THE ESSENTIAL WORK OF DOUBLE-DUTY CARERS

THE ESSENTIAL WORK OF DOUBLE-DUTY CARERS DURING THE COVID-19 PANDEMIC

By

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LAY ABSTRACT

The term ‘double duty carer’ (DDC) refers to individuals, often women, that are provide care both at home and at work. DDCs are an important workforce that are vulnerable to negative physical and mental health consequences which are exacerbated during the COVID-19 pandemic. The purpose of this study is to examine the impact of the pandemic on DDCs’ caring responsibilities and supports from the perspectives of healthcare employers and DDCs. Findings showed that the COVID-19 pandemic made paid and unpaid caring much more demanding, inflicted poor health consequences upon DDCs and made supports difficult to access. DDCs are experiencing increased role strain and having to invest more hours in paid and unpaid care. The findings of this study can be used to improve DDC support and strengthen the collaborative relationships among healthcare employers and DDCs.

ABSTRACT

Background: In the healthcare sector, many workers are believed to be “double duty carers” (DDCs) - individuals providing care both at work and home. DDCs often work in paid care work while providing unpaid care to family/friends outside of work. The COVID-19 pandemic places additional stressors on these vulnerable carers. Caring is an emerging global health issue involving the straining of roles due to the pandemic. Informal or unpaid caring is globally known to be a women's health issue given the gendered nature of caring, resulting in women shouldering greater physical, social, and emotional costs.

Purpose: The aim of this study was to understand the impact of COVID-19 on DDCs through the perspective of employers and DDCs. The knowledge generated illuminates how the paid and unpaid caring has been affected by the pandemic, what supports, or coping strategies are being utilized by DDCs.

Methods: This mixed-methods study comprises two phases; a quantitative survey for employers and qualitative interview for DDCs. The survey investigates how workplace supports have been impacted by the pandemic, while the interview investigates DDCs’ experiences/coping strategies during the pandemic. Finally, triangulation of the data from the two phases will be used to create evidence-based policy recommendations to enhance DDC supports.

Results: Healthcare employers were observed to be cognizant of DDCs’ diminishing wellness during the COVID-19 pandemic; yet, less than half supported their carer-employees. DDCs had increased care demands both at work and at home and experienced a lack of access to their usual support system and support services. The data from both phases helped elucidate recommendations and areas of concern for DDC support that can serve as important implications for carer-friendly workplace policies (CFWP).

Conclusion: By exploring the intersection of perspectives from employers and DDCs, this study will contribute to evidence-informed guidelines for CFWP during a pandemic.

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LIST OF ABBREVIATIONS

DDC	Double duty carer
LTC	Long-term care
ADL	Activities of Daily Living
CFWP	Carer-friendly workplace policies
HR	Human Resource
ID	Interpretive Description

DECLARATION OF ACADEMIC ACHIEVEMENT

This thesis is a report of original research of work that I conducted under the supervision of Dr. Allison Williams and advising of my committee members, Dr. Catherine Ward-Griffin and Dr. Gavin Andrews.

Chapter 1: Introduction

1.1 Background

This study explores the impact of the COVID-19 pandemic on double-duty carers' (DDCs) caring experience from perspectives of healthcare employers and DDCs themselves. DDCs work both as paid healthcare workers and unpaid carers of family/friends/neighbours. In their paid work, DDCs often work as front-line essential health care service providers in home care, long-term care (LTC), or institutional care. DDCs also provide unpaid care to a dependent, such as family or friends, outside of work to assist them in their activities of daily living (ADLs). Unpaid caring work provides an annual contribution of $25 billion to the economy (Hollander et al., 2009) and serves as the backbone of the healthcare system (Fine, 2012). This study will expand the understanding of DDC needs and highlight the importance of prioritizing carers during public health emergencies to improve future preparedness and minimize negative consequences towards carers' health and wellbeing. Traditionally, caring is known to be a gendered role, with the majority of formal and unpaid carers continuing to be female. For example, in Canada, approximately 80% of healthcare workers are female (Porter and Bourgeault, 2017) while the majority of unpaid caring roles are traditionally placed upon women (Boumans, 2014). Familial expectations, obligation because of professional expertise, cultural traditions and feelings of kinship are factors that disproportionately influence women to adopt unpaid caring roles (Ward-Griffin et al., 2005; Morris, 2004). Furthermore, with the growth of home care due to the deinstitutionalization of healthcare, there will continue to be an increased expectation towards family members or friends to provide unpaid care

(Szebehely and Meagher, 2018). Since the DDC role is often adopted as a result of obligation due to professional expertise (Morris, 2004), it is also likely that the number of DDCs will increase. Due to the high level of caring burden experienced by DDCs under normal conditions, it is necessary to investigate changes to their caring experience during the COVID-19 pandemic. This study aims to examine how the COVID-19 pandemic disproportionately impacts DDCs. In so doing, it has the potential to inform future health policy aimed at addressing needs of the growing DDC population and the aging population they care for.

Carer health is a serious concern for employers and DDCs alike. Literature demonstrates that a $5.5 billion productivity loss can be incurred by employers due to factors like absenteeism or decreased work performance (Decima, 2015). Furthermore, the unique position of DDCs in managing two caring roles leaves them vulnerable to a blurring of professional and personal boundaries, role strain, physical strain, manifestation of compassion fatigue and burnout (Ward-Griffin et al., 2005; Arriagada, 2020; Vitaliano et al., 2003). This further encumbers women’s health, which has already been disproportionately worsened during the COVID-19 pandemic due to gender-related factors (Ostlin and Sen, 2007; Arriagada, 2020). According to the World Health Organization (WHO), gender is a social determinant of health given that women have been victim to greater health and social risks, unequal economic opportunities, and faced more gender-based discrimination than men (Ostlin and Sen, 2007). Recently, pandemic-related consequences have impeded women to a greater extent, leaving them more vulnerable to: financial distress, mental health issues, challenges managing caring roles, and a range of other sources of inequity (Connor et al., 2020; Detaille et al., 2020). With women making up more than half of the Canadian workforce and over 80% of the healthcare labour force (Health Canada, 2004; Porter and Bourgeault, 2017), DDCs are of particular relevance to employers given the impact on productivity absenteeism (Decima, 2015; Morris, 2004). During the COVID-19 pandemic, the issue of staff shortage has been a concern to employers across the country, drastically impacting the quality of care of the entire organization (Ogilvie, 2020; Pearce, 2020). Thus, it is in healthcare employers' best interest to support their highly vulnerable DDC workforce, especially during a pandemic.

1.2 Research Objectives and Questions

In the healthcare sector, there is a high ratio of unpaid carers, namely one in four (Heitink et al., 2017). Recent studies among nurses during the pandemic demonstrate observed experiences of increased workload, tasks, and stress – all of which have created additional burdens to health professionals (Almaghrabi et al., 2020; Sultana et al., 2020). Over the course of pandemic there have been various changes in healthcare environments, such as the introduction of policies limiting family visiting, increased safety protocols, and greater staff expectations in the provision of safe patient care (Ardebili et al., 2021; Canadian Foundation for Healthcare Improvement, 2020). Similarly, a greater workload impacts DDCs' unpaid caring role due to changes that have resulted from new safety protocols, social isolation, and the backlog in the healthcare system (Irani et al., 2021). Recent studies have demonstrated the need for healthcare employers to address occupational risk factors for their workers, and that the lack of preparation in supporting workers has contributed greatly to negative consequences like stress, anxiety and fear – all of which may have long-lasting implications (Brophy et al., 2021; Ardebili et al., 2021). However, these studies expectedly mask the disparities of support and exacerbated consequences faced by healthcare workers managing unpaid caring responsibilities alongside their paid caring work. For these DDCs, workplace support is critically important to maintaining their paid work performance and managing their mental health.

The COVID-19 pandemic has created an environment in which healthcare organizations' policies, operations and supports are rapidly changing to meet the needs of an ever-changing public health emergency. Due to an urgency to act, there was an unpreparedness of governments and healthcare organizations to adequately support and mitigate risks for the front-line healthcare workforce (Van Houtven, 2020; Brophy et al., 2021). This meant that not only were healthcare workers "running on fumes" (Bernard, 2020), but those with unpaid caring responsibilities were also facing the consequences of disrupted social interactions and the barring of essential services which typically played a vital role in managing care for their dependents (Irani et al., 2021). This creates concern that support for DDCs may not be present, or not adequately satisfying the breath of their needs.

Thus, the aim of this thesis is to investigate the impact of the COVID-19 pandemic on the double-duty caring experience in southern Ontario, including the degree to which workplace supports were put in place. By exploring the intersection of changes in workplace operations, supports and the DDC caring experience, this thesis aims to elucidate: how caring has been impacted, and what coping strategies or supports have been used by DDCs during the pandemic. In doing so, this thesis will contribute towards improving workplace supports, such as carer-friendly workplaces policies (CFWP). For this sequential explanatory mixed methods study design, independent research questions were posed for the quantitative and qualitative phases, and overarching questions were posed for the integration of findings (Creswell et al., 2003). These are outlined below.

Quantitative Phase Research Questions

1. Have workplace supports for DDCs been implemented due to the onset of the COVID-19 pandemic?
2. What do employers understand of DDCs’ wellbeing during the COVID-19 pandemic?

Qualitative Phase Research Questions

1. How has the COVID-19 shaped the caring experiences of DDCs?
2. How do the paid and unpaid caring roles impact each other during the COVID-19 pandemic?
3. During the COVID-19 pandemic, what coping strategies or supports are DDCs utilizing to manage their responsibilities?

Overarching Research Questions

1. Given the perspectives of employers and DDCs, how has the COVID-19 pandemic impacted double-duty caring and supports?
2. What is needed to better support DDCs during the COVID-19 pandemic?

1.3 Conceptual Model

The interconnected aspects of the double-duty caring process have been conceptualized in a model developed by Ward-Griffin and colleagues (2001) to guide research on DDCs (see Figure 1 below). Rather than viewing paid and unpaid caring as two separate domains, this model investigates its interface and depicts the DDC experience as a negotiation of these interconnected domains of caring. The model explores the interface of both personal and professional environments, and how they influence different levels of caregiving strategies by depicting the linkages of key components of double-duty caregiving: familial care expectations, level of support or resources, and negotiating strategies. Each of these components influence the level of boundary blurring between paid and unpaid caring which is depicted as the caring interface (CI). The interplay between these components as they influence the CI, or the blurring of boundaries, represent one of the three DDC prototypes: *making it work, working to manage,* and *living on the edge* (Ward-Griffin, 2014). For example, in the *making it work* prototype, the blurring of boundaries is the least of the three prototypes with expectations being low and supports or resources being high. Conversely, an individual with high family expectations and little support or resources in managing care responsibilities would experience a high blurring of boundaries, falling into the *living on the edge prototype*. However, DDCs do not simply adopt one prototype, rather, they transition between the prototypes depending on the context of expectations, level of resources and negotiating strategies that exist.

This model can be applied herein given that the demands or caring expectations, and the level of support with paid or unpaid caring roles, may be severely altered amidst a pandemic and, thus, can impact the degree of boundary blurring. Furthermore, this model was developed based on research conducted in the context of Canadian provinces, making it a well-suited framework for this study. This conceptual model is a foundational tool to structure the exploration of double-duty caring during the COVID-19 pandemic, providing a framework that considers the interconnected components that influence the DDC process and DDC's wellbeing. This model was used to inform: the exploration of variables in the quantitative phase, the development of the interview guide in the qualitative phase, categorization of data in the qualitative analysis, and consideration for mixed methods interpretation.

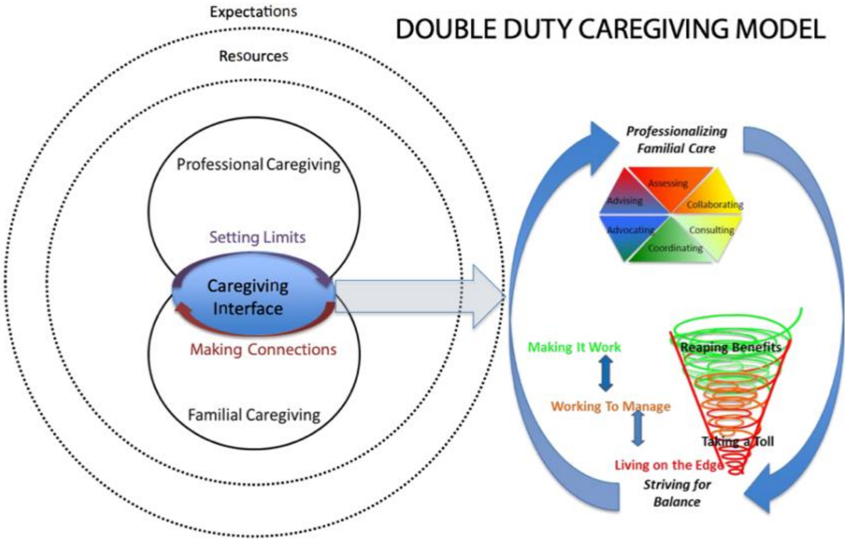

Figure 1. Conceptual Model of Double-Duty Caregiving. From "Nurses Negotiating Professional–Familial Care Boundaries: Striving for Balance Within Double Duty Caregiving," by Ward-Griffin et al. (2014, p.66).

1.4 Global Health Relevance

Unpaid caring is an emerging global health issue, impacting the quality of life for millions across the world. Due to an increasingly aging population and a greater number of people suffering from chronic diseases worldwide, the global caring market is expected to be the largest global market by 2025. Regardless of the context, many of the challenges that impact carers across the world are universal and disproportionately impact women's health (Ferrant, 2014).

To better understand the global impact of caring on women, it is important to understand the global trends in aging and caring as they relate to women. First, the prevalence of numerous age-related diseases, like dementia and Alzheimer's, have a higher prevalence among women than men (Braun, 2012.). Research demonstrates that disability-adjusted life years are also twice as high among women than men (Mathers and Leonardi, 2003). In addition to women being prone to poorer health consequences, a universal and cross-cultural gendered role that exists is that of an unpaid carer which disproportionately strains women. While gender roles in high-income countries vary from those in middle- or low-income countries due to factors like differing availability of resources, it remains consistent that women are overrepresented in the healthcare sector and in the role of family carers (Ferrant et al., 2014; Berlin et al., 2019). Furthermore, globally, there has been a surge in singledom, which refers to the concept of adults choosing to live alone, especially in middle- and low-income countries. For example, in the United Arab Emirates, 60% of women over 30 years of age were single and living alone (Braun, 2012), influencing a decline in the carer to aging persons ratio (AlMulla, 2020). This emerging trend of singledom means there will be an increasing ageing population with fewer or no children available to care for them (Braun, 2012; AlMulla, 2020). Other trends surrounding social and economic development have also triggered women towards financial independence, pursuing further education, delaying marriage and pursuing careers in healthcare (Baker, 2012). As a result, in coming years, those that adopt the role of a DDC may experience an even greater blurring of boundaries due to having to juggle greater commitments to their personal life (Baker, 2012; Kochar et al., 2017; AlMulla, 2020). As the aging population demands support from the incoming younger generation, universal demographic gaps and cultural norms place women across the world in a highly disadvantaged position, regardless of the country's economic status (Ferrant et al., 2014; Braun, 2012).

Unpaid caring contributes greatly towards a nation's economy and is becoming a more popular choice than institutionalized care for dependents (Trottier, 2000). The responsibility of unpaid caring is universally viewed as a female obligation, and perpetuates gender inequalities in labour outcomes, wages and quality of life (Ferrant et al., 2014, OECD, 2020). Globally, women are also disproportionately burdened by a range of global health issues, like rights to education, and the feminization of poverty; yet, women's obligation to provide unpaid care is the most universal issue (OECD, 2020). Studies that conducted cross-country analyses demonstrate that this form of gender inequality in unpaid caring perpetuated greatest in countries with lower economic activity, and present lower economic output from women that balance caring with paid work (OECD, 2020; Ferrant et al., 2014).

In the context of a global pandemic, women balancing unpaid caring while working in healthcare are hit even harder. According to recent studies, 64% of countries studied had a surge in physical strain and 46% had mental health consequences among workers in the LTC sector (OECD, 2020). Combining this burden with the lack of accessibility to care for unpaid care dependents and other consequences of the pandemic, women face overburdening consequences as they work towards meeting the expectations of their roles (OECD, 2020; AlMulla, 2020). In low and middle-income countries where consequences of the COVID-19 pandemic are more pronounced, the structure of society, gender discrimination, and gender norms put women in greater jeopardy as the navigation and access to essential services becomes another challenge (Raj et al., 2020; Levine et al., 2021). By investigating the experiences of DDCs and exploring supports and coping strategies utilized, study findings illustrate how caring has been impacted by the pandemic in Ontario, Canada and, in so doing, contribute to understanding the comparative impacts of the pandemic across health systems over the world.

1.5 Study Setting and Climate

This section provides insight into the contextual factors that influence the fast-changing caring experience of DDCs, the demands of the healthcare system, and restrictions underway during the COVID-19 pandemic. The various Ontario sites represented in this study include the urban and traditionally medically well-serviced cities of: London, Hamilton, Guelph, Oshawa, Scarborough, Mississauga, and Toronto (North York and Etobicoke, primarily). Primarily, home care and long-term organizations were involved in the recruitment for this study and are represented in both phases of this mixed-methods study. Currently, the province supports a population of 4.5 million seniors that make up 17.6% of the population (Statistics Canada, 2020). In light of the COVID-19 pandemic, this study was conducted entirely virtually due to legal and social restrictions:

barring travel, enforcing social distancing, and encouraging home confinement. In different settings, the extent or duration of these restrictions vary depending on a variety of reasons, such as the number of cases in the region (Vilela, 2020). Due to such restrictions, the country has experienced prolonged periods of isolation, unprecedented financial disruptions, PPE shortage, drastic changes to individuals' routines, school closures, and difficulty accessing basic services (Statistics Canada, 2020).

Ontario's healthcare system was underprepared for the COVID-19 pandemic and consumed by understaffing, lack of capacity to accommodate patients, and economic constraints. The Ontario government had already cut costs on numerous health services, amounting to a $466 million cutback which contributed to the difficulty in managing the COVID-19 response (D'Mello, 2020). Consequently, LTC was the hardest hit with residents and staff becoming disproportionately infected (D'mello, 2020), requiring the military to aid with the response (Malek, 2020). Ontario's lack of preparation left its front-line health workforce so vulnerable that by July 2020, almost 20% of COVID cases were healthcare workers (Alam, 2020).

Dependents of DDCs are often aging and/or suffering with chronic conditions; consequently, they rely on community services like grocery or medication delivery programs which may be disrupted due to demand, closures or supply chain failures (Ploeg et al., 2019). Further, due to Ontario's restrictions enforcing home confinement, and aging or at-risk dependents' increased probability of contracting the COVID-19 virus, mental health issues are likely exacerbated. As the rest of the population turns to technology to cope with social isolation, aging dependents of DDCs may have trouble using technology and likely require further support to use these tools (Ploeg et al., 2019). Thus, with Ontario's political and social restrictions, the increased needs of dependents add additional burdens to DDCs.

For DDCs working in healthcare settings, they are at greater risks of contracting COVID-19 when compared to the general population. In the midst of the pandemic, DDCs may become ill, need to isolate, or develop mental health issues as a result of stress (Ploeg et al., 2019). The clash of two settings - high-risk healthcare work and caring of high-risk dependents outside of work, exacerbates the dangers that DDCs face. Further, social isolation restrictions and the backlog in health systems compromise DDCs' normal support systems and coping strategies, rendering normally available supports difficult to access and utilize during the pandemic. Given that the numbers of cases, deaths and societal impact of COVID-19 in Ontario has surpassed those from the 2003 SARS epidemic, DDCs are facing greater risks than the general population, require extra caution and support in ensuring their safety (Ploeg et al., 2019; Detaille, 2020).

Chapter 2: Literature Review

The purpose of this chapter is to establish an understanding of the concept of double-duty caring, and to provide insight on the way in which changes associated with the COVID-19 pandemic can impact DDCs. Given the novelty of the situation, research on the impact of COVID-19 on unpaid carers who work as essential healthcare workers and gaps in supports for these burdened populations is limited. To investigate and thoroughly learn of current empirical evidence present in this field, a literature review was conducted. This literature review utilized pre-defined search terms used to search the following electronic databases: Global Health, MEDLINE, Nursing & Allued Health Collection, Psychology and Behavioral Sciences Collection, CINAHL, EMCare and Web of Science.

2.1 An Aging Population

According to the United Nations' World Population Prospects 2019 data, one in six individuals around the world will be over the age of 65 (16% of the population) by 2050, compared to the 2019 figure of one in 11 individuals (United Nations, 2019). In Canada, according to the 2016 National Census, there has been a sharp incline in the number of seniors (aged 65 or older) since 2011 (Statistics Canada, 2017) with at least 29% of Ontarians being unpaid family carers as of 2016 (The Ontario Caregiver Coalition, 2020). Since 2016, it was found that the number of seniors increased to the point that there were more seniors than young children aged 14 years or less, and by the year 2061 it is possible that there may be 12 million seniors and less than 8 million children (Statistics Canada, 2017). This can be attributed to a sharp increase in life expectancy over the last decade which comes attached with increased morbidities or disabilities experienced by the older population (National Institute on Aging, 2011). For example, the morbidity, severity, and likelihood of onset of dementia increases rapidly with age and incurred an estimate of US$18 just for unpaid caring in 2001 (National Institute on Aging, 2011). In Ontario, 93% of seniors reported a preference to stay home as they age rather than a LTC facility which imposes unpaid caring responsibilities upon family members (Home Care Ontario, 2020). These unpaid caring tasks are likely to be adopted by family members with professions in healthcare due to an obligation to use their expertise; thus, resulting in a DDC role (Ward-Griffin, 2004). The expected projection of this demographic trend creates numerous implications for the Canadian labour market, demanding an investment in health care services and their management as the prevalence of chronic diseases increases in parallel (Denton, 2009).

With the increasing demand for care, there will need to be an equidistant supply of paid and unpaid carers available to care for the growing aging population. Based on current projections of declining fertility rates and trends of single parent households, the burden of unpaid caring will be pressured upon fewer children (Denton, 2009). This means that the incoming working population is relatively smaller, which will increase the burden shouldered by the formal healthcare system and influence the adoption of more unpaid caring roles (Stone and Wiener, 2001; Denton, 2009). Swanberg et al. (2006) further emphasizes that these demographic trends will require employers to adopt supportive policies or programs that assist employees with their unpaid care responsibilities and avoid organizational costs like poor work performance and absenteeism. In Ontario, with a greater number of seniors choosing to stay home with family rather than utilizing LTC or retirement services, the prevalence of DDC roles is also likely to increase, which heightens the likelihood of individuals adopting unpaid caring roles outside their paid work; predictably, this potentially increases the prevalence of DDCs (Denton, 2009; Trottier, 2000). Thus, with an aging population that will cause a greater number of employees taking on unpaid caring responsibilities to become DDCs, there comes a growing need to support and maintain the wellbeing of DDCs.

2.2 Defining Unpaid Caring

To begin with, unpaid carers can be defined as individuals that play important roles in providing unpaid care to family or friends who are experiencing a chronic condition, some form of disability or require care due to impacts of aging (Arber and Ginn, 1990; van Groenou and De Boer, 2016). Many studies broadly explain unpaid caring as a role that provides unpaid help towards daily activities for a person with limited autonomy, a chronic condition, or requiring assistance in day-to-day tasks (Roth et al., 2015). Carers vary in the relationships they have for their dependent (spouse, friend, uncle, or parents), their living situations and the level of support they have in managing their responsibilities (van Groenou and De Boer, 2016). Thus, the definitions of unpaid caring vary across literature and depend on factors such as the age of carers or dependents, and extent of care required. According to Fast and Keating (2000), depending on the level of care require and carer expertise, unpaid carers assist with activities of daily living (ADLs) which involve tasks that can be broadly categorized as: personal (bathing, transferring); physical (housekeeping, transportation); management of formal care (managing dependent’s formal medical services); emotional support (socializing, companionship), and sometimes medical care (assistance with medications or medical devices). The Ontario Caregiver Organization more specifically defines a carer as an individual providing personal, social, and psychological support to someone in need and stratifies this definition into carer personas that are differentiated based on the circumstance of care and the needs of their dependent (Ontario Caregiver Organization, n.d., p.2). For example, dependents with greater needs (aging and chronic conditions versus aging only) often require more hours of care and greater demands from the carer, resulting in the adoption of a caring persona with high stress levels. In relation to the application of policies or programs, the definition and context of unpaid caring are important to understand given that the broader the definition, the greater number of people carers (UNECE, 2019). Particularly, it is important to distinguish everyday tasks performed for family members or friends that constitute caring from similar caring tasks that are deemed for greater needs (meal preparation for family versus for an elderly family member only).

According to a study by Statistics Canada in 2018, about a quarter of the population, or about 8 million Canadians, are unpaid carers with about half of them (47%) providing care to their aging parents (Hango, 2020). In Ontario, 29% of the population take on unpaid family caring roles and many dependents receiving formal home care services still take help from an unpaid carer (Health Quality Ontario, 2016). The recent events of the COVID-19 pandemic, which have led to diminished service accessibility and numerous barriers with formal care, have imposed greater pressure for unpaid caring; thus, it can be reasonably speculated that the prevalence of unpaid carers has increased since these statistics (Theorell, 2020). It is further common for unpaid carers to be employed while managing responsibilities for the dependent. Due to demands of care, life, and work responsibilities, carers experience pronounced impacts to their psychological wellbeing, such as the following: increased stress, anxiety, emotional stress and depression (Schulz and Sherwood, 2008; Hango, 2020). Carers' physical health is also vulnerable to the consequences of caring as they experience greater health ailments, such as: body strain, headaches, chronic pain or elevated stress hormones (Arriagada, 2020; Vitaliano et al., 2003). Given that carers' hours towards caring tasks can often equate to that of a part-time job, the challenge of balancing work, life and caring is another hindrance to carer wellbeing. For example, caring tasks may interfere with carers' personal time allocated towards socializing and hobbies, and indirectly impacts other family members (Orzeck et al., 2014, Morris, 2004). Whether it is formal or unpaid caring, women are overrepresented as care providers and both men and women demonstrate tendencies to view women as being better fit for the role (Morris, 2004). About 77% of unpaid carers and over 80% of healthcare workers are female in Canada (Health Canada, 2004; Porter and Bourgeault, 2017). As current demands for home care for the aging population rise, demands for unpaid caring can be expected to rise and will leave unpaid carers in a precarious situation if not well-supported. In the context of a public health crisis, burdens on unpaid carers can be overwhelming.

2.3 The Shift to Unpaid Caring in Western Societies

In aging Western societies, unpaid caring has become vital to the healthcare system and continues to be a major choice of care provision for the aging population (Fine, 2012). Personal ties from kinship, familial relations, and meaningful connections further influence individuals' choices towards care at home, a service which is often balanced between formal services and informal or unpaid care. Rather than displacing the unpaid caring work of family members or friends, home care services effectively work to support the caring work of unpaid carers. Since the older population that societies must support has been increasing, so have economic constraints on governments, resulting in: increasing funding from tax-based sources, cutting back on funding towards formal services, and enforcing a gradual dismantling of the traditional facility-based healthcare system (Fine, 2012; Steinmann, 2019). The reorganization of the healthcare system and its transition to home care options has become a cost-effective method of managing provincial health care budgets and involving family members in the care of their loved ones (Meyers et al., 2000; Fine, 2012). This re-familization of care in recent years has been putting greater responsibilities upon families to help care, with those that already care most likely having to do more (Szebehely and Meagher, 2018). Previous literature demonstrates that in 2009, unpaid carers in Canada contributed about $25 billion to the national economy (Hollander et al., 2009). This estimate is reasonably much higher given the current context of a public health crisis and the increasing numbers of unpaid carers (Statistics Canada, 2017; Hollander et al., 2009).

The cutbacks to formal care are projected to impose extra pressures on unpaid caring and may demand carers to provide support to a more diverse care network (Broese van Groenou, 2016). While unpaid care was traditionally limited to family connections; recently, non-kin relationships have gained prominence in unpaid care relationships, resulting in caring for dependents that are non-family members or friends (Broese van Groenou, 2016). This rise in caring for non-familial dependents is also likely attributed to population trends such as a 25.7% increase in Canadians living alone and a decline in nuclear family households (Statistics Canada, 2017; Broese van Groenou, 2016). Further, the shift towards smaller family sizes (Statistics Canada, 2018) may impact the availability of unpaid carers, as the average household size has been below 3 since the mid-1970s. In changing family structures, there may be fewer family members to depend on and thus, influence the broadening of care networks. The reorganization of the healthcare system and its transition to home care has become a cost-effective method of managing provincial health care budgets and involving family members in the care of their loved ones (Meyers et al., 2000; Fine, 2012).

2.4 The Concept of Double-Duty Caring

DDCs can be found in various health care settings such as LTC, hospital care, outpatient clinics and especially, home care. Notably, the professional caring burden of DDCs varies based on the health care settings and the specific role they are employed in (nursing, PSWs, or patient care aide). According to a survey conducted by Ward-Griffin et al. (2005), it was found that 40% of Canadian nurses were DDCs and experienced numerous negative impacts to their health and wellbeing. DDCs face dangers of physical and mental exhaustion and struggle to balance familial and professional caring responsibilities, resulting in the blurring of boundaries between their personal and professional lives (Ward-Griffin et al., 2005). They also experience negative financial, mental, and physical outcomes, including reduced income due to: cutting down hours, stress, anxiety, and physical and mental exhaustion (Williams, 2020; Ward-Griffin, 2008). The need to provide unpaid care can stem from a variety of factors, such as cultural values or norms, feelings of kinship, professional expertise due to their paid role (Ward-Griffin et al., 2005; Broese van Groenou and De Boer, 2016). Dependents who require care have greater expectations of receiving care from women in the family; particularly, those who provide care in the healthcare sector (Ward-Griffin et al., 2005). Thus, gendered expectations and a professional caring background influence the adoption of unpaid caring responsibilities due to obligation and affection (Ward-Griffin 2002, 2005). Studies demonstrate that cultural values stemming from gender and power hierarchies, have been historically embedded in various ethnic groups and greatly emphasize caregiving roles to women (Pharr et al., 2014; Angela-Cole and Hilton, 2009). Thus, healthcare workers feel burdened by an obligation to provide care or family members' dependency due to their expertise, leading to the onset of their dual role.

In Ontario specifically, the juggling of responsibilities of DDCs can have substantial financial and livelihood impacts. For instance, in order to attend to caregiving responsibilities, carers may allocate less hours at their place of employment, resulting in a lessening of their financial potential (Kim, 2019). Studies demonstrate that caregivers' loss of regular income has been a significant factor in negative self-worth, decreasing social interaction and diminishing their sense of security (Kim, 2019). Despite these burdens, caregivers' roles are not recognized or supported by their employers and the community. In addition, DDCs in Ontario report a lack of knowledge about any available services or support for carers and ways to access them (Gauvin and Wilson, 2014). Historically, in policymaking and service provision, healthcare providers and policymakers have lacked consideration of the caregiving population (Gauvin and Wilson, 2014). With the aging population increasing greatly, the levels of unpaid caring are expected to rise and likely increase the number of DDCs. With 35% of the Canadian workforce being carers, the improvement of employers' support and advocacy for available services will be important in improving the quality of life for this population (Government of Canada, 2002).

2.5 Support for Carers in Canada

DDCs require both time and flexibility when trying to reconcile their two caring roles, as well as other responsibilities in their own personal lives. Globally, the recognition for supporting carer-employees, who are engaged in paid work and unpaid care work, has been increasing with many implementing supports like paid care leaves, flexible work schedules and even respite care services (UNECE, 2019; OECD, 2019). Over recent years, legal support has been introduced in Canada to support working carers in managing their responsibilities (UNECE, 2019). In 2017, Canada introduced a newly amended Employment Insurance (EI) which incorporated up to 15 weeks of caring benefits to carers of critically ill or injured family members (Avraam and MacMillan, 2017). In particular, the Compassionate Care Benefit (CCB) is run through this amended EI and aimed at allowing carers with secured leave from their place of employment (Williams et al., 2011; Giesbrecht et al., 2012). The eligibility for this new CCB was broadened to include a greater range of caring situations and expanded to allow carers job protection whilst receiving the benefits (Spiridon, 2019; Avraam and MacMillan, 2017). However, these benefits are often insufficient as they do not protect carers who must take temporary leaves for medical crises or emergencies (Keefe and Rajnovich, 2007; Giesbrecht et al., 2012). The CCB also does not provide adequate financial support to those who have not worked sufficient hours or for workers of lower income, as the EI limitation is 55% of their income (Lum et al., 2011). While there are also other benefits provided by the Canadian and Ontario government like Caregiver Tax Credits, the existing caring benefits do not adequately compensate the costs of caring and have low uptake due to lack of awareness and knowledge on how to access them (National Senior Strategy, n.d; Lum et al., 2011). Ultimately, existing legal supports like the CCB fail to accommodate carers diverse range of needs and does not account for the extra financial costs associated with unpaid caring (Lum et al., 2011; Giesbrecht et al., 2012). Aside from EI and caregiving benefits, the province of Ontario also provides coverage for respite services for carers who are unable to continue caring for their dependent, with the type of care received variable by situation (Sinha et al., 2018). However, even this support has had low uptake due to confusing eligibility criteria, lack of awareness of support availability and inadequate coverage (Lum et al., 2011; Grant and Church, 2015; Sinha et al., 2018).

To support working carers during the pandemic, the government of Canada unleashed the Canada Recovery Caregiving Benefit (CRCB), a support benefit meant for those that are ineligible for the EI support (Layman, 2020). The CRCB provides financial assistance of $500 per week to individuals who provide unpaid care and are unable to work (Layman, 2020). While this is a useful support during the pandemic, many carers report that the application process is strenuous as it requires individuals to re-apply each week that they are eligible (Wilson, 2020). Further, they are still taxed on this benefit, which reduces the financial assistance received (Wilson, 2020). The application processes for new COVID-19 benefits like CRCB have been difficult to navigate and the standardization of what applications get accepted has been highly variable as many Canadians reported being rejected despite being eligible (Cullen, 2020).

Canadian carer organizations at both the national and provincial levels, who share the mission to enhance the quality of life of carers, have been integral to advocating for carer support and CFWPs. *Carers Canada* and the *Ontario Caregiver Organization*, for example, lead awareness initiatives and work towards knowledge mobilization of carer-supportive resources (Carers Canada, n.d; Ontario Caregiver Organization, n.d). Carers Canada provides information targeted at both employers and carers in adopting a CFWP and balancing work and care responsibilities, respectively (Carers Canada, n.d). With growing evidence addressing the burdens of work and caring, there have also been an increasing number of online resources on topics such as time management strategies and ways to care for their dependents' particular symptoms (AGE-WELL, 2018; Canadian Academy of Health Sciences, 2019). Researchers have been working to provide evidence-based research that can inform the need for CFWP and establish guides that help organizations implement carer-inclusive work cultures (McMaster University, n.d.). Before the pandemic, studies indicate that unpaid carers experience confusion with the formal support system, lack awareness of what supports are available to them, and have had difficulties with eligibility rules and long application processes in accessing supports (Wiles, 2003). However, there is very limited evidence on how workplace operations and supports for healthcare organizations have changed during the COVID-19 pandemic and how this may be affecting carers, particularly DDCs. Regardless, studies also show that Canada already lagged behind several other countries in the variety of available supports for unpaid carers (UNECE, 2019). Therefore, evidence for support for vulnerable DDCs in Canada is much needed, especially during a global health crisis.

2.6 The COVID-19 Pandemic

The COVID-19 virus was initially identified in Wuhan, China around December 2019, as a pneumonia-based infection that infected human airway cells that spread rapidly across the world (Zhu et al., 2020). With more than 180 countries affected and over 4 million deaths worldwide, countries entered lockdowns and enforced governmental measures to counteract the risks of the disease (Bedford et al., 2020; Chughtai, 2020). These measures involve social distancing regulations, curfews, lockdown of businesses and services, bans to public gathering, travel bans, and transition to working from home (Phillips, 2020; Bedford et al., 2020).

The changes to the Ontario healthcare system were drastic in that about 52% of in-person physician care transitioned to virtual care administered online or by phone, and hospitals' emergency units adopted new prioritization practices as they surged with new patients (CIHI, 2021). However, many Ontarians refrained from seeking care due to fears of safety and visits to emergency departments declined by about 50% in the first four months of the pandemic (CIHI, 2021; Frketich, 2020). There was no doubt that Ontario was unprepared for this sudden outbreak especially given that the Ontario Ministry of Health was $466 million under budget from the last year and the Ford government had further cut $49 million from public health expenses (D'mello, 2020; Frketich and LaFleche, 2020). Consequently, health care workers and seniors in aggregate settings like LTC facilities were the hardest hit and suffered the worst consequences of the pandemic. Seniors in LTC or nursing homes accounted for over 80% of COVID-19 deaths while healthcare staff at these facilities represented over 10% of Canada's total cases (Clarke, 2021). Furthermore, recent studies investigating the wellbeing of healthcare workers discovered that 70% of Canadian healthcare workers experienced worsened mental health consequences and this statistic was even higher among workers who reported direct or suspected contact with COVID-19 cases (Statistics Canada, 2021b). Furthermore, the 'lockdown' results in the closure of various services like social support services, day care centres, schools and prevented in-person socialization, which has imposed significant strain upon people's wellbeing, especially unpaid carers (Giebel et al., 2021; Levine et al., 2021; Raj et al., 2020). The transition to online schooling, social isolation and limited access to services also built up to a mental health crisis among youth as the annual youth suicide attempt rate tripled and eating disorders referrals increased by 90% in just 4 months at McMaster Children's Hospital (Brown, 2021; Mann, 2021).

The COVID-19 pandemic has had severe impacts upon front-line healthcare workers who serve as the backbone in the fight against this public health crisis. Working in healthcare is even more difficult during times where Ontario's healthcare system is under an overwhelming amount of pressure. According to the Ontario Health Coalition, Ontario had the lowest hospital nursing hours per patient, the fewest hospital beds and cut more staff than any other province in Canada (Ontario Health Coalition, 2019). As a result, the system further strains already burdened staff who must deal with the added responsibilities and precautions from the pandemic. For vulnerable DDC populations, who have similar responsibilities outside of work, the pandemic expectedly places even greater stressors and health risks to them and their families. Recognizing that caring is a gendered role and that the majority of DDCs continue to be female, it is also important to note that times of economic constraint, such as due to COVID-19, differentially affect women in assuming the physical, social, emotional, and financial costs of family caregiving (Detaille et al., 2020; Wang, 2018). The unique position of DDCs and the intersection of their personal and familial lives makes them vulnerable to role-strain, negative health outcomes, conflict in personal networks, and burnout (Ward-Griffin et al., 2005). This issue is also in the best interest of employers as negative health outcomes significantly impact workplace productivity, accounting for an annual $5.5 billion dollar productivity loss and an average of 10.4 days off (Decima, 2015). This productivity loss and absenteeism is predicted to be further exacerbated for DDCs due to the stressful conditions that come with the COVID-19 pandemic.

Presently, studies on DDCs' experience and use of supports during the COVID-19 pandemic is very limited. However, DDCs are expected to face a multitude of new stressors that come with an additional care load and face increased vulnerability to cultural, financial and social challenges that have been apparent with the onset of a pandemic. Understanding these stressors and discovering challenges faced by DDCs in this novel situation is vital to understanding measures that can be adopted by employers in embracing a carer-friendly work culture (Williams, 2020). According to a study investigating the family carer role during the pandemic, it was and discovered that about 63% of carers reported an increase in unpaid caring duties due to factors like increased needs of the dependent and difficulty accessing health services, while 56% reported providing care as more emotionally difficult during the pandemic (University of Pittsburgh, 2020). Evidently, the pandemic has added greater obstacles to an already difficult situation; thus, for carers working as front-line essential healthcare workers, this burden is most exacerbated. Recent studies that have investigated COVID-19's impact on caregiving suggest that improving this situation will involve targeting policy discussions and increasing support for these populations (Williams and Sethi, 2020). This will be vital in supporting front-line DDCs and reducing negative consequences like illness, work absences, stress and being a contagion to those they are informally caring for. During a public health crisis, exploration of DDCs' exacerbated burdens and need for support is currently lacking.

2.7 Supporting DDCs

As the number of DDCs continue to increase, the demand for support for carers will likely continue to grow and warrants action at local, provincial and federal levels. In 2019, the Canadian government released a *Dementia Strategy for Canada* which stated that Ontario was increasing community investments towards dementia support through front-line service expansion and family carer training (Government of Canada, 2019). At the provincial level, different provinces took different steps towards supporting the aging population and the increasingly popular choice of home care over institutionalized care. Ontario, for example, implemented the *Aging at Home Strategy* where significant funding was allocated towards improving home care, aging at home programs, and community support services (Government of Ontario, 2010). Following this came other initiatives like the *Aging with Confidence* plan which incorporated a greater focus towards family carer supports as it introduced family carer leaves, tax credits and increased funding towards home and community care (Government of Ontario, 2017). Despite government efforts to support carers, a lack of: awareness of available supports, public knowledge on DDC experiences, and the complexities of obtaining supports prevents their effectiveness (Wiles, 2003). There is also a need for employers to gain awareness of: double-duty caregiving, and how to support DDCs and carer-employees more generally (Ward-Griffin et al., n.d.). While resources on carer-friendly workplaces and ways to support DDCs are increasing, adoption and assimilation of these practices still requires work.

Current resources for employers warrant carer-friendly workplace recommendations that range from recognizing carers' efforts, flexible scheduling, to enhancing work policies (Lilly, 2011; Williams, n.d.). Overall, by creating workplace accommodations for DDCs, employers are able to support DDCs in managing their responsibilities. During the course of the pandemic, however, healthcare organizations faced various complications, like personal protective equipment (PPE) shortages, LTC management, and a lack of sufficient compensation for the increased workload in at-risk areas. Healthcare workers felt unheard, unsupported, and powerless by their employers during this crisis, suffering the consequences of poor workplace support in the form of psychological distress and anxiety (Brophy et al., 2021). There is a lack of research on support with respect to DDCs during the pandemic; however, a heavy burden associated with the dual caring role is expected to prompt greater concern for support from employers. There is also limited investigation into the perspective of employers and DDCs in the creation, implementation and experience of work supports as they have changed over the last year.

2.8 Summary

In summary, this literature review explored concepts of unpaid caring, the development of the double-duty carer role, and provided details on the COVID-19 pandemic as it affects carers. The research so far has shown that the number of DDCs, who are primarily women, is increasing, and the burdens experienced by balancing this dual role can be detrimental to the carer’s wellbeing, negatively impacting their personal relationships (Ross et al., 1994; Ward-Griffin, 2011; Detaille, 2020). With the COVID-19 pandemic, formal and unpaid caring has not only increased, but has become more demanding, increasing DDCs’ vulnerability and fears of contagion (Connor et al., Trappey, 2020; Atabakhsh, 2021). As a result, sustainable CFWP are more important than ever in allowing DDCs to function productively while maintaining their health and well-being at work and home (Orzeck, 2014; Decima, 2015). There is a scarce amount of research on DDCs' experiences during the pandemic, and even more limited information on how healthcare workplace supports have adapted during the pandemic to support their carer-employees. Since previous research shows that support for DDCs can be implemented at the policy and organizational or workplace level (Lilly, 2012; Employment and Social Development Canada, 2015; Williams, n.d.), there is a need for evidence to inform and recommend CFWP that would benefit DDCs during COVID-19 (Williams, n.d.).

Chapter 3: Methodology

1.1 Mixed-Methods Study Design

This study is an explanatory sequential mixed-methods study design using primary data collection and analysis to investigate the impact of the COVID-19 pandemic on DDCs in Ontario. In mixed-methods studies, researchers analyze and integrate findings from multiple phases and extract inferences from emerging theories and observations (Teddlie & Tashakkori, 2006). This study involved two phases targeted at two different participant groups: an initial quantitative phase with healthcare employers which informed a second qualitative phase with DDCs. In the first phase, a virtual quantitative survey was administered to gauge healthcare employers' perspective of DDCs' wellness during the COVID-19 pandemic, their priorities, and whether support for DDCs was implemented. The preliminary results from this survey helped to inform and direct the exploration of phase two, which consisted of an approximately 1-hour semi-structured qualitative interview with DDCs. In the second phase, 16 semi-structured interviews were conducted to understand DDCs' experiences during the COVID-19 pandemic and explore the support strategies they utilized. Through the quantitative survey and qualitative semi-structured interviews, we were able to investigate the impact of the COVID-19 pandemic on DDCs from both the perspectives of employers and DDCs themselves. This allowed for a comprehensive exploration of the research questions posed. The study protocol received ethical approval from the McMaster Research Ethics Board at McMaster University (MREB #:4874).

1.2 Philosophical Orientation

This study was informed by a critical realist philosophical orientation, which retained qualities of both positivism and interpretivism to view reality as multi-layered and complex (Bhaskar, 1989). Positivism follows views of objective reality and views the world as a closed system that is concerned with regularities and law-like forms (Cruikshank, 2012), while interpretivism arises from a relativist ontology and argues that multiple subjective realities exist which are knowable through socially constructed meanings (Lewis et al., 2003). Critical realism, however, is underpinned by a realist ontology and views reality as an open system influenced by both subjectivity and laws of the natural environment (Archer et al., 2013; Cruikshank, 2012). Thus, critical realists emphasize the interplay between a structured reality (set circumstances that influence individuals) and agency (individual determinants of how people may behave) to understand a world guided by nature and society (Williams et al., 2017; Oladele et al., 2013). This paradigm fits the objectives of this study and allows for a comprehensive examination of the social and material contexts that exist in practices of double-duty caring and how these could have been affected by the COVID-19 pandemic, which can be viewed as an environmental or traumatic stressor (Bridgland et al., 20201). In addition, the use of critical realism to understand the impact of the pandemic allows for an examination of the influence of societal mechanisms on DDCs' established discursive practices and behaviours (e.g., on established support strategies) and recognize the variation of their experiences and wellbeing (Cruikshank, 2012). The use of a mixed-methods design and critical realism orientation allows for a holistic exploration of worldviews and is characterized by an emphasis on context (Maxwell & Mittapalli, 2010), like the COVID-19 pandemic, which is one of the main features under study in this research. Ultimately, this makes the mixed-methods study design well-suited to explore a novel context that has drastically changed the functioning of society.

1.3 Methodology of Quantitative Survey Phase

1.3.1 Survey Design

The quantitative survey research tool was implemented via Limesurvey, an open-source statistical survey web application. The survey consisted of a range of 26 multiple choice, bullet, Likert, and qualitative questions which explored responses to COVID-19, such as: changes made to operations, protocols and work tasks as they affect DDCs (Appendix A). The online survey was tested and expected to take approximately 20-25 minutes. The survey was set up with tokens, which allowed participants to return to the survey and complete it at a later time. The design of the survey was informed by the primary and secondary literature on DDCs, and questions were created to capture employers' perceptions about changes in workplace support for DDCs given the COVID-19 pandemic. The design process also involved adhering to numerous principles, such as: ensuring questions involve a comprehensive response choice, unbiased typology throughout the survey, and the incorporation of confidentiality and anonymity (Batinic et al., 2002). The aim of these principles is to ensure participants' responses are not affected by biased typology, and that a comprehensive and appropriate list of answer choices is available for each question (Batinic et al., 2002). To ensure respondents' security, the survey did not collect any personally identifying information like names, occupation or organizational affiliation. Furthermore, piloting of the survey research tool was conducted to fix overt problems, undergo final edits, and ensure confidentiality is maintained (Warden, 2010). The piloting process was conducted through field pre-tests and expert review (Addington-Hall et al., 2007). Survey pre-tests were conducted on mock participants to time the survey, and review question and answer choices that were imperative to adding clarity (Bowden et al., 2002). Next, an expert review aided in ensuring research questions were comprehensively explored and questions adhered to evidence from the literature (Bowden et al., 2002).

1.3.2 Sampling Strategy and Recruitment

The sampling strategy used to recruit the two study populations was through non-probability, maximum variation purposive sampling; in other words, intentionally selecting participants based on their ability to elucidate perceptions about healthcare workplace supports and DDCs' wellness (Palinkas et al., 2015). By selecting cases of maximum variation, this sampling method can document unique or diverse conditions that convey important patterns across different variations (Palinkas et al., 2015). Given the restrictions associated with the COVID-19 pandemic, purposive sampling was the most convenient and viable option for this study as it allowed the targeting of various healthcare and homecare organizations. Furthermore, the use of maximum variation sampling allowed the study to capture different workplace settings and contexts in Ontario given that it incorporated a diverse range of informants (Andrade, 2020).

When recruiting survey participants, the target population of 'employers' was defined as including individuals working in the following professions at various healthcare organizations: human resource (HR) professionals, executive directors, managers, or other professions that work in similar capacities to manage or oversee workplace supports. These inclusion criteria were made clear in both the survey letter of information (Appendix B) emailed to participants with the survey link, as well as on the front page of the survey. Participants were recruited primarily from two sources: organizational contacts from the SSHRC/CIHR Healthy and Productive Work Partnership grant led by the student supervisor, and through a purposive search and selection of healthcare and homecare employers. Although the names of specific recruited organizations cannot be detailed due to the anonymous nature of the survey, the potential range of employers recruited can be drawn based on the organizations contacted and communicated with. Please see Appendix C to see a list of organizations contacted and communicated with for survey recruitment. A total of 16 organizations participated, with 31.25% being for-profit, 50.00% being non-profit healthcare organizations, and 18.75% being other organizations such as institutional groups (McMaster Institute for Research in Aging, Gilbrea Centre, etc) connected to health service organizations.

1.3.3 Data Collection

Selected participants were emailed an elaborate email message comprising the study overview, survey length, research questions and objectives, as well as the survey link. Attached to the email itself was a letter of information (LOI) which provided detailed information on the study. The content of the LOI consisted of the following: contact information of the research investigators, objectives and procedures involved in the study, a notice of potential harms, risks or benefits to the participant, participant rights, MREB information and confidentiality. Informed consent from all participants was obtained electronically via the first question in the survey which provided links to the letter of information (LOI). This question requested that participants indicate they had read the LOI and agreed to participate in the study and had two options: 'I agree' or 'I disagree'. Only participants who agreed to the first question were directed access to the remaining survey. The data collection period spanned from December 20th until April 14th, 2021. A total of 31 responses were received, with 29 of these responses being participants that completed all questions of the survey. Given that the reasons for incomplete responses are unknown, only complete responses were used in the data analysis.

1.3.4 Data Analysis

The survey served as a pilot in setting the foundation for larger studies with bigger sample sizes, and in informing the semi-structured interview guide in Phase 2. The survey data was analyzed quantitatively on IBM SPSS (version 24). Frequency distribution and cross-tabulation tables analyzed the relationships between several focused variables associated with the study's research questions. All the questions relating to support and wellness were coded as nominal variables, and multiple response questions were combined to create a multiple-response variable during analysis. Since the goal of the survey was to achieve an understanding of employers' support for DDCs during the pandemic, the variables focused on in the analysis were related to: employer support, perceived wellness of DDCs, and barriers faced by employers in implementing support. Initially, a frequency distribution was conducted to depict the description of individual variables from the survey data, including: implementation of support, DDC wellness (as perceived by employers),

employers' caregiving priorities, and barriers implementing support. In order to further investigate relationships among these variables, cross-tabulations were performed. Cross-tabulations add an explanatory dimension to collected data and help to visualize the influence that one variable may have on another (Rea, 2014). Along with cross-tabulations, a chi-square test of significance was also performed to determine whether relationships between variables in the cross-tabulations were significant. The chi-square test compares the categorical variables in a cross-tabulation contingency table and seeks to determine whether differences between obtained and expected frequencies exhibit a significant relationship between the variables under investigation (Rea, 2014). Furthermore, given that an investigation of employers' 'implementation of support' was the main goal of the survey, a logistic regression analysis was also performed to evaluate relationships between independent variables (barriers implementing support, priorities of employers, and perceived wellness of DDCs), with the dependent variable being 'implementation of support.' In this analysis, the Wald-Chi Square statistic value was used to evaluate the significance of explanatory variables.

1.3.5 Important Variables

The following variables were investigated in the survey data analysis process and are defined below for clarity.

Employer Implementation of Support: Defined as the investigation of whether any new changes (due to COVID-19) have been implemented by employers that specifically support DDCs. These are categorized in the tables below as 'supportive employers' or 'unsupportive employers.' This was the dependent variable in this study.

Employer priorities: Defined as where caregiving considerations fall within employer health priorities. This variable is dichotomized below as either employers having this consideration in either ‘their top priority’ or 'not their top priority.’

Barriers Implementing Support: Defined as the barriers foreseen or experienced by employers in implementing support for DDCs. Barriers include: ‘funding’, or ‘other barriers’ which entail lack of knowledge/awareness about DDCs or supports needed, lack of time to explore supports needed, and logistical issues.

Barriers Accessing Support: Defined as the barriers that employers perceive DDCs may be experiencing in accessing workplace support. Barriers include: ‘stigma’, ‘general reluctance of DDCs to share caring status/needs’, and ‘complexity/lack of awareness in obtaining support.’

Wellness: Defined as the investigation of how DDCs’ wellness has been impacted due to the pandemic from the perspective of employers. The impact on wellness, as perceived by employers, was investigated through exploring: ‘health impacts’ (physical strain or mental health issues), ‘workplace stress’ (use of medical leaves or resignation) and an ‘overall decrease in work performance’ (decreased work performance and lack of motivation).

1.4 Methodology of Qualitative Semi-Structured Interview Phase

1.4.1 Qualitative Study Design: Interpretive Description

In contrast to quantitative research, qualitative studies work towards exploring the complexity and contextual nature of human interactions and experiences (Magnusson and Marecek, 2015). This phase used an interpretive description (ID) study design by Dr. Sally Thorne (2016) to explore the following objectives from the perspective of DDCs: (a) understanding how caring experiences have changed during the COVID-19 pandemic and (b) investigate what supports or coping strategies are being used to manage their caring roles. ID accommodates a philosophy that human experiences involve complex interactions between psychosocial and biological phenomena and requires thoughtful analysis of relationships between participants and data that is collected (Thorne et al., 1997; Thorne, 2016). This approach assumes the existence of multiple realities that are influenced by the context of the individual and thus, works to apprehend subjective experiences as the main source of knowledge (Thorne, 2016). In this way, ID can be used to examine many individuals' experiences under the same context, help identify insight to their unique experiences and identify pragmatic solutions to support this population (Thorne et al., 1997; Thompson et al., 2021). Given that there are multiple realities that exist based on the context of the participant under study, ID was useful in this study in discovering shared realities and themes among DDCs that help answer the research questions for this phase. Thus, ID methodology is compatible with this study's focus as it works towards obtaining a contextual understanding of DDCs' experiences of working as front-line essential workers while also caring for a dependent at home during the COVID-19 pandemic. For this study, the ID approach guided data collection and data analysis.

1.4.2 Sampling Strategy and Recruitment

A purposive sampling approach, specifically through criterion sampling, was utilized to recruit 16 DDCs that fit a predetermined inclusion criteria (Palinkas et al., 2015). Criterion sampling is very frequently used for mixed-methods studies to select information-rich cases that ensure all aspects of a phenomena are adequately explored (Palinkas et al., 2015). DDC participants were recruited based on the following criteria: (a) working in a caring role in the healthcare or home care industry in Ontario; (b) unpaid caring for a family member or friend who is at least 18 years of age and (c) have worked at their place of employment for at least 1 year. For this study, it was important participants had been working in their paid caring role for at least 1 year as it would allow them to have experienced workplace changes due to the pandemic. For the purpose of this study, the recipient of care will be referred to as the carer's 'dependent.' Since the double-duty caregiving conceptual model used by this study emphasizes the differential impact of workplace support on different prototypes of caregivers, it will be vital to retain a good variation of DDCs that fit the criteria to be able to explore patterns and tendencies across all prototypes (Ward-Griffin et al., 2014).

Recruitment occurred from January 2021 to March 2021. Various different recruitment strategies were employed to obtain a sample that adequately fit the criteria of DDC participants. First, the healthcare organizations that participated in the quantitative survey from the first phase of this study were contacted to share information about the study and request assistance in DDC recruitment from their staff of healthcare or home care workers. Those that agreed to assist were provided with a graphic (see Appendix C) containing the following information: eligibility criteria, general interview information (interview length, setting, confidentiality and objectives) and researcher contact information to participate. This flyer was circulated across three healthcare organizations involved in the first phase of this study: Pallium Canada, McCormick Care Group and Thrive Group. Various other healthcare organizations across Ontario were also contacted to gain assistance in recruiting DDCs from their staff; however, many organizations were burdened with COVID-19 related challenges and were too busy to assist. Furthermore, the recruitment period coincided with the vaccine rollout for healthcare workers across Ontario which made healthcare organizations burdened with additional responsibilities.

Second, a social media recruitment strategy with a paid advertising targeted approach across one platform. Under normal circumstances, DDCs can be considered a ‘hard-to-reach’ population given their already busy schedules; in fact, unresponsiveness and difficulty targeting DDCs for research has been reported in previous studies (Boumans and Dorant, 2014). During COVID-19, DDCs were obviously far busier and thus, made recruitment more difficult. For hard to reach populations, social media recruitment strategies have proven cost-effective and advantageous through their ability to reach targeted demographics and achieve lead generation (Carter-Harris, 2016; Wozney et al., 2019; Ford et al., 2019). Using the recruitment graphic and a short recruitment blurb (Appendix C), a lead-generation campaign was created on Facebook using targeted paid ads. This strategy is efficacious in reaching the target population by engaging the ads with individuals that fit the inputted demographic criteria or characteristics (Carter-Harris, 2016). Lead-generation campaigns are a form of paid advertisements created with the sole purpose of engaging the target audience to fill out a form or complete a short questionnaire (Talarico, 2017). For this study, the lead generation campaign provided the study information, graphic and provided a short form for engaged target individuals to input their contact information if they were interested in participating in the interview. The targeted criteria inputted for this paid ad campaign to recruit DDCs involved: demographic characteristics and interests. Demographic characteristics inputted involved the following: 18+ years of age, residing in Ontario, Canada, and working in healthcare or home care roles (nurses, PSWs, nursing aide, health care aides and other synonymous occupation options were selected). Furthermore, detailed targeting allowed the selection of already listed ‘behaviours’ and ‘interests’ which were selected as follows: caregiver, family caregivers, health and wellness, PSWs, nursing, home care, health care, and caregiver jobs. Then, individuals that fit the target criteria are able to view the study graphic and choose to apply. This strategy achieved an estimated reach of 200-475 people, 51 leads (individuals indicating interest in participation) and cost $0.29 per lead generated. Over half (27) of the 51 leads were lost due to no response or deemed ineligible to participate in the interview. Finally, upon confirming eligibility and providing the relevant study information, interview timings were arranged. To note, all participating DDCs were provided with a $25 Amazon gift card as a token of gratitude and compensation for their time towards this study. This also served as an incentive towards aiding recruitment.

1.4.3 Data Collection: Semi-Structured Interviews

Semi-structured interviews are loosely structured and have some degree of flexibility that allow new ideas to be explored through the use of open-ended and probing questions (Thorne, 2016; Magnusson and Marecek, 2015). Probing and follow-up questions helped to gain further insight and context towards DDCs' caring experiences during the pandemic. In this study, the semi-structured interviews were designed based on: (a) previous literature on DDCs; (b) elements derived from the conceptual framework on double-duty caring by Ward-Griffin and colleagues (2014) and (c) discussion and validation by experts (supervisory committee members) to ensure an adequate exploration could be conducted. In designing the interview guide, the specific questions were created for the various domains involved in the double-duty caring conceptual framework, previous literature on DDCs and principles of qualitative interviewing (Thorne, 2016). These interviews were an integral part of the overall mixed-methods study as they helped to provide in-depth insight into the caring experiences of DDCs and supports used and needed during the pandemic. In this way, the findings from these interviews helped to explain the findings from the quantitative phase of this study. The purpose of these interviews was to understand the following about DDCs: how the caring experience has changed due to the COVID-19 pandemic, what supports or coping strategies are being used and what supports are lacking. The interviews in this phase explored these objectives by inquiring about DDCs' formal and unpaid caring roles, investigating how their roles impact one another and their self-management or coping strategies. See Appendix D for the semi-structured interview guide.

Due to the provincial social isolation regulations and safety considerations associated with the COVID-19 pandemic, all interviews were conducted virtually through Zoom, the video teleconferencing program. Interview timings were decided through Doodle, an online tool that assists with organizing meetings through a calendar poll with a selection of available timings. All participants were also screened to confirm eligibility and asked about their comfort or familiarity with Zoom and Doodle platforms. All participants had communicated comfort with both platforms; thus, no accommodations needed to be made. Prior to interviews, each participant was emailed a letter of information that provided an overview of the study, confidentiality details, consent information, contact information of researchers, ethics details and compensation details (see Appendix E for the letter of information). At the beginning of each interview, the researcher conducting the interviews went over the main details from the letter of information and obtained informed consent from all participants. The informed consent included permission to audio record the interviews, inquired about participants' interest in receiving study results and confirmed that they had read the letter of information. Audio recording was used to allow the researcher to be attentive to the interview and be observant to participant interactions (Magnusson and Marecek, 2015). To preserve the security of participants' identity and create comfort in answering questions freely, recorded interviews were stored on only the researcher's computer and labelled with a participant code (e.g., "DDC1") rather than the individual's name. Participants were informed that no personally identifying questions would be asked and that all participants' security will be preserved in this study. In addition, all participants were made aware of their choice to skip or not answer questions during the interview.

The duration of each interview ranged from 40-60 minutes and all participants expressed interest in receiving study results upon study completion. Throughout interviews, a journal was kept by the researcher who was conducting the interviews to document observations and general impressions during the interviews (Thorne, 2016). This journal was also used to reflect upon observations, relationships to the double-duty caregiving conceptual model and notes on participant demeanour (body language and expressions) that may have been important to the analytical process (Thorne, 2016; Philippi and Lauderdale, 2018). These notes were useful in adding depth to the qualitative results and helped the researcher critically reflect on personal influences in the data collection process (Krefting, 1991; Korstjens and Moser, 2017). Finally, all participants were notified that they would receive a $25 Amazon gift card to thank them for their participation and their time in the interview. After data collection, all interviews were transcribed verbatim by the researcher who implemented them.

1.4.4 Qualitative Data Analysis

As with ID, the data collection and analysis was interactive, allowing both stages to inform each other (Thorne, 2016). Thematic analysis was employed to determine common patterns in the data and has been commonly used to report and interpret the experiences of participants (Braun and Clarke, 2006). Braun and Clarke's (2006) step-by-step process of thematic analysis was utilized as it aligns with ID (Thorne, 2016). This approach to thematic analysis utilized the following steps: (a) familiarization with the data;

(b) generating initial codes; (c) searching for themes; (d) reviewing themes; (e) defining and naming themes; and (f) producing the report. The process of coding and analyzing the interview transcripts was done on NVivo 12.6.1 (QST International, 2021).

a. Familiarization with the Data

In this step, all interview recordings were transcribed verbatim. The process of transcription is beneficial in familiarizing the researcher with the data and is recognized as an interpretative act whereby meanings are beginning to be created (Braun and Clarke, 2006). All the audio-recordings, interview transcripts, and written observations were reviewed to facilitate immersion and reflection of the data before the coding stage (Thorne 2016; Braun and Clarke, 2006). The researcher's immersion in the data is consistent with Throne et al.'s (2004) process of becoming contextualized with the data. The transcripts were shared with two senior researchers who aided with consultation throughout the analysis process.

b. Generating Initial Codes

In qualitative research, the coding process identifies concepts, latent features and is a way of categorizing the data in order to present themes (Braun and Clarke, 2006). In this step, open coding was performed, which involved line-by-line coding, to examine the discrete parts of the data for similarities and differences (Thorne, 2016). This process is useful in distinguishing conceptual units of the data and organizing them into categories (Thorne, 2016). This process of generating initial codes through line-by-line coding was conducted with the oversight of a senior researcher who used three transcripts to review the codes. As suggested by Braun and Clarke (2006), codes were also generated for as many patterns as possible, and the researcher was mindful of the fact that lines of data could be coded multiple times. In accordance with ID, the coding process used an inductive approach to reflect and critically examine the data (Thorne 2004; Braun and Clarke, 2006). This coding process also used an inductive approach in accordance with ID, which utilizes reflective, critical examination to guide the emergence of codes from the data (Thorne, 2004). These codes were then reviewed a second time with all the transcripts before combining them into a codebook for further coding steps.

c. Searching for Themes

This step involves a broader level regard to themes and was conducted after the initial step of open coding (Braun and Clarke, 2006). The initial codes that were generated were further collapsed, combined, and narrowed down to focus codes and categories (Charmaz, 2006; Braun and Clarke, 2006). Some of the generated categories were then able to be further collapsed and narrowed down to form a theme (Braun and Clarke, 2006). Transcripts were all coded using NVivo 12, which was also used to sort and organize the coding structure (QSR International, 2021). By looking at the categories and coding structure generated after this step, the researcher was able to get ideas of candidate themes and sub-themes conceptualized from the data (Braun and Clarke, 2006; Thorne 2016). Finally, the researcher reviewed the collated categories and created a list of candidate themes and sub-themes (Braun and Clarke, 2006). During this stage, there was also oversight and feedback received from two senior researchers on the focused codes and categories that emerged from the data. This feedback was incorporated and helped to identify higher level concepts among which themes could be conceptualized.

d. Reviewing Themes

This step involves the refinement of themes by reviewing the data and seeing what themes could be further collapsed into one another or broken down into further sub-themes (Braun and Clarke, 2006). Using Braun and Clarke's (2006) method themes were reviewed at two levels: (1) at the level of the coded transcripts, and (2) at the level of the entire data set. The first level involved reviewing the data coded under each theme to ensure that they formed a coherent pattern or needed reworking (Braun and Clarke, 2006). This ensures that each individual theme is accurately coded, well-represented, and properly captures the contours of the interview data (Braun and Clarke, 2006). Level two involved considering the themes in relation to the data set and ensuring they make sense within the context of the whole data set (Braun and Clarke, 2006). This step also involved re-reading the data set to ascertain that themes worked well in relation to one another and to code any additional data that may have been missed in previous stages.

e. Defining and Naming Themes

Finally, an outline of all the themes and sub-themes to be included in the final report was created along with a description of each theme component (Braun and Clarke, 2006). This theme outline was reviewed and discussed with a senior researcher to ensure that the thematic map makes sense and that the identified themes capture the essence of the concept they are exploring.

f. Producing the Report

This step involved drafting the results under the guidance of the supervisor and senior researchers who supported the oversight of the qualitative analysis. Furthermore, the results produced in the report were presented based on components of the double-duty caregiving conceptual model, and in accordance with ID, as the themes were further discussed and grounded within existing disciplinary knowledge (Braun and Clarke, 2006; Thorne, 2016).

1.4.5 Qualitative Rigour

Given that qualitative studies hold an interpretative nature in analysis and work with subjective data, it is important to utilize strategies to maintain reliability and validity through self-conscious research design, data collection, interpretation, and communication throughout the research process (Morse, 2015; Mays and Pope, 1995). According to Lincoln and Guba (1985), trustworthiness is used as a central concept used to appraise the rigor of a qualitative study. The strategies identified to establish trustworthiness include credibility, transferability, dependability, and confirmability (Lincoln and Guba, 1985).

The credibility of a study is the confidence that the results are a depiction of the truth (Lincoln and Guba, 1985). In developing the interviews, the researcher consulted two qualitative experts for guidance in formulating the interview guide and preparing for the interview process. The interview guide was developed with the oversight and guidance of qualitative experts from the researcher’s thesis committee for validation purposes and to improve investigator introspection (Mays and Pope, 1995; Lincoln and Guba, 1985). Upon receiving feedback, the interview guide underwent various rounds of editing to ensure that: types of questions included were suitable, wording was inclusive, and the ordering of the questions was appropriate. In the interview process, the researcher tried to minimize social desirability biases by trying to build rapport with the participant and by clarifying confidentiality to encourage comfort and openness throughout the interview. Credibility was also established through investigator triangulation as there was regular communication with two senior researchers during the qualitative analysis, helping to confirm conclusions and integrate different perspectives (Korstjens and Moser, 2017). To ensure there was a greater breadth and consistency in the coding process, inter-rater reliability was used to compare codes and ensure a high level of agreement was achieved among the researchers. Two transcripts were coded by a senior researcher, and an average of 94% agreement from both sets of codes was calculated, which was well above the minimum score of 75% that is required to demonstrate adequate agreement (Roberts et al., 2019). Coding differences and analysis processes were discussed with the senior researcher to further facilitate inter-rater reliability and strengthen the credibility of the data analysis (Korstjens and Moser, 2017).

The transferability of a study is demonstrated with regard to its generalizability and relatability to other contexts (Lincoln and Guba, 1985). This study provided a description of the study setting, the political and social context, and changes in the healthcare setting during the COVID-19 pandemic, in order to facilitate a better understanding of the study results (see Chapter 1). Furthermore, interviews were conducted to the point of saturation where no new themes were observed. This was confirmed through ensuring operational saturation: quantifying the number of new codes being discovered over time and observing a decreasing frequency of new codes from additional interviews (Forero et al., 2018).

Ensuring saturation provides greater confidence in the transferability of this data to other DDC caring experiences that may be similar in other geographical contexts (Lincoln and Guba, 1985; Forero et al., 2018).

According to Guba (1981), the dependability of a study relates to the level of consistency in data collection, analysis, and interpretation so that it can be repeated. In order to maintain dependability, all the interviews were audio recorded, transcribed verbatim and reviewed multiple times and edited prior to coding. Furthermore, a detailed description of the study methods has been provided and in accordance with Guba (1981), a stepwise technique was used to communicate the process of data analysis.

Confirmability is concerned with neutrality in the study and how the findings may be shaped by researcher biases or beliefs (Lincoln and Guba, 1985). To ensure confirmability, the researcher utilized the strategy of reflexivity to maintain a record of observations during data collection and analysis (Korstjens and Moser, 2017). Throughout the research process, an audit trail was also maintained throughout the entire research process to (Krefting, 1991; Korstjens and Moser, 2017). Auditability was realized via the detailed tracking of records throughout the research process which involved raw data (field notes and audio recordings), interview design strategies, analysis notes, and process notes related to discussions with senior researchers providing guidance throughout the study (Krefting, 1991; Korstjens and Moser, 2017).

1.5 Triangulation and Integration of Both Phases

The process of triangulation is a useful approach to grasp a fulsome sense of the data and involves the combination of methodologies to study a particular phenomenon (Moran-Ellis et al., 2006; Fielding, 1986). According to Greene and colleagues (1989), triangulation involves the "convergence, corroboration and correspondence of results from different methods" and helps to increase the depth of collected data. To build on this broad definition, Bryman (2006) provided a more detailed rationale which indicates that triangulation is used to combine quantitative and qualitative findings for corroboration. Among the different forms of triangulation that exist, this study employs methodological and investigator triangulation whereby more than one method was used to collect data, and multiple researchers were involved in the research process, respectively (Denzin, 1978; Adams et al., 2015). Investigator triangulation was used through the entire research process, where other researchers involved in the supervisory committee continually provided oversight and guidance throughout each stage. According to Denzin (1978), the combination of quantitative and qualitative phases (or across-method triangulation) provides far richer findings than relying on a single method. This is because a diverse methodology provides the ability to learn about a phenomenon from multiple perspectives and, consequently, can achieve a rich discussion that can identify similarities and differences in the topic of interest (UNAIDS, 2010; Jackson, 2018). In this study, the quantitative survey data of employers' perspectives and qualitative semi-structured interviews of DDCs' perspectives are combined to address the overarching research questions (Figure 2).

While the process of triangulation has an absence of a specific protocol dictating how to perform it, Adams and colleagues (2015) detail the process as an investigation of agreement and dissonance in the research findings. When the areas of convergence and dissonance are identified, the researcher is also able to provide a more nuanced exploration of a phenomenon while highlighting implications of the research to the broader world (Jackson, 2018; Adams et al., 2015).

The goal of the triangulation and integration approach was to answer the following overarching mixed-methods research questions:

(1) Given the perspectives of employers and DDCs, how has the COVID-19 pandemic impacted double-duty caring and supports?

(2) What is needed to better support DDCs during the COVID-19 pandemic?

In order to execute this approach, findings from both the quantitative and qualitative phases were collated and aggregated in order to compare the similarities and differences in the research results - a process called ‘sorting’ (UNAIDS, 2010; Adams et al., 2015; Farmer et al., 2006). During this process, it was important to first review the findings collected before proceeding to compare the two sets of research findings. From the two sets of data, the results were compared to determine whether there was agreement on particular components (‘convergence'), complementary information in the findings (‘complementarity') or disagreement (‘dissonance’) (Farmer et al., 2006; O’Cathain et al., 2010; Adams et al., 2015). Given that the approach to triangulation examines results from two distinct research methods (quantitative and qualitative), and two different populations (healthcare employers and DDCs), there are often important findings that appear in one data set but were not explored or discovered in the other ('silences') (Farmet et al., 2006; Adams et al., 2015). To note, dissonance found in mixed-methods research does not invalidate the study; rather, it provides implications or gaps in the phenomenon of interest (O'Cathain, 2010). Findings with convergence, complementarity, dissonance, or silence were interpreted for their meaning to create an overall summary of findings of the mixed-methods study (UNAIDS, 2010; Adams et al., 2015).

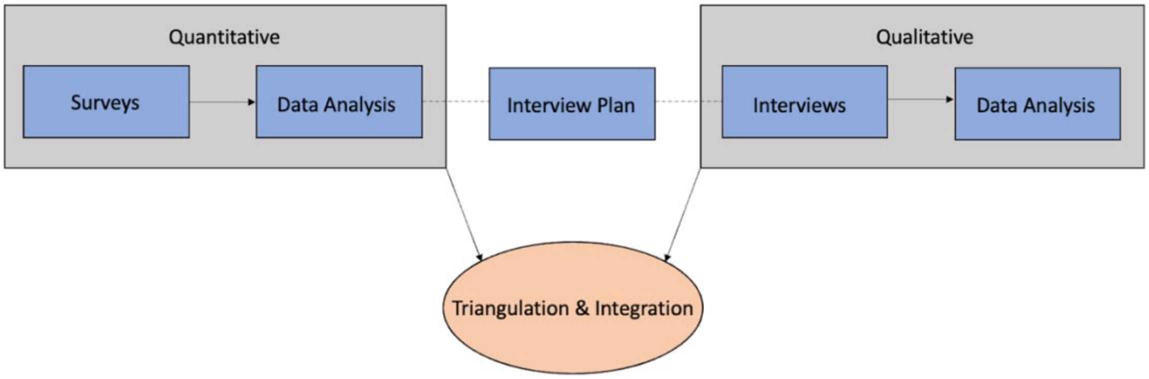

Figure 2: Sequential Explanatory Mixed Methods Design. Figure adapted from "A mixed methods approach to technology acceptance research" by P. F Wu, (2011). *Journal of the Association for Information Systems.*

Chapter 4: Results

4.1 Results of the Quantitative Survey Phase

A total of 29 employers provided electronic consent and completed the survey. The survey investigated the following variables defined above: employers' perception of

DDCs' wellness due to the pandemic, supports they have implemented for DDCs, barriers in implementing support, and barriers DDCs may face in accessing support. Within this investigation, several relationships were explored, such as: 'implementation of support' and 'perception of DDC wellness due to the pandemic', 'implementation of support' and 'barriers in implementing support', and 'employer priorities' and 'barriers faced by DDCs in accessing support'. It is important to note that due to the small sample size, it was not meaningful to test associations; rather, the results below represent observations from the survey. Although there is a lack of significant results, observable findings outlined below create a foundation and implication for larger studies with bigger sample sizes.

4.1.1 Employers' Implementation of Support and Perception of DDC Wellness

Due to the novel conditions brought about by the COVID-19 pandemic, it is not surprising that DDCs may be facing various wellness impacts. Thus, the following 'wellness impact' categories were investigated from the perspective of healthcare employers: 'health impacts' (physical strain or mental health issues), 'workplace stress' (use of medical leaves or resignation), and 'overall decrease in work performance' (decreased work performance and lack of motivation). Based on employers' perception of their DDC wellness, it was also important to investigate whether these employers implemented support for their DDCs. The results for this data are outlined below in Table 1. Among total employers surveyed, it is observed that 14 out of 29 (48.30%) employers implemented support for DDCs due to the COVID-19 pandemic, while 15 out of 29 (51.70%) did not. Furthermore, all 29 employers were observed to perceive DDCs to be impacted by at least one of the three wellness variables.

a. *Health Impact*

Among the total number of employers surveyed, it is observed that 26 out of 29 (89.70%) of all employers perceive DDCs to be facing health impacts due to the pandemic, while 10.30% perceive no health impacts. It was found that employers that implemented support for DDCs were more likely to recognize DDCs’ health impacts than those that did not implement support (92.9% vs 86.70%). Conversely, employers that hadn’t implemented support for DDCs were more likely to be observed perceiving no health impacts to DDCs than employers who implemented support (13.30% vs 7.10%).

b. *Workplace Stress*

Among employers who implemented support for DDCs, 12 out of 14 (85.70%) were observed to perceive that DDCs were facing workplace stress outcomes. At the same time, of those that did not implement support, even more employers (93.30%) perceived that DDCs faced workplace stress. Furthermore, there were more supportive employers that perceived no workplace stress faced by their DDCs than unsupportive employers (14.3% vs 6.7%).

c. *Decreased Overall Work Performance*

Among employers who established supports for DDCs, 11 out of 14 (78.6%) recognized a decrease in overall work performance, while even more employers [13 out of 15 (86.7%)] that did not establish supports, perceived a decrease in DDCs’ work performance. Furthermore, more supportive employers observed no decrease in overall work performance than employers that did not implement supports (21.4% vs 13.3%). Overall, while most employers were aware of the impact the pandemic has had on DDCs' health, workplace stress levels and overall work performance, only 14 out of 29 (48.3%) surveyed employers implemented DDC-specific support.

Count Column%		Unsupportive Employers (n=15)	Supportive Employers (n=14)	Pearson Chi-square
DDC Health Impact	Yes	13 86.70%	13 92.90%	0.299
	No	2 13.30%	1 7.10%	
Workplace Stress	Yes	14 93.3%	12 85.70%	0.453
	No	1 6.7%	2 14.3%	
Decrease in Overall Work Performance	Yes	13 86.7%	11 78.6%	0.333
	No	2 13.3%	3 21.4%	

Table 1: Cross-tabulation of employers' implementation of support for DDCs with DDC wellness as perceived by employers. N=29.

4.1.2 Employers' Implementation of Support and Barriers Implementing Support

With respect to employers implementing support specific to DDCs, the following barriers were investigated: funding for supports, lack of knowledge/awareness about DDCs or supports needed, and lack of time to explore supports needed and logistical issues. The latter two barriers were consolidated into 'other barriers', as displayed below in Table 2.

a. Funding

Half the supportive employers, or 7 out of 14 (50.00%), viewed funding as a barrier in establishing supports specific to DDCs. At the same time, 9 out of 15 (60.00%) employers who did not implement supports for DDCs were likely to view funding as a barrier to establishing supports. Over half [55.2% (n=29)**]** of all surveyed employers were observed to view funding as a barrier in implementing support for DDCs, while 44.80% did not.

b. Other Barriers

It is observed that 24 out of 29 (82.80%) of employers surveyed perceive other barriers such as the following: lack of knowledge of support needed, lack of awareness of DDCs or logistical issues as a barrier in implementing support for DDCs. Regardless of whether employers implemented support for DDCs, many employers were observed to view other barriers as hurdles in implementing support. There were 12 out of 14 (85.70%) employers with support for DDCs, and 12 out of 15 (80%) of employers without support for DDCs, that viewed these other barriers as hurdles in implementing support.

Count Column %		Unsupportive Employers (n=15)	Supportive Employers (n=14)	Pearson Chi-square
Funding	Yes	9 60.00%	7 50.00%	0.293
	No	6 40.00%	7 50.00%	

Other barriers	Yes	12 80.00%	12 85.70%	0.453
	No	3 20.00%	2 14.3%	

Table 2: Cross-tabulation of employers' implementation of support for DDCs with barriers in implementing support, as perceived by employers. N=29

4.1.2 Employers' Priorities for Caring Considerations and Barriers in Accessing Support

There are a number of barriers to DDCs accessing support, as observed from the employers' perspectives: stigma associated with accessing support, reluctance in sharing caring status/needs, and complexity or lack of awareness in obtaining support. The results for the following data are displayed below in Table 3.

a. Stigma

Overall, only 7 out of 29 (24.14%) employers viewed stigma as a barrier for DDCs in accessing support. It was observed that employers with caring considerations in their top priorities were less likely to perceive stigma as a barrier for DDCs in accessing supports than employers with these considerations in their top priority (78.60% vs 73.30%).

b. General Reluctance of DDCs to Share Caring Status/Needs

Overall, less than half of surveyed employers (12 out of 29; 41.40%) were observed to believe a reluctance to share caring status or needs serves as a barrier for DDCs in accessing support. Further, 6 out of 14 (42.90%) employers with caring in their top priorities perceive that a reluctance to share is a barrier for DDCs in accessing support. At the same time, 6 out of 15 (40.00%) employers without caring in their top priorities perceive reluctance as a barrier to DDCs. Regardless of whether employers have caring in their top priorities or not, over half the employers in either group do not see reluctance to share as a barrier to DDCs accessing support (57.10% vs 60.00%).

c. *Complexity/lack of awareness in obtaining support*

Among all surveyed employers, 22 out of 29 (75.90%) were observed to perceive a complexity or lack of awareness in obtaining support as a barrier for DDCs. Among employers with caring considerations in their top priorities, 10 out of 14 (71.40%) were observed to perceive this as a barrier in DDCs accessing support, while even more - 12 out of 15 (80%) employers, perceived this as a barrier among those that do not have caring considerations as a top priority. It is further observed that the employers who have caring considerations in their top priorities were less likely to perceive a complexity or lack of awareness in obtaining support (71.40% vs. 80%).

Count Column %		Top Priority (n=14)	Not a Top Priority (n=15)	Pearson Chi-square
Stigma	Yes	3 21.40%	4 26.70%	0.109
	No	11 78.60%	11 73.30%	
	Yes	6	6	0.024

General reluctance of DDCs to share caring status/needs		42.90%	40.00%	
	No	8 57.10%	9 60.00%	
Complexity/lack of awareness in obtaining support	Yes	10 71.40%	12 80.00%	0.291
	No	4 28.60%	3 20.00%	

Table 3: Cross-tabulation of employers’ priorities of caring considerations with barriers for DDCs in accessing support, as perceived by employers. N=29

4.1.3 Logistic Regression Model

This logistic regression analysis provides an understanding of three variable relationships with the dependent variable of ‘supports implemented’: ‘employer priorities for caregiving considerations’, ‘funding as a barrier in implementing support’ and the ‘total wellness impact on DDCs’, as perceived by employers. Results of this logistic regression are depicted in Table X. This model (Table 4) demonstrates observed relationships and probabilities for employer priorities for DDCs caregiving considerations, and the barrier of funding in implementing support. The expected positive relationship among employer priorities and establishment of supports for DDCs is not observed from the logistic regression analysis due to the small sample size.

Variables in the Equation

	B	S.E.	Sig.
Employer Priorities	0.127	0.767	0.868
Funding as Barrier in Implementing Support	-0.322	0.828	0.697
Total Perceived Impact on DDC Wellness	-0.039	0.18	0.83
Constant	0.25	0.971	0.797

Table 4: Logistic Regression Model with Parameters of Predictors to Support vs Implementation of Support.

4.1.4 Demographic Characteristics of Healthcare Employers

Table 5 provides a summary of demographic characteristics of employers. A total of 29 healthcare employers situated from organizations across Southern Ontario provided consent and completed the survey. The age of employers ranged from 25 years to over 55 years old. Most employers surveyed were women (23; 79.31%), 5 were men (17.24%) and 1 individual preferred not to answer this question. At the time of the survey, only 5 employers (20%) were working on-site while 8 were telecommuting (16%) and 16 were working both on-site and telecommuting (64%). At the time the survey was administered (December to February), 19 employers had been in their role for over 3 years (65.52%), 7 employers had been in their role for 1-3 years (24.14%) and 3 employers had been in their role for less than 6 months (10.34%).

Characteristics	n (%)
Age	
Less than 24 years old	0
25 to 34 years old	3 (10.34)
35 to 44 years old	5 (17.24)
45 to 54 years old	12 (41.38)
55 years and older	9 (31.03)
Ethnicity	
White	24 (82.76)
South Asian (East Indian, Pakistani, Sri Lankan)	2 (6.90)
East Asian (Chinese, Japanese, Korean)	2 (6.90)
Other	1 (3.45)
Gender	
Man	5 (17.24)
Woman	23 (79.31)
Prefer not to answer	1 (3.45)

Where are you currently working?	
On-site	5 (20.00)
Telecommuting	8 (16.00)
Both on-site and telecommuting	16 (64.00)
How long have you worked in this role?	
Less than 6 months	3 (10.34)
6 months - 1 year	0
1-3 years	7 (24.14)
More than 3 years	19 (65.52)

Table 5: Demographic Characteristics of Healthcare Employers

4.2 Results of the Qualitative Semi-Structured Interviews Phase

4.2.1 Introduction to Themes and Results of Semi-Structured Interviews

This section is a report of findings from the qualitative interviews and includes a description of themes and sub-themes that were conceptualized from the data. Throughout this section, direct quotes from DDCs are labelled with the letters *"DDC"* and their participant number. Through analysis of the semi-structured interviews, five themes represent DDCs' experiences during the COVID-19 pandemic. These five themes are: increasing demands in DDCs' paid caring role; feelings of stress from their unpaid caring role; the experience of role strain during the pandemic; supports or coping strategies being utilized, and desired supports by DDCs. Some of the direct quotes have had to be minimally edited for clarity and/or to protect the identity of the participants or their place of work. While the intensity of participants' emotional wellbeing is not necessarily combined across these themes and quotes, it is important to note that a few participants were visibly crying or angry.

4.2.2 Increased Demands in Paid Caring Role

a. Stressful Work Conditions

All the DDCs that were interviewed reported that following COVID-19, they experienced deteriorating work conditions characterized by an increase in work expectations, workload and concerns surrounding safety which added significant amounts of stress to their normal work. Due to an increase in safety protocols and consequences of short-staffed workplaces, DDCs' regular schedules were disrupted and lacked flexibility in work arrangements. As this participant details:

> *The having to go for COVID tests every single week itself is so strenuous. For my workplace, they expect us to be tested every week and I know it might not be like that everywhere but the testing isn't even at the work office. So, the COVID testing is so hard to fit into my schedule, to travel to, make time for, it's a lot of work* (DDC4).

As a result of COVID-19 safety protocols and an increase in staff expectations, several DDCs report having to manage added paid work responsibilities outside of their work hours (e.g., weekly COVID-19 testing at external facilities). Following the pandemic, many DDCs also noted a change in behaviour in their clients who seemed to be constantly watching the safety of their carers' actions at work, which created a sense of distrust in the carer-client relationship. As this DDC describes, some home care clients are much more fearful of their safety after the pandemic began and have internalized greater expectations for their professional carer:

> *I think clients expect more and they ask more questions like, "where have you been this weekend?" or even now when they ask the normal "how are you doing today?" you know that it's like they're really asking for their safety. I'm managing it, you know, trying to make sure I am always with PPE and handwashing and everything to put them at ease. But, the clients are scared too and they watch everything we do if we're doing it correctly so it's hard to always satisfy them* (DDC2).

During the COVID-19 pandemic, clients are more suspicious of whether or not their carers are maintaining safety while doing their paid caring work, which creates a newfound sense of distrust in the client-carer relationship. The pandemic instills fears of safety among DDCs' clients and creates a climate of caution for DDCs in their work environment.

While some DDCs' clients exercised vigilance, others were suffering from poor mental health symptoms because of the provincial social isolation protocols which restrict family visiting in healthcare settings. Given that many of the interviewed DDCs worked with an at-risk population (aging and/or immunocompromised clients) in a healthcare facility, the strict COVID-19 social isolation regulations prevented clients from closely interacting with others in the facility and being able to see their families for long periods of time. The lack of socialization and companionship makes clients lonely, tense and very agitated, which makes ADL caring tasks very strenuous for healthcare staff to perform. Previously, staff relied on the support of volunteers, recreation programs or family to maintain their clients' wellbeing and provide companionship; however, due to COVID-19 safety protocols, this support is no longer available. Instead, the socialization and maintenance of clients' wellbeing is an added responsibility that DDCs have to shoulder at work:

> *Usually, volunteers or family come to help with companionship. Now, we […], talk to them, socialize and so we never get breaks from taking care of them. Community centres are closed so […], it takes a lot of time and effort doing online research from us to find Zoom activities [...] It takes a lot of time to calm them down and sometimes it is so stressful because we are not taught what to do in this case. [...] In the past, they looked forward to like birthday parties, getting with their families, which cannot happen so it takes a toll on them.* (DDC15)

Not only did the added responsibility of managing client mental health create stress for paid carers, but this was also not a task that workplaces provided training or preparation for. As one DDC mentions, "*You're basically working to physically distance which is hard because they all have mental health issues now so socialization is what they need"* (DDC14). While DDCs empathize with clients' need for socialization, they are also bound by safety protocols and fears of their own safety that bar them from providing this care.

Due to the COVID-19 pandemic, all DDCs reported the challenges associated with staff shortages in their workplace as staff members were quitting their job or cutting hours due to fears of contracting the virus. The inadequate staffing levels meant that each staff member was assigned to more clients and more hours per shift which greatly intensified the workload. Staff shortages meant DDCs had to work extra hours or stay overtime when their colleagues were calling in sick or not showing up. As one DDC details:

> *With the staffing shortages [...] we didn't have enough staff to call if someone called in sick or had a family emergency. We were working double shifts if someone had to take the day off [....] Just to know I couldn't take a day off because we didn't have staff was stressful because everyone's entitled to their time off. But you feel guilty taking the day off because the next person will have to work a 12 hour shift to cover for you. At the same time, what if my mom needs me?* (DDC8)

Staff-shortages during COVID-19 meant that DDCs were not only working longer hours, but they lacked the flexibility and freedom to take time off for caring emergencies. They also had increased feelings of guilt and hesitancy for requiring time off for personal sickness as they would be displacing these hours upon their exhausted co-workers. Furthermore, many DDCs reported experiencing more frequent caring emergencies for their dependent during the pandemic due to a diminished access to formal support services (e.g., home care services). This caused DDCs to increasingly worry and stress about the condition and safety of their dependent while they were at work and left them in a difficult position when they needed time off but were unable to get it due to staff shortages and lack of coverage. As a result of inadequate staffing levels, DDCs shouldered increased caring burdens and demanding work conditions characterized by an intense workload, longer work hours and concerns for safety. Some DDCs expressed that their passion for caring work served as motivation to persist in their line of work and contend with pandemic-related challenges. As one DDC indicates:

> *We're understaffed. That's exactly why I'm having to take on a bunch of the work right now. I know last week, I worked 60 hours a week. But, my job is caring. I love to care, you know, I love what I do [...] and that's how I get through it.* (DDC9)

Conversely, the pandemic made some carers reduce their hours due to fears of contagion or being unable to manage their dual responsibilities with the increasingly demanding work conditions. For example, one DDC noted that she was unable to keep up with the increasing work hours, especially as it increases the risks of being a contagion to her immunocompromised mother that she cares for: "*The work hours in the beginning of the pandemic increased a lot. I took time off and reduced my hours because of my mom, her immune system is obviously compromised so I was really worried about going to work"* (DDC2). In fact, some carers were so emotionally strained by the stressful work conditions and fears of safety that they even considered quitting their job:

> *I was actually so afraid...I was down so much the past year and thinking of a way out. I wasn't sure if I should quit. I wasn't sure if I should just even cut back more hours. [...] I was just emotionally strained, stressed and conflicted [...] Also, the fact that so many COVID residents are even sicker and agitated since they are isolated, our work was intense because of trying to manage their outbursts, educate them, or socialize them with what little resources we have. Our workplace didn't*

> *prepare for this to happen to the residents and they don't know what to do so we don't know what to do.* (DDC14).

These examples suggest that since COVID-19, the paid care setting had become very emotionally stressful and overburdening for some DDCs, which caused DDCs to resort to reducing their hours in order to cope with the increasing fears and demanding workload.

b. Workplace Wellness

The COVID-19 pandemic has intensified the workload in healthcare settings and as a result, inflicted concerns for safety, physical strain consequences and emotional distress. Since DDCs care for a dependent outside of work (often an at-risk individual), they feel a greater need to be constantly cautious and concerned for their safety at work. Thus, the unpreparedness of workplaces and a lack of sufficient support exacerbated the stress and emotional toll placed on DDCs during the pandemic. For example, PPE shortages were a common issue that put an emotional toll on many participants as they felt helpless and were forced to continue to work in unsafe circumstances:

> *They say things like, "You guys have to keep your N95s for more than one shift, try to extend it, you know, for a week" or "if you're working for a whole week, you can use the same N95s." [...] They say, "just put it in a baggie and preserve it." [...] and that just feels unsanitary, like, it just feels like we're contaminating everything [...] and I can't just stop working. It makes me scared [...] because we are no longer properly protected.* (DDC7)

The PPE shortage was a prominent issue that made many DDCs feel unprotected and unsupported by their employers. To many DDCs, it felt that employers were not cognizant of the risks of working as a front-line carer for high risk populations during a pandemic and as a result, developed increased frustrations with the workplace. Given the increased work demands, the pandemic limited the choice for DDCs to work less or refuse certain work tasks which made DDCs feel a loss of control over their situation. Ultimately, this distress and lack of support created an incongruous work environment and led to a disconnect in the supervisor-staff relationship:

> *Before I felt like it [work] was like a big family, we all took care of each other supporting each other. I could call another PSW if I needed help, and they would be right there [...] I could call the office and get help if I needed it. Now, I feel like it's everyone fighting for time off, there's not enough to go around [...] Everyone's scared and stays away from each other. And we're all so stressed out that we're taking it out on each other.* (DDC14)

Similar to DDC14, many others also reported that a sense of distrust among staff members had developed due to COVID-19 changes, which created an incohesive work environment and added psychological stress for those who could no longer turn to their co-workers for social support. The COVID-19 pandemic also negatively impacted DDCs' physical health due to the limited support from the workplace and short-staffing consequences which assigned staff members to more hours and extra clients per shift. For example, several individuals indicated that caring for more clients than before meant there was more transferring and heavy lifting which has been very strenuous on their bodies. Specifically, several carers reported muscle strain, back pain, and physical exhaustion. One DDC described that after she was assigned more clients, she started to note her body wearing down and discovered a complication in her wrist due to the increased transferring and lifting:

> *My body's wearing down very slowly. I just discovered a cyst in my wrist and it's sitting right on the nerves and it hurts so bad. And now, I have to lift a new client who is 250 pounds and I'm only 130. So, you picture that.* (DDC1)

4.2.3 Challenges in Unpaid Caring Role during COVID-19

a. Difficulty Accessing Services that Support DDCs

Provincial efforts to limit the COVID-19 spread led to the closure and limited accessibility of numerous essential or community-based services which played a significant role in supporting the care of vulnerable dependents. Consequently, DDCs cannot access supportive services such as home care, respite, and day care services and must sacrifice more of their time and efforts to compensate. For example, there was scarce availability of home care services during the pandemic, which meant that DDCs had to overcompensate the amount of care they provided for their dependents and oftentimes, reduce their hours at work. Furthermore, all DDCs interviewed were parents who relied on day care services to manage their time between paid work and unpaid caring, especially when schooling had become remote, and kids were always home. With COVID-19, day care operations were heavily reduced and had stricter safety regulations which resulted in kids being sent home frequently and unexpectedly due to the suspected sickness of any child. This was incredibly stressful for DDCs as they had to suddenly leave work to care for their kids, experiencing recurring fears that their child could have been infected at that time.

> *My children are also getting sent home from daycare quite frequently [...] the daycare rule is a negative COVID test, doctor's note or 10 days out of daycare...the other day, I was at work and had to leave in a very big rush because of having to get my children who were being sent home from daycare. As my daughter has a runny nose from allergies, she's sent home from daycare. COVID's put a lot of strain [...] I try to have backup arrangements when I have to work, however, a lot of the times, I can't end up getting anybody and it always pushes me out of work. (DDC5)*

During the pandemic, children are being sent home more frequently and causing DDCs to experience a lot of additional stress, and loss of income. Prior to the pandemic, the reliance on services like day-care and home care served as supportive strategies for DDCs in managing their unpaid caring responsibilities. Normally, relatives or other members of DDCs' support network would fill in when daycares were closed; however, due to social isolation regulations, this has not been possible.

For DDCs that care for dependents with chronic conditions, home care was also an essential service that many depended upon to help with their caring role. Without it, DDCs who bear the primary responsibility of being the unpaid carer in the household, must stay home from work and lose days' worth of income. One DDC, who also bears the pressure of being the family's sole earner, suffered drastic costs of losing home care services for her bed bound husband: *"I used to depend on home care to help me with my husband. If they're not coming, I stay home from work and help him. You don't get paid for that...So I lose the day's pay, and I'm the only one working in the family."* (DDC1)

Many DDCs are the sole advocate for their dependents, who require regular medical appointments for check-ups or access to community-based health management services such as adult day care programs. Yet, due to public health restrictions that enforced reductions or closure of many of these services, DDCs have lost access to programs which originally supported them in the care of their dependent. One of the biggest frustrations has been being unable to accompany their dependents with language barriers or disabilities to their regular medical appointments. One carer whose mother has a history of falls expressed, "*I'm unable to assist her inside and a nurse helps. But, that is stressful for me* *and gives me anxiety because she could have a fall if someone isn't holding her well."* (DDC15). DDCs felt helpless and stressed in their attempts to continue to advocate for their family member or friend's health. One carer described how the pandemic made it impossible for her to get appointments for her dad at a physician's office, forcing her to resort to emergency care:

> *I feel so difficulty to find a doctor because [...] now, I couldn't find a family physician anywhere, it's all busy and closed. So his physician, she just sent us emails that her clinic is not open. [...] So I sent him to emergency because I saw him so pale and got scared and got no appointment anywhere for days. I couldn't find a physician that's really hard, frustrating. Even my mom needs medication and I still cannot find a doctor [...] It makes me so stressful and tired all the time.* (DDC16)

DDCs who already take a large amount of time in managing their dependents' health are now encumbering greater burdens due to difficulties accessing existing support structures. When essential services became limited or unavailable, the unpaid responsibilities upon DDCs increased and inflicted extensive burden in trying to fill those care gaps.

b. Strain on DDC-Dependent Wellbeing

During the COVID-19 pandemic, DDCs reported a variety of negative emotions like sadness, helplessness, and frustration in caring for their dependent which seemed to put strain on the caring relationship. Almost all DDCs found it particularly difficult to cope with the declining wellbeing of their dependents who were displaying challenging and agitated behaviours while trying to cope with social isolation during the pandemic. This illustrated that DDC wellbeing seemed to be closely impacted by the wellbeing of their dependents. All DDCs that noted a decline in the wellbeing of their dependent due to COVID-19 also felt a considerable amount of emotional strain and pressure upon themselves to rectify their mood. One DDC, who cares for her mom suffering from cancer, expressed that her own wellbeing is often closely tied to that of her mom's and verbalized a sense of emotional strain and feelings of helplessness in being unable to support:

> *My mom has four sisters, so they would always visit and they're a really big emotional support system for her too, so now they can't really come and be there for her. Last week, she said to me "You know, I'm a little bit depressed" and that made me so sad, because I can't fix that either. I wish I could fix a lot for her but I can't. When my mom doesn't have a good day I don't have a good day..* (DDC10)

Another DDC relayed a similar experience with an elderly friend she cares for, describing how social isolation has amplified feelings of loneliness and seclusion. In the hope of uplifting her mood, she attempted to give her dependent special care and explore additional ways to care to improve her wellbeing.

> *The pandemic's taken such a big toll on her. [...] she's been locked indoors for almost a year. She hasn't met her friends, she used to go out for social gatherings with them. Like, she would meet up with friends for probably a coffee before. Most days she is in front of the TV all alone [...] It makes me really sad to see her so depressed [...]I force her to get her nails done [...] I try to wash her hair and style it because extra grooming is something that puts a smile on her face.* (DDC13)

Due to COVID-19, social isolation orders and the lack of socialization caused some dependents to demonstrate agitated and destructive behaviours that were difficult for DDCs to manage. It was very stressful trying to manage dependents' agitation and emotionally exhausting trying to constantly improve their mood. DDCs expressed being under exacerbated emotional circumstances and felt helpless for not knowing how to help their dependents. The growing mental health challenges of dependents was a dominant theme of discussion that caused DDCs to adopt greater responsibilities in providing companionship and emotional support to manage their dependents' wellbeing. Another

DDC, who cares for her bed bound cousin, describes that while she wants to provide companionship, the added responsibilities are sometimes hard to manage:

> *For her, it is hard too [...] She's very depressed some days and cries to me...it make me very sad for her and make me want to come and stay with her...but I cant because I have work and my son to look after too. There's not enough time in my day to stay longer with her...I really feel bad for her*. (DDC7)

Similarly, at work, DDCs had to manage the wellbeing of their clients who required much more physical assistance and emotional support in their ADLs during the COVID-19 pandemic. The increased emphasis on mental health management and provision of emotional support in DDCs' paid and unpaid caring responsibilities was not something DDCs were originally trained or prepared for. At work, managing clients' wellbeing has exacerbated DDCs' caring work and in combination with intensified unpaid caring burdens, has contributed to frequent instances of burnout:

> *The residents are much sicker, agitated and confused being isolated in their rooms [...] A patient who was previously able to use their walker to ambulate, they're now weaker because they're not walking around as much. We're not doing recreational activities outdoors either so...their wellbeing is going down and that means that they're far more dependent on us. We go home so physically exhausted that combined with the emotional exhaustion and stress from worrying and caregiving for your family member and not even being able to help the residents to the best you can is just too much. It's just such a good cocktail for burnout. So yes, this last year was burnout galore.* (DDC15)

Another source of frustration in DDCs' unpaid caring experience was their dependents' and family's triviality, or lack of understanding, of the severity of the COVID-19 pandemic. Almost all DDCs interviewed spoke of frustrations regarding COVID-19 misinformation or their dependents not comprehending the severity of the situation. DDCs report engaging in frequent conversations on a range of COVID-19 topics such as the following: mask usage, the method of transmission of COVID-19, vaccines and most of all, the significance of social isolation. However, educating them did not come easy. One DDC described how COVID-19 misinformation took a huge toll on her relationship with her parents and expressed anger and frustration when depicting her difficulty in educating her parents and extended family:

> *My parents are senior citizens and sometimes it is so hard to convey the message because they're so stuck in their ways [...] Maybe they've googled about COVID-19, especially with my dad, [...] I think by the time the message comes to him, it's so twisted...So, it's so frustrating communicating with my parents [...] on top of being the only one caring for him, he's adamant and he wouldn't listen to me. And I'm so tired and stressed that it's just frustrating for me to teach one person every single time some misinformation comes up. Or even my brother in law, [...] he's like, "No, there's nothing like COVID...it's not that bad." Misinformation is a big factor and I'm so tired of telling my family.* (DDC12)

DDCs' struggle in rectifying misinformation was a common pattern across those caring for aging individuals. Not only does this often create conflict, but some DDCs also noted that the process of conveying factual information and restricting their dependents has started to put a strain on their relationships and added an extra burden to caring. For example, one DDC who cares for her immunocompromised father states that having to constantly teach her father and restrict him from close contact has caused distance in their relationship:

> *I explained to him how scary it really is out there for all the people that are vulnerable. He doesn't fully understand because he doesn't see what I see. I have to teach him to always stay clean and that it's not okay to hug or come so close anymore. So he thinks that I don't want to hug him now. He doesn't quite understand that I'm trying to protect him. So that's started to create a drift in our relationship.* (DDC2)

In order to protect their dependents, some DDCs have had to enforce physical distancing in their own homes and knowledge translate information to educate dependents on safe practices and the realities of COVID-19. However, this process is often emotionally stressful when dependents are unable to understand or refuse to be convinced to take the pandemic seriously. One DDCs even indicated that the process of educating her loved ones and the time it exhausts has started to feel like a third role to her:

> *I understand they're frustrated staying at home, they're frustrated doing everything online and not meeting friends and all that; however, that does not change the reality. It does not change what is happening out in the world and what I am seeing everyday. So they have to be aware, they have to be educated, they have to know what's going on. You know, just teaching them what I am seeing and the harsh reality, it's really started to feel like a third job for me now. As an educator.* (DDC12)

This DDC felt overburdened, and expressed exhaustion, in consistently trying to keep up with the additional responsibility of translating complex knowledge and fast-changing information on COVID-19 to their dependents. Many report that the pandemic has brought a rise in scaremongering about vaccines and COVID-19 information. When DDCs try to straighten out the misconceptions, this sometimes causes a dissonance in the DDC-dependent relationship and, as a result, fuels the already existing fears of safety that DDCs have. In contrast to not taking COVID-19 seriously, some misinformed dependents took extreme and unnecessary protective measures which also placed emotional strain upon DDCs. For example, one DDC described that her ill father, who required emergency care, refused to go near a hospital in fears of contracting COVID-19:

> *My dad was anxious because he kept saying, "I don't want to go to the hospital. I'm gonna get COVID." My dad thought that as soon as he came into the hospital, we would make him COVID positive and he thought he was going to die [...]he was so sick and in pain. To convince my dad to go to the hospital, it took us about three weeks [...] He was suffering and so scared of the pandemic [... he was very, very sick and it ended up that he had a cyst on his liver. [...] And he had three COVID tests after that, which were all negative, but he was still paranoid. I'm also the only healthcare worker in the family so to make them understand, is so stressful.* (DDC2)

The misunderstandings of COVID-19 information drove this DDC's father to respond with paranoia and clouded his decision-making skills, which could have resulted in negative health consequences. This same DDC further expressed what it took for her to fight the misinformation instilled in her father's mind: "*trying to convince him was really a hassle...it is so mentally stressful that I had to give him an ultimatum and we had a big fight*" (DDC2). This example demonstrates the newfound stress and strain put on DDCs' relationships with their dependents as a result of trying to rectify misinformed thoughts about COVID-19.

4.2.4 Paid and Unpaid Caring Role Strain

a. Strain on DDC Wellbeing

As a result of balancing their paid and unpaid caring roles, all 16 DDCs that were interviewed reported very high stress levels, emotional strain, fears of safety and many have also reached the point of burnout. With kids doing remote learning and staying home during COVID-19, many DDCs felt that they could not get a break between their caring responsibilities. As an example, one DDC who cares for her disabled spouse described her caring routine during COVID-19, when both her kids and spouse are home, expressing that she hardly gets a break:

> *I get up at five o'clock every morning. I get myself dressed [...] and then my husband's starting to slowly wake up and I get him cleaned, changed and fed for the day [...] I leave everything out for his PSW like his medication and stuff [...] Then, from the time I go to work, I don't stop taking care of people: bathing them, feeding them changing them […]then when I come home, there's more caring work to be done. I have a communication book with all my PSWs to tell me how his day was, his blood sugar […]. Then, I start supper, watch the kids, clean, give his meds,*

> *take his blood sugar, and make sure everything is okay. [...] I take care of my kids, now I watch their homework. Now, tell me, when do I get a break?* (DDC1)

DDCs' unpaid caring stress has been constantly seeping into their work life as they feel stressed of their dependents' conditions while at work and are very cautious of their physical distancing due to fears of putting their dependents at risk of contracting COVID-19. For example, one carer describes her constant stress for her mother: "*It becomes stressful thinking 'oh my god, is there something that she needs at home when I'm at work?' or like 'did I remember to leave masks on the counter?'* Similarly, another DDC describes that the blurring of boundaries has become far more significant in that caring expectations have risen while levels of supports or resources to help with caring roles has diminished:

> *I try not to bring my work home or take my home at work and I used to keep those two different. But as of late [...] I'm so exhausted mentally and physically from the hectic work environment. Then to think, oh my god, I need to go help my parents too. [...] taking care of my parents got hectic. They now need me to get meds, groceries, clean their place because nobody can come now. At times, I'm not with it and don't want to go to provide the care that they need [...] because I'm just physically tired like my muscles are sore and I'm absolutely burnt out.* (DDC12)

Due to new COVID-19 regulations, DDCs have lost much of their support that helped to manage their caring responsibilities; for example, almost all DDCs participants depict that the loss of their support network made double-duty caring very emotionally difficult. This was due to DDCs no longer having anyone to provide them with emotional support or assist with caring duties for their dependents. One DDC describes that her sister used to be a big help in taking her parents for medical appointments before the pandemic:

> *Now, I am their support in every aspect because my sister lives out of town so she cannot be here because it's unsafe and illegal. So with the pandemic, they rely on me, solely [...] So, after I finish work on my days off, I'm running. I'm running home to look after them and provide the best care that I can*. (DDC12)

Like DDC12, many DDCs have lost their in-person support network during COVID-19, leaving them isolated and pressured to manage greater responsibilities alone. In particular, two DDCs who used to heavily rely on their support network with caring tasks and social support, broke into tears during the interview, trying to express the challenges of navigating their fears of contagion and managing the increased caring burden without their support network. One DDC who cares for her parents with chronic conditions and two young kids felt like she was under a lot of pressure during the pandemic with nobody to depend on:

> *When my dad was sick few month ago and I was working, I really feel that as a challenge. I cried sometimes, but I didn't want anybody to see. I am the main person taking care of my family. My husband is not here [...] my kids are so little. We have no family here so it is just me getting the income and taking care of my family...I feel I have to be emotionally strong and have pressure because I have nobody to depend on. [...] I am alone and have to depend on myself. I know that my patient and dad needs me. So, I have to be strong. No choice.* (DDC16)

DDCs have been enduring high amounts of pressure associated with increased caring work on their own and consequently, facing frequent instances of burnout. Another DDC described that for her, this pressure to manage it alone stems from obligation due to her professional expertise: "*Since I have the skills caring for older people, then it's up to me to take that work on. I could reach out and ask my siblings for help, but I feel responsible because I have the experience and the knowledge*" *(*DDC4). As depicted in this example, several DDCs have trouble asking for help and feel obligated to be able to manage their responsibilities on their own. During the pandemic, DDCs' attempts to manage the increased responsibilities alone has brought many to the point of burnout and impacted their ability to provide the best care to their clients and dependents. As one DDC details:

> *There would be times where I was working but my mind wasn't really physically there. Like I would do my job. But I knew I wasn't doing it to my fullest potential*

> *because my body was in burnout. I would make sure my client was good and safe. But, I wasn't really motivated to talk to them. Especially when I am always running on 3 hours of sleep and my body is hurting, it just becomes very stressful for me.* (DDC14)

b. Financial Wellbeing

Findings revealed that financial wellbeing varied greatly depending on how well DDCs could manage their double-duty caring workload during the COVID-19 pandemic. About half the DDCs interviewed reported improved financial wellbeing while the other half reported increased financial stress; this varied based on the DDC's unpaid caring workload and change in paid work hours. For DDCs who had higher demands from their unpaid caring workload, it became difficult to maintain their work hours given that they had many instances where they required time off work. For example, one DDC reported increased financial stress from factors like having to pick up her kids from daycare, as they kept being sent home due to suspected sickness:

> *[...] financially, it's stressful because when I'm out of work. So, financially, it's hard and it's extremely, extremely stressful because you never know what's going to happen. [...] I never know if they're going to be out for one day or for ten days. I never know if my parents will have an emergency.* (DDC5)

For DDCs with multiple dependents to care for, the unpaid responsibilities were even greater, making it difficult for DDCs to manage the same paid work hours as before the pandemic. Thus, several DDCs had reduced hours, and some had to switch to part-time caring work to manage their competing roles. For example, one DDC describes having to cut her hours in half to care for her grandma:

> *Her lack of ability to go out and socialize during the day before she sundowns kind of makes the sundowning worse. She is more agitated and confused and needs more care...so that is one thing that made me cut back on work because I have to be home to look after her. So, financial stress, for sure, because I had to change my schedule*

> *and cut back on hours just so I could be home to be with her. So my hours are almost in half, I'm part-time now and it's hard because I need the money. (DDC14)*

Due to increased unpaid caring responsibilities during the pandemic, this DDC was forced to reduce her work hours and experienced greater financial stress from the lost income. In contrast, other DDCs have had to abide by the increased caring demands as some workplaces were too short staffed to grant a reduction in hours. These DDCs are having to manage increased work hours, and have experienced an improvement in their financial wellbeing from working so much. One DDC describes that when her workplace was understaffed, she felt the need to pick up the hours out of passion for her caring job:

> *Last week, I worked 60 hours a week. I mean, I'm going on now to another seven days a week [...] Our job is probably the most important to be in right now and I love what I do [...]So, because I am working so much. I mean, this is probably the most abundant I've been in regards to finances. (DDC9)*

For some other DDCs, increased hours were not a personal choice but a circumstance where staff shortages meant the assignment of longer hours; however, similar to DDC9, these DDCs also reported a lack of financial stress. In fact, almost half of interviewed DDCs reported that they ended up saving money and improving their financial wellbeing during COVID-19. For these individuals, this was attributed to longer work hours and lacking time for unnecessary or leisure spending. As one DDC details:

> *I actually find that I've ended up saving a lot because I'm not doing any of those luxury shopping that I used to in my personal time for makeup. I have no time for that [...] I've also been doing more shifts because we are understaffed. [...] And because we're not traveling that much anymore either. [...] Before it was like, "Let's go to Niagara this weekend or something like that." We're not doing any of that. So I'm saving on gas, saving on personal expenses [...] So, the pandemic helped me financially.* (DDC12)

4.2.5 Supports or Coping Strategies Used during COVID-19

a. Coping at Work

Several supports or coping strategies were found to be beneficial to DDCs in managing work during the pandemic. In fact, it seemed that the willingness to work extra hours or the decision to remain at work full-time was influenced by the supportiveness of the workplace. The support that DDCs used or were offered contributed to their comfort and satisfaction in the workplace. However, only a quarter of the interviewed DDCs expressed satisfaction with workplace support, with the remaining feeling that they were inadequately supported or experienced issues accessing support from their employers.

When discussing what workplace supports DDCs used or experienced during the COVID-19 pandemic, half the interviewed DDCs mentioned that frequent employer check-ins through an email or face-to-face conversation were supportive and contributed to their work comfort. This provided social support and recognition which provided moral support at work. One DDC describes that having her employer checking in made her feel recognized for her caring work during the pandemic:

> *Sometimes they call me even at my night shift. [...] they call you and ask, 'oh how are you doing?' Sometimes, once a week, they will call you asking: "How is your client? Are you stressed? Are you okay?" So, you know it feels good that they're paying attention*. (DDC3)

Similarly, another DDC described that her workplace implemented check-ins with staff on a weekly basis to keep up with the rapid changes during COVID-19. This seemed particularly important to DDCs who had busy schedules, and who appreciated being debriefed on changing workplace operations or events in order to manage their caring tasks.

For example, the following DDC who received weekly check-in meetings from her employer utilized the debrief sessions to be able to plan her schedules ahead of time:

> *They do weekly check-ins, just to see how things are going...If we meet once a month, things are completely different to what it was, say back in January [...] So the weekly check-ins are helpful, because then you can discuss things that are changing, and then you feel kind of better at the end of the conversation. And they can let us know that like I am assigned to get tested in 4 weeks on that date so we can plan ahead and with my mom's weekly appointments, that's good for me to know.* (DDC11)

In contrast, many other DDCs reported that their employers hardly acknowledged the intense workload they were managing, nor conveyed any appreciation. During COVID-19, some employers were hardly present on the front-lines, and rarely connected with their employees. Many DDCs expressed that their support expectations from their employers were as minimal as expecting a mere 'thank-you' or some form of acknowledgement:

> *We hardly hear a thank-you from our supervisors or people higher up among us...I would like the supervisors or someone higher up to say, 'hey, thanks for helping us through this pandemic' [...] We used to have 2 swabs a week now, for COVID. Two swabs a week. [...] Do you know how tiring that gets? I've been getting really bad headaches because of it and then to think, I have to work the entire day with that. So, yeah, a thank you, once in a while, would be nice.* (DDC1)

Given the demanding work conditions during COVID-19, many DDCs were disappointed by the lack of acknowledgement or social support received from their employers.

In addition to employer check-ins, some DDCs reported that they were supported by their workplace by being able to adjust their schedules or alter their work shifts (for example, switching to a day or night shift). This was especially important during the pandemic as many essential services like medical appointments were no longer flexible in their availability and thereby requiring DDCs to take time off work. However, very few DDCs had employers that granted this flexibility and, even then, it took convincing to receive this support. One DDC described how she had to reveal her DDC status and communicate her unique needs in order to get her schedule adjusted:

> *They actually didn't want to let me out of working in the retirement home or change my shifts to nights. So I did have to use my dad's situation to my advantage to get out of that and explain to them that it was dangerous for not only our clients, but it was dangerous for my own family. And that was the only reason I was allowed to change my work to home care and get help with my shift change.* (DDC2)

In fact, several DDCs felt the need to reveal their DDC status during the pandemic in order to demonstrate their need for support:

> *The supervisors for shifts, they're not supportive to many people, but they say "your situation, it's okay." I'm very lucky about it. It's because since last year, I've been upfront with them. They told me if I wasn't, they wouldn't be very understanding. So, for me, it's okay but they are not as supportive to many other people.* (DDC1)

Caring at their paid work role involved increased fears of personal safety, risks of being a contagion to their family, and heightened impacts to DDCs' health and wellbeing. Although there were periods of PPE shortages that were stressful to DDCs, workplaces supplied staff with PPE and increased hygiene measures in the work environment. During the pandemic, a few DDCs also turned to their workplace's counselling programs or external mental health resources for support during emotionally excruciating periods. Counselling offered by the workplace was useful in managing stress and the negative emotions caused by the pandemic. As one DDC says, the pandemic heightened her stress levels and counselling helped to self-clarify her situation:

> *I talked to a councillor because they offer counseling, through our work. I used to have fears about being able to take care of my husband but when the pandemic came, oh boy, that really triggered things for me. It helps, I think, to not be sad all the time and let it out instead of bottling that stress, look at things clearly*. (DDC1)

However, only a quarter of the interviewed DDCs indicated utilizing counselling offered by their work for support, while the majority of DDCs were not even aware of whether this was an available support. In fact, the lack of awareness of workplace supports during the pandemic was a consistent pattern across almost all DDCs who felt that employers did not put in the appropriate effort to make supports well-known. For instance, one DDC mentioned that after the pandemic, there was even lower staff-supervisor communication than before the pandemic, and that support initiatives were usually discovered through stumbling upon things via conversing with co-workers:

> *We hear from the supervisors even less than before, like maybe an email once a month which talks about the virus and stuff. A lot of the stuff I find out is just because I have a couple friends [...] who hear something and that's usually how I find stuff out is through the girls that I know* (DDC5)

More than half of the DDCs communicated difficulties in getting support from their workplace and some also noted the necessity of incorporating other avenues like their union, to access support. One DDC, a nurse whose dad was admitted to the hospital where she worked, was refused time off by her supervisor for a family emergency:

> *My dad was really sick earlier, he was in the hospital admitted for a week...I was scheduled to work like the next 3 days [...] and my manager was there when I brought my father in. And he says "no, I can't give you the days off." And I'm like, "I'm taking it under emergency leave or my banked days, even just one day I need off." And he was denying that. So I had to go through my union and that was a lot of stress on me because he's the manager, and [...] he was concerned that we're really short staffed [...] Eventually, I went through the union and it got approved. [...] My manager saw my dad as a patient [...]How do you expect me to give 100% of myself to the community if I cannot be there for my family?* (DDC12)

During the pandemic, DDCs' felt their needs were disrespected and the unsupportiveness of their workplaces added more stress to their already taxing situations. For example, some DDCs reported that caring emergencies, as a reason for time off, was not well understood or respected by employers; thus, few DDCs had to call in sick in order to get time off. This difficulty in accessing supports contributed towards the already increasing workplace stress, making coping at work very difficult for DDCs.

b. Supports or Strategies in Managing the Dual Caring Role

Communication with people from their support network was an important resource for DDCs when obtaining social and emotional assistance during overwhelming times in the COVID-19 pandemic. For some, the pandemic improved relationships with work colleagues due to staff utilizing teamwork skills in order to manage the increased work tasks. For instance, many DDCs report that strategizing ways to manage their work priorities, communicating with their colleagues, and relying on one another helped to manage the added stress. Further, without work support, there was an increased reliance on their work team to manage tasks:

> *[...] we started trying to figure out how to manage the work ourselves [...] like bathing and showering our patients in batches even though we are assigned different residents [...] because there's just no way we would be able to do all of that alone without breaking our backs. [...] Another thing we do is we communicate way more amongst each other now. So like, at the beginning, we weren't saying anything because we just didn't know anything about the virus. The managers were clearly lying about PPE stuff and not communicating with us at all. [...] We stopped relying on the managers. So we've banded together and we help one another for the shift to go smoothly. (DDC14)*

Furthermore, few DDCs who were connected to other DDCs at work, found this relationship beneficial since it provided the ability to share a mutual understanding of their situation, and feel that they were not alone. One DDC even took this further and created a support group for DDCs, without realizing the concept of double-duty caring:

> *I started this caregivers group on Facebook beginning of the pandemic because being a caregiver, I know that oftentimes people don't understand what it's like unless they've been there themselves. [...]. It was even harder for people like me that were taking care of their elderly parent and we couldn't cope. I said "there needs to be something". So I went ahead and I created this group. [...] (DDC9)*

Connecting to other DDCs was deemed extremely beneficial in being able to connect to someone in a similar situation and share tips or strategies. A few other DDCs also reported that having other DDCs in their support network gives DDCs a sense of hope and makes them feel more understood. Another DDC, whose husband suffers from a brain tumor, also describes how she created a group for healthcare workers caring for a dependent with a brain tumor:

> *[...] my husband goes to a brain tumor group, once a month and there's a lot of people. So, I'm trying to create a group for the caregiver... someone who like myself, PSWs or healthcare people even... [...] Because, you know...we're all going through parts of the brain tumor with that family member and we all have some sort of an expertise we can share with each other. And oftentimes, you can only talk to someone who understands and relates to you. (DDC1)*

DDCs' support network also included family members and friends who mainly provided emotional and social support during situations where social isolation and managing their responsibilities had become overwhelming. Since family and friends could no longer visit during the pandemic, there had to be greater efforts made to keep in touch with their support network. One DDC described the emotional support received from her mother, and the significance of it contributing to her emotional wellbeing:

> *I'm always talking to my mom. When I'm at work or every chance to text her, I sometimes call and talk about my problems. So I just tell her for example, my husband and I were fighting and I am feeling sad and she talks to me and it really helps. She help me to refresh my mind and not keep living angry. (DDC7)*

Technology was an important support tool used to manage their responsibilities during the pandemic. Almost all DDCs tried to pay greater attention to appointments or shift schedules, as there was practically no flexibility in being able to adjust their schedules later on. As a result, many turned to phone applications, virtual calendars and the use of checklists in order to better organize their time and manage their work efficiency. The use increased after the pandemic, and also led to DDCs' discovery of new apps that helped to manage their stress. Such apps include: calendar, reminders, wellness and newly established workplace shift scheduling apps:

> *I've always used my Google Calendar and Reminders, I don't know where I'd be without it. It always reminds me what to do for my grandma and shift schedules. I recently downloaded an app called Calm which I saw my coworkers using and that's been so helpful during the pandemic when I have headaches and am tired. It gets me to sleep right away, once I listen for a few minutes, or come back from work, and its good quality sleep.* (DDC13)

During the pandemic, wellness apps seem to be more common among DDCs and are being used as coping strategies in maintaining their wellbeing. In contrast to the use of technology to cope, few DDCs report their preference for non-technology coping strategies like journaling, keeping a diary or utilizing a physical agenda. For example, one DDC reports that she keeps separate notebooks and uses them for different purposes: agenda, journaling, and monitoring the health of her husband who suffers from complications of a brain tumor.

> *When I come home I have a book - a communication book with my husband's PSW to tell me how his day was, how his blood sugar was, everything. [...] I record everything in his health notebook. [...] I have two books that I use [...] I should do for today, make a checklist, what is the next day plan. I finish something then I check the list and say I did it. [...] At hospital or in the news, there are sometimes new knowledge for the COVID-19 precaution or I had a stressful day so I will write down and it helps me to relax.* (DDC16)

These support tools and strategies have been emphasized in their lives following the start of the pandemic. The necessity to manage time efficiently and organize the increased number of tasks has become more pronounced. One DDC talks about how after the pandemic, time management has become important to managing her DDC role:

> *Ever since this whole COVID-19 began, I use my reminder app daily and before it was social media. So, I always check schedules, double-check schedules, ensure I don't double*-book *myself so I just do a lot more time management. Because now you have this added stress about kids being home, safety, appointments for her...they just help to manage my stress and responsibilities.* (DDC5)

DDCs have also reported the development of various new habits that have helped them cope during the COVID-19 pandemic. In many cases, meal preparation, increased safety measures and incorporating personal time into their routines has been beneficial. Over half the interviewed DDCs report that precarious work conditions and more work hours made some DDCs start preparing meals in advance. Once prepared, they are frozen so that their family and dependents are cared for in case they are stuck at work or exhausted from a long workday. This habit stemmed from DDCs realizing the need to plan ahead due to the pandemic frequently creating unexpected situations:

> *One thing you should know is you never know what will happen because of COVID. So, I would say like over the weekend, I prepare meals and then freeze them. And then when I rush, that meal could be ready in minutes. [...] and then, if I stay late, it is fine. I am always planning in advance I even have extra pairs of everything stored could be food, clothes, running shoes in the car. Just in case I'm running out or need to isolate and stay away from home, I'm still on the safe side.* (DDC13)

Furthermore, all interviewed DDCs also reported incorporating safety strategies into their daily habits and routines. To cope with their fears of safety, DDCs tried to ensure that no workplace materials or clothing contaminated their home. They also incorporated more personal hygiene practices into their daily routine. One DDC describes her routine from the time she gets home from work:

> *When I come home, I take my entire uniform off, and I put it in a bag and then I bring it downstairs right away for my laundry which is separated from my family. [...]. And then I'll directly have a shower, make sure I'm all clean, and there's nothing's more on there. I'll put fresh clothes on and go take care of my dad. So that is my routine everyday to reduce those ways of contact.* (DDC6)

These safety measures serve as coping strategies as they provide DDCs with a sense of ease and security: *"I'm always trying to be safe, everywhere I go, otherwise I feel uncomfortable. Even carrying my sanitizer, masks everywhere gives me ease."* (DDC7)

DDCs have also relied on personal care strategies as support in maintaining their overall health and wellbeing. A range of activities were reported such as: journaling, going on walks, reading, doing puzzles and meditation while balancing other responsibilities. Although it has become difficult to continue engaging in these activities, DDCs have found them to be vital to maintaining their own mental health and as a result, to coping with their caring work.

> *Journaling, sitting there and actually getting out my emotions, that have been pretty key. I have so many notes, from the beginning of the pandemic, it's going to be interesting to go back afterwards and read through it all. [...] I do meditation, the meditation definitely helps [...] All this helps to boost my serotonin levels, my dopamine levels, it's going to make me feel better to keep going.* (DDC8)

Due to a lack of personal time during the pandemic, it was hard to engage in these activities; however, when they did get the chance, all DDCs reported that it was an immense support to their wellbeing. One DDC explained that the pandemic even helped her realize the importance of not negotiating her own wellbeing for her caring work:

> *I realized that big time because of the past year [...] you got to make sure that you can't negotiate caring for yourself. [...] I compare it to having to pick up a kid from*

> *school. So would you be late to pick up your kid from school? Chances are, the answer is going to be no. So why should I do that to myself? [...] I ask myself that because when you're a caregiver, if you don't, you're gonna end up burnt out. And when you burn out, getting out of that hole is hard and you bring the people you take care of into that hole with you.* (DDC9)

4.2.6 Desired Supports during COVID-19

a. Desired Workplace Supports

Support from the workplace was vital in being able to cope with the increased demands of the pandemic. Many DDCs wished for more flexible scheduling and a greater consideration for employees with unpaid caring responsibilities. One DDC, who had revealed her DDC needs, describes that the scheduling struggles were incredibly stressful and often made her miss medical appointments:

> *I was letting them know I can only do 8am - 4pm. When I had doctor appointments, they would change my hours without my knowledge and it would make me miss doctors appointments. [...] It's so frustrating because they're constantly calling and asking, 'hey can you work at 5:00 AM?[...] I would like them to be more attentive to scheduling. I have back injury [...] and I have a doctor's appointment every single week and there's been several occasions where they changed my shift without notifying me and I'd miss my appointments because I would have to be at work.* (DDC5)

Some DDCs report having to take on greater responsibilities like managing family visitations and doing more administrative paperwork - tasks that used to be completed by volunteers or administrative staff. These extra tasks were indirectly imposed on the healthcare staff when volunteers and administrative staff stopped working and added even more demands to the already intense workload. Thus, some DDCs wished that supervisors would support staff on some of these displaced duties, like overseeing family visitation, which is not a duty of the healthcare worker. As one DDC details:

> *It would be nice for managers to manage family members of patients [...] or took on the job of contacting family to give an update to say like, "Hey, she is doing well, she ate, would you like to talk to her?" Because PSWs are doing that task which we shouldn't be [...] and if we have 8-10 patients, that delays our work. If family don't pick up, residents cry so we have to cheer them and stay longer. So, we could have used help from managers...but they seemed to be disappeared now.* (DDC14).

As depicted in this example, there are opportunities for support from the workplace which would greatly aid in lessening the workload and improving the supervisor-staff relationship. To improve the supervisor-staff relationship, many DDCs wished they received more staff appreciation and had opportunities to connect better with staff and supervisors. As one DDC mentioned, in a time when staying connected is so important, this should also be emphasized in the workplace:

> *Well, I think they should be more empathetic, more appreciating, compassionate towards us as workers. Say 'thank you' and 'you're doing a good job.' And when I say I have a family emergency, understand us. [...] I think they should be more understanding, more compassionate. If they could even hold meetings to see how we are doing and connect with us because that's what we need now.* (DDC12)

After changes due to COVID-19, a mutual feeling among DDCs was an uncomfortable work climate, which made asking for support more difficult at work: "*Things are so different now, I don't even know how to ask for help sometimes because of all these changes* (DDC4). Thus, being able to connect to supervisors and improve this relationship is desirable to DDCs and would contribute to a more supportive work environment.

b. Education in Managing the DDC Role

DDCs felt that time management skills and mental health coping strategies would be the most beneficial topics for them to learn about during the COVID-19 pandemic. In terms of time management during COVID-19, many DDCs expressed wanting to learn about ways to manage the working and unpaid caring time while still being able to schedule time for personal care activities like exercising. They also wished to learn about practical ways to avoid burnout, manage their emotions and positively cope with the fears of contagion during the pandemic.

> *I want to learn more on time management or mental health strategies. I think it would be beneficial if it was provided from work or from the government. But, just to learn about strategies that are backed up by research for us like what are some good strategies or even mini exercises to keep us sane during a busy day?* (DDC5)

All DDCs felt that DDC-specific educational support would be beneficial, with over half of DDC participants feeling that it would be most beneficial and appropriate if it was provided by another carer. As one individual mentions, "*I think people who walked the miles know best. Others wouldn't understand so talking to other double caregivers is better*" (DDC1). Since DDCs hold a unique position managing two caring roles, DDC participants expressed their preference of receiving educational or social support through learning and sharing in groups with other DDCs.

4.2.7 Social and Demographic Characteristics of DDCs

Table 6 provides a summary of social and demographic characteristics of DDCs that participated in the interviews. All 16 DDCs were female who primarily held full-time [75.00% (n=12)] positions in their role as paid carers. During the interviews, ethnicity was not explicitly inquired about; however, many DDCs had brought it up during the discussion of their caring experiences. Among all DDCs interviewed, 3 (17.24%) were White, 3 (17.24%) were South Asian, 4 were East Asian (25.00%) and the ethnicities of 6 individuals was unknown. Half [50.00% (8)] of the DDCs reported working in their paid care role for 4-7 years, 4 (25.00%) had been working for over 8 years, 2 (12.50%) had been working for 1-3 years and 2 were working for 6 months - 1 year. While the relationship to DDCs' dependents varied, most DDCs' [56.25% (9)] provided unpaid care to their parents. Many DDCs [68.75% (11)] reported living with their dependents and 3 (18.75%) individuals reported living with them only during COVID-19. During COVID-19, 8 (50.00%) of the interviewed DDCs reported being unable to gain assistance from their support network for their caring responsibilities, 2 (12.50%) were able to get assistance and 6 (37.50%) reported getting assistance sometimes (for example, when COVID-19 restrictions allowed).

Characteristics	n (%)
Employment	
Part-time	1 (6.25)
Full-time	12 (75.00)
Part-time, working full-time hours	3 (18.75)
Ethnicity	
White	3 (18.75)
South Asian (East Indian, Pakistani, Sri Lankan)	3 (18.75)
East Asian (Chinese, Japanese, Korean)	4 (25.00)
Unknown	6 (37.50)
Gender	
Man	0
Woman	16 (100.00)
Where are you currently working?	
Hospital	4 (25.00)
Long-term care or nursing home	5 (31.25)
Home care	6 (37.50)
Outpatient facility	1 (6.25)
How long have you worked in this role?	
6 months - 1 year	2 (12.50)
1-3 years	2 (12.50)
4-7 years	8 (50.00)
8+ years	4 (25.00)
Relationship with Dependent	
Parent(s)	9 (56.25)
Grandparent(s)	2 (12.50)
Spouse	1 (6.25)

Uncle	1 (6.25)
Cousin	1 (6.25)
Friend	2 (12.50)
Living with Dependent	
Yes	11 (68.75)
No	2 (12.50)
Only during COVID-19	3 (18.75)
Assistance from Support Network during COVID-19	
Yes	2 (12.50)
No	8 (50.00)
Sometimes	6 (37.50)

Table 6: Social and Demographic Characteristics of DDCs

Chapter 5: Discussion

In this study, the impact of the COVID-19 pandemic on DDCs in Ontario was explored through the perspective of employers and DDCs themselves. Double-duty caring is an emerging global health issue involving the straining of both paid and unpaid care roles and requires an adjustment to a novel reality due to COVID-19. Caring is also globally known to be a women's health issue given the gendered nature of caring, resulting in women shouldering greater physical, social, and emotional costs. This study adds a novel perspective to previous studies on double-duty caring as it explores caring in the context of a global health crisis from perspectives of both employers and DDCs. This chapter discusses the study's overarching findings from both phases in relation to their respective research questions.

5.1 Quantitative Phase Discussion

5.1.1 Investigation of Employers' Ability to Implement Support

First, the findings from the survey of healthcare employers suggest that many employers were perceptive of the COVID-19 pandemic's impact on DDC wellness, in terms of: health impact (26 out of 29; 89.70%), workplace stress (26 out of 29; 89.70%), and a decrease in overall performance (24 out of 29; 82.80%). Overall, employers recognize that DDCs were facing adverse health outcomes and difficulties maintaining their work performance. This understanding is widely consistent among recent studies and reports that depict the strenuous conditions of healthcare work during the pandemic which instigating high stress levels and exhaustion (Detaille, 2020). In addition, a study involving an investigation of HR practices discovered that major challenges in healthcare HR systems was poor employee wellbeing and lack of scheduling flexibility, contributing to employee turnover (Zhong et al., 2021; Tekeli-Yesil, 2020). While there are no studies on employer perspectives of DDCs, it is evident that employers were aware and challenged by the precarious conditions and consequences of working in healthcare (Zhong et al., 2021).

These survey findings also depict that employers who rank caring considerations in one of their top priorities for employee health were all (100%) perceptive of health impacts on DDCs during the pandemic. However, despite most employers being aware of the impact on DDC wellness, less than half were observed to implement supports to assist their DDCs. One explanation for this lack of implementation of supports could be due to a range of barriers. According to Armstrong and colleagues (2000), health is fundamentally linked to the distribution of resources, powers, and maintenance of wellbeing, which comes from factors like safe physical and social environments. In the first year of the pandemic, patient admittance rates grew under conditions where staffing was notably inadequate (Behrens, 2020). Thus, the inability of healthcare organizations to effectively cope with a lack of resources while overcoming novel challenges brought on by the pandemic, bars them from properly supporting their healthcare staff (Behrens, 2020). Consequently, constrained resources could have served as a barrier to supporting DDCs. Thus, this study’s results show that the pandemic's precarious impacts to health and wellbeing is observed to be well-known by employers; however, DDC-specific support is lacking. Further studies are needed to understand the constraints to supporting DDCs, and to better explore the employer-DDC relationship during the pandemic.

5.1.2 Barriers in Implementation of Supports

Results from the survey demonstrate that over half of all the surveyed employers (55.20%) were observed to perceive funding as a barrier to implementing supports. Of the employers that implemented supports, 50% reported funding as a barrier. This observation aligns with recent literature that indicates the issue of inadequacies in the Canadian health-care system due to chronic underfunding and cutbacks prior to the COVID-19 pandemic (McArthur et al., 2020; Ontario Health Coalition, 2020). Study results observed that 60% of employers who did not implement DDC support were facing funding as a barrier; this could potentially be the reason for not being able to support DDCs. This observation could potentially be due to the representation of for-profit health employers among the survey participants, who have a greater expectation to make a profit than do not-for-profit organizations, and thereby, are particularly sensitive to funding as a barrier. This ideology is also supported in the literature that views for-profit health services as profit-seeking and stemming from an organizational structure with the purpose of extracting value for its owners and shareholders (Pue et al., 2021; O'Neill, 2003). In theory, and based on the organizational process, if for-profit and not-for-profit agencies had a similar amount of funding, a for-profit facility would be sure to allocate some funding as profits (McGrail et al., 2007). The representation of for-profit health service organizations, in combination with a provincial climate of public health resource constraints (McArthur et al., 2020), further drives funding as a barrier to support, particularly, for DDCs.

5.1.3 Barriers to Support Accessibility

Based on the above observations, less than half of the employers were observed to recognize stigma, as well as recognize the reluctance of DDCs to share caring status or needs, as barriers to DDCs accessing supports. The lack of perception or awareness of these barriers among employers is notable given that previous literature surrounding carers' reluctance to identify their status, or disclose their needs by asking for support, is well-documented (Carduff et al., 2014; Funk et al., 2010). Studies show that family carers were found to express negative perceptions about accessing formal services and felt stigmatized about approaching formal providers due to fears of illegitimacy of their needs (Worth et al., 2006; Funk et al., 2010). Given that these barriers to accessing support were not well-observed among employers, this may warrant the need for increasing employers' awareness and understanding of DDCs, in order to improve accessibility to supports. It may also be likely that employers' lack of understanding of accessibility barriers may instigate greater consequences for DDCs during the pandemic when supports are greatly needed. Amidst a global crisis, this observation presents an opportunity for healthcare employers to adopt a carer-inclusive work culture that abolishes accessibility barriers, like stigma or reluctance to share DDC status, and supports individuals balancing paid and unpaid caring roles.

5.2 Qualitative Phase Discussion

This section provides a discussion of the qualitative phase's overarching findings in relation to existing literature. The layout of this discussion will utilize key elements of the double-duty caregiving conceptual model to discuss important findings from the qualitative phase. These overarching findings include: (a) paid and unpaid caring expectations; (b) narrowing of resources or supports; and (c) self-management and coping during COVID-19. In identifying the overarching findings, the interview study results were considered within the context of the literature, the research questions and in relation to the conceptual model of double-duty caring (2014). This approach aligns with the process surrounding the interpretation of meaning which was described in Thorne's interpretive description method (2016). According to Thorne (2016), this process entails the "thoughtful examination, reflection, and reinterpretation within the context of what else is known" (p.162). The purpose of this phase was to understand how DDCs' caring experience (paid and unpaid caring experience) has changed with the COVID-19 pandemic, what supports or coping strategies they are utilizing, and what supports they need. According to Ward-Griffin and colleagues (2014), the levels of care expectations and resources or supports available to manage the dual role can determine the extent to which DDCs may experience the blurring of boundaries or role strain. During the pandemic and social isolation regulations, the familial expectations (of dependents and other family members) have considerably grown while the level of resources or support have become more inaccessible and difficult to obtain. As a result of COVID-19 and associated challenges, double-duty caring during the pandemic has intensified the role strain DDCs are facing and exacerbated the blurring of boundaries. To note, this is currently the first study exploring the impact of COVID-19 on double duty carers in the Canadian context.

5.2.1 The Burdens of Paid and Unpaid Caring During the COVID-19 Pandemic

The burden related to caring can be defined as the strain shouldered by the individual as a result of the energy, effort, time, financial and psychological input involved in the act of caring (Amer et al., 2015, p.439). In this study, the caring burden was observed to be amplified as a result of challenges of the pandemic. These pandemic challenges included: staff shortages and social isolation regulations, which impacted the wellbeing of paid and unpaid care recipients of DDCs. These results were consistent with many recent studies that illustrate the unpreparedness of the healthcare system during the COVID-19 pandemic which resulted in short staffed work environments and the imposition of unprecedented risks upon front-line healthcare workers (McArthur et al., 2020; Brophy et al., 2021). Longer working hours and heavier workloads were demanding factors in the paid caring role for most DDCs, who reported that more staff were reducing their hours due to emergencies, sickness or being in quarantine. Similarly, recent studies depict that staff absenteeism and the increase in work tasks due to COVID-19 resulted in an increase in healthcare workers' quantitative demands which reduces the quality of care they are able to provide (Ardebili et al., 2021; Mojtahedzadeh et al., 2021). This was also seen in this study, as the majority of DDCs reported caring for more clients and having more caring tasks per shift, which reduced the quality of care and time they were able to give to each client. These increased work demands caused physical exhaustion, compromised the quality of care, and decreased the time involved in caring for clients. Consistent with results of this study, studies also show the prevalence of significant mental health consequences of working in healthcare due to an increased workload and fears of contagion created by the COVID-19 outbreak (Walton et al., 2020; McArthur et al., 2020). Several DDCs that worked in the vicinity of coronavirus-positive patients were far more bothered, expressing immense anxiety about being a contagion to their family. Most studies depict the intense pressure that healthcare workers are under; however, for those that manage a DDC role, these impacts are obviously exacerbated, yet are underreported.

Many DDCs experienced an increased intersection of their caring roles as evident by the constant concerns for the care of their dependent at work and the fears of safety when navigating both caring environments. Due to the lack of access to important supportive services like homecare, DDCs report worrying about their dependents' wellbeing at work and, with kids staying home from school, worry about clients and their dependents simultaneously. Services operating at reduced capacity, together with social isolation regulations, brought a wave of mental health issues and poor emotional wellbeing to DDCs' paid and unpaid care recipients. This made the paid and unpaid caring environments extremely demanding for DDCs and exacerbated care burdens. As a result of increased demands in both caring roles, many DDCs expressed high levels of stress, fear, emotional strain and periods of burnout throughout the pandemic. Furthermore, DDCs are increasingly bringing the stress of their dependents' wellbeing to work and worrying about their care throughout the workday. This increasing blurring of paid and unpaid care boundaries stems from one of the most challenging obstacles of COVID-19: social isolation, which has increased the loneliness and depression of the aging population (Kar et al., 2020; Wu, 2020). DDCs are emotionally strained and feel closely affected by the poor wellbeing of their clients and dependents. The aging population has been found to be most vulnerable to the psychological impacts of the pandemic; pre-existing conditions can worsen this panic, making it difficult to manage their health (Banerjee, 2020). This result is consistent with this study in that DDC participants also report that the pandemic induced depression and agitation in their aging clients or dependents, making it difficult to navigate their care given that this was not something they were professionally trained in before the pandemic.

Many DDCs in this study also report that misinformation serves as another barrier to providing proper care, as many dependents and family members continue to be victims of scaremongering tactics. Misinformation and mistrust in the COVID-19 pandemic by their own loved ones is frustrating to healthcare workers as it undermines their diligent efforts to mitigate this crisis, adding yet another burden to their caring role (Ali et al., 2021). Some DDCs felt that translating COVID-19 health information had become almost a third role for them to carry out in trying to protect and convince their dependents and other family members. With the added responsibilities of companionship, educating their care recipients, and managing kids, DDCs' caring expectations are far more heightened than before the pandemic. According to the double-duty caring model by Ward-Griffin and colleagues (2014), this increase in familial care expectations, combined with the broadening of scope of professional caring tasks during the COVID-19 pandemic, influences greater boundary blurring, making DDCs prone to worse health outcomes.

5.2.2 Narrowing of Resources or Supports

This study aimed to explore the coping strategies or supports that DDCs are using to manage their dual roles while also investigating how their caring experience has changed due to the COVID-19 pandemic. Not only are DDCs navigating new challenges in the care of their dependents, but they are also working in risky work environments that intensify rumination surrounding safety and health. Meanwhile, the inaccessibility of supportive services, like daycare and homecare services, place DDCs in a stressful position where they must increase their care commitment to their dependents and clients whilst adapting to new coping strategies. Another recent study on unpaid carers' concerns during COVID-19 also discovered that shortages and service restrictions were an important barrier to carers in being able to provide their usual care (Lorenz-Dant and Comas-Herrera, 2020).

For many DDCs, the unavailability of homecare help and day care created huge challenges that consequently resulted in increased time off from work, lost income, and reduced work hours. Previous studies also show the lack of availability of home care and associate the narrowing of homecare support to staff shortages and staff wanting to reduce the visitation to multiple homes (Lorenz-Dant and Comas-Herrera, 2020). For DDCs who had access to daycare for children, there were issues with operations, as many reported frequent closures of the space due to suspicion of sickness. Consequently, this meant that DDCs had to compensate for the loss of their usual support services and increase their care responsibilities. Furthermore, many DDCs also reported an increase in unpaid caring responsibilities because of reduced accessibility or availability of their support networks. For instance, many DDCs reported that social distance regulations made it difficult for them to receive caring help from their siblings or other relatives. Support networks were previously found to be useful in providing some degree of emotional or moral support and, at times, even assisting with some caring tasks for the dependent (Lopez et al., 2019; Rosenberg et al., 2015). Thus, the suspension of DDCs' informal support network created considerable challenges in managing their care load and produced pressure to manage it all alone.

Overall, the resources and supports available for DDCs to manage their responsibilities has considerably decreased due to the COVID-19 pandemic. According to Ward-Griffin and colleagues (2014), the decreased availability of resources and supports is contributory to the poorer health outcomes and exacerbates the role strain of DDCs. Therefore, it remains necessary for both healthcare organizations and the community to recognize DDC distress and provide greater support during these times of need.

5.2.3 Use of Supports during COVID-19

In order to cope with the fast-changing environment of COVID-19, DDCs are utilizing various supports and developing new coping strategies to manage their increased workload. When possible, many DDCs are increasingly utilizing supports from their employers, such as, flexible scheduling, reducing work hours, and changing work shift assignments to be able to care for their dependent (day shift to night shift or vice versa). DDCs have a constant COVID-19 conscientiousness that stems from their fears of contagion to themselves and their family and are making conscious choices to reduce close contact with patients. This finding is consistent with previous literature that reported the same heightened fears of contagion among healthcare workers in Ontario during the 2003

SARS pandemic (Maunder et al., 2006). Similar to results of this study, previous literature depicted the use of workplace supports such as, counselling for emotional support, communication with co-workers, and protective PPE (Maunder et al., 2006; Mojtahedzadeh et al., 2001). However, it is important to note that many DDCs felt uncomfortable in their work environment as their needs often went unrecognized, despite attempts to communicate and seek help from their supervisors. The reportedly poor support of the workplace could possibly be attributed to the increase in work responsibilities of supervisors who shoulder the accountability of enforcing and keeping up with fast-changing safety regulations. The pandemic has shed light on failures of care delivery and coordination in various health settings and has warranted the need for regulatory changes by employers and the government to better manage the outbreak (Auener, 2020; Landers, 2020). As a result, the HR and supervisory divisions could also be overwhelmed with increased work responsibilities, resulting in staff and DDC-specific support being overlooked. Regardless, a broader understanding of double-duty caring and the use of HR instruments needs to be incorporated into workplaces to better support DDCs in managing their roles (Detaille et al., 2020).

With the lack of access to their usual supports, DDCs have turned to the use of new strategies to manage time and cope with added stress. The use of support tools like phone applications (calendar, reminders, or meditation apps, agendas, and journals) were commonly used by DDCs for prioritization of tasks and for mindfulness. While some of these tools, like calendar applications, were already in use prior to the pandemic, some DDCs report an increased usage of these apps and the search for new apps during the pandemic. This is consistent with many recent studies that report the technology wave has been incredibly beneficial in supporting individuals with: a range of daily tasks, scheduling, education, and mindfulness (Cuffaro et al., 2020; Iyengar et al., 2020). As used by DDCs and seen in literature, the technology surge during the pandemic improved the access to mental health resources, like virtual counselling and mindfulness apps like Calm, which have been of particular interest to those working in healthcare professions (Behan, 2020; Schultchen et al., 2020). Interestingly, several DDCs also adopted the habit of preparing meals in advance for their families and dependents, in an effort to plan ahead. This was instigated due to work requiring extra hours, or when DDCs were too exhausted to prepare meals. This coping strategy has been advised in guides for unpaid carers in the past (Taillefer and Cote, 2016) and shown to be a common tactic for time management. The aspect of time management was very important to DDCs as they struggled to make time for themselves and tend to personal needs. Many DDCs described feeling that they were continuously caring, and lacking time for hobbies that they used to enjoy before the pandemic. However, when they were able to, personal care strategies for DDCs ranged from meditation or self-reflection, through to journaling or exercising. These types of coping strategies serve as internal coping strategies for carers that help to lower levels of burden and decrease carer stress, while external strategies like family support aid with the maintenance of the caring role (Pratt et al., 1985; Iavarone et al., 2014).

Lastly, the present findings suggest that there are many aspects of the DDC experience that could be supported in order to lessen health risks. Such supports include: improving DDC-specific support in the workplace, and increasing awareness and access to respite care for DDCs. As suggested by previous studies, the mere awareness of double-duty caring in the workplace is greatly needed in order to improve its social recognition and sensitize employers and staff to better support DDCs (Vasileiou et al., 2017).

5.3 Summary of Merged Findings and Recommendations

The process of merging findings involved triangulating and comparing the results from the quantitative and qualitative phases to identify areas of convergence (agreement in findings); complementarity (related or complementary findings); dissonance (disagreement in findings); and silence (important finding discovered in one of the methods) (Farmer et al., 2006; O'Cathain et al., 2010; Adams et al., 2015). As findings were collectively viewed: the data illuminated key areas of improvement, recommendations in supporting DDCs and improving DDCs' caring experience during the COVID-19 pandemic. In the quantitative phase, the findings investigated healthcare employers' perspectives on DDC wellness, the implementation of DDC-specific supports, and barriers involved in implementing or accessing workplace supports during the COVID-19 pandemic. These findings revealed underlying workplace conditions and provided a foundational understanding of support implementation from the employers' perspectives. The qualitative phase explored the impact of the pandemic on: caring experiences, supports or coping strategies utilized by DDCs, and desired support during the COVID-19 pandemic from the perspective of DDCs. These findings provided valuable context towards understanding how pandemic-related challenges impacted DDCs' caring roles and affected their health and wellness. Based on the findings from both phases, the impact of the COVID-19 pandemic on DDCs can be described as increasingly demanding, and a challenging experience that forced them to adapt their support strategies or suffer consequences of emotional strain and burnout. Refer to Table 7 for a summary of the merged findings. This section discusses the overarching findings of the mixed-methods study in relation to existing literature, while providing key recommendations that aim to improve support for DDCs during the COVID-19 pandemic.

5.3.1 Deteriorating Wellness of DDCs during COVID-19

The finding that DDCs are facing poor health and wellness consequences due to the pandemic is consistently understood among both employers and DDCs. The quantitative findings indicated that many employers observed poorer health impacts (physical strain or mental health issues) and a decrease in overall work performance among their DDC employees. This coincides with the qualitative findings which show that during the pandemic, DDCs are experiencing an increased caring burden as evident by their poor health consequences and trouble providing the best quality of care to their clients. Both results show that the major reasons for DDCs' increased caring burden involve the following COVID-19 challenges: increased paid and unpaid caring responsibilities, fear for personal and dependent safety, and lack of support. In trying to manage these challenges without access to their usual support, DDCs are struggling to maintain their wellbeing and are suffering from exacerbated psychological stress. Many studies from across the world on healthcare workers' wellbeing during the COVID-19 pandemic has illuminated the harsh reality of their deteriorating health, intense workload, and increased long-term risks of post-traumatic stress disorder (Chirico et al., 2021; Thomas, 2021; Sultana et al., 2021; Brophy et al., 2021). However, for DDCs, who also have caring commitments outside of work, these consequences were ‘constant’ and emotionally draining to deal with. These negative health consequences left DDCs exhausted and negatively impacted their work performance and caring duties.

The decrease in social support and worsening of dependent wellbeing due to social isolation was especially difficult to navigate for DDCs, who were already juggling greater responsibilities in both their caring roles. As a result, DDCs found it emotionally stressful when they were unable to provide the best quality of care to their clients or dependents and improve their wellbeing. Other studies further demonstrate that social isolation not only instilled loneliness and depressive symptoms in care recipients, but it has created a greater dependency and reliance on their carer (Makaroun et al., 2020; Han and Mosqueda, 2020; Lee et al., 2021; Lightfoot et al., 2021). The burden associated with this increased dependency was reflected in this study, as support services like adult day programs or home care were unavailable, making dependents more reliant on DDCs to provide the extra engagement and care. This increased dependency put DDCs in a constant state of COVID-19 conscientiousness that involved continual fears of safety and constant stress for the care of their dependents even while at work. Overall, the findings from both phases in this study suggest that DDCs’ caring burden has been exacerbated and taken even greater tolls on their physical and emotional wellbeing. This knowledge about pandemic-related challenges, like increased caring responsibilities and lack of sufficient support that amplify DDCs’ burdens and inflict poor health consequences, serve as an important avenue to tackle when planning for public health crises. In order to manage DDCs’ increased caring work and alleviate the stress of trying to engage their dependents, there is a need to improve awareness of resources and online programs that support dependent wellbeing. During COVID-19, many of the regular in-person adult day care programs have transitioned to offer activity or support programs virtually but still have low engagement rates (Wu, 2020; Lightfoot et al., 2021). Since there are many different types of virtual activity programs available for dependents of varying needs, there is a need to compile these resources and increase awareness of these initiatives to DDCs. For example, the Alzheimer’s Family Centre offers brain-engaging Zoom group sessions for individuals with Alzheimer’s, and the National Institute for Aging has compiled simple at-home workout videos for older dependents with varying capabilities (Alzheimer’s Family Centre, n.d; Clifton, 2020). These resources have been helpful to maintaining dependents' physical and mental health during the COVID-19 pandemic and engaging them during tough periods of social isolation. Thus, online activity programming serves as a new avenue of support for DDCs that needs to be promoted and improved upon.

5.3.2 Barriers to Support

The overall findings indicate that there is a lack of sufficient support for DDCs in the workplace resulting in them feeling overburdened and uncomfortable in the workplace. The quantitative findings elucidated that less than half (48.30%) of the employers were observed to implement support for DDCs and when support was implemented, employers were less likely to perceive DDCs to be facing negative health impacts. The employers that did not establish supports for DDCs reported funding (60.00%) and other barriers, like lack of knowledge/awareness about DDCs or what supports are needed, (80.00%) as obstacles to supporting their DDC employees. While both employers and DDCs are facing additional barriers during the COVID-19 pandemic, barriers faced by employers reflect upon staff, particularly DDCs, who face even greater barriers and have a greater need for support. If employers are unable to implement support due to structural or organizational barriers, DDCs shoulder the consequences of increased caring demands alone. Furthermore, given that there were major budget cuts to the healthcare sector just before the pandemic, which were causation to fewer healthcare workers and more rationing of services, healthcare employers were pushed into the COVID-19 crisis with a lack of funding and preparation to adapt and best support their employees (Hepburn, 2020; Wilkason et al., 2020; McMahon et al., 2020). So, it is likely that funding and resource constraints have been major barriers to support implementation during the COVID-19 pandemic. Regardless, it is imperative for healthcare employers to prioritize supporting their workers, who trust that they will be protected and supported at their workplace (Wilkason et al., 2020; McMahon et al., 2020). Yet, most DDCs interviewed report feeling unsafe, uncomfortable, and unsupported by their employers. For example, some DDCs even reported being encouraged by their employers to re-use their hospital masks for multiple days at work without acknowledgement for its reduced protection (DDC11). In addition to providing formal or resource support, it is also important for healthcare employers to, at the very least, acknowledge and reassure their front-line carers (Spector, 2020; Adams and Walls, 2020). The simple act of acknowledgement, reassurance and genuine inquiry by healthcare leaders is incredibly important to workers, particularly those that are overworked from balancing unpaid caring responsibilities (Shanafelt et al., 2020; Rangachari and Woods, 2020; Adams and Walls, 2020). Some DDCs in the qualitative phase of this study reported that they hardly hear a ‘thank-you’ from supervisors let alone support for managing their intense workload (DDC1). Thus, a key area of improvement for healthcare employers to sustain a resilient caring workforce is to be more visible on the frontlines of care and responding to the needs of DDCs in a purposeful way, by facilitating social support and access to helpful services (Shanafelt et al., 2020; O’Halloran, 2020; Pearce, 2020).

5.3.3 Improving Awareness and Knowledge Mobilization

The findings from both phases of this study point to the need for knowledge mobilization for employers and DDCs alike in order to create a carer-friendly work environment and establish a mutual understanding between DDCs and employers. Organizational resilience is highly reliant on cohesion and mutual trust between the team and leaders, which has been greatly interrupted during the COVID-19 pandemic (Rangachari and Woods, 2020; Spector, 2020).

In the quantitative phase of this study, very few employers believed that stigma or a reluctance to share caring status or needs was a barrier to DDCs in accessing support. However, this finding disagreed with the experiences of DDCs which depicted that they felt uncomfortable or hesitant in either requesting assistance or communicating their need for support. Furthermore, caring-related stigma and a reluctance to share caring needs or ask for help has been well-reported in previous literature and served as a preventative factor for carers being able to access support (Werner and Heinik, 2007; Mitchell and Kowlton, 2009; Zwar et al., 2020). During the pandemic this can be critical to DDCs’ situations and can endanger the capability of managing their dual role whilst maintaining their health and wellbeing (Zwar et al., 2020). Based on the quantitative findings, it is likely that healthcare employers lack knowledge and awareness of the prominence of these barriers. In order to ensure that DDC-specific support interventions are well-utilized and properly implemented, this knowledge needs to be mobilized among healthcare employers so that they can work towards fostering a comfortable and stigma-free work environment. This recommendation is incredibly important during the COVID-19 pandemic as DDCs are already facing a loss of institutional and social support (Theorell, 2020); thus, additional barriers to accessing support can further worsen their situation.

Similarly, it is also important to teach DDCs the importance of seeking support and asking for help in order to avoid instances of burnout. A key concern is the need to abolish the severity of barriers like stigma and reluctance to share caring needs from DDCs' perspectives. In the qualitative phase, many DDCs reported feeling uncomfortable asking their workplace for support (DDC5) or under pressure to manage it all alone (DDC16), preventing them from accessing supports and bettering their situation. Previous studies demonstrated that DDCs often choose to cope by internalizing behaviours of silent suffering and self-sacrifice rather than asking for help which blurs the boundaries between their personal and professional lives (Reca et al., 2002; George, 2008). Some DDCs in this study also had trouble asking their family or friends for help with their unpaid caring responsibilities and ended up self-internalizing the added pressure (DDC16). During the pandemic, carers are even more likely to burn out or choose to not come to work, as opposed to exploring support from their networks or workplaces (Ontario Caregiver Organization, 2020). In addition, government-assistance programs like caregiving benefits still have low assistance rates and are attributed to a lack of awareness of available supports among individuals with unpaid caring responsibilities (National Senior Strategy, n.d; Lum et al., 2011). Some of these programs could greatly benefit DDCs who are struggling during the pandemic with the provision of financial support, respite services, and paid leaves (Avraam and MacMillan, 2017; National Senior Strategy, n.d; Sinha et al., 2018). The issue of a lack of awareness of support available to DDCs outside of work was very prominent in this research as well. Thus, there are many potential gains to be realized by enabling awareness of user-friendly information on the availability of support programs and increasing DDCs' caring competence by realizing the importance of asking for help and being able to do so (Quigley, 2017; National Senior Strategy, n.d). Based on the findings from the qualitative phase, many DDCs also describe that while they would appreciate education and knowledge on coping strategies, and shared their vision for receiving this educational support from other carers. This stemmed from DDCs' recognition of their unique positioning and their perspective of feeling most understood by others in a similar situation.

Lastly, the findings from both phases depict that there is a lack of DDC-specific support implemented by employers and that many employers (82.80%) were observed to report the prominence of barriers that prevented the establishment of support. In the qualitative findings, only few DDCs reported additional support being offered to them once they communicated their DDC status to their managers or supervisors. During the COVID-19 pandemic, DDCs are not well-supported in the healthcare work environment, and employers lack the understanding of how to best support their staff who are fighting front-line whilst balancing unpaid care demands (O'Halloran, 2020; Rangachari and Woods, 2020). For example, the majority of DDCs interviewed in this study reported employers disrespecting their needs as a DDC and often had to go through lengthy processes of contacting their unions or higher-ups to simply receive their banked day off (DDC12, DDC16). Instead of retaining work practices and employer involvement that existed prior to the pandemic, health care leaders need to adapt and actively respond to the needs of their staff (Spector, 2020). Based on the findings from both phases of this study, a lack of awareness on DDCs and what supports are needed is very apparent and is a key area of concern that employers must address. The experiences of DDCs and the desired supports they expressed depict that their main needs for support from their employers are surrounding: flexible working arrangements, advanced planning for caring emergencies, improved communication (e.g., acknowledgement and reassurance), and awareness of support programs (e.g., employee assistance programs). Studies also show that a team approach and targeted referrals to identify carers in the workplace, can help gauge their specific needs and provide them with the appropriate support (Dang et al., 2020; Ontario Caregiver Organization, 2020). In enforcing these new support programs or policies, it will also be important for healthcare employers to continually monitor and support DDCs as pandemic-related impacts are ever-changing and may be potentially traumatic and long-lasting.

Quantitative Findings: Employers	Qualitative Findings: DDCs	Agreement	Interpretation
Employers observed negative health impacts, poor workplace wellness and decreased overall performance in DDCs (89.70%, 85.70% and 82.76%, respectively)	All DDCs had negative health outcomes Poor workplace wellness and work performance was apparent	Convergence	This describes how caring has changed with the pandemic. Negative health outcomes and demands of workplace conditions are exacerbated and recognized by employers and DDCs.
Less than half employers implemented supports for DDCs (48.276%)	DDCs feel unsupported and uncomfortable at work.	Complementary	There is a lack of sufficient support for DDCs.
Employers observed to face funding or other barriers in implementing supports	DDCs are facing additional barriers in both their caring roles (lack of access to support, increased responsibilities) DDCs report limited resources (PPE, inappropriate compensation) at work	Complementary	Both employers and DDCs face barriers in their respective roles; thus, impacting the quality of care and support.
Less than half employers perceived that stigma or reluctance to share caring needs is a barrier to accessing support	DDCs report feeling uncomfortable and fearful in requesting support	Dissonance	Employers lack awareness of DDCs' obstacles to accessing support. Potential for knowledge mobilization for employers (support accessibility) and DDCs (asking for help).
Many employers perceive lack of awareness/complexity of support is an obstacle to DDCs accessing support	Many DDCs were unaware of available support	Convergence	There is a potential for knowledge mobilization in improving awareness of DDC supports and making them easily available.
	Increasing role strain due to greater workload in both caring roles, emotional strain and difficulty providing best care to clients and dependent	Silence	Describes the change in caring experience for DDCs.

	DDCs desire supports in their paid and unpaid caring role: schedule flexibility, mental health education and communication with other DDCs.	Silence	Recommendations for carer-friendly workplaces and educational topics that would benefit DDCs.

Table 7: Summary of Findings

Chapter 6: Conclusion

In summary, this study makes an important contribution to the literature as it presents a multi-perspective investigation of the experiences of DDCs during the COVID-19 pandemic. By exploring the concept of double-duty caring during COVID-19 from the standpoint of employers and DDCs, this study elucidates the gaps in knowledge, areas of need for DDCs, and provides a better understanding of how the caring experience has changed. The findings of this mixed-methods study lay the foundation for the development of supportive workplace policies and provide insight on how to prepare and protect the vulnerable DDC population for a pandemic.

Given that 80% of healthcare workers in Canada are female and the majority of unpaid caring roles are traditionally placed upon women, it is likely that many front-line healthcare staff are DDCs balancing a dual caring role during the COVID-19 pandemic (Health Canada, 2004; Porter and Bourgeault, 2017; Boumans, 2014). DDCs are particularly vulnerable to poor health and wellness consequences, such as physical strain, burnout, symptoms of poor mental health and compassion fatigue (Ward-Griffin et al., 2005; Arriagada, 2020; Vitaliano et al., 2003). The findings of this study confirmed that DDCs are a highly vulnerable workforce and discovered that consequences to their health and wellness have been accentuated due to COVID-19. DDCs are now balancing their dual caring role with added responsibilities, a lack of access to formal or community-based support services, and constant fears of contracting the COVID-19 virus. They are experiencing more frequent instances of burnout, emotional exhaustion and increased role strain in trying to manage their dual caring roles. Based on the double-duty caregiving model (Ward-Griffin et al., 2014), DDCs' experience of caring during the COVID-19 pandemic best fits the '*living on the edge*' prototype as supports have weakened drastically while the caring workload and expectations have grown.

In an attempt to support DDCs, several studies have previously provided evidence on carer needs and compiled recommendations for carer-friendly workplaces; however, no recent studies have explored the needs and supports desired by DDCs during the COVID-19 pandemic (Lilly, 2011; Wiles, 2003). Through the qualitative phase, this study was able to highlight new and unique needs of DDCs in managing their caring roles during a pandemic. This evidence is especially important to adapting and improving upon existing support and the creation of new support that fits the needs of DDCs during COVID-19. To date, there is very limited evidence exploring employers' perspectives of supporting carer-employees and their perception of the implementation of CFWP supports, and even less that involve the context of the pandemic. This study contributes to this limited literature through the observation of a potential knowledge gap among employers in their understanding of DDC vulnerability and recognition of barriers that prevent carers in accessing support. This study shows that there is work that needs to be done in incorporating the consideration of caring employees in workplace policies and improving employers' understanding of DDC needs, particularly, during the COVID-19 pandemic. During the pandemic in Ontario, there have been constantly adapting policies and regulations that aim to continually improve the safety and protection of healthcare workers. Thus, these findings are timely and pertinent to the creation and improvement of DDC-specific supports.

6.1 Study Limitations

In the quantitative survey phase of this study, there was a small sample size of employers which limits the generalizability and internal validity of the findings. Although eligibility criteria was incorporated in the blurb used to distribute the recruitment poster, the data collection was anonymized and it was not possible to screen participants prior to completing the survey. The quantitative phase also received 10 incomplete responses which were not used in data analysis, contributing to the reduced statistical power of this study (Coste et al., 2013). Incomplete responses also indicate the potential presence of biases, such as non-response bias, if the incomplete respondents differ from those that completed the survey (Coste et al., 2013). However, to note, the timeline of recruitment for the survey coincided with the beginning of the provincial COVID-19 vaccination campaign, which meant that healthcare employers were very busy and unable to allocate time towards this research study. This impacted the sample size and could have potentially contributed to the number of incomplete responses.

In the qualitative phase, there were limitations involved in conducting the semi-structured interviews. Given that semi-structured interviews are verbal recollections of interviewees, the findings and reports of participants are vulnerable to recall bias and social desirability bias (Althubaiti, 2016). In the interviews, DDCs were asked a range of questions that asked them to recollect specific aspects of their caring experiences throughout the COVID-19 pandemic, which was a rapidly changing situation. Thus, it is possible that participants may not have recalled their experiences clearly and been victim to recall bias. Social desirability is also a commonly experienced bias in qualitative studies which involves participants responding to questions in a manner that is favorable to the researcher (Althubaiti, 2016). Some questions in this interview could be considered sensitive such as those inquiring about DDCs' caring process during COVID-19, which could influence DDCs to provide an answer they feel may be more socially acceptable.

6.2 Future Research Directions

Firstly, as described in the limitations section, the quantitative phase of this study had a small sample size which was a big factor in the lack of significant results. There are also very few existing studies that gauge employers' understanding of DDC needs and their perspective of carer-friendly support. The quantitative findings demonstrate that there may be a disconnect between employers' understanding of double-duty caring and DDCs' support needs, especially because there was a high percentage of employers observed to perceive a lack of awareness in what supports are needed. In the context of a pandemic, DDCs have greater needs for support; thus, it's critical for healthcare employers to recognize these needs to provide support for their carer employees. To build on this initial research, further investigation is needed to understand the reasons behind employers' lack of support implementation, operational barriers faced by employers during COVID-19, and strategies to overcome support implementation barriers. Thus, future research should explore the healthcare employers' perspective of supporting carer-employees during the COVID-19 pandemic.

Secondly, this study also highlights the importance of social support for DDCs as many felt that the loss of communication with their support network was emotionally difficult for them. During the pandemic, DDCs experienced a lack of social support from their employers and were unable to properly connect with family or friends because of COVID-19 social distancing regulations. DDCs wished that they could communicate with other individuals balancing a dual caring role like themselves. For some of the interviewed, this motivated them to take initiative and establish communication with a small group of DDC coworkers or form a public and online DDC support group. This is similar to the Ontario Caregiver Organization's Peer Support Group program which has been running throughout COVID-19 and allows carers to connect regularly and discuss their challenges and triumphs (Ontario Caregiver Organization, 2020). However, there is no publicly available support group or program presently available for DDCs in Ontario, who are a much more vulnerable group with increased needs for social support during the pandemic. In the contexts of public health crises like the COVID-19 pandemic, it is critical to stay socially connected and be able to share challenges, milestones and achievements in order to maintain positive mental health (Matys, 2020; Ontario Caregiver Organization, 2020). Thus, future research needs to be conducted on what type of social support would best benefit DDCs and the efficacy of a DDC-specific support group in managing caring challenges during the pandemic. Furthermore, because DDCs have expressed an interest in communicating with other DDCs, future studies can engage them to design, implement, and adapt meaningful support group programs that would be beneficial during a pandemic.

6.3 Implications for Practice and Policy

According to the double-duty caregiving model, DDCs' ability to manage multiple caring demands is dependent on a variety of factors, such as caring expectations, the level of support, and the use of negotiating strategies (Ward-Griffin et al., 2014; Ward-Griffin, 2005). During the COVID-19 pandemic, DDCs’ caring experiences have been intensified, coupled with diminished access to supports that previously helped them manage their responsibilities. Findings show that DDCs’ caring experiences have become overwhelming, and that this experience can be impacted by their relationship with their healthcare team and with their supervisors or managers. In an attempt to expand their supports and navigate managing paid and unpaid care boundaries during the pandemic, DDCs sought support from employers to obtain a flexible schedule and achieve considerations for caring emergencies. However, DDCs’ employers were hardly present on the frontlines of care and were still unsupportive even after DDCs revealed their caring status and communicated their needs. This finding is complementary with the quantitative phase which observed that employers lacked knowledge on DDCs or what supports would benefit DDCs. Employers must be inclusive and considerate by communicating with DDCs to better understand their caring needs and responding appropriately. Previous studies and other investigators have also depicted this towards recommended policy actions to supporting DDCs in the workplace (Ward-Griffin, n.d.). For example, a Canadian national knowledge translation initiative, that utilized the same double-duty caregiving model as this study, generated policy recommendations directed at healthcare agencies and policy makers to bring light to the issue and as a call to action for enhanced supports (Ward-

Griffin, n.d.). Thus, the results from this study serve as an opportunity to build upon the recommendations identified by Ward-Griffin and colleagues (n.d.) and adapt it towards the context of a pandemic. Furthermore, it is also important to consider that the pandemic has caused many disruptions to workplace operations and DDCs' caring scenarios, making it vital for employers to be resilient in adapting to these changes (Rangachari and Woods, 2020). Thus, employers must initiate communication with their carer-employees to ensure their concerns are heard, while being more present on the frontlines to establish trust and understanding in the supervisor-staff relationship. For employers in the home care sector, this could be done through establishing regular communication with carers, inquiring about work-related concerns, and establishing support awareness. Overall, healthcare employers, who are responsible for maintaining a resilient workforce, are best suited to improving the work culture and fostering collaborative relationships with their carer-employees.

Many healthcare organizations utilize a passive approach to supporting their carer-employees, which means that they provide no additional support beyond the general provincial policy protections (Howatt and Bradley, 2018; Rangachari and Woods, 2020). This means that healthcare organizations do not have policies or regulations to address the support needs and psychological distress encumbered by DDCs during crisis such as the COVID-19 pandemic (O'Halloran, 2020; Pearce, 2020). DDCs support needs are not being addressed during the pandemic as they are continually experiencing a lack of communication and lack of flexibility from employers; consequently, they are facing burnout from trying to keep up with increased care demands. These experiences have contributed greatly to DDCs being unable to provide their best quality of care to their dependents. Thus, it is in the best interest of employers to establish workplace strategies that maintain resilience among their caring workforce, so that they are able to manage their caring work under challenging conditions. Although DDCs' specific needs may vary based on the individual, HR managers can benefit from consulting with their DDC employees for ideas and contributions to better establish workplace support arrangements. Based on evidence from this study, there is an apparent need for healthcare employers to proactively establish a plan for caring emergencies that require DDCs to leave work. For example, many DDCs reported having frequent caring emergencies, such as home care staff not showing up, or day care sending their kids home mid-day. Investing time and resources to develop a strategy for caring emergencies or caring needs may be a necessary step in improvising the resilience of DDCs during the pandemic. Finally, it is important that any workplace policies or strategies that are implemented are also being continually adapted and monitored to ensure they are meeting the needs of DDCs. Thus, it will also be important for supervisors to maintain communication with DDCs by engaging in problem-solving conversations that allow both groups to learn from one another.

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Appendix A: Survey Instrument for Healthcare Employers

Purpose of the Study

The term '**double-duty carers**' **(DDCs)** refers to unpaid family carers who are employed in the healthcare field while also providing unpaid care outside of work (to a family member or friend). The purpose of this project is to examine the impact of COVID-19 on both DDCs' unpaid caring work and paid healthcare work. Recognized by the Canadian Home Care Association as an urgent priority, DDCs and employers can benefit from evidence-informed guidelines on best practices, in order to reduce consequences like illness, work absences, stress and being a source of sickness to those they are informally caring for.

Confidentiality

Your participation in this research project is **voluntary,** will remain completely **confidential** and responses will be **anonymized.** You have the right to withdraw from the study at any time prior to the completion and submission of your survey. This survey will not gather your name or personal identifying information so it will not be possible to withdraw any personal details after submitting a response to the survey.

Please ensure you read the preliminary survey information linked here, before proceeding.

Knowledge on double-duty caring

1. Please rank your understanding of double-duty caring:

Little to no understanding of double-duty caring	Below average understanding of double-duty caring	An average understanding of double-duty caring	Above average understanding of double-duty caring	Excellent understanding of double-duty caring
1	2	3	4	5

2. What percentage of your employees do you estimate to have family caregiving responsibilities? ______%

3. How can caring responsibilities impact work performance?
   - Physical strain
   - Mental health issues
   - Lack of motivation
   - Resignation
   - Increased requests for days off
   - Use of medical leave or other leave options
   - Decreased overall work performance (showing up late to work, lack of attention to detail, etc.)

- ○ No significant impact

  Other: _______ (please explain)

4. How do you think the impact of caring responsibilities differs between male and female employees?
   - ○ Males are impacted more
   - ○ Females are impacted more
   - ○ Impacts for all are about the same
   - ○ Other: ______ (please explain)

5. How much do you agree with the following statement?
   Employees are comfortable identifying themselves as family caregivers at work.
   - ○ Strongly Agree
   - ○ Agree
   - ○ Disagree
   - ○ Strongly Disagree
   - ○ Unsure

6. How much do you agree with the following statement?
   DDC employees feel obligated to provide care to their family.
   - ○ Strongly Agree
   - ○ Agree
   - ○ Disagree
   - ○ Strongly Disagree
   - ○ Unsure

7. How much do you agree with the following statement?
   Families of DDC employees expect them to take on caregiving responsibilities for a relative.
   - ○ Strongly Agree
   - ○ Agree
   - ○ Disagree
   - ○ Strongly Disagree
   - ○ Unsure

8. Please characterize where you think family caregiving considerations fall within your organization’s priorities for employee health.
   - ○ In Top 5 priorities
   - ○ In Top 10 priorities

- A priority, but unable to address it
- Not a priority
- Unsure

9. Please identify any barriers you foresee or have experienced in **implementing supports for DDCs**.
    - Funding
    - Lack of knowledge on DDCs
    - Lack of awareness of supports needed
    - Lack of time to explore supports needed
    - Logistical issues
    - Other: ______ (please explain)

10. Please identify any barriers you foresee or have experienced in **DDCs accessing support** in the workplace**.**

    - General reluctance to share caring status/needs
    - Stigma associated with DDCs accessing support
    - Complexity in obtaining support
    - Lack of awareness of available support
    - Other: ______ (please explain)

11. Do you believe there is a need for more training in order for **employers** to support DDCs?
    - Yes: ____________
    - No: _____________
    - Other: ____________

12. Do you believe there is a need for more resources in order for **employers** to support DDCs?
    - Yes: ____________
    - No: _____________
    - Other: ____________

13. Where does most work need to be done in better supporting **DDC** employees in the workplace? ___________________________

COVID-19 Changes

14. What were your perceptions of your workplace's supports for DDCs **before** the COVID-19 pandemic?
    - ○ My workplace offered very poor supports
    - ○ My workplace offered poor supports
    - ○ My workplace offered good supports
    - ○ My workplace offered very good supports
    - ○ Other: ________

15. What are your perceptions of your workplace's supports for DDCs, **after** changes due to COVID-19?
    - ○ My workplace offered very poor supports
    - ○ My workplace offered poor supports
    - ○ My workplace offered good supports
    - ○ My workplace offered very good supports

16. Have there been any changes (due to COVID-19) that **specifically support DDCs?**
    - ○ Yes
        - ▪ If so, how? _______________
    - ○ No

*?: This can include changes in workplace tasks, operation, policies, programs, supportive resources, etc.

17. If supports for DDCs due to COVID-19 have been provided, have you received any **positive** feedback from any of the following?
    - ○ Employees
    - ○ DDCs
    - ○ Managers/supervisors
    - ○ No positive feedback
    - ○ Other: _____

18. If supports for DDCs due to COVID-19 have been provided, have you received any **negative** feedback from any of the following?
    - ○ Employees
    - ○ DDCs
    - ○ Managers/supervisors
    - ○ No negative feedback
    - ○ Other: _____

19. In your opinion, how have the work hours of DDCs changed with the onset of COVID-19?
    - ○ Decreased work hours
    - ○ Increased work hours
    - ○ About the same work hours
    - ○ Unsure
    - ○ Other: __________

20. In your opinion, how has the work performance of DDCs changed with the onset of COVID-19?
    - ○ Decreased work performance
    - ○ Increased work performance
    - ○ About the same work performance
    - ○ Unsure
    - ○ Other: __________

21. Are the changes (due to COVID-19) to support DDCs being **monitored or evaluated?**
    - ○ Yes
        - ▪ If so, how? _______________
    - ○ No

22. Have you received any **feedback from DDCs** regarding any workplace changes due to COVID-19?
    - ○ Yes
        - ▪ Please explain: _______________
    - ○ No
    - ○ No changes made

23. Do you feel that these changes will be carried on in the future operations of your organization, beyond the COVID-19 pandemic? Please elaborate.

    *For example: changes in workplace supports, protocols, or operations or tasks

    - ○ Yes: ____________
    - ○ No: ____________

Demographics of Employer (HR Professional)

24. What is your gender?
    - ○ Male
    - ○ Female
    - ○ Other
    - ○ Prefer not to answer

25. Please indicate the town/city where you work:

    ____

26. How long have you worked in this role?
    - ○ Less than 6 months
    - ○ 6 months - 1 year
    - ○ 1-3 years
    - ○ More than 3 years
    - ○ Other

27. Where are you currently working?
    - ○ On-site
    - ○ Telecommuting
    - ○ Both on-site and telecommuting
    - ○ Other: _________

Appendix B: Survey Letter of Information

Study Title: The Essential Work of Double-Duty Carers

Investigators:

Sakshi Mehta (Student Principal Investigator) MSc. in Global Health Candidate McMaster University 647-607-1670 Mehtas11@mcmaster.ca	Dr. Allison Williams (co-principal investigator) School of Geography and Earth Sciences McMaster University Hamilton, Ontario, Canada 905-525-9140 ext. 24334 awill@mcmaster.ca
Dr. Bharati Sethi (co-principal investigator) School of Social Work King's University College London, Ontario, Canada 519-433-3491 ext. 4553 bsethi3@uwo.ca	Catherine Suridjan (co-investigator) Director of Policy & Knowledge Translation Canadian Home Care Association Mississauga, Ontario, Canada 905-567-7373 csuridjan@cdnhomecare.ca

Purpose of the Study:

Framed within gender relations theory, this project will examine the interface between unpaid (informal/family) caregiving work and paid homecare health service provision work during this unprecedented time of COVID-19 for double-duty carers (DDCs). The term ‘double-duty caregivers’ (DDCs) refer to primarily women who are simultaneously employed in the healthcare labour force while also providing unpaid care, typically to a family member or friend. Building on previous research on DDCs, co-PIs Williams and Sethi are well placed to lead this work. Recognized by CHCA as an urgent priority, DDCs can benefit from evidence-informed guidelines on best practices for work, in order to mitigate becoming ill and/or being a source of contagion to those they are informally caring for individuals at home/ residing in the community.

Procedures Involved in the Research:

This project employs a multi-method approach to capture the complex and context dependent phenomenon of interest specific to the lived experience of DDCs in the time of COVID-19. Leveraging on our experience and expertise in the substantive are of carers, and specifically DDCs, we will work closely with our partner, CHCA, to recruit two target populations across Canada. You will be part of the second population. Your participation is voluntary. You may choose not to participate. If you decide to participate in this research survey, you may withdraw at any time. If you decide not to participate or if you withdraw from participating at any time, you will not be penalized.

You are invited to participate n an online survey that will take approximately 30 minutes to complete. This online survey will consist of a range of bullet, Likert and qualitative questions will be asked. These include questions about responses to COVID to date, such as change made to operations, protocols, and work tasks. This will allow us to capture how home care work has changed because of COVID-19, whilst allowing us to understand how COVID-19 has impacted their perception of workplace accommodation, and specifically the visibility of challenges experienced by their DDCs, as well as how they are supporting their front-line providers, and DDCs. Your responses will be anonymized, and we will not ask for any identifying information such as your name or email address. The survey questions will provide you with the opportunity to provide feedback on the essential metrics provided in the corresponding email.

Potential Harms, Risks or Discomforts:

The risks involved in participating in this study are minimal. However, given the potentially sensitive nature of this topic, you may experience some discomfort when answering the survey. Please note that at any time in the survey, you may return to a question later, skip a question entirely, or tab out of the survey and choose not to have your answers recordd. If you find the discussion of any topic outlined in this letter of consent to be triggering, but would still like to participate in this study, please let the principal investigator know, and they will accommodate your experience accordingly.

At no point in the study will the real names or personal identifiers of the participants be used. In the case of the survey, any data collected will be submitted **anonymously**, and will not be accessed by anyone outside of the research team. This is to mitigate risks on your end, in acknowledgement that online data collection poses a higher social risk due to increased risk of data breach. Furthermore, it is recommended you respond to the online survey in a place that provides you with privacy and comfort.

Potential Benefits:

Short-Term: (1) the data from the double-duty carers (DDC) in the early days of post pandemic will provide a comprehensive and nuanced understanding of their underpaid or unpaid caregiving experiences, including psychological adjustment and coping strategies. This data will translate into timely KT products for the home health care sector, public health profession, and decisionmakers (government, organized labour, professional associations), in order that they make timely changes to maximize health benefits for DDC's. (2) Personal support workers and other home health care employees have emerged as COVID-19 heroes. We envision that our project findings will support emerging evidence of the substantial hidden financial value of the paid and unpaid caregiving that DDC's contribute to Canada's health-care systems. We anticipate that the recognition of DDC's role within the health labour force will encourage strong government financial commitment to enhance the resilience of DDCs and, consequently, the home health care system.

Long-Term: (1) From a gender perspective, we envision that our proposed sex and gender inclusive research will contribute to the implementation of gender-transformative policies to help predominately female DDC's manage the complexity of balancing paid and unpaid caregiving and thus, function to their full capacity. This will be accomplished via the translation of real-time triangulated data into programs, policy, whilst informing clinical guidelines to address the immediate response to the COVID-19 pandemic on DDCs. (2) The newly adapted Standard (as informed by this research) operates as a policy opportunity for employers, both in Canada and internationally, to address the vulnerability of DDCs as an immediate response to the COVID-19 pandemic. Further, from a global perspective, the International Standard will be adopted to support health care workers in other countries (i.e. Uganda, China, Japan, UK, Norway), contributing to the global response to COVID-19. Post- pandemic, and given the ageing population, we can expect that caregiving needs and demands will rise, resulting in heavy reliance on DDCs. Given these issues and from our past experience, we expect that our innovative and practical KT activities will accelerate the availability of quality, real-time evidence for translation of research into policy, practice, as well as inform clinical guidelines to address the immediate response to the COVID-19.

Confidentiality:

Your participation in this research project will remain completely confidential in the study findings. No information you provide during the research project will be accessed by anyone outside of the two members of the research team listed above. Furthermore, all the information you provide throughout the study will be anonymized and stripped of any personal identifiers. After the study comes to an end, any information you have provided during the study will be destroyed or discarded in order to ensure your continued confidentiality. If there is ever a point in the study where you have questions or concerns about your confidentiality, please contact one of the co-principal investigators using the information provided at the start of this letter.

Questions About the Study:

If you have questions or concerns about this study, please contact the student principal investigator: Sakshi Mehta MSc. in Global Health Candidate mehtas11@mcmaster.ca 647-607-1670	This study has been reviewed by the McMaster University Research Ethics Board. If you have questions about your rights or the study methods, please contact: McMaster Research Ethics ethicsoffice@mcmaster.ca (905) 525-9140 ext. 23142

Appendix C: Organizations Contacted for Survey Recruitment

1	**Home Care Ontario**
2	Ontario Community Support Association
3	Canadian Hospice Palliative Care Association
4	CSA Group
5	McCormick Care Group
6	Public Services Health and Safety Association
7	Helping Hands Healthcare
8	McMaster Institute for Research on Aging
9	Pallium
10	Thrive Group
11	Scarborough Centre for Healthy Communities
12	Council of Agencies Serving South Asians
13	Ontario Council of Agencies Serving Immigrants
14	Scarborough Health Unit Clinic
15	McMaster University Gilbrea Centre
16	Sunnybrook Health Sciences Centre

Appendix D: DDC Recruitment Graphic and Blurb

McMaster University

Recruiting: front-line health workers who are unpaid caregivers

Compensation: $25 Amazon Gift Card

Eligibility:

- Are you a front-line healthcare worker?
- Do you have caregiving responsibilities outside of work?
    - Do you provide caregiving work to a dependent at home/outside work (unpaid)?
        - example: an elderly relative, a friend or family member

If so, you are a double-duty caregiver (DDC).

McMaster University researchers invite you to participate in a short 30-minute interview (via Zoom or Webex) on how COVID-19 has impacted your work and caregiving practices

All collected information will be confidential.

This study has been reviewed and recieved ethics clearance from the McMaster Research Ethics board

Contact: mehtas11@mcmaster.ca | 647-607-1670

Recruiting front-line workers who are Double-Duty Caregivers (DDCs)
Are you a front-line healthcare worker? Do you also have caregiving responsibilities outside of work for a dependent (like an elderly relative)? If so, you are a front-line worker and informal caregiver, you are a **double-duty carer (DDC)**. McMaster University researchers are inviting caregivers to participate in a 30-minute interview about the impact of COVID-19 on healthcare work and caregiving practices. Participants will get a **$25 Amazon gift card** for participation.
Contact:

Sakshi Mehta mehtas11@mcmaster.ca | 647-607-1670

Appendix E: Semi-Structured Interview Guide and Verbal Consent Form

Semi-Structured Interview Guide

Introduction, opening/building rapport (*5 minutes)*

1. Welcome participant and introduce myself
    - a. Explain concept of *double-duty caring*:
        - i. By ‘double duty carer (DDC), we mean your paid healthcare role and your unpaid caring responsibilities outside of your paid work.
2. Describe your paid work role.
    - a. *PROBE: Place of work, years of experience in this role, work hours*
    - b. *PROBE: Work responsibilities*
3. Describe your unpaid, family caring role.
    - a. *PROBE: family make-up, caring duties*

Paid work *(15 minutes)*

4. How has the pandemic impacted your paid work responsibilities?
    - a. *PROBE: Work hours, work performance, fear of safety, stress*
5. Please describe any challenges you have encountered at work due to changes resulting from the pandemic.
    - a. *PROBE: physical strain, mental health issues, stress, fatigue, burnout, lack of motivation*
    - b. *PROBE: consequences of these challenges (affect on work hours or performance)*
6. What are some ways you deal with these challenges at work?
7. Describe your view on your workplace’s support for you before and after the pandemic.
    - a. *PROBE: new things the workplace has implemented? Are you aware of support available by the workplace?*
8. On a scale of one to ten, how comfortable do you feel identifying yourself as a double-duty carer at work? Ten is completely comfortable and one is not at all comfortable.
    - a. *PROBEs: Have you already identified yourself as a DDC? How did your workplace respond? Were supports made available to you? How supported do you feel?*

Unpaid Caring at home (*15 minutes)*

9. Tell me about the tasks involved in your caring role at home/outside of work.
    - a. *PROBE: number hours and days caring per week*
10. How has the COVID-19 pandemic affected your unpaid caring responsibilities?
    - a. *PROBE: positive/negative ways it has affected caring work at home*
    - b. *PROBE: any specific difficulties or concerns that have arisen due to the pandemic?*

11. How has your physical and mental wellbeing been affected by the pandemic?
    a. *PROBE: fear for own or dependent's health, source of contagion, finances, stress*
12. Do you provide indirect care to another family member or friend? (Define indirect care for participant)
    a. *PROBE: emotional care to another family member or friend*

***Intersection of caregiving boundaries, expectations, desired supports** (10 minutes)*

13. In what ways do your paid caregiving work and unpaid caring responsibilities affect each other?
    a. *PROBE: how has this changed with COVID-19?*
14. What does a typical day in your life look like?
15. How would you describe your experience in being a carer at work and at home?
    a. *PROBE: what are some new experiences (triumphs/challenges) you have had with the onset of COVID-19? Has the pandemic brought on any additional concerns?*
16. What are some strategies or resources you use to manage your paid work and your unpaid caring responsibilities?
    a. *PROBE: ways you manage the physical/emotional stressors associated with your responsibilities? What resources do you use?*
17. What kind of support would you like to have from your workplace?
18. What kind of support would you like with your unpaid caring role?
19. With respect to your paid work, unpaid caregiving work, and personal life, what would your ideal situation look like?
    a. *PROBE: what specific things would you like to change?*
20. In your view, what topics or coping strategies are important for double-duty carers?
    a. *PROBE: what strategies have worked for you that you would recommend?*
21. What type of resources would be beneficial to you as a double-duty carer?
    a. *PROBE: educational resources, support network*

***Closing** (1 minute)*

22. Is there anything else about your DDC experience that you feel is important and that we have not touched on?

Appendix F: Letter of Information for Semi-Structured Interviews

Study Title: The Essential Work of Double-Duty Carers

Investigators**:**

Sakshi Mehta (Student Principal Investigator) MSc. in Global Health Candidate McMaster University 647-607-1670 Mehtas11@mcmaster.ca	Dr. Allison Williams (co-principal investigator)School of Geography and Earth Sciences McMaster University Hamilton, Ontario, Canada 905-525-9140 ext. 24334 awill@mcmaster.ca
Dr. Bharati Sethi (co-principal investigator) School of Social Work King's University College London, Ontario, Canada 519-433-3491 ext. 4553 bsethi3@uwo.ca	Catherine Suridjan (co-investigator) Director of Policy & Knowledge TranslationCanadian Home Care Association Mississauga, Ontario, Canada 905-567-7373 csuridjan@cdnhomecare.ca

Purpose of the Study:

Framed within gender relations theory, this project will examine the interface between unpaid (informal/family) caregiving work and paid homecare health service provision work during this unprecedented time of COVID-19 for double-duty carers (DDCs). The term ‘double-duty caregivers’ (DDCs) refer to primarily women who are simultaneously employed in the healthcare labour force while also providing unpaid care, typically to a family member or friend.Building on previous research, co-PIs Williams and Sethi are well placed to lead this work. *Recognized by CHCA as an urgent priority, DDCs can benefit from evidence-informed guidelines on best practices for work, to mitigate becoming ill and/or being a source ofthe contagion to those they are informally caring for.*

Procedures Involved in the Research:

This project employs a multi-method approach to capture the complex and context-dependentphenomenon of interest specific to the lived experience of DDCs in the time of COVID-19. Leveraging on our experience and expertise in the substantive are of carers, and specifically DDCs, we will work closely with our partner, CHCA, to recruit two target populations acrossCanada. You will be part of the second population.

You are invited to take part in a qualitative one-hour semi-structured audio-taped interviews to capture the experiences and strategies being used during COVID-19. These first-hand accounts of the effects of the sudden outbreak of COVID-19, as well as DDCs work and life experiences -including triumphs, motivations, challenges, and coping strategies will be key to developing evidence-based guidelines to promote, restore, and enhance their well-being (and consequently, those they care for). Interviews will be conducting using voice conferencing softwares Zoom or WebEX, and audio recording will take place using an audio recording software (e.g. Zoom recording, WebEX record or Audacity). All digitally recorded data will be transcribed verbatim, imported into NVivo10, and then thematically analyzed by the team.

This study will use the videoconferencing software Zoom or WebEX to conduct interviews andcollect data. A link to their privacy policy is available here: Zoom: https://zoom.us/privacy WebEX: https://www.cisco.com/c/en_ca/about/legal/privacy-full.html. Please note that whilst this service is approved for collecting data in this study by Page 3 of 4 the McMaster Research Ethics Board, there is a small risk with any platform such as this of data that is collected on external servers falling outside the control of the research team. If you are concerned about this,we would be happy to make alternative arrangements for you to participate, perhaps via telephone. Please talk to the student co-principal investigator if you have any concerns.

Potential Harms, Risks or Discomforts:

The risks involved in participating in this study are minimal. However, given the potentially sensitive nature of this topic, you may experience some discomfort when sharing your thoughts during the interview. Please note that you are under no obligation to respond to any questions that you find uncomfortable or upsetting. At any time in the interview, you may ask to return to a question at a later time, or even skip a question. If you find the discussion of any topic outlinedin this letter to be triggering, but would still like to participate in this study, please let the student investigator know, and they will accommodate your interview experience accordingly.

To avoid risks of social ramifications, our team will not collect names or personal identifiers of participants. In the interviews, the information received will remain confidential, and will not beaccessed by anyone outside of the research team. Recognizing that online data collection poses ahigher social risk than other mediums due to increased risk of data breach, steps will be taken tomitigate this risk. In the case of the interviews, randomly generated screen names will be used inplace of the participant's real name. Furthermore, no video will be collected, only audio information, reducing the likelihood of the data provided being associated with the individual who had provided it. In all cases, access to the data will be controlled. Furthermore, it is recommended that you respond to the online interview in a place that provides you with privacyand comfort.

Potential Benefits:

Short-Term: (1) the data from the double-duty carers (DDC) in the early days of post- pandemic will provide a comprehensive and nuanced understanding of their underpaid or unpaidcaregiving experiences, including psychological adjustment and coping strategies. This data willtranslate into timely KT products for the home health care sector, public health profession, and decisionmakers (government, organized labour, professional associations), in order that they make timely changes to maximize health benefits for DDC's. (2) Personal support workers and other home health care employees have emerged as COVID-19 heroes. We envision that our project findings will support emerging evidence of the substantial hidden financial value of the paid and unpaid caregiving that DDC's contribute to Canada's health-care systems. We anticipate that the recognition of DDC's role within the health labour force will encourage stronggovernment financial commitment to enhance the resilience of DDCs and, consequently, the home health care system.

Long-Term: (2) The newly adapted Standard (as informed by this research) operates as a policyopportunity for employers, both in Canada and internationally, to address the vulnerability of DDCs as an immediate response to the COVID-19 pandemic. Further, from a global perspective, the International Standard will be adopted to support health care workers in other countries (i.e. Uganda, China, Japan, UK, Norway), contributing to the global response to COVID-19. Post- pandemic, and given the ageing population, we can expect that caregiving needs and demands will rise, resulting in heavy reliance on DDCs. Given these issues and from our past experience, we expect that our innovative and practical KT activities will accelerate theavailability of quality, real-time evidence for translation of research into policy, practice, as wellas inform clinical guidelines to address the immediate response to the COVID-19. Please note that it is possible that participants may not directly benefit from the study in either the short-term or the long-term. The benefits are examples of benefits that may occur.

Confidentiality:

Your participation in this research project will remain completely confidential in the study findings. No information you provide during the research project will be accessed by anyone outside of the two members of the research team listed above. Furthermore, all the information you provide throughout the study will be anonymized and stripped of any personal identifiers. For instance, your interview transcripts will not be associated with your real names, and any audio recordings of your interview will not be accessible to anyone outside the research team. After the study comes to an end, any information you have provided during the study will be destroyed or discarded to ensure your continued confidentiality. If there is ever a point in the study where you have questions or concerns about your confidentiality, please contact either of the co-principal investigators using the information provided at the start of this letter.

Participation and Withdrawal:

Your participation in this study is entirely **voluntary**. You have the right to withdraw from the study at any time prior to your interview. If you request to have your information discarded afteryour withdrawal, it will be removed from our storage as soon as possible. The last possible date to withdraw your information from the study will be July 01, 2021 which is the date at which allraw data collected during this study will be destroyed. As a result, it will no longer be possible to withdraw any information you may have provided after this time.

Information About the Study Results:

This study is likely to be completed by August 2021. If you would like a brief summary of the results, or the full research findings, please reach out to the student principal investigator usingthe information provided at the start of this letter. The student principal investigator will coordinate with you to send you the results in a format of your preference.

Questions About the Study:

If you have questions or concerns about this study, please contact the student principalinvestigator. Their contact information is at the beginning of this letter. This study has been reviewed by the **McMaster University Research Ethics Board** and received ethics clearance. If you have concerns or questions about your rights as a participant or about theway the study is conducted, please contact:

McMaster Research Ethics Secretariat Telephone: (905) 525-9140 ext.
23142 C/oResearch Office for Administrative Development and
Support E-mail: ethicsoffice@mcmaster.ca

Payment or Reimbursement:

You will receive a **$25 Amazon gift card** for participating in this study.