According to Rayner and Lewis (2011), policies are an important aspect of addressing workplace bullying. It is important to provide employees with adequate training in relation to policies to ensure they are understood. Such training also shows that the organization takes policy seriously (Rayner & Lewis, 2011). Moreover, managers must receive education regarding new workplace bullying policies to ensure they are enacted appropriately (Rayner & Lewis, 2011). It is reasonable to believe that authentic leaders would advocate for such morally sound policies.

Implications for Future Research

In light of the promising results of this study, continued research is warranted. More research is necessary considering the limitations of this study. Since the generalizability of the findings are limited due to the study's focus on acute care and community health nurses, examining this model among other cohorts of nurses, such as those who work in long-term care, would be a worthwhile endeavour. Undertaking replication studies to assess whether findings hold true among those in other settings are necessary to build a strong case for research findings (Polit & Beck, 2017). Additionally, this study was limited due to its cross-sectional design. Therefore, in the future, researchers should consider conducting longitudinal studies to examine the relationships in the present study. There are many benefits to longitudinal studies as they allow researchers to assess whether changes occurred over time and gain a better understanding of the sequencing of variables (Polit & Beck, 2017). Additionally, this study only examined three Canadian provinces. Although a random sample from three provinces may have increased generalizability, a national study would be another worthwhile undertaking.

Searching the literature revealed few studies examining authentic leadership training and education programs. Considering the findings of this study, in addition to the vast array of positive effects of authentic leadership in nursing (Alilyyani et al., 2018), it would be of much value to conduct rigorous intervention studies to assess authentic leadership educational programming. Without research showing value for money, it may be difficult for healthcare administrators to solicit the funds necessary to enact such programming.

This study supported one mediator of the relationship between authentic leadership and workplace bullying. More studies are needed to identify other potential mediators of this relationship in order to continue to inform and enhance strategies to decrease bullying. For instance, it may be reasonable to test mediation with concepts explicitly stated in Avolio et al.'s (2004) authentic leadership model, such as personal identification, social identification, and trust in the manager. When the mechanisms by which authentic leadership influences bullying are better known, increasingly effective strategies can be put into place to manage bullying in the workplace.

Conclusion

Findings from this study provide a preliminary understanding of the relationship between authentic leadership and workplace bullying. There are meaningful implications for theory, management practice and policy, education, and future research based on this study. Authentic leadership may be useful to guide human resources processes in healthcare organizations, inform the education and training of managers, and teach students about important leader behaviours. More rigorous research is needed in this area to promote a better understanding of the relationships between these variables and to evaluate and provide support for authentic leadership educational programming.

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Appendix A

Authentic Leadership Questionnaire

(Avolio, Gardner, & Walumbwa, 2007)

Due to copyright restrictions, only four items are included in this appendix.

Please rate how OFTEN your leader (immediate supervisor):

	Not at all	**Once in a while**	**Sometimes**	**Fairly often**	**Frequently, if not always**
1. Says exactly what he or she means.	0	1	2	3	4
2. Demonstrates beliefs that are consistent with actions.	0	1	2	3	4
3. Solicits views that challenge his or her deeply held positions.	0	1	2	3	4
4. Seeks feedback to improve interactions with others.	0	1	2	3	4

Legend
Self-Awareness: 4
Relational Transparency: 1
Internalized Moral Perspective: 2
Balanced Processing: 3

Appendix B

Psychological Capital Questionnaire (Shortened)

(Laschinger, Wong, Finegan, & Fida, 2015; Luthans, Youssef, & Avolio, 2007)

Please rate the extent to which you agree with the following:

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
1. I feel confident analyzing a long-term problem to find a solution.	1	2	3	4	5	6
2. I feel confident helping to set targets/goals in my work area.	1	2	3	4	5	6
3. I feel confident presenting information to a group of colleagues.	1	2	3	4	5	6
4. At this time, I am meeting the work goals that I have set for myself.	1	2	3	4	5	6
5. Right now I see myself as being pretty successful at work.	1	2	3	4	5	6
6. I can think of many ways to reach my current work goals.	1	2	3	4	5	6
7. I can be "on my own," so to speak, at work if I have to.	1	2	3	4	5	6
8. I usually take stressful things at work in stride.	1	2	3	4	5	6
9. I can get through difficult times at work because I've experienced difficulty before.	1	2	3	4	5	6
10. When things are uncertain for me at work, I usually expect the best.	1	2	3	4	5	6
11. I always look on the bright side of things regarding my job.	1	2	3	4	5	6
12. I'm optimistic about what will happen to me in the future as it pertains to work.	1	2	3	4	5	6

Legend
Self-Efficacy: 1, 2, 3
Hope: 4, 5, 6
Resilience: 7, 8, 9
Optimism: 10, 11, 12

Appendix C

Nursing Work Index – Revised (Shortened)

(Aiken & Patrician, 2000; Laschinger, Wong, Finegan, & Fida, 2015)

Please rate the extent to which you agree with the following:

	Strong disagree	Disagree	Agree	Strongly agree
1. Nurses control their own practice.	1	2	3	4
2. Nurses are free to make important patient care decisions.	1	2	3	4
3. Nurses and physicians have good working relationships.	1	2	3	4
4. There are enough nurses to provide quality patient care.	1	2	3	4
5. Patient care assignments foster continuity of care.	1	2	3	4
6. There is a lot of teamwork between nurses and physicians.	1	2	3	4

Appendix D

Negative Acts Questionnaire – Revised (Shortened)

(Einarsen, Hoel, & Notelaers, 2009; Laschinger, Wong, Finegan, & Fida, 2015)

In the PAST 6 MONTHS, how often have you been exposed to these behaviours:

	Never	Now and then	Monthly	Weekly	Daily
1. Someone withholding information which affects your performance	1	2	3	4	5
2. Being humiliated or ridiculed in connection with your work	1	2	3	4	5
3. Being ordered to do work below your level of competence	1	2	3	4	5
4. Having key areas of responsibility removed or replaced with more trivial or unpleasant tasks	1	2	3	4	5
5. Hints or signals from others that you should quit your job	1	2	3	4	5
6. Repeated reminders of your errors or mistakes	1	2	3	4	5
7. Persistent criticism of your work and effort	1	2	3	4	5
8. Having your opinions and views ignored	1	2	3	4	5
9. Being given tasks with unreasonable or impossible targets or deadlines	1	2	3	4	5
10. Excessive monitoring of your work	1	2	3	4	5

Legend
Work-Related Bullying: 1, 3, 8, 9, 10
Person-Related Bullying: 2, 4, 5, 6, 7

Appendix E

Demographic Questionnaire

(Laschinger, Wong, Finegan, & Fida, 2015)

1. Gender:
□ Female □ Male

2. Age (in years): _____

3. Did you attend a Compressed Time Frame/Second Entry Baccalaureate Program?
□ Yes □ No

4. Highest degree in Nursing:
□ College Nursing Diploma □ BScN □ Graduate Degree

5. Current employment status:
□ Full-time □ Part-time □ Casual

6. How long have you worked:
As an RN: _____Years _____Months
As an RN at your current organization: _____Years _____Months
As an RN on your current unit: _____Years _____Months

7. Specialty area of your current place of work/unit:
□ Medical-Surgical □ Critical Care □ Maternal-Child
□ Mental Health □Community Health
□ Other, please specify: _____

Appendix F

Permission to Use Authentic Leadership Questionnaire

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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

Copyright: Copyright © 2007 Authentic Leadership Questionnaire (ALQ) by Bruce J. Avolio, William L. Gardner, and Fred O. Walumbwa. All rights reserved in all medium.

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.
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Appendix G

Ethics Approval

Western Research

Research Ethics

Western University Health Science Research Ethics Board
HSREB Delegated Initial Approval Notice

Principal Investigator: Dr. Heather Laschinger
Department & Institution: Health Sciences\Nursing,Western University

HSREB File Number: 105448
Study Title: The Protective Role of Authentic Leadership against Workplace Bullying, Early Career Burnout and Premature Turnover of New Graduate Nurses: A Longitudinal Study
Sponsor: Social Sciences and Humanities Research Council

HSREB Initial Approval Date: August 07, 2014
HSREB Expiry Date: July 31, 2017

Documents Approved and/or Received for Information:

Document Name	Comments	Version Date
Instruments	Quantitative Survey	2014/06/06
Instruments	Qualitative instrument	2014/06/06
Recruitment Items	Recruitment poster for qualitative interviews	2014/06/06
Letter of Information & Consent	LOI and Consent forms - Qualitative Interview	2014/06/06
Letter of Information & Consent	Appendix D - LOI and CONSENT THE PROTECTIVE ROLE OF AUTHENTIC LEADERSHIP -Survey - 15.07.2014 Revised LOI - Clean copy	2014/07/15
Western University Protocol		2014/07/31

The Western University Health Science Research Ethics Board (HSREB) has reviewed and approved the above named study, as of the HSREB Initial Approval Datenoted above.

HSREB approval for this study remains valid until the HSREB Expiry Date noted above, conditional to timely submission and acceptance of HSREB ContinuingEthics Review. If an Updated Approval Notice is required prior to the HSREB Expiry Date, the Principal Investigator is responsible for completing andsubmitting an HSREB Updated Approval Form in a timely fashion.

The Western University HSREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), theInternational Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use Guideline for Good Clinical PracticePractices (ICH E6 R1), the Ontario Personal Health Information Protection Act (PHIPA, 2004), Part 4 of the Natural Health Product Regulations, Health CanadaMedical Device Regulations and Part C, Division 5, of the Food and Drug Regulations of Health Canada.

Members of the HSREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when theyare presented to the REB.

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

Ethics Officer, on behalf of Dr. Joseph Gilbert, HSREB Chair

Ethics Officer to Contact for Further Information

Erika Basile	Grace Kelly	Mina Mekhail	Vikki Tran

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

Appendix H

Letter of Information

Western
Arthur Labatt Family
School of Nursing

Project Title: The Protective Role of Authentic Leadership against Workplace Bullying, Early Career Burnout and Premature Turnover of New Graduate Nurses: A Longitudinal Study

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

SURVEY LETTER OF INFORMATION FOR EXPERIENCED NURSES

Invitation to Participate
You are being invited to participate in a research study examining newly graduated registered nurse experiences in the workplace. Although we recognize that you are no longer a new graduate we would like to hear your feedback in order to help us more accurately understand the current nursing work environment through the lens of an experienced nurse.

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 during the first three years of practice. This study will examine the role of leadership behaviours in preventing burnout and bullying and resulting job and career satisfaction and turnover intentions. We would also like to gain a better understanding of the current nursing work environment through the lens of new graduate 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 before January 1st, 2012.

Study Procedures
If you agree to participate, you will be asked to complete the included survey consisting of questions examining the influence of leadership on your experiences at work. 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 and 400 experienced nurses in Alberta, Ontario and Nova Scotia. Once you have completed your survey, please place it in the self-addressed envelope provided and put it in the mail. If you choose to participate you will receive a follow-up survey 8 months and 16 months later to track your experience over 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 show how leadership influences new graduate and nurses' experiences of bullying and burnout, and how these factors affect new graduate nurse satisfaction and intentions to remain in their jobs and the profession within the first three 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 authentic leadership development 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. A summary of findings from the final report will be made available to participants on the HKL research website at the following link:

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. In addition, you have the opportunity to participate in a draw to win one of three iPad Minis. Please respond to the ballot provided in the survey package.

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 or study compensation.

Confidentiality and Privacy
As a participant you will be given a personal identification number (PIN) that will be used to link your data from each year. 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 for this particular study. 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 in four weeks 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.

Curriculum Vitae

Name:		Edmund Joseph Walsh
Education:	2016-2018	Master of Science in Nursing Western University London, Ontario
	2009-2014	Bachelor of Nursing Memorial University of Newfoundland Corner Brook, Newfoundland and Labrador
Honours and Awards:	2017	Ontario Graduate Scholarship
	2017	Dr. Elizabeth Summers Graduate Scholarship
	2017	Irene E. Nordwich Foundation Graduate Student Award
	2016	Ontario Graduate Scholarship
Related Work Experience:	2017 - present	Research Assistant Western University London, Ontario
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