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Organizational Change, Work Conditions and Professional Learning, a Case Study of Nurses in Ontario

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A thesis submitted in partial fulfillment of the requirements for the Master of Arts degree in Sociology

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Abstract

In professions, lifelong learning is essential to providing quality and safe services. Certain working conditions, including work intensification due to rationalization and organizational change, may inhibit professionals' ability to learn on the job. This study adds to the literature surrounding informal learning that occurs on and off the job by exploring the impact working conditions and workplace change have on learning behaviours for nurses in Ontario, through the analysis of survey data. For a sample of nurses working in Ontario in 2016 it is found through a regression analysis that certain working conditions like experiencing discrimination, participating in policy related decisions, an increase in workload, and deciding one's own working hours increase likelihood of participation in informal learning to enhance organizational or managerial skills and informal learning about employment conditions or workers' rights related to paid employment. Overall, findings underscore the importance of work conditions in shaping professionals' informal learning behaviours.

Keywords

work conditions; organizational change; professions; workplace learning; informal learning; reflective practice; nurses; Canada

Summary for Lay Audience

In professions, lifelong learning is essential to providing quality and safe services. Certain working conditions, including work intensification due to rationalization and organizational change, may inhibit professionals' ability to learn on the job. This study adds to the literature surrounding informal learning that occurs on and off the job by exploring the impact working conditions and workplace change have on learning behaviours for nurses in Ontario, through the analysis of survey data. For a sample of nurses working in Ontario in 2016 it is found that certain working conditions like experiencing discrimination, participating in policy related decisions, an increase in workload, and deciding one's own working hours increase likelihood of participation in informal learning to enhance organizational or managerial skills and informal learning about employment conditions or workers' rights related to paid employment. Overall, findings underscore the importance of work conditions in shaping professionals' informal learning behaviours.

Acknowledgments

First, I would like to thank my supervisor, Dr. Tracey Adams, for her contributions to this thesis. Your endless support and patience online and in person were extremely useful to me throughout this process. I cannot thank you enough for your encouragement, in-depth and timely feedback, and consistently professional and positive attitude. Your guidance and mentorship allowed me to structure and develop my thoughts to further develop my skills as a graduate student, and the learning environment you provided allowed my abilities to flourish. I have endless appreciation for all you do.

Additionally, I would like to thank Dr. Anders Holm for all the time and guidance he has given to assist me with the design and construction of the methods and analysis. His willingness to lend a helping hand, even from a different time zone, is commendable.

I would also like to thank the rest of my thesis examination committee for taking the time to read my thesis and participate in the examination.

My gratitude also goes out to Dr. Peter Sawchuk for providing access to the data necessary to complete this project from the survey: “Canadian Workers in a Knowledge Economy: Nursing Case Study Survey” and the nurses who participated in the survey for providing their experiences for me to examine.

Lastly, thanks to my family for always lending an ear and providing sometimes helpful distractions during this process. Special thanks also to my best friends, Izel and Lindsay, for their unwavering support for me over the last twentyish years but especially during these past two years that we spent physically apart for the first time. I am also appreciative of the friends I made while here at Western, especially my original officemate Haemi, who always motivated me to work harder by example with her unwavering work ethic.

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Chapter 1

1 Introduction

Workplace learning consists of any learning, including formal and informal learning, surrounding one's paid employment that may occur on or off the job. In professions that require advanced education, this type of learning is especially important in addition to initial formal education, in order to keep up with mandatory training, reaccreditation requirements and general expectations to keep skills up-to-date. Relevant learning is required to ensure that professions live up to their commitment to practice in the public interest. At the same time, it is through their knowledge that professions advance a claim to market privileges; failure to advance knowledge, then, could undermine professions' market power. Nevertheless, workplace learning appears to be changing, in response to workplace change. Processes of rationalization encourage emphasis on more efficient and productive skills surrounding administration, structure, managerial regulation and rules (Ritzer and Walczak 1988). The drive for efficiency and managerial control is impacting the historical benefits professionals enjoyed like authority and autonomy. Some scholars suggest that rationalization trends are altering what and how professionals learn (Parding and Abrahamsson 2010). One area that has seen these changes is health care, including professions like nursing. The nursing profession is deserving of closer attention not only because nurses have experienced considerable workplace and workload change in recent years, but also because nursing is the largest healthcare profession, and one that is strongly female-dominated (Adams and Sawchuk 2020). A closer examination of workplace learning within nursing can shed light on the impact of workplace change on learning behaviours in professions, generally.

Learning is often thought of as an individual process, but in fact learning is interactive, and often takes place within a community. The contexts in which learning occurs are important in shaping learning outcomes. This individualized view of learning can be linked to human capital interpretations, which pay less attention to learning contexts. Newer theories of learning, like situated learning, recognize the importance of structural factors and learning environments: They show that changing environments impact

learning behaviours and access. Learning can also be situated within a community of practice where the community in the work environment impacts learning (Bishop 2017). This may be particularly important for professionals, for whom learning is both community and practice focused. Scholars argue that professional learning is reflective learning, linking scholarly and practical learning through reflexive practice (Schön 1983). Reflective learning has received less attention compared to formal education perhaps because of the difficulty conceptualizing and examining more informal processes of learning that consider many aspects like time, place and interaction.

To understand professional learning, in particular, it is important to examine the workplace environment and conditions of working, and to consider whether these conditions allow for the kind of reflective learning ideal for professional practice. Some working conditions, for instance those focused on enhancing the efficiency of work practices, may reduce time for reflection and opportunities for self-directed informal learning (Parding and Berg-Jansson 2018). Workplace change appears to create less space for effective on-the-job learning. This may encourage workers to engage in different learning activities – including informal learning activities that take place outside of work hours and formal education. Overall, the impact of workplace change on professional learning appears complex. Additionally, different conditions may unequally impact some social groups more than others. For these reasons it is worth a closer look.

Informal learning is a possible tool that can be used to better the workplace situation of professionals like nurses, allowing professional concerns including unfair treatment and the potential for nursing shortages to be addressed. Identifying specific types of learning and what conditions influence participating in them allows more knowledge surrounding professional practice to be obtained. Learning is not only essential to quality practice, but it can become an important tool in coping with shifting working conditions. It is important, therefore, for research to focus on professional learning and the impact of work conditions on learning activity. Doing so can allow us to identify better practices and policy recommendations that can be used to improve the overall work experience of nurses.

The following research project examines work conditions experienced by registered nurses working in Ontario and the impact these have on different types of informal learning behaviours the nurses participated in.

Chapter 2 presents a review of literature on professions, learning and nursing that provides a framework for examining learning and work conditions. First, professions, change and learning are discussed more broadly, then these aspects are discussed more specifically as they apply to nurses.

Chapter 3 provides the main variables of interest and the methodology used to analyse the variables addressing the topic. The variables come from an online questionnaire called “Canadian Workers in a Knowledge Economy: Nursing Case Study Survey” that surveyed around a thousand nurses that were working in Ontario, Canada in 2016. First the sample is briefly compared to population data from 2016 reported by the College of Nurses of Ontario to examine the survey’s representativeness. Descriptive statistics of the sample and the variables used in the analysis are then reported. Next, the correlation coefficients for multiple types of learning are reported in order to narrow down the main types of learning to be used in the final analysis. The final analysis consists of a logistic regression including work conditions variables and two types of learning in order to examine the relationship between work conditions and learning behaviours.

Chapter 4 displays the results of the analyses. The types of learning respondents had participated in are described, then two types are identified to be the focus when running a logistic regression of work conditions’ impact on learning behaviours. Particular attention is paid to job satisfaction and managerial/supervisory role through the examination of five regression models, excluding and including these variables alongside the main work condition variables of interest: discrimination, policy participation, workload increase, and control over work hours. The two types of learning most affected by work conditions are informal learning to enhance organizational or managerial skills and informal learning about employment conditions or workers’ rights. Findings indicate that work conditions influence the likelihood to participate in both of these types of informal learning.

Lastly, chapter 5 consists of a discussion of the results and how they contribute to research on professions and more specifically nurses in Ontario. Limitations and possible future directions are also outlined.

Chapter 2

2 Literature Review

This chapter reviews the literature on professions, workplace change and learning. First the context of professions and professional work is introduced to provide a brief background on professions. Next, the gendered nature of professions, with a focus on nurses as an example of a female-dominated profession is explained. Following that is a general discussion of learning for professionals including how it manifests and the reflective nature of this type of learning. An overview of workplace learning itself is then introduced discussing the human capital conceptualization of knowledge and more specific learning theories of situated learning and the learning organization. Then the increasing rationalization of workplaces and the types of workplace changes that result from this shift are discussed along with the impact this may have on professional learning. Following this is an examination of the nursing profession and its specific setting for learning behaviours and workplace change processes that shape the working conditions nurses experience. The chapter ends with the presentation of key research questions.

2.1 Professions and Professional Work

This section outlines professions and professional work. A universal definition of a profession in the literature surrounding it is not agreed upon (Adams 2020). However, there are three types of definitions typically used: traits or characteristics, organization and power, and social construction (Adams 2020:1, Leicht 2013). An example of the trait approach is defining professions as: “a set of occupations distinguished from others by their high education, complex body of knowledge and skills, their status, and their fiduciary responsibilities” (Choroszewicz and Adams 2019:4). A limit to this approach is that it does not consider differences across time and place or organizational power. A definition that considers these aspects of a profession more is defining professions within a neo-Weberian approach as the product of exclusionary social closure where an occupation has professional standing based on formal legal regulation creating insiders

and excluding outsiders (Saks 2012:4). In contrast, definitions that emphasize that professions are social constructions argue that what exactly professions are, varies across time and place (Freidson 1986).

Broadly, professionals are workers with advanced education, labour market privileges and control (Adams 2020:1). This advanced education includes university degrees, additional practical training, licensing examinations, and continuous learning with expectations of keeping skills up to date (Larson 1977; Chamberlain 2015). These degrees and credentials are mechanisms of social closure restricting entry to professional practice and allowing professions a privileged labour market position (Larson 1977). However, initial training and continuing education are also essential for professionals to stay up to date with their fields. Thus, there is increased emphasis on reaccreditation and continuous learning (Chamberlain 2015).

As a result of their privileged labour market position, professionals enjoy many work-related benefits. These include autonomy, retraining, generally higher earnings, and a restricted market for their services that keeps demand high and unemployment low (Freidson 1970, 1986; Saks 2012; Weeden 2002). However, what must be kept in mind is that these specific characteristics can vary across social-historical context (Freidson 1986; Adams 2010).

For the purposes of this study, two characteristics of professions are deserving of special focus. First, professions are gendered; most professions are traditionally male-dominated, and women's professions, like nursing, were conventionally subordinate to men's professions (Adams 2000; Davies 1996; Witz 1990). Second, professional learning, on and off the job, is paramount in professionals' efforts to continuously upgrade their skills. Professionals have long been knowledge workers who combined theoretical and esoteric knowledge with practical skills (Choroszewicz and Adams 2019). Change is occurring in both of these areas, with implications for professional work and learning. Professional and workplace change will be discussed more, later in the chapter.

2.2 Gender and Professions

Most professions are historically male dominated like law, medicine, dentistry, pharmacy and engineering. Women's professions, like nursing emerged in the twentieth century (McPherson, 1996). Considering the gendered nature of professions, it is also important to recognize that organizational structures (including professional workplaces and educational facilities) are not gender neutral (Acker 1990). Within these organizations gender inequalities are entrenched. Women's professions like nursing have been traditionally subordinate to men's professions (Macdonald 1999; McPherson 1996). For nursing this is evident in the organizational structure of the hospital, where the traditionally male-dominated medical professions have enjoyed more prestige and decision-making power (Macdonald 1999:136). The approach to studying gender in organizations as a social relation rather than an attribute of individual differences can lead to regarding gender as a culturally constructed process that operates on multiple levels and is reproduced in organizations and institutions as well as the interaction and identity levels (Davies 1996:664).

Male professions have historically based their professional status on high levels of knowledge and expertise, with higher education requirements being a central part of the basis of social closure for these professions. Women's professions traditionally had less social closure, and a focus on different kinds of knowledge and expertise based more on culturally constructed gendered skills like caring. Nursing was initially established as subordinate to the medical profession and its development into a profession initially relied on the idea of it being a caring profession. From the beginning, nursing was a gendered occupation highlighting characteristics socially defined as feminine, including being caring and motherly (Macdonald 1999:135). The type of social closure for nursing is referred to as dual closure (Macdonald 1999:137). Nurses adopt social closure strategies on two fronts: demarcationary strategies reflect nurses struggle against the medical profession to achieve greater independence and a more extensive scope of practice; exclusionary strategies close the lower boundary of their own profession to lower-skilled practitioners to establish their own profession and privileges (Witz 1992). In addition to basing their claims to professional status on their educational requirements

and skills, like the medical profession, nurses also drew on gender differences to claim unique abilities (as did medicine: Davies 1996). This strategy allowed some autonomy in performing tasks related to these skills (Macdonald 1999:136).

Since nursing was historically established as a subordinate, caring profession, nurses have experienced less autonomy in the practise of their profession. Although this subordination may be partly related to limited social closure, it also reflects the gendered nature of the organizations in which nurses work (Acker 1990). These gendered organizations have privileged the work of men, and especially medical doctors, while reducing the autonomy and authority of nurses, and compromising their ability to make decisions. Although nurses' autonomy, authority, education and skills have increased over time, the professions are still gendered, and this gendering affects nurses' practice and skill acquisition.

Following this, female-dominated professions generally have less managerial types of power, with it even being found that men working in female-dominated jobs experience advantages over female coworkers when it comes to promotions to supervisory positions (Williams 1993). In the context of a hospital, nurses report to several levels of authority including doctors, hospital administrators and charge nurses that have managerial roles which allow them to have authority over major decision-making in everyday practice. Thus, the hierarchy within hospitals is complex, and some nurses have more authority than others. Overall, hospitals are gendered institutions in which gendered professions co-exist, collaborate, and at times conflict.

2.3 Professional Learning

For professionals, as educated knowledge workers with advanced education and labour market privileges, learning is integral to the work they do. In addition to requiring university degrees, additional practical training, and often licensing examinations, in today's 'knowledge economy' professionals are required to also use, develop and build knowledge on the job. Increasingly professions require lifelong learning, and regulatory structures require the upgrading of skills and reaccreditation to increase worker

competence. In a context of rapid technological and knowledge change, continual upgrading is essential.

Requirements for upgrading, however, also bolster professional social closure and exclusivity in these prestigious jobs. This closure of access to the occupation's education, training, credentials and knowledge allows the exclusion of people not deemed eligible in order to attain and maintain access to jobs and work autonomy. To a great degree, professions' status is predicated on their knowledge and expertise. Hence, there is a concern that a decrease in knowledge, and a lack of learning (at the workplace level or beyond) could lead to the profession losing some of its status and autonomy (Adams and Welsh 2008:264).

Although professionals undergo years of formal training, they also acquire key skills through more informal learning and by practice –on the job. The organizations in which professionals work, therefore, are important. Ideal work settings for professionals and professionals-in-training are those that provide opportunities for learning, and that maintain a suitable workplace culture and environment supportive of learning. However, workplaces are not always ideal learning environments. Employer ideologies, socio-economic conflict, control, and the political nature of workplaces impact learning on the job (Sawchuk 2010:376). The organization must foster an environment where the different types of learning — formal, informal and practical — are encouraged to benefit professional employees and the organization itself.

Much professional learning occurs informally: from talking to colleagues, practice and experience, reading on your own time, and so on. Studies often see professional practice as a direct application of theory from formal education (Boud and Hager 2012:21). This neglects the importance of informal learning that occurs while practising (and through other means). With workplace learning for professionals, the concept of co-participation, characterized as an interaction between individual agency and the structure of learning affordances in a specific context, highlights how important organizational contexts are for learning that surrounds work (Bishop 2017:516). Co-participation is the reciprocal process of the workplace providing intentional guided learning, and workplace

participatory practices underpinning the quality and contribution of these learning experiences (Billett 2002:457). The emphasis on workplace learning has only increased over time. With technological change and rapid developments in research, it is expected, today, that professionals will be lifelong learners.

Varying across country and profession, workplace organizations are sometimes responsible for formal learning programs, and provide opportunities for individual informal learning. Increasingly, responsibility for learning has been individualized. That is, it is believed that individual professionals should drive their own informal knowledge development. This belief fails to recognize the impact of learning conditions on workers' ability to self-direct learning (Parding and Berg-Jansson 2018:116).

An aspect of learning can include professionals practising reflective behaviours in order to continuously upgrade their knowledge and skills based on experiences primarily encountered while on the job. Schön (1983) highlights this in his discussion of technical rationality to reflection-in-action. Technical rationality views professional practice as a process of problem-solving by selecting the available means in order to accomplish a task (Schön 1983:39-40). This leaves a theory-to-practice gap: in real-life settings, the practitioner must identify the problem, not presented in ideal conditions, and apply the information they have experienced before (Schön 1983:40). This application of relevant information and considering previous experiences is the practice of reflection-in-action for professional workers. Thus, for Schön (1983), reflection is a key element in professional practice, and on-the-job learning. Professionals need time to reflect on their learning to apply it to new situations, and then need to reflect on their practice. The concern for some scholars, is that workplace rationalization is eliminating this time for reflection and on-the-job learning (Adams and Sawchuk 2020). Technical rationality in professional practice and learning devalues informal transfers of technical knowledge learned in more formal education (Boud and Hager 2012:21). Research that emphasizes individual agency in workplace learning places too much emphasis on cognitive aspects and intention, and neglects the larger structural factors and contexts, which shape situated learning within a community of practice (Bishop 2017:517). Workplace conditions that

shape learning behaviours must also be taken into consideration to broaden the understanding of participation in workplace learning on and off the job.

2.4 Workplace Learning

Workplace learning can be defined as any type of learning or knowledge acquisition that is obtained in the setting of the workplace. While educational facilities may provide work-related learning to students, much learning occurs through direct training on the job and through informal learning. Workers may engage in continuing education in addition to working, or they may engage in formal training, job-related informal learning, and informal skill-based learning (Livingstone 2018). Formal learning through further education can include personally attended or online courses, workshops, apprenticeship training, or any other training or education including being a full-time or part-time student taking courses or earning credit towards a diploma, degree, certificate or licence. In some instances, this education may be paid for in part by the workplace, since the upgrading of skills benefits organizations. Informal learning can relate to professional development that one does outside of formal or organized courses, which has some connection with paid employment. This type of additional learning and development takes place within and alongside regular work activities. Such activities may be guided by workers' own interests and goals, or it may be guided and encouraged by employers as an aspect of organizational development (Parding and Berg-Jansson 2018:109). However, informal learning can also be unintentional; acquired through experience, without any necessary intention to acquire new skill sets. Informal learning can vary widely in content. Some workers may endeavour to build technical skills, while others seek to expand their organizational or managerial skills, or their financial or business skills. Workers may also seek out learning on employment conditions or learn about their rights as workers, and/or health and safety related to paid employment.

Knowledge acquired may be technical and/or practical corresponding with Becker's categories of specific and general human capital (Harris 2011:41) Technical knowledge is the specific knowledge that applies to the workplace setting or aspects of a specific job. Practical knowledge is practised and enhanced in the workplace, but also generally applies to many other aspects of life and other workplaces. Especially in jobs that require

the constant upgrading of skills and lifelong learning, the concern of a theory-practice gap is raised where theoretical education does not translate directly into the specific tasks and requirements of the workplace settings (Harris 2011:54). This highlights the importance of workplace learning for job performance: both technical and practical learning need to occur to improve worker effectiveness.

Becker defines investing in human capital as “activities that influence future real income through the imbedding of resources in people” and includes schooling and on-the-job training as examples of these activities (Becker 1962:9). When workers continue to learn while in the workplace, organizations can maintain their competitiveness and effectiveness by having employees with updated and current knowledge. Continuing education may also make workers more attractive in the labour market and facilitate job changes and promotion.

Becker’s human capital theoretical conception of knowledge and learning emphasizes formal schooling (Livingstone 2012:103). This neglects capital gained through informal and continuous education while working. What is further problematic with the human capital approach is its assumption of labour markets being perfectly competitive and how this neglects the way work is organized and impacted by specific processes, institutions and relationships in the workplace (O’Connell and Byrne 2012:284). Professional workers experiencing restricted opportunities for learning because of their workplace conditions, like their experience of discrimination, is an example of these processes. Power can be shaped by knowledge, including individuals’ knowledge, skills and abilities, (including expert power), and it can be used to control the ability of others to work and learn (Minton 2013:700-702). Thus, power shapes access to learning opportunities in the workplace, and restrictions on access to learning reproduce social inequalities.

Much literature on learning looks at specific types of learning processes: most recently, this includes a social theory of learning referred to as social cultural learning (Harris 2011:54). Since around the 1990s this theory has been the most popular for studying learning because of its focus on situations of practice, where situated learning socially

occurs through observation and monitored participation (Harris 2011:54). The implication of social cultural theories of learning is that opportunities for the learner should be provided for full participation in the community of practice (Harris 2011:57). Barriers to accessing this type of learning include the idea of an embodied individual at work, where learning is thought to be the individual's responsibility.

Workplace learning being thought as valuable to the employee and organization, fits under three views of learning at work: the pragmatic, cultural and creating approaches (Parding and Abrahamsson 2010:294). The pragmatic approach is an individualized, common-sense view of learning where specific tacit knowledge from formal education and qualifications can easily be measured and managed (Parding and Abrahamsson 2010:294). The next approach is called the cultural approach and it stems from the pragmatic approach with the same top-down and individual focus, but it also includes the individual's motivation, attitudes and agency as well as ideas of communities of practice (Parding and Abrahamsson 2010:294). The third "creating" approach is a bottom-up perspective and views learning as a process that occurs in organizations with a more collective lens that also includes situated and informal "everyday" learning (Parding and Abrahamsson 2010:294). All three of these approaches display a modern management perspective of positive productivity and see learning as unproblematic and empowering for both the organization and the employee (Parding and Abrahamsson 2010:294-295). A fourth view of learning at work is a "critical" approach that focuses on the power aspects of workplace learning and its socialization processes to indoctrinate employees into the organization (Parding and Abrahamsson 2010:295). This approach examines power aspects, discourses, and unintentional learning in workplaces and reveals how organization-driven learning directs employees to adapt to organizational cultures, and to learn to accept subordination and bad work environments (Parding and Abrahamsson 2010:295).

The workplace can be understood as having the characteristics of both an enabling and constraining learning environment where working conditions and practices either promote reproductive and developmental learning or constrain both or one learning type (Ellström, Ekholm and Ellström 2008:86). Reproductive learning can be distinguished as

an adaptive mastery of specific tasks, methods, problems or routine ways of working in an organization to handle common job requirements (Ellström, Ekholm and Ellström 2008:85). Developmental learning occurs when members or groups within an organization question and develop existing definitions of problems and tasks and participate in innovating coping techniques when encountering job requirements and complex problems (Ellström, Ekholm and Ellström 2008:85). These modes of learning are complementary, and a balance of both types is considered to make up an enabling learning environment. Under some working conditions developmental learning is constrained while reproductive learning — that follows routines, specifications and standardization — is the only focus. In such environments, workers would have few opportunities for problem solving, reflection and innovative learning (Ellström, Ekholm and Ellström 2008:86). Recall that for Schön (1983), as for others, quality learning requires problem solving and reflection.

Some aspects of organizational culture like attitudes to innovation and risk, outcome or process orientation, and patterns of communication also shape the learning environment (Fulop, Protopsaltis, King, Allen, Hutchings and Normand 2005:120). Generally, these cultural factors in the workplace learning environment are integral to the daily operation of the workplace and coordination of efforts towards common practice and goals. Although organizations may have distinct cultures, it can also be the case that multiple organizations in the same (or similar) field share organizational cultures, such as in healthcare (Fulop et al. 2005). Some organizational cultures establish more positive learning environments than others. In healthcare, a positive organizational culture fosters continuous collaborative learning processes whereby various professionals work and learn together. However, organizations are complex and multilayered, and some characteristics may encourage learning, while others discourage it. The impact of policy and managerial interventions on learning can be complex and shaped by organizational cultures (Davies, Nutley and Mannion 2000:118). Structural reorganization can create obstacles to learning and alter organizational cultures (Fulop et al. 2005). Thus, organizational change can have a significant impact on learning, and, as such, is worth more attention.

2.5 Workplace Change

In recent years, healthcare professions' workplaces have experienced service decentralisation and restructured job roles, as well as tightened managerial control over resources and labour processes (Adams, Lugsden, Chase, Arber and Bond 2000:542). These processes reflect rationalization where an economical focus on efficiency and resource management is carried out by the managerial hierarchy (Weber 1958). Ritzer's concept of McDonaldization is pertinent here. McDonaldization is an advanced form of rationalization, characterized by efficiency, calculability, predictability, and control, that is proliferating across organizations in Western societies (Ritzer 2001:198). Here control mechanisms are introduced to streamline processes and standardize products and services. Success is measured with more emphasis on quantifiable outcomes than quality or effectiveness; indeed, quality is increasingly defined in terms of quantity. Speed and numbers processed are given more weight than other measures of quality and effectiveness. Ritzer (2001) sees these principles as becoming common across sector and organizational setting.

This extreme form of rationalization has substantial impacts on organizations and workers. Included in this process is efficiency which Ritzer defines as the best or optimum means to an end (Ritzer 1983:101). Next predictability is expecting the same result from one time and place to the next; to achieve this, emphasis is placed on discipline, order, systemization, formalization, routine, consistency and methodical operation (Ritzer 1983:102). Predictability operates primarily through scientific management and assembly line processes; here the assumption is that there is one best way to do a job (Ritzer 1983:103). Calculability is the focus on quantifiable measures rather than quality, as discussed above (Ritzer 1983:103). Lastly, control over uncertainties especially other people is the last dimension of rationalization identified (Ritzer 1983:106). Ritzer concludes that rational systems have unintended negative effects like dehumanization and disenchantment as well as inefficiencies and unanticipated outcomes (Ritzer 1983:106). An additional aspect Ritzer adds is the substitution of humans with non-human technologies; the latter enhance predictability

and control. Rationalization can be seen throughout society, and has found its way into the public sector, including professional workplaces, such as hospitals and schools.

Rationalization trends are impacting what it means to be a professional. For example, Evetts (2006) identifies a shift from occupational professionalism to organizational professionalism (Evetts 2006:140). Previously, occupational professionalism valued high education, practical training and tacit knowledge, which was developed by professional occupational groups. It was expected that this knowledge would be exercised by autonomous professionals working in a manner that conformed to professional ethics, and reflected professions' collegial authority, discretionary power and trust (Parding and Abrahamsson 2010:296). Organizational professionalism is based on bureaucratic structures where decisions are made by managers with hierarchical authority, and governed by rules and evaluations, and standardized procedures (Parding and Abrahamsson 2010:296). The shift between these two types of professionalism is associated with a shift in learning, as well as changes in who has the power over how work is performed, controlled, and evaluated (Parding and Abrahamsson 2010:296). For example, Parding and Abrahamsson (2010) examined the changing learning environment for teachers, finding that rather than engaging in autonomous learning, rationalizing schools try to direct learning to suit organizational goals. Organizational practices did not accommodate all learning needs like the importance of learning related to informal everyday interactions with colleagues in the workplace (Parding and Abrahamsson 2010). The result was a less effective, compromised learning environment for teachers.

Other scholars concur that rationalization and workplace change alter professional learning, leading to fewer opportunities for reflection and deep learning (Adams and Sawchuk 2020; Holmes and Lindsay 2018). Workplace change which aims to enhance efficiency, often requires managers and workers in organizations to standardize and focus on delivery instead of adopting a user-orientation and customization (Ellström, Ekholm and Ellström 2008:84-85). Other restrictions may also cause downsizing or delayering or increased administrative demands (Teo, Pick, Newton, Yeung and Chang 2013). All these changes are forms of rationalization. These trends exacerbate and alter prevailing social inequalities, by class, gender, race, sexual orientation and other factors

(Cottingham and Dill 2019; Williams 2013). Workplace change has also been associated with workplace incivility, bullying, and discrimination (Boateng and Adams 2016; Roscigno, Hodson and Lopez 2009). Moreover, workplace change alters not only what is learned, but how learning occurs among professionals and other workers.

For jobs like professions that require lifelong learning, this learning can be profoundly impacted by changing working conditions.

2.6 Impact of Workplace Change on Professional Learning

If professionals' status, to a large extent, rests on their education and training, then workplace change that decreases opportunities for ongoing learning, or alters how it occurs, has implications for professional status and autonomy. While professional learning used to be primarily directed by professionals, increasingly other stakeholders are weighing in. As we saw in the last section, managers in rationalizing organizations may have their own goals for what learning behaviours are suitable for the work environment. States are also intervening; laws around reaccreditation and ongoing learning are intended to keep the professional workers up to date on the skills and knowledge they need to practice safely. The impact of these stakeholders, combined with rapid technological and scientific advances, means the pressures for professionals to learn while in practice may be higher than ever before. Yet, as we have seen, workplaces are changing, and hence so too are professionals' learning environments.

Change in the workplace can both negatively and positively affect learning and the learning environment. Workplace change may positively encourage innovative thinking and increased reflection while working. However, it may also negatively impact worker's job satisfaction, health, and the quality and accuracy of the services they provide (Adams et al. 2000; Fredman and Doughney 2012; Teo et al. 2013). Other related consequences of workplace change include overeducation, underemployment and turnover (Livingstone 2018). Workplace change surrounding credential inflation and a trend of an excess supply of educated workers leads to underemployment. Underemployment is when workers are overqualified perhaps with high skill or education levels but are working in low-skill or low paying jobs. This is associated with a turnover of employees that seek out job

opportunities better suited to their education and skill level. Further education is not always rewarded in workplaces experiencing increased changes in workload with stagnant salaries (Livingstone 2018:364). Change can lead to professionals taking themselves out of the learning environment of a workplace; underemployment can encourage attrition and turnover that may lead to a shortage of workers (Livingstone 2009). For professionals in retail banking, experiencing workplace change has been seen to encourage social integration and enhance perceived competence, thereby increasing opportunities for reflection (Hetzner, Heid and Gruber 2012). Workers who are able to practise autonomously in a safe team climate are more likely to believe they can cope with challenging work situations and engage in individual reflection (Hetzner, Heid and Gruber 2012:549). In contrast, workplace change leading to work intensification and increased supervisory control has been shown to have a negative impact on work behaviours and to lower job satisfaction (Adams et al. 2000; Singh and Loncar 2010; Teo et al. 2013; Zeytinoglu et al. 2007). This research shows that workplace change is dynamic, and its impacts can be variable. That is, to understand the impact of workplace change, one needs to view change as a process and to consider how changes to organizational structures impact individuals within the organization (Fulop et al. 2005:120).

Workplace change affects professional learning on the job and off the job. When experiencing change, professionals may need to perform new tasks that require different skills, as they work with new products, and new technologies and regulations (Hetzner, Heid and Gruber 2015:34; Sawchuk 2007). These changes may require new knowledge, which can be acquired through both formal and informal means: from enrollment into official programs completed outside of work hours, to informal learning activities, and on-the-job knowledge acquisition gained through practice and reflection. With rationalization and increased focus on efficient practices, workers have little time for learning or reflecting on that learning to acquire skills (Adams and Sawchuk 2020). Learning then may be pushed outside of the workplace, becoming something workers do on their own time, after work hours. Even with this, rationalization encourages speed and an individualized approach, not deep reflection.

2.7 Nurses: Nursing as the Professional Context

Nursing as a profession is of interest because of its historical development as a professional occupation, its current status as the largest health-care profession, and its status as a female-dominated profession. Moreover, increasing professional status, and changing professional roles and working environments also combine to make nursing an excellent subject for examination. The profession's prominent knowledge requirements result in increased emphasis on formal and informal learning on and off the job.

Alongside this, increased concern for innovation and competitive advantage also encourage learning (Kyndt, Vermeire and Cabus 2016:435). Studying learning in the profession is especially interesting in light of the changing environments in which nurses work. Changing healthcare systems with new technologies, treatment applications, and task divisions provide many learning avenues (Kyndt, Vermeire and Cabus 2016:435). At the same time, these changes generate questions about how in this organizational context, workplace change affects learning.

2.8 Learning for Nurses (special concerns)

Learning conditions for nurses rely on the organizational conditions of the workplace. For example, nurses working in long-term care have different opportunities for learning and advancement than those in a teaching hospital. As seen in the previous section, the setting of a learning organization has an impact on the support and encouragement of certain types of learning, and professionals' learning goals and organization learning goals are not always the same (Parding and Abrahamsson 2010). Organizations where nurses face increased demands, managerial responsibilities, extensive professional contacts, good feedback, and management support for learning provide learning conditions that are said to be best suited for widespread informal workplace learning that occurs while working and outside of work (Skule 2004:14). These job-related factors are seen to promote learning because they are associated with learning intensive work (Skule 2004:13). However, access to learning resources are also needed to cope with demands, and if these resources are not available the demands and changes may result in stress and inability to cope rather than learning (Skule 2004:14). Additionally, individual interest in learning, independent of job situation could result in individuals that have more interest

in learning seeking out learning-intensive job situations (Skule 2004:15). Workplace change can also alter learning environments.

In Ontario at present, in order to become a registered nurse there is a minimum education requirement of having an approved baccalaureate degree in nursing from a Canadian university (CNO 2013). This educational entry-to-practice requirement came into effect in 2005, however this minimum does not affect the eligibility of current diploma nurses continuing registration and only applies to new entrants (Institute of Medicine 2011). Additionally, to work in Ontario one needs to be registered in the College of Nurses of Ontario, needs to provide evidence of practice, and complete a registration examination (CNO 2013). There are also opportunities for graduate education and other specialized clinical training.

Nursing education recently has called for more interpersonal education in the workforce (Holmes and Lindsay 2018:7). This highlights the importance of a community of practice for nurses, as well as interprofessional relations in nurses' learning. Larger structural factors in addition to individual agency shape learning within a community of practice (Bishop 2017:517). For example, there are nurse educators in many hospitals who play a role in encouraging on-the-job training and other learning for nurses, especially in their first few years of practice. Opportunities for learning are important when considering difficulties with how some specific skills like emotional labour and learning to care can be taught in a nursing educational setting. With an overarching concern for quality of care, a major concern in nursing is the theory to practice gap – a gap between the technical knowledge needed for the job and additional practical and experiential knowledge in nursing. Additional care knowledge for nurses is learned in the workplace setting (Young, Godbold and Wood 2019). Emotional labour like providing comfort and care to patients, their family members, and other coworkers occurs daily in the professional setting (Cottingham and Dill 2019:60). The ability to teach emotional labour in an educational setting is questionable, and skills like this are more often learned on the job, when encountering specific situations or learning from mentors (Cottingham and Dill 2019:60).

Nurses learn on the job and through experience, but hospitals and other healthcare centres are not necessarily ideal learning environments. Nurses in Canada commonly experience emotional and physical abuse from patients while working (Shields and Wilkins 2009:14). Related to higher risks of abuse is inadequate staffing and resources, and poor interpersonal relations among health care workers (Shields and Wilkins 2009:14). Additionally, workplace incivility and bullying from other nurses and colleagues through intra-professional conflict can harmfully impact personal and professional development (Boateng and Adams 2016:41). Disproportionally, members of visible minorities and young nurses are most susceptible to experiencing these constraining factors while working (Boateng and Adams 2016:41). This could lead to decreased opportunities for mentorship for younger nurses and contribute to the high turnover rates of younger nurses (Cottingham and Dill 2019:58). The promotion of formal and informal learning activities by the organization is important to allow professional cooperation and social factors to work in favour of nurse retention and participation, especially in ever-changing environments.

Both formal and informal education are important for skill development in nursing. Nurses value both, reporting that skill acquisition on the job is a valuable complement to formal education (Adams and Sawchuk 2020:16). Learning in nursing may be accelerated, since degrees in comparable professions are often longer in duration; nurses are required to be 'work-ready' after only four years from a direct entry full program or second level entry compressed programs of two to three years (Holmes and Lindsay 2018:3; CNO 2013). After graduation, nurses may experience a period of adjustment, including a disconnect between technical knowledge and reflective values-driven professional practice. In settings characterized by increasing rationalization and efficiency, nurses may find that self-expression, creativity and critical thinking on the job are suppressed (Holmes and Lindsay 2018:5). Work intensification and skill-mix increases are also present with tightened managerial control in nursing (Adams, Lugsden, Chase, Arber and Bond 2000).

2.9 Workplace Change for Nurses

Nursing as a profession has been transformed significantly similar to other professions undergoing substantial change like teachers, academics and engineers (Parding and Abrahamsson 2010; Fredman and Doughney 2012; Adams and Sawchuk 2020). In Canada, healthcare reforms are pushing increased managerialism in the nursing profession (Austin 2007:265-266). Nurses in managerial roles are required to have increased skills surrounding administration, risk management, financial analysis, human resources and professional development (Cziraki, McKey, Peachey, Baxter and Flaherty 2014:1006). Increasingly, the commodification of health care shows the system is being reorganized to not focus on the specific healthcare needs of patients, but rather new public management demands that emphasize more rationalized processes like efficiency (Austin 2007:266).

The impacts of rationalization on healthcare have been explored by Ritzer and Walczak (1988) who identify a shift from substantive rationality to formal rationality within the medical profession. Substantive rationality is tied to professional values such as altruism, client-orientation, and autonomy. In contrast, formal rationality is concerned more with structure, rules and regulations as well as the drive for efficiency – all of which can be considered more bureaucratic and regulated by managerial practices (Ritzer and Walczak 1988:6-7; Weber 1958). Ritzer and Walczak (1988) argue that increasingly in healthcare there is pressure to compromise on care and quality, in order to achieve formal rational goals (speed, efficiency, and adherence to formal rules and policies). These shifts generate structural changes in the organization of medical delivery systems that also impact health care professionals (Ritzer and Walczak 1988:8). Ritzer, in his discussion of rationalization and McDonaldization even argues that the predictability of assembly line technology is being applied to hospitals (Ritzer 1983:103). For example, the process of open heart surgery has multiple patients prepped in different operating rooms where specialized personnel complete certain steps, then the surgeon completes the surgery steps then goes to the next room and completes it on another patient while the previous one's process is completed by assistants (Ritzer 1983:103). Surgery has been turned into

a highly predictable process with less uncertainty for the patients and surgeon (Ritzer 1983:103).

Workplace change alters working conditions, with consequences for nurses' health and wellbeing, the quality of care they provide, interprofessional collaboration, workplace incivility, and nurse retention and turnover. Workplace change, including organizational restructuring, has the potential to impact nurses' job satisfaction, which may, in turn, have an impact on turnover intent (Singh and Loncar 2010; Burke 2003; Zeytinoglu et al. 2007). Work environments that foster low job satisfaction and dehumanization then can lead to nurses experiencing stress over quality of care, workplace incivility, and abuse from patients (Holmes and Lindsay 2018:7; Boateng and Adams 2016; Shields and Wilkins 2009). Workplace incivility can occur from rationalization pushing administration frustrations, overwork frustration, and job effectiveness concerns, which combine to impact nurses' interactions with each other and other healthcare workers (Austin 2007:267). These consequences of workplace change impact all aspects of nursing and if they lead to turnover can contribute to nursing shortages, and worsening work conditions.

2.10 Work Conditions in Nursing

Dating back decades, sociologists have identified decreasing autonomy and control in healthcare professions as a result of workplace rationalization and change (Haug 1998). As noted, this has raised secondary concerns over nurses' health and wellbeing, service quality, interprofessional collaboration, workplace incivility, and nursing shortages. All of these trends reflect negative working conditions related to workplace change. Work conditions in nursing of interest include discrimination, participation in organizational decision making, workload intensification, and autonomy.

Discrimination experienced by nurses can occur from a variety of sources including other healthcare professionals, colleagues, patients, and managers. Discrimination is not only shaped by gender, race, and age (among other dimensions of inequality), but organizational structures, with many nurses in subordinate positions in organizational hierarchies (Acker 1990; Cottingham and Dill 2019; Boateng and Adams 2016; Calliste

1996). The instrumental organization of healthcare delivery systems can lead to the dehumanization of patients and nurses (Holmes and Lindsay 2018:7). For example, being short-staffed and overworked can force care providers to rush through their duties, which is associated with patient hostility and violence (Banerjee, Daly, Armstrong, Szebehely, Armstrong and LaFrance 2012). A recent study of female foreign-born registered nurses in Finland found that they experienced more workplace discrimination than their counterpart native nurses, with this association being mediated by the amount of control they felt on the job rather than mediation from job demands and strain (Wesołowska, Elovainio, Komulainen, Hietapakka and Heponiemi 2020). In Canada, anti-black racism (Calliste 1996) in nursing and anti-immigrant racism surrounding workforce integration can increase the likelihood of these nurses encountering less than ideal conditions related to their workplace experiences (Covell, Neiterman and Bourgeault 2015).

Another important aspect to nurses' work concerns their autonomy and authority on the job. For instance, the ability to participate in policy decisions ensures nurses' voices are heard, and thereby enhances working conditions. A lack of input into key decisions affecting their work and patients can lower nurses' job satisfaction. Moreover, participation can help mediate the relationship between stressors from organizational change and job satisfaction for nurses (Teo, Pick, Newton, Yeung and Chang 2013). Studies surrounding magnet hospitals in Canada, that display better work environments and patient outcomes, show that these hospitals have positive outcomes respecting job satisfaction, autonomy, control over practice and organizational trust (Ridley, Wilson, Harwood and Laschinger 2009:28).

Organizational conditions can also shape nurses' autonomy and authority. Kanter's (1977) theory of organizational empowerment address shows that organizational characteristics can contribute to employee empowerment. These characteristics include having access to information, receiving support, having access to resources necessary to do the job, and having the opportunity to learn and grow (Spence Laschinger, Finegan, Shamian and Wilk 2001:261). This theory further displays how work behaviours and attitudes of employees are not entirely a result of an individual's personality traits but

rather the characteristics of the work environment (Ridley, Wilson, Harwood and Laschinger 2009:28).

Lastly, rationalization leads to higher job demands and more strain from increases in workload for nurses as a result of having fewer workers and more casual or part-time positions. The increase in workload is stressful for nurses and can hinder their ability to deliver quality care to the level they desire. A heavy workload can also impact nurses' job satisfaction and their turnover intention (Zeytinoglu, Denton, Davies, Baumann, Blythe and Boos 2007). Rationalization trends may also reduce nurses' autonomy; for instance, limiting their input over scheduling. Research suggests that limited control over working hours can have negative implications for retention (Eberth, Elliott and Skåtun 2016). In a rationalized environment where greater importance is placed on managerialism, structural empowerment in nursing is increasingly important. Having access to information, resources, opportunities and support as characteristics of an overall empowering work environment not only allows increased commitment to achieving organizational goals but also increases job satisfaction and engagement in nurses (DiNapoli, O'Flaherty, Musil, Clavelle and Fitzpatrick 2016:95). Nurses in managerial positions influence those they manage not only by providing structural factors like access to resources and support but also by exhibiting empowered behaviours that in turn empower employees (DiNapoli et al. 2016:95).

To summarize, research has identified several negative working conditions and dimensions of workplace change impacting the work of nurses. Trends like rationalization contribute to work intensification, with potentially negative implications for nurses' autonomy and voice in the workplace, as well as their job satisfaction, discrimination, empowerment, and well-being. This literature also suggests – as does the literature on professions, learning and workplace change generally – that workplace change and working conditions potentially impacts workplace learning on and off the job. What nurses learn, where, and how, are potentially impacted. Learning is not only essential to quality practice, but it may help workers cope with shifting working conditions. It is important, therefore, for research to focus on professional learning and the impact of work conditions on learning activity. Doing so can allow us to identify

better practices and develop policy recommendations that improve the overall work experience of nurses.

2.11 The Current Study

Lifelong learning is important to nursing and is always occurring whether through formal and informal practices. Nevertheless, as noted, changing work environments alter working conditions and learning activities, and have the potential to impact job satisfaction and employee commitment or retention (Singh and Loncar 2010; Teo et al. 2013; Zeytinoglu et al. 2007). Nurses' authority in the workplace, and their organizational position, are also significant in shaping experiences of working and learning.

The current study explores whether adverse working conditions generally, as well as work intensification through rationalization and organizational position, influence the learning activities of registered nurses in Ontario. Answers to the following research questions are explored:

- 1) To what extent do nurses report engaging in workplace learning, both on and off the job?
- 2) How do working conditions and workplace change impact nurses' workplace learning?

Chapter 3

3 Methods and Data Analysis

In this chapter, I outline the research design and data analysis techniques. First, the data used are described. Then the process of analysis used to examine trends in learning for Ontario nurses is outlined. What is examined is how work conditions are associated with the informal learning nurses participate in, accounting for demographic and socioeconomic characteristics.

3.1 Data

The dataset is a cross-sectional online questionnaire called “Canadian Workers in a Knowledge Economy: Nursing Case Study Survey” that surveyed registered nurses in Ontario, Canada. This survey was conducted in partnership with the Registered Nurses Association of Ontario (RNAO) and used a series of advertisements in newsletters sent to their members to electronically distribute the survey between October 2016 and March 2017 throughout the fourteen Local Health Integration Network (LHIN) regions to all nurses in Ontario: 1326 nurses responded. The College of Nurses of Ontario (CNO) reports 115385 registered nurses (including nurse practitioners) were working in Ontario in 2016. Therefore, the estimated percentage of Ontario nurses sampled in the survey assuming they all were aware of the survey, is 1%. This low response rate may result in weaker relationships in the data than in the population of nurses in Ontario. A university ethics review board approved the creation of this survey to mirror the parallel Changing Workplaces in the New Economy (CWKE) national survey that was conducted in 2015-2016. This survey is part of a broader project exploring the changing nature of professional work and contains questions pertaining to many aspects of nurses’ education, work, and opinions on social issues. As always with quantitative data from an online survey, the findings may not be generalizable to the entire population of Ontario registered nurses. Nonetheless, analysing data from this sample will still provide insights into Ontario nurses’ experiences.

3.2 Outcome Variables

The outcome variables concern learning activities. They are categorical yes/no responses indicating whether the respondent has participated in different types of learning in the last year. In order to address the first research question examining engagement in all learning related to nursing, studied on and off the job, the distribution and contingency tables as well as the gamma coefficient tests initially include seven types of learning: formal training or education, informal learning to enhance technical skills, informal learning to enhance financial or business skills, informal learning to enhance communication and teamwork skills, informal learning on health and safety related to paid employment, informal learning to enhance organizational or managerial skills, and informal learning about employment conditions or workers' rights related to paid employment. Then for the regression analysis the types of learning are narrowed to any informal learning to enhance organizational or managerial skills in the last year and informal learning about employment conditions or workers' rights related to their paid employment. These two are highlighted for their significance and relevance to a rationalizing organizational context with managerial practises that promote efficiency and productivity sometimes at the expense of workers.

3.3 Independent Variables

The main predictor variables can be classified under the umbrella term 'working conditions.' They consist of four dummy variables: discrimination, participation in organizational decision-making, workload increase, and control over working hours. These variables allow for the measurement of job authority and autonomy, as well as workplace change and experiences of discrimination.

The discrimination variable measures whether, in the last year at work, the respondent was discriminated against, in any way by anyone they have had contact with. The survey question additionally notes that discrimination means being treated differently or unfairly because of a personal characteristic or distinction such as race, etc. Responses were either yes or no. Discrimination is linked to lower levels of job control which can affect learning behaviours (Wesołowska et al. 2020).

The variable asking about participation in organizational decision-making asks the respondents to think about policymaking at their workplace; that is, making decisions about such things as the types of products or services delivered, employee hiring and firing, budgets, workload, and change in procedure. Then the question asks respondents whether they felt like they meaningfully participated in these decisions. Again, responses were measured as yes/no.

Workload change in the survey was assessed by asking respondents if the workload in their job increased, decreased, or stayed the same over the past five years. Their possible responses fell on a five-point Likert scale ranging from increased greatly to decreased greatly. For the purposes of this thesis the variable was recoded to a binary response of participants that responded, “increased greatly” and grouping all other responses into an “anything else” category. Since nursing is a profession that has seen significant change in the past five years, this was done to target respondents who had experienced substantial change, compared to those who had experienced less.

The control over working hours variable is a yes/no response to the question: “Can you decide your own working hours?” This variable assesses a dimension of workplace autonomy.

Two control variables of interest are job satisfaction and managerial/supervisory position. As the literature showed, workplace change and the resulting conditions like workload and policy interventions are highly correlated with job satisfaction and managerial intervention and control (Teo et al. 2013; Zeytinoglu et al. 2007; Adams et al. 2000; Davies, Nutley and Mannion 2000). These variables then may also result in an impact on learning behaviours either directly or alongside additional work conditions. The relationship that job satisfaction has with working conditions and learning makes it important to control, to better understand the relationship between the predictor and outcome variables. It is measured on a five-point Likert scale by asking participants “how satisfied are you with your job?” and having them rate their satisfaction. The managerial/supervisory position control variable is also important to include as a control. Whether a nurse has a managerial or supervisory role in their place of work may not only

influence their learning activity, but their experiences of working conditions and workplace change (Döös, Johansson and Wilhelmson 2015). With rationalization and increased focus on efficient practices carried out by the managerial hierarchy, workplace authority may impact who has access to and who chooses to learn as well as what this learning entails. Whether people in managerial roles are likely to participate in informal learning to enhance organizational or managerial skills is of interest.

Additional control measures include demographic and socioeconomic variables including gender, visible minority status, disability status, age (grouped into categories of 10 years), work location, relationship status, formal education obtained, employment status, and whether respondents were currently students. Research hints that gender, age, education and other demographic factors may influence work opportunities and working conditions (Kyndt, Vermeire and Cabus 2016).

Work location includes two questions identifying whether nurse respondents are based in Ontario, somewhere else in Canada, or another country. Since learning and working environments can vary across region, it is important to control for locale. Relationship status was coded as a binary to distinguish those currently in a relationship (including being married or living with a partner), from those not in a relationship (which includes people that are separated, divorced, widowed, never married or other).

An additional control variable concerns formal education obtained. Most respondents had similar education levels, but there was some variation: responses included having some education, a certificate or diploma, an undergraduate degree, professional degree or a graduate degree. These were coded into three categories classified as less than an undergraduate degree, an undergraduate degree (which also included respondents that had a certificate or diploma or a professional degree), and lastly a graduate degree category. The survey included registered nurses and nurse practitioners that consist of “registered nurses that have additional education and experience allowing them to diagnose, order and interpret and prescribe medication and other treatment” (CNO 2013). Additionally, in Ontario nurses with continuing registration and who began practising before 2005 do not require the minimum education of a baccalaureate degree in order to

be registered. This variable was included with the assumption that learning behaviours may be impacted by the amount of education a professional already has; education may impact attitudes towards professional development and improvement (Kinsella, Fry and Zecchin 2018).

Employment status is also controlled for. The employment status variable has six response categories: self-employed professionals, employed professional, high-level managers, middle managers, supervisors, and not classified because not in labour force. Lastly, whether the respondent is a student currently or during the past year was taking courses or earning credits towards a diploma, degree, certificate or licence, is assessed in three groups: full-time students, part-time students or not students. Similar to the formal education obtained variable, the assumption that being involved in a context like an educational setting that promotes learning may impact participants' decisions about participating in additional learning.

3.4 Methods

This study uses a cross-sectional survey design to assess participation in learning among a sample of nurses in Ontario. The software used for statistical analysis is StataIC 16 to conduct a logistic regression, considering the dependent learning variables are binary, to examine if work conditions affect the likelihood of different learning behaviours in nurses. Additionally, this attempts to determine whether an observed association is possibly the result of some additional demographic and socioeconomic variables, including job satisfaction or managerial position, rather than a possible causal relationship between work conditions and learning behaviours.

First, I compare characteristics of the sample to population data reported by the College of Nurses of Ontario Annual Report for 2016 (when the survey occurred) in order to examine the representativeness of the sample. The population data is collected by the College as a requirement of the renewal process and be reported to the provincial government (CNO 2016:2). I then examine how work conditions are associated with the types of learning nurses participate in, accounting for demographic and socioeconomic characteristics.

To do this, I begin by examining the relationship between the workplace conditions variables. Discrimination, policy decision participation, workload increase, and control over working hours, and potentially important variables such as job satisfaction and supervisory/managerial position are examined to identify any correlations with the seven learning variables: formal training or education, informal learning to enhance technical skills, informal learning to enhance financial or business skills, informal learning to enhance communication and teamwork skills, informal learning on health and safety related to paid employment, informal learning to enhance organizational or managerial skills, and informal learning about employment conditions or workers' rights related to paid employment. All of these types of learning are first examined to identify patterns in what type of learning behaviours nurses are engaging with. Preliminary findings revealed the significance and relevance of two of the learning variables — informal learning to enhance organizational or managerial skills and informal learning about employment conditions or workers' rights related to paid employment — and led to them being identified as the two main learning outcome variables focused on in the rest of the analysis. These two types of learning address interest in the wellbeing of workers in a rationalizing organizational context that is experiencing changing work conditions that promote productivity and efficiency with increased managerial control.

The final set of analyses focuses on the two different types of learning as the outcome variables with two logistic regressions. Since the outcome variables are binary, a logistic regression model is used in order to examine the effects of discrimination, policy decision participation, workload increase, and control over working hours on learning. The first model includes just the control variables and the second model includes these and the predictor variables in order to examine their significance and percent probability.

Now that the methodology has been explained, the next chapter presents the research findings and answers the research questions.

Chapter 4

4 Results

This chapter presents the research findings, and it is divided into sections. The first section presents a comparison of the population characteristics to the sample's characteristics, then the wider sample distribution. The following sections address the central research questions. Section 4.2 examines the impact of workplace conditions on learning, with a focus on the workplace conditions indicator variables of discrimination, participation in workplace policy-making, workload increase and ability to choose working hours, and the learning variables. This section presents an exploratory analysis of multiple types of learning by examining gamma coefficients for significance to then narrow down to two types that are most significant and of interest for this study. Finally, section 4.3 assesses whether work conditions influence likelihood to participate in informal learning at work through logistic regression modelling and by interpreting the marginal effects.

4.1 Sample Distribution

In Table 4.1 the population data are taken from the 2016 membership statistics report from the College of Nurses of Ontario (2016). Considering that the survey had an estimated response rate of 0.66% it is important to examine the representativeness of the sample in comparison to population data to provide more validity to the results. The sample is reflective of demographics reported by the College of Nurses of Ontario: the percent of registered nurses sampled was 93.5% which is comparable to the 97.5% present in the membership statistics that reported a total number of 115,385 of registered nurses and nurse practitioners. The percent of male nurses is low in the sample and population being 5.1% and 7.3% respectively. The mean age of nurses for the population was 45 and the sample was 50 years old. About 60% of nurses were employed full-time for each and the majority of nurses worked in Ontario also. Due to the similar proportions of the sample and population, the sample can be considered representative to the overall population despite the lower response rate.

Table 4.1: Nurse population characteristics in Ontario in 2016 compared to sample characteristics

	Population % (n=115385)	Sample % (n=767)
Amount of RN	97.5 (104140)	93.5 (687)
Amount of NP	2.5 (2822)	6.5 (48)
Gender (Percent Male)	7.3	5.1
Average Age:	45 years old	50 years old
Percent Younger than 35	27.2	16.8
Percent 55 and Older	26.3	35.5
Job Contract:		
Employed Full-time	62.9 (72577)	64.3 (493)
Employed Part-time	29.1 (33577)	25.6 (196)
Employed Casual	8.0 (9231)	6.6 (51)
Not Stated		3.5 (27)
Work Location:		
Ontario	84.6 (118578)	99.1 (760)
Other Canadian Province or Territory	4.5 (6330)	0.2 (2)
International	10.9 (15241)	0.7 (5)
Not Stated	0.0 (18)	

Population data from CNO 2016 Annual Report (CNO 2016)

Table 4.2 shows the distribution of the demographic and socio-economic variables in the sample of nurses in Ontario. The sample is 95% female; thus, women are slightly over-represented among survey respondents, since the Ontario profession is approximately 93% female. The average age of participants is 50 years old with 31.42% of the participants falling into the modal age group 45 to 54 years old. Most of the participants (88%) consider themselves to not be a member of a visible minority. Further, about 90% of participants indicate not having a disability and 72.49% are in a relationship which includes being married or living with a partner. Additionally, 88% of the respondents are registered nurses with the rest being nurse practitioners, nursing students or in other positions related to nursing, with 99.09% working in Ontario rather than other provinces or countries. The percentage of registered nurses in the sample is 89.6%, the rest of the sample consists of nurse practitioners. Most of the sample consists of full-time workers (64.3%) rather than part-time or casual workers. Many nurses in the sample (80%)

classify their employment status as being “employed professionals.” Most of the participants claim an undergraduate degree, professional degree, or a certificate or diploma from a community college as their highest level of education. Also, most participants (71.97%) are not currently students in full-time or part-time studies.

Table 4.2: Sample distribution across demographic and socioeconomic variables (N=767)

Characteristics	% (n)	Characteristics	% (n)
Gender		Employment Status	
Female	94.92% (728)	Self-employed professionals	4.17% (32)
Male	5.08% (39)	Employed professionals	79.92% (613)
		Hi-level managers	3.52% (27)
Age		Middle managers	7.04% (54)
18 to 24	1.83% (14)	Supervisors	3.00% (23)
25 to 34	14.99% (115)	Not classified b/c not in labour force	2.35% (18)
35 to 44	16.30% (125)		
45 to 54	31.42% (241)	Relationship Status	
55 to 64	29.99% (230)	In relationship	72.49% (556)
65+	5.48% (42)	Not in relationship	27.51% (211)
Visible Minority Status		Currently a Student	
Yes	11.47% (88)	Yes, full-time	4.69% (36)
No	88.53% (679)	Yes, part-time	23.34% (179)
		No	71.97% (552)
Disability		Formal Education Obtained	
Yes	10.04% (77)	Less than undergraduate degree/Some education	9.52% (73)
No	89.96% (690)	Undergraduate degree/Certificate/Professional Degree	71.45% (548)
Work Location		Graduate degree	19.04% (146)
Ontario	99.09% (760)		
Elsewhere	0.91% (7)	Nurse Category	
Job Contract		Registered Nurse	89.6% (687)
Full-time	64.3% (493)	Nurse Practitioner	6.3% (48)
Part-time	25.6% (196)	Undergraduate Nursing Student	0.1% (1)
Casual	6.6% (51)	Other	0.3% (2)
Other	3.5% (27)		

The outcome variables of interest shown in Table 4.3 are various types of learning participants have done in the last year. Around 79% of participants received formal training or education in the past year, including courses, workshops, apprenticeship training, or any other training no matter the length. Beyond this formal learning, nurses were actively engaged in various types of informal learning. For instance, 69% indicated they did informal learning to acquire technical skills in the last year. Moreover, about 60% of survey respondents engaged in informal learning to enhance communication and teamwork skills, and informal learning on health and safety related to paid employment. The next type is any informal learning to enhance organizational or managerial skills: 47% of participants engaged in this learning in the past year. The last type is informal learning about employment conditions or workers' rights related to paid employment, which 44% of the sample indicated they participated in. The type of learning that participants reported doing the least was informal learning to enhance their financial or business skills in the last year with 74% indicating they did *not* participate in this type of learning.

Table 4.3: Sample distribution across preliminary outcome variables (N=767)

Characteristics	% (n)	Characteristics	% (n)
Formal training or education		Informal learning to enhance technical skills	
Yes	79.01% (606)	Yes	68.71% (527)
No	20.47% (157)	No	28.94% (222)
Informal learning to enhance financial or business skills		Informal learning to enhance communication and teamwork skills	
Yes	25.42% (195)	Yes	61.15% (469)
No	73.92% (567)	No	38.20% (293)
Informal learning on health and safety related to paid employment		Informal learning to enhance organizational or managerial skills	
Yes	57.37% (440)	Yes	46.68% (358)
No	42.24% (324)	No	53.32% (409)
Informal learning about employment conditions or workers' rights related to paid employment			
Yes	43.94% (337)		
No	56.06% (430)		

Table 4.4 shows the four main predictor variables related to workplace conditions: discrimination, policy participation, workplace change, and deciding working hours. The table also includes two other work-related variables of interest: job satisfaction and managerial/supervisory role.

Table 4.4: Sample distribution across predictor variables (N=767)

Characteristics	% (n)	Characteristics	% (n)
Discrimination		Job Satisfaction	
Yes	29.99% (230)	Very satisfied	25.29% (194)
No	70.01% (537)	Somewhat satisfied	45.37% (348)
		Neither satisfied nor dissatisfied	5.61% (43)
		Somewhat dissatisfied	14.60% (112)
		Very dissatisfied	9.13% (70)
Policy Participation		Managerial/Supervisory Role	
Yes	23.86% (183)	Yes	34.42% (264)
No	76.14% (584)	No	65.58% (503)
Workload Increase			
Increased greatly	57.89% (444)		
Anything else	42.11% (323)		
Decide Working Hours			
Yes	23.86% (183)		
No	76.14% (584)		

Most of the sample, at 70%, indicates that they have not experienced discrimination in the last year by anyone they have had contact with. Discrimination defined in the survey means being treated differently or unfairly because of a personal characteristic or distinction. Additionally, 76% said no when asked if they meaningfully participated in policymaking at their workplace; that is, making decisions about such things as the types of products or services delivered, employee hiring and firing, budgets, workload, and change in procedure. When asked if the workload in their job has increased, decreased, or stayed the same over the past 5 years, 57% stated that it has ‘increased greatly,’ with the remaining 42% stating it increased somewhat, stayed the same, or decreased. Seventy-six percent stated that they cannot decide their own working hours. Thus, while only a minority of nurses report experiencing discrimination, the majority of nurses report little workplace authority or autonomy, and most report considerable work intensification.

4.2 Variable Associations

The initial analysis of the data consists of cross tabulations of the predictor variables and the seven outcome learning variables. This is done to initially establish whether work conditions are associated with learning. This initial insight on variable association can be

seen in Table 4.10; 4.11; 4.12 with the full two-way tables showing chi-square test results (In Appendix A). Below is the summary of the gamma coefficient correlations for all seven types of learning in Table 4.5 and 4.6.

With respect to informal learning for organizational or managerial skills, policy participation, having a managerial/supervisory role, deciding own working hours, and job satisfaction are all significant. The gamma coefficient for these variables indicate a weak relationship except for policy participation that has a moderate relationship, as a number closer to 1 or -1 indicates a perfect relationship. Participants that indicated that they had meaningful participation in policy-making decisions, deciding their own working hours and who were more satisfied with their job also indicate in the past year they have done more informal learning surrounding organizational or managerial skills. Discrimination is significant to the p-value less than 0.01. Workload increase is not significant. This means that participants who had experienced discrimination in the past year also participated more in informal organizational or managerial skills in the past year, while workload intensification had no impact on participants' engagement in this type of learning.

For informal learning for employment conditions or workers' rights, discrimination and workload increases are highly significant. The gamma coefficient for both indicates weak relationships. This means that participants that reported being discriminated against in the past year, and those whose workloads had increased greatly are more likely to report engaging in informal learning about employment conditions or workers' rights in the past year. Being in a managerial or supervisory role is also significant to the p-value less than 0.05, meaning that participants that are in these roles are also more likely to participate in this type of informal learning. However, policy participation and deciding working hours and job satisfaction neither increase nor decrease participation in this type of learning.

Formal education or training is not significantly related with any of the working conditions variables. Similarly, informal learning of technical skills is not linked with working conditions measures, except for a slight relationship with perceived discrimination. Informal learning in the past year of financial or business skills and health and safety skills were both slightly significant with a weak relationship with the

participant deciding their own working hours and whether they were in a managerial or supervisory role. However, financial and business skills learning was also slightly significant with perceived discrimination and workload increase in the past five years, while health and safety informal learning was slightly significant with participation in policy related decisions. Teamwork and communication skills is highly significant and has a moderate relationship with job satisfaction and policy participation, as well as being slightly significantly related to deciding own working hours.

Table 4.5: Gamma coefficient correlations for work conditions and all learning variables

	Informal learning for organizational or managerial skills	Informal learning for employment conditions or workers' rights skills	Formal training or education	Informal learning to enhance technical skills
Discrimination	0.25**	0.35***	0.18	0.26**
Policy Participation	0.56***	0.01	0.01	0.03
Workload Increase	0.03	0.30***	0.003	0.07
Decide Working Hours	0.29***	0.08	0.03	-0.06
Managerial/Supervisory Role	0.38***	0.19*	0.13	-0.06
Job Satisfaction	0.22***	-0.11	0.11	0.04

*p < 0.05 **p<0.01 ***p<0.001

Table 4.6: Gamma coefficient correlations for work conditions and all learning variables continued

	Informal learning to enhance financial or business skills	Informal learning to enhance communication and teamwork skills	Informal learning on health and safety related to paid employment
Discrimination	0.29**	0.12	0.06
Policy Participation	0.16	0.34***	0.18*
Workload Increase	0.21*	0.05	0.09
Decide Working Hours	0.31**	0.22*	0.26**
Managerial/Supervisory Role	0.18*	0.04	0.20**
Job Satisfaction	0.12	0.23***	0.08

*p < 0.05 **p<0.01 ***p<0.001

These associations and their significance establish that workplace conditions have an association with some types of learning and give insight to the modelling strategy for the regression models in the following sections. As a result of the more evenly split distribution and their significant correlations with the working conditions variables two types of informal learning, organizational or managerial skills and employment conditions or workers' rights, were selected for inclusion in the following regression analyses. These two types of informal learning are relevant to an increasingly managerial focused and rational organizational context that promotes workplace changes toward more efficient and productive motivations that may be at the expense of workers' health and learning experiences (Adams et al. 2000; Teo et al. 2013).

4.3 Logistic Regression and Marginal Effects

The main regression models explore the impact of workplace conditions (discrimination, workload change, decide own working hours (autonomy) and policy participation (authority/voice) on the two measures of informal learning. The specific outcome variables are informal learning in the past year to enhance organizational or managerial skills, and informal learning respecting employment conditions or workers' rights related to paid employment. Each is measured as a binary; hence, logistic regression is a suitable method to employ in order to test whether workplace conditions affect the likelihood of pursuing informal learning.

The literature review revealed that organizational position (manager/employee) could be significant in shaping the experiences of professionals. In the previous section we saw that managerial status was significantly associated with certain types of informal learning. For these reasons, managerial/supervisory role was included in subsequent analyses as an important variable. Job satisfaction was also included, since it was also found to be associated with informal learning and has been identified as important in shaping workers' experiences in the literature (Singh and Loncar 2010; Teo et al. 2013; Zeytinoglu et al. 2007).

The regression analysis produced includes five models in order to examine the possible spurious relationship managerial/supervisory role and job satisfaction may have with the

four work condition variables. The first model includes just the work conditions variables. The second model includes the work conditions variables and the demographic and socioeconomic control variables excluding job satisfaction and managerial/supervisory role. Model 3 only includes the confounding variables job satisfaction and managerial/supervisory role, while model 4 includes those and the additional demographic and socioeconomic control variables. Finally model 5 includes all possible predictor and control variables. By excluding and including the job satisfaction and managerial/supervisory role variables across the various models, we can ascertain whether managerial/supervisory role and job satisfaction have a spurious relationship with the four work condition variables, discrimination, policy participation, workload increase, and ability to decide own working hours.

Presented in Table 4.7 and 4.8 are the logistic regressions for informal learning to enhance organizational or managerial skills and informal learning about employment conditions or workers' rights related to paid employment, respectively. It can be stated that work conditions influence likelihood to participate in informal learning at work. This is tested by excluding the control variables from the first model and then including them in the last model and reporting their unstandardized coefficients, significance and standard error.

Table 4.7 shows that the relationship of discrimination and policy participation with informal organizational or managerial learning is significant in model 1 as well as model 5 with the introduction of all the demographic and socioeconomic control variables. The change in the focal independent work condition variables seen in model 5 are influenced by job satisfaction and managerial/supervisory role as seen in model 4 compared to model 5. This change occurs over and above the control variables as seen in models 1 and 3 compared to models 4 and 5. Upon the introduction of the work conditions variables the relationship between this type of informal learning behaviour and relationship status, student status and formal education is no longer significant. This suggests that work conditions are more decisive in shaping informal learning.

Table 4.8 shows that the significant relationship between the work conditions of discrimination and workload increase, and informal learning about employment conditions or workers' rights related to paid employment is less significant when all the control variables are introduced. This is the case when just the socioeconomic and demographic variables are introduced in model 2 or in model 5 when both these and job satisfaction and managerial/supervisory role are included in the model. This suggests that the relationship between work conditions and this type of informal learning is partially explained by the socioeconomic and demographic variables. Additionally, for job satisfaction and managerial/supervisory role the significant relationship is present in model 3 and when demographic and socioeconomic variables are introduced in model 4. However, the relationship is less significant in the fifth model when work conditions are introduced. This means that work conditions partially explain the relationship between job satisfaction and managerial/supervisory role and informal learning about employment conditions or workers' rights. And the change in the focal independent work condition variables seen in model 5 are influenced by job satisfaction and managerial/supervisory role as seen in model 4 compared to model 5. This change occurs over and above the control variables as seen in models 1 and 3 compared to models 4 and 5.

Interestingly, for this type of informal learning, job satisfaction has a negative relationship, meaning that the less satisfied nurses are with their job the more likely they are to participate in informal learning about employment conditions or workers' rights related to paid employment. Poor working conditions may decrease satisfaction and encourage learning about rights to effect positive change. In contrast, job satisfaction is positively related to informal organizational or managerial learning: the more satisfied they are, the more likely nurses are to participate in education that might provide organization-related skills, or that might lead to promotion.

Table 4.7: Unstandardized coefficients from logistic regression analysis of organizational or managerial learning behaviours

Variables:	Informal learning to enhance organizational or managerial skills				
	Model 1	Model 2	Model 3	Model 4	Model 5
	β (S. E)	β (S. E)	β (S. E)	β (S. E)	β (S. E)
Discrimination	0.169*** (0.039)	0.152*** (0.041)			0.173*** (0.041)
Policy Participation	0.306*** (0.042)	0.293*** (0.044)			0.223*** (0.045)
Workload Increase	0.017 (0.036)	0.022 (0.036)			0.058 (0.037)
Decide Working Hours	0.082 (0.043)	0.074 (0.043)			0.058 (0.043)
Job Satisfaction			0.053*** (0.014)	0.054*** (0.014)	0.049** (0.015)
Managerial/Supervisory Role			0.186*** (0.037)	0.189*** (0.038)	0.137*** (0.038)
Gender		0.021 (0.079)		0.007 (0.080)	0.033 (0.078)
Age		-0.012 (0.015)		-0.014 (0.015)	-0.007 (0.015)
Visible Minority Status		0.031 (0.055)		0.047 (0.055)	0.030 (0.054)
Disability		0.021 (0.059)		0.086 (0.059)	0.033 (0.058)
Work Location		0.173 (0.182)		0.142 (0.184)	0.217 (0.180)
Employment Status		0.011 (0.019)		0.010 (0.019)	0.020 (0.019)
Relationship Status		0.054 (0.039)		0.088* (0.039)	0.060 (0.039)
Currently a Student		0.069* (0.032)		0.092** (0.033)	0.077* (0.032)
Formal Education Obtained		-0.060 (0.034)		-0.093** (0.033)	-0.060 (0.033)
Intercept	0.539*** (0.129)	-0.195 (0.321)	1.010*** (0.070)	0.553 (0.308)	-0.019 (0.326)
R ²	0.096	0.109	0.052	0.083	0.137
n	767	767	767	767	767

*p < 0.05 **p<0.01 ***p<0.001

Controls: Work Location, Relationship Status, Formal Education Obtained, Gender, Employment Status, Visible Minority Status, Currently a Student, Disability, Age.
Sometimes: Managerial/Supervisory Role, Job Satisfaction

Table 4.8: Unstandardized coefficients from logistic regression analysis of employment conditions or workers' rights learning behaviours

Variables:	Informal learning about employment conditions or workers' rights related to paid employment				
	Model 1	Model 2	Model 3	Model 4	Model 5
	β (S. E)	β (S. E)	β (S. E)	β (S. E)	β (S. E)
Discrimination	0.161*** (0.040)	0.139** (0.042)			0.131** (0.042)
Policy Participation	0.016 (0.043)	0.013 (0.045)			-0.0002 (0.047)
Workload Increase	0.129*** (0.037)	0.130** (0.037)			0.111** (0.039)
Decide Working Hours	0.079 (0.044)	0.082 (0.045)			0.089* (0.045)
Job Satisfaction			-0.037* (0.014)	-0.032** (0.014)	-0.015 (0.016)
Managerial/Supervisory Role			0.099** (0.038)	0.099** (0.038)	0.078* (0.040)
Gender		-0.010 (0.081)		-0.019 (0.082)	-0.008 (0.081)
Age		-0.004 (0.016)		-0.004 (0.016)	-0.002 (0.016)
Visible Minority Status		0.073 (0.056)		0.084 (0.057)	0.069 (0.056)
Disability		0.085 (0.061)		0.129** (0.060)	0.085 (0.061)
Work Location		0.075 (0.187)		-0.153 (0.189)	0.065 (0.187)
Employment Status		0.001 (0.019)		0.006 (0.019)	0.007 (0.019)
Relationship Status		-0.011 (0.040)		0.006 (0.040)	-0.006 (0.040)
Currently a Student		0.023 (0.033)		0.042 (0.033)	0.025 (0.033)
Formal Education Obtained		-0.019 (0.035)		-0.015 (0.034)	-0.020 (0.035)
Intercept	0.935*** (0.132)	0.615 (0.330)	1.484*** (0.071)	1.017** (0.316)	0.553 (0.339)
R ²	0.046	0.052	0.017	0.029	0.058
n	767	767	767	767	767

*p < 0.05 **p<0.01 ***p<0.001

Controls: Work Location, Relationship Status, Formal Education Obtained, Gender, Employment Status, Visible Minority Status, Currently a Student, Disability, Age.
Sometimes: Managerial/Supervisory Role, Job Satisfaction

In order to better interpret percent proportions, the marginal effects for the fifth model are examined. Marginal effects are produced to determine the change in the outcome per unit change of the main predictor. The change in the outcome, learning participation, is summarized while holding all other covariates at their mean. This allows for the amount of change in the outcome per unit change of the workplace conditions variables to be determined.

The marginal effects of each main predictor on learning are produced while keeping all other variables at their mean. Since all other variables are held at their mean, how much the outcome, likelihood to learn, changes when taking into account workplace conditions is determined in the analysis.

Table 4.9 displays the marginal effects at the means of each workplace condition variable for the two types of learning. For nurses that are discriminated against, they are 17% more likely to participate in informal learning to enhance organizational or managerial skills and are also 13% more likely to participate in informal learning about employment conditions or workers' rights related to paid employment. Additionally, nurses who participate in policy related decisions in the workplace are 22% more likely to participate in organizational or managerial skills informal learning. Substantial workload increase is found to increase the likelihood of participating in informal learning concerning employment conditions or workers' rights by 11%. Lastly, deciding working hours also has a small, positive impact on workers' rights informal learning at 9%.

Table 4.9: Marginal effects of the predictor variables held at the means (N=767)

Variables:	Informal learning to enhance organizational or managerial skills			Informal learning about employment conditions or workers' rights related to paid employment		
	dy/dx		S. E	dy/dx		S. E
Discrimination	0.173	***	0.041	0.131	**	0.032
Policy Participation	0.223	***	0.045	-0.0002		0.047
Workload Increase	0.029		0.037	0.111	**	0.039
Decide Working Hours	0.058		0.043	0.089	*	0.045

*p<0.05, **p<0.01, ***p<0.001

In conclusion, the regression analysis finds that certain working conditions – especially discrimination, policy participation, and workload increase affect informal learning to enhance organizational or managerial skills and informal learning about employment conditions or workers' rights related to paid employment for nurses.

The relevance of these findings for the research questions and for our understanding of working conditions and informal learning among professionals are discussed more in the following chapter.

Chapter 5

5 Discussion and Conclusion

5.1 Discussion

Working conditions and workplace change can impact professionals' working and learning behaviours. Previous research has shown that workplace change impacts working conditions (Teo et al 2013; Zeytinoglu et al. 2007); in turn, these conditions can affect learning behaviours (Crouse, Doyle and Young 2011). Moreover, organizational change can increase professional workloads (Zeytinoglu et al. 2007), impacting the ability of professionals to do their jobs effectively and their overall experience at work (Louws, Meirink, van Veen and van Driel 2017). This change can also affect the learning behaviours of professionals. In professions, lifelong learning is essential to providing quality and safe services. Certain working conditions, including work intensification due to rationalization and organizational change, may inhibit professionals' ability to learn on the job. What professionals learn and how they learn may be changing. In light of these changes, this study explored the connection between working conditions and learning behaviours for nurses in Ontario, through the analysis of survey data.

Preliminary data analysis considered seven different types of learning, including formal education and different types of informal learning done on and off the job. These learning activities were examined alongside four work conditions: perceived discrimination, participation in organizational decision-making, an increase in workload in the last five years, and whether the worker can decide their own working hours. Additionally, worker job satisfaction, whether they were in a managerial or supervisory role at work, and additional demographic and socio-economic variables were taken into account. The types of learning with the most significant initial association with most conditions were informal learning related to organizational or managerial skills, and informal learning about employment conditions or workers' rights related to paid employment. These types of learning are relevant in a working environment with emphasis on more efficient and productive skills surrounding administration, structure, managerial regulation and rules

that may suppress the self-expression, autonomy and control workers have. The work condition that was the most significant with all types of learning was perceived discrimination in the last year; whether nurse respondents held a managerial or supervisory role was significantly related to learning behaviours.

This initial analysis, combined with regression analyses, allowed the two main research questions to be addressed. The first question asked about the extent to which nurses reported engaging in workplace learning, both on and off the job. This included learning that is not only formal but informal. Descriptive analyses revealed that Ontario nurses were actively engaged in a variety of learning activities. The most common learning activities were formal education, informal technical learning, informal learning to enhance communication and teamwork skills and informal learning on health and safety related to paid employment. The least common learning activities were informal learning to enhance financial or business skills. The last two types of informal learning examined had a relatively even split for informal learning related to organizational or managerial skills, and informal learning about employment conditions or workers' rights related to paid employment, with just over 50% for both types saying they did not participate in these types of learning in the past year. More research on different types of learning behaviours needs to be conducted in order to examine why some of these types are currently participated in more by nurses and if the distribution of learning activities is directly associated with work conditions or workplace change.

Finally, the second research question asked what impact working conditions had on learning behaviour. Findings revealed that some conditions had a more direct impact on learning than others. Moreover, certain conditions were associated with specific types of learning. Participation in decision-making and discrimination seemed to have the strongest impact on organizational or managerial informal learning behaviours. Nurses who participated more in policy making and those indicating they experienced discrimination were more likely to undertake this kind of learning. Discrimination and workload increase were the two working conditions variables that had the most association with employment conditions and workers rights' informal learning, followed by deciding own working hours. This could be interpreted as nurses who experienced

more work intensification and discrimination were more likely to learn about their rights. Due to the nature of the cross-sectional data, conclusions about causality cannot be determined and it could also be argued that participating in informal learning could create an awareness about work intensification, participation in decision-making and discrimination.

Additionally, whether the nurses were in a managerial and/or supervisory position also shaped learning. Being in a managerial/supervisory role along with job satisfaction were important to examine with the five regression models because the literature has suggested that job satisfaction and managerial status could shape professional learning behaviours (Louws, Meirink, van Veen and van Driel 2017; Döös, Johansson and Wilhelmson 2015), and that they are linked with working conditions. Workplace authority is increasingly important in workplace settings characterized by increasing rationalization and efficiency, as well as self-expression and reflective learning that can lead to differing levels of job satisfaction. The logistic regression results also showed that both variables influenced the likelihood to participate in informal learning related to organizational or managerial skills, and managerial/supervisory role was another variable that shaped the likelihood of participating in learning related to employment conditions or workers' rights.

The significance of discrimination in both types of learning is surprising as the literature does not appear to have identified a link between discrimination and learning in the past. It seems that nurses who face negative treatment on the job, undertake learning on their own time to learn how to deal with it, and how to proceed. This learning could include learning about employment conditions and rights or could be attempting to obtain a better work situation with learning managerial or organizational skills with the goal of advancing. It may be the case that learning motivations differ by organizational position. Nurses already in managerial positions could be pursuing this learning to cope with situations that arise among those they supervise at work, or to deal with situations they themselves experience. More attention should be paid to the reasons behind participation in learning, as informal education may be differently motivated depending on situation and status. Motivations for learning may also have implications for turnover and attrition:

that is, learning to cope with a situation may signal an intention to stay, but learning could also become a prelude to leaving a workplace, or the profession altogether.

Increased learning as a form of resistance to workplace change also requires further examination. However, working conditions, such as policy participation (a dimensions of workplace authority and autonomy) and ability to decide own hours (autonomy), and workplace change associated with workload increases, were shown to impact informal types of learning. Whether this learning is utilized by the individual nurse in order to cope with a changing workplace, or these work conditions operate as mechanisms that encourage or discourage different types of learning, cannot be determined within the confines of this study. Nevertheless, it appears that nurses experiencing substantial workload increases respond by learning more about their rights, perhaps in an effort to protect themselves. Additionally, whether the nurse was currently a student, either full-time or part-time, also had an impact on informal organizational or managerial related learning. Trends in workplace change may be leading to this specific type of learning to be prioritized, even in the educational setting. More in-depth examination of exactly what workers are learning in response to workplace change would provide further insight on how working environments shape learning activities.

Rationalization and other workplace changes do impact learning, shaping what people learn and how people learn. This increased drive for efficiency could lead to leaving less time for learning on the job and encourage 'just enough' learning to keep up or prioritizing one type of learning over others. This learning could be thought of as the individual's responsibility, rather than a workplace responsibility; hence learning may become more informal and possibly occur off the job. These changes to work conditions in professions could result in an overall reduction of 'deep learning' (Adams and Sawchuk 2020).

Another important but unanticipated finding was the different impact job satisfaction had on the two types of learning. Increased job satisfaction was shown to positively impact organizational or managerial learning, but learning relating to workplace conditions and worker rights was actually associated with less job satisfaction. There have been studies

done on learning, within and outside the workplace, and how it is used as a coping strategy in a changing work environment and can lead to increased job satisfaction (Teo et al. 2013). However, the literature does not seem to examine this in the opposite direction, like this study, where lower job satisfaction impacts the participation in learning behaviours. Here learning can be viewed as a coping strategy – a response to poor working conditions through which nurses seek to improve their circumstances and potentially alter their work conditions. This finding also highlights the significance of attitudes and goals in shaping learning activities. When nurses (or potentially other workers) are satisfied with their jobs, they may be more likely to engage in learning linked to promotion and advancement; when they are not satisfied, they engage in learning linked to employment conditions or workers' rights in order to better their situation. Moreover, all nurses are not the same, and motivations for learning may differ by group. Nurses already in a managerial or supervisory role may pursue that type of learning to further hone their skills and keep them updated, while a nurse not in that position may be participating in that type of learning in order to advance to that position to better their situation.

Overall, these findings are consistent with theories of situated learning that recognize that structural factors and learning environments have an important impact on learning behaviours. While individual characteristics are not irrelevant in shaping learning, there is value in placing emphasis on work conditions and structural factors which shape what is learned and how. In accordance with social cultural theories of learning, it must be recognized that learning opportunities within the community of practice are especially important (Harris 2011). At the same time, the findings of this study make clear that context can impact learning in complex ways. Certain working conditions may encourage some types of learning, but not others. Overall, the interaction of cultural and structural factors in rationalizing work contexts also may play a role in the access and uptake of work-related informal learning. To understand workplace learning better, it is important for researchers to understand the importance of certain work conditions in this situated learning environment, in order to identify obstacles that arise while working that may restrict access to some learning opportunities.

5.2 Limitations

Although this study contributes to the literature on working conditions and learning for nurses, certain limitations need to be addressed. The survey sample of nurses totaled 1326, but due to missing values on key variables, that was decreased to 767 – a drop of 40%. Additionally, the participants in the sample were mostly nurses working in Ontario. The experience of nurses in other provinces in Canada could be different. Moreover, the respondents were not particularly diverse with respect to practice location: most nurses were based in acute care settings in hospitals. Differences in rationalization and variations across practice setting, or locale (urban-rural; north-south) were not examined here but could be important. Additionally, access to and interest in informal training may also vary in long-term care settings as well as magnet hospitals, depending on the organizational setting and workplace culture of these contexts. The experiences of different types of nurses, such as registered practical nurses, may differ from registered nurses. The average age of nurses in the survey was also older than the average age of registered nurses from the College of Nurses of Ontario, a younger sample may yield different findings more consistent with the profession. In light of the small sample size, generalizations cannot be made for the population of nurses in Ontario. In addition, most respondents were registered nurses; the experiences of others, like registered practical nurses, may be different.

The smaller sample size also posed problems with examining differences across gender, age, race, visible minority status, sexual orientation and more. For gender, which is especially studied in nursing because of its status as a female-dominated profession, it is not clear whether men and women have different learning behaviours or motivations, because there were so few men in the sample. The amount of men in the survey was representative of the ratio of men to women nurses in Ontario, but unfortunately this resulted in a number too small for detailed quantitative analysis. Similarly, with respect to visible minorities and different age groups, the specific learning behaviours of these groups also would have been interesting to examine in more depth, especially considering previous research in nursing relating to minority status and age (Covell, Primeau, Kilpatrick and St-Pierre 2017; Neiterman and Bourgeault 2015; Cottingham and Dill

2019). Examining nurses in managerial or supervisory positions separately from other nurses not in these roles may also have shown different priorities and how they set the context of learning for employees. These variables were included in the regression results as controls, but they could become the focus of future analyses. Overall intersectionality may have important consequences for the learning behaviours of nurses, but small sample size prevented a consideration of intersectional inequalities in this specific research.

Another limitation concerns the operationalization of the working condition variables. For the discrimination variable participants were asked about any discrimination they experienced in the last year, regardless of what it was related too. Future research could explore specific types of discrimination to determine if their impacts are different.

Finally, the cross-sectional nature of the data is a limitation, especially when it comes to the importance of workplace change. A longitudinal study examining nurse experiences, or individual nurse diaries documenting changes over time, would have been beneficial to understand the impact of workplace change on learning activity. Since this study was limited by its cross-sectional nature, examining only a particular time period, we cannot obtain a complete story of individual nurses' journeys and how work conditions lead to specific learning behaviour outcomes. These limitations call for more research to possibly address aspects that could not be studied within the confines of this research.

5.3 Future Research

As briefly stated above, this study calls for future research on specific types of workplace learning on and off the job that is valued in current organizational settings. Identifying these types that may be specific to each profession and examining the different motivations to participate in these different types is an avenue for future study. It might be particularly valuable to disentangle learning behaviours that resist workplace change and working conditions, from those which are more positively associated with it. More qualitative studies on attitudes (see: Hetzer, Heid and Gruber 2012) and individual motivation for learning, specifically depending on the current workplace conditions nurses and other professionals experience, would further illuminate patterns seen in this study. Additionally, a more specific focus on male nurses' experiences, visible minority

nurses, managerial nurses, and nurses that work in places other than hospitals would also shed light on the finding of discrimination being associated with certain types of informal learning, and unpack the drivers and motivations better.

Looking at groups that are disadvantaged in workplaces relative to others is important for studying social inequality. Much attention is paid in the literature to intersectional inequalities in nursing, and barriers to integration into the profession resulting from foreign education and discriminatory practices (CNO 2013). A study that has a larger sample that can separately examine minority and disadvantaged groups, or qualitative research that can examine the in-depth motivations for learning in certain work conditions, would enhance this study's findings. Furthermore, how learning may differ depending on the location or place in which it occurs can add to the discussion, especially for nurses in private and public based workplaces, or even specific differences between nurses in teaching based hospitals, nursing homes, and other working and learning environments (Lundgren 2011). Finally, it would be beneficial to examine if other professionals have similar experiences based on workplace restructuring affecting learning, for example teachers, academia, and other professions (Parding and Abrahamsson 2010; Fredman and Doughney 2012; Döös, Johansson and Wilhelmson 2015).

Moreover, there is a need for more research in general on informal learning, especially informal learning based on reflective behaviours in the professions. Examining reflective practices and work conditions to see what types of informal learning are influenced by these conditions would be beneficial in examining the different skills that may be considered important to professions as a whole, and which skills may be specific to certain professions. For example, do professions differ in the extent to which practitioners emphasize communication, technical, and other types of informal learning? What professional experiences motivate learning activity in various domains? And what is the impact of working conditions or workplace change on learning activities across professions? Looking at different types of workplace change and their relevance to a specific type of learning would be valuable, like the focus of this paper on rationalization and workload increases, and their impact on informal learning surrounding organizational

or managerial skills. More of a focus on the other aspects of McDonaldization identified by Ritzer (1983), like the increased reliance on technology, and its impact on learning would advance our understanding of the impact of rationalization on learning. The growing reliance on technological and computer skills should guide future research on informal learning to include a focus on the importance of quick and frequent technology changes (Sawchuk 2007). Research on this type of learning and the impact changes may have on workers, can inform future learning opportunities like asking other workers for help, or mentorship learning opportunities.

Another increasingly popular area of study in nursing that can be applied to this study is examining communities of practice. The informal aspects of communities, and informal learning practices within them, may allow for resistance to supervision and interferences that may result from workplace change and managerial involvement (Filstad 2014:71). The closer examination of social networks as a mediator of work conditions and a look at how direct mentorship affects informal learning behaviours would build on this aspect of nurse interactions. To understand the impact of social networks and mentorship opportunities in a professional's career over time requires a longitudinal approach. Using such an approach to examine change over time in the learning journey would allow for age differences in nurses to be considered, and would allow researchers to explore whether observed differences by age are based on the learning journey in the profession or the specific time, place and precarity of the workplace environment. This is important when considering concerns about a shortage of nurses resulting from attrition and turnover in younger nurses, despite continuing education (Cottingham and Dill 2019; Livingstone 2009).

5.4 Conclusion

Overall, this study has aimed to contribute to the literature on professions, workplace change, and learning, through a specific case study of nursing. This study also contributes to the smaller informal learning literature, especially in professions and a Canadian context, where informal learning is not frequently studied (Livingstone 2009). Moreover, this study has added to the literature by considering different types of informal learning, to reveal nuances in learning activity. Additionally, examining specific work conditions

separately, with a connection to overall workplace change allowed conditions like perceived discrimination while working to be shown to have highly significant impacts affecting the likelihood of participation in multiple types of workplace learning occurring during and outside of work. Examining the interaction of cultural and structural factors occurring within the organizational system allows for investigation of concerns about workers' wellbeing in the workplace, and how this is displayed in workplace activities. Discrimination is usually examined in professions with respect to work-related outcomes for specific social groupings by gender, race, age among others; however, this study has shown that discrimination has additional impacts on learning activity. These connections should be explored in more detail in the future.

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Appendices

Appendix A: Survey Questions

- 1) Please provide your gender:
 - Male
 - Female
 - Other
 - I prefer not to answer

- 2) In what year were you born?
 - 18 to 24
 - 25 to 34
 - 35 to 44
 - 45 to 54
 - 55 to 64
 - 65+
 - I don't know
 - I prefer not to answer

- 3) Do you consider yourself to be a member of a visible minority?
 - Yes
 - No
 - Not Applicable
 - I don't know
 - I prefer not to answer

- 4) Do you consider yourself to be a person with a disability?
 - Yes
 - No
 - I don't know
 - I prefer not to answer

- 5) In which location do you primarily work?
 - Ontario
 - Other Canadian provinces
 - U.S. States
 - Overseas

- 6) The first few questions relate to your general employment status. Which of the following best matches your current employment status?
 - Self-employed professionals
 - Employed professionals

- Hi-level managers
 - Middle managers
 - Supervisors
 - Not classified b/c not in labour force
- 7) Are you currently:
- Married
 - Living with a partner
 - Separated
 - Divorced
 - Widowed
 - Never married
 - Other:
 - I don't know
 - I prefer not to answer
- 8) Are you currently, or have you been during the past year, a full-time or part-time student taking courses or earning credit towards a diploma, degree, certificate or licence?
- Yes, full-time
 - Yes, part-time
 - No
 - I don't know
 - I prefer not to answer
- 9) The following section relates to formal education and participation in adult education courses. What is the highest level of formal education you have obtained?
- Some community college/cegep
 - Certificate/diploma community college.cegep
 - Some university
 - Completed undergraduate degree (BA, BSc)
 - Some professional studies
 - Completed professional degree
 - Some graduate university
 - Completed graduate degree (MA, PhD)
 - I don't know
 - I prefer not to answer
- 10) What is your nursing category?
- Registered Nurse
 - Nurse Practitioner
 - Undergraduate nursing student
 - Other position related to nursing (please specify):

- Other position not related to nursing (please specify):

- 11) How would you describe your job in terms of full-time, part-time or casual, or other?
 - Full-time
 - Part-time
 - Casual
 - Other (please specify):
 - Not Applicable
 - I don't know
 - I prefer not to answer

- 12) At any time during the past year did you receive ANY FORMAL training or education including personally attended or online courses, workshops, apprenticeship training, arts, crafts, recreation courses, or any other training or education no matter how long?
 - Yes
 - No
 - I don't know
 - I prefer not to answer

- 13) Have you done any informal learning to enhance your financial or business skills in the last year?
 - Yes
 - No
 - I don't know
 - I prefer not to answer

- 14) Have you done any informal learning on health and safety related to your paid employment?
 - Yes
 - No
 - I don't know
 - I prefer not to answer

- 15) Have you done any informal learning about employment conditions or workers' rights related to your paid employment?
 - Yes
 - No
 - I don't know
 - I prefer not to answer

- 16) Have you done any informal learning to enhance skills such as communication and teamwork?
 - Yes

- No
- I don't know
- I prefer not to answer

17) Have you done any informal learning to enhance your technical skills in the last year? Please note this does NOT include formal learning such as going to school or formal learning at work, etc.

- Yes
- No
- I don't know
- I prefer not to answer

18) Have you done any informal learning to enhance your organizational or managerial skills in the last year?

- Yes
- No
- I don't know
- I prefer not to answer

19) In the last year, at work, have you been discriminated against, in any way by anyone you've had contact with? Please note by discrimination we mean: being treated differently or unfairly because of a personal characteristic or distinction such as race, etc.

- Yes
- No
- I don't know
- I prefer not to answer

20) Think of policy-making at your main workplace; that is, making decisions about such things as the types of products or services delivered, employee hiring and firing, budgets, workload, and change in procedure. Do you feel you meaningfully participate in these decisions?

- Yes
- No
- I don't know
- I prefer not to answer

21) Has the workload in your job increased, decreased, or stayed the same over the past 5 years?

- Increased Greatly
- Increased Somewhat
- Stayed the same
- Decreased Somewhat
- Decreased Greatly
- I don't know

I prefer not to answer

22) Can you decide your own working hours?

Yes

No

I don't know

I prefer not to answer

23) How satisfied are you with your job?

Very Satisfied

Somewhat Satisfied

Neither Satisfied nor Unsatisfied

Somewhat Unsatisfied

Very Unsatisfied

Not Applicable

I don't know

I prefer not to answer

24) The following questions are about any type of supervisory role in your job. Do you have a managerial or supervisory role at your place of work?

Yes

No

I don't know

I prefer not to answer

Appendix B: Contingency Tables for Seven Learning Variables in Chapter 4
(Section 4.2)

Table 4.10: Preliminary contingency table of types of learning with chi-square tests (N=767)

	Total (%)	Informal learning for organizational or managerial skills (%)		chi ²	Informal learning for employment conditions or workers' rights skills (%)		chi ²
		Yes	No		Yes	No	
Total (%)	100	46.7	53.3		43.9	56.1	
Discrimination				**			***
Yes	30.0	35.8	24.9		38.6	23.3	
No	70.0	64.2	75.1		61.4	76.7	
Policy Participation				***			
Yes	23.9	35.8	13.4		24.0	23.7	
No	76.1	64.2	86.6		76.0	76.3	
Workload Increase							***
Increased greatly	57.9	58.7	57.2		66.2	51.4	
Anything else	42.1	41.3	42.8		33.8	48.6	
Decide Working Hours				***			
Yes	23.9	29.6	18.8		25.5	22.6	
No	76.1	70.4	81.2		74.5	77.4	
Managerial/Supervisory Role				***			*
Yes	34.4	43.9	26.2		39.2	30.7	
No	65.6	56.1	73.8		60.8	69.3	
Job Satisfaction				**			
Very satisfied	25.3	29.6	21.5		24.3	26.0	
Somewhat satisfied	45.4	46.9	44.0		42.1	47.9	
Neither satisfied nor dissatisfied	5.6	5.6	5.6		5.3	5.8	
Somewhat dissatisfied	14.6	12.3	16.6		16.3	13.3	
Very dissatisfied	9.1	5.6	12.2		11.9	7.0	

*p < 0.05 **p<0.01 ***p<0.001

Table 4.11: Preliminary contingency table of types of learning with chi-square tests (N=767) continued

	Total (%)	Formal training or education (%)		Informal learning to enhance technical skills (%)		chi ²
		Yes	No	Yes	No	
Total (%)	100	79.4	20.6	70.4	29.6	
Discrimination						**
Yes	30.0	31.7	24.2	33.0	22.5	
No	70.0	68.3	75.8	67.0	77.5	
Policy Participation						
Yes	23.9	23.8	23.6	24.5	23.4	
No	76.1	76.2	76.4	75.5	76.6	
Workload Increase						
Increased greatly	57.9	58.1	58.0	58.8	55.4	
Anything else	42.1	41.9	42.0	41.2	44.6	
Decide Working Hours						
Yes	23.9	24.1	22.9	23.5	25.7	
No	76.1	75.9	77.1	76.5	74.3	
Managerial/Supervisory Role						
Yes	34.4	35.6	29.9	33.8	36.5	
No	65.6	64.4	70.1	66.2	63.5	
Job Satisfaction						
Very satisfied	25.3	25.4	23.6	26.4	23.4	
Somewhat satisfied	45.4	46.9	40.1	44.2	46.8	
Neither satisfied nor dissatisfied	5.6	5.1	7.6	5.7	5.4	
Somewhat dissatisfied	14.6	14.4	15.9	15.2	14.4	
Very dissatisfied	9.1	8.3	12.7	8.5	9.9	

*p < 0.05 **p<0.01 ***p<0.001

Table 4.12: Preliminary contingency table of types of learning with chi-square tests (N=767) continued

	Total (%)	Informal learning to enhance financial or business skills (%)		chi ²	Informal learning to enhance communication and teamwork skills (%)		chi ²	Informal learning on health and safety related to paid employment (%)		chi ²
		Yes	No		Yes	No		Yes	No	
Total (%)	100	25.6	74.4		61.5	38.5		57.6	42.4	
Discrimination				**						
Yes	30.0	39.5	26.6		31.8	27.0		30.9	28.4	
No	70.0	60.5	73.4		68.2	73.0		69.1	71.6	
Policy Participation							**			*
Yes	23.9	28.2	22.2		28.4	16.4	*	26.6	20.1	
No	76.1	71.8	77.8		71.6	83.6		73.4	79.9	
Workload Increase				*						
Increased greatly	57.9	65.6	55.4		58.8	56.3		59.8	55.6	
Anything else	42.1	34.4	44.6		41.2	43.7		40.2	44.4	
Decide Working Hours				**			*			**
Yes	23.9	32.8	20.6		26.9	19.1		27.7	18.5	
No	76.1	67.2	79.4		73.1	80.9		72.3	81.5	
Managerial/Supervisory Role				*						**
Yes	34.4	40.5	32.3		35.2	33.4		38.2	29.0	
No	65.6	59.5	67.7		64.8	66.6		61.8	71.0	
Job Satisfaction							**			
Very satisfied	25.3	29.2	24.0		27.7	21.2	*	26.6	23.8	
Somewhat satisfied	45.4	44.6	45.9		48.6	40.3		45.5	45.4	
Neither satisfied nor dissatisfied	5.6	4.6	5.8		4.7	7.2		6.8	3.7	
Somewhat dissatisfied	14.6	15.9	13.9		12.8	17.4		13.2	16.4	
Very dissatisfied	9.1	5.6	10.4		6.2	14.0		8.0	10.8	

*p < 0.05 **p<0.01 ***p<0.001

Curriculum Vitae

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Post-secondary Education and Degrees: University of Toronto – Scarborough Campus
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2013-2017 B.Sc. Double Major in Psychology and Sociology

The University of Western Ontario
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2018-Present M.A. in Sociology

Related Work Experience

Teaching Assistant – 1021E Introduction to Sociology
The University of Western Ontario – Department of Sociology
2018-2019

Teaching Assistant – 2140 Social Problems
The University of Western Ontario – Department of Sociology
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Teaching Assistant – 2172 Advertising and Society
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