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Exploring Physical Activity and Screen-Viewing Policies in Canadian Childcare Centres

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A thesis submitted in partial fulfillment of the requirements for the Master of Science degree in Health and Rehabilitation Sciences

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Abstract

This study aimed to explore the presence and characteristics of physical activity and screen-viewing regulations in Canadian childcare centres. Using a modified version of the Environment and Policy Assessment and Observation Self-Report tool (EPAO-SR), an online survey was distributed to childcare directors/administrators. A total of 1,290 childcare representatives accessed the survey, 514 provided complete data. Of these, 295 (44%) centres indicated having a written physical activity policy (with the majority regulated at the provincial-level). Characteristics of these policies included amount of time: spent outdoors (395; 63%); in teacher-led active play (101; 16%); and physical activity education for children (91; 16%). Additionally, 178 (29%) reported a written policy regarding screen-viewing pursuits. Collectively, physical activity and screen-viewing policies in childcare were not common in Canada. An opportunity exists for Canada to advance practice by adopting proactive approaches to encouraging young children to be active.

Keywords: physical activity, screen-viewing, childcare, health promotion, policy

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List of Abbreviations

AB	Alberta
BC	British Columbia
CCEYA	Child Care Early Years Act
CEFA	Core Education & Fine Arts
CHMS	Canadian Health Measures Survey
CRRU	Canadian Resource and Research Unit
CSEP	Canadian Society for Exercise Physiology
ECE	Early Childhood Education
EPAO-SR	Environment and Policy Assessment and Observation Self-Report
HOP	Healthy Opportunities for Preschoolers
LEAP	Literacy, Education, Activity, and Play for Toddlers
LEAPP	Learning Environments' Activity Potential for Preschoolers
LPA	Light Intensity Activity
LOI	Letter of Information
MB	Manitoba
MVPA	Moderate-to-Vigorous Physical Activity
NB	New Brunswick
NL	Newfoundland & Labrador
NS	Nova Scotia
NU	Nunavut
NWT	Northwest Territories

ON	Ontario
PD	Professional Development
PEI	Prince Edward Island
QB	Quebec
SK	Saskatchewan
REB	Research Ethics Board
TPA	Total Physical Activity
TV	Television
WHO	World Health Organization
YU	Yukon

CHAPTER I

Introduction and Literature Review

Physical activity is one behaviour that has been shown to play a significant role in influencing a healthier lifestyle and is an important factor in ameliorating the obesity epidemic and associated chronic health conditions (Goldfield, Harvey, Grattan, & Adamo, 2012; Pate, 1995). Children obtain numerous health benefits from engaging in regular physical activity. Increased physical activity in early childhood (2.5-5 years) has been associated with increased fitness, bone, and metabolic health (Andersen et al., 2006; Engelen et al., 2013), decreases in cardiovascular risks (Bürge et al., 2011; Sääkslahti et al., 2004) and adiposity (Goldfield et al., 2012), as well as improvements in cognitive and motor skill development (Borkhoff et al., 2015; Timmons et al., 2012). Physical activity has also been linked to psychological benefits in young children including better control over symptoms of anxiety and depression (Engelen et al., 2013; Lobo & Winsler, 2006; Timmons, Naylor, & Pfeiffer, 2007). Most notably, evidence suggests that the development of healthy active lifestyles early in children's lives can help to foster long-term physical activity behaviours that can be carried throughout adolescence and into adulthood (Montgomery et al., 2004; Stolley et al., 2003). Therefore, establishing strong physical activity habits early in life not only reduces the risk of chronic disease, but supports healthy active behaviours over the life course (Bailey, Olson, Pepper, & Porszasz, 1995; Schmitz & Jeffery, 2000; Steinbeck, 2001; Stolley et al., 2003).

In contrast, sedentary behaviours, which refer to any activity characterized by very low energy expenditure (≤ 1.5 of the Metabolic Equivalents of Task), including sitting and lying during waking hours (Barnes et al., 2012; Cart, 2012), have been noted as

having negative health consequences during the early years (Timmons et al., 2007; Tremblay, Colley, Saunders, Healy, & Owen, 2010; Tremblay et al., 2012). In fact, sedentary behaviour has been identified as contributing to deleterious health consequences in young children including premature development of some of the aforementioned chronic health conditions, such as high blood pressure (LeBlanc et al., 2012; Shea, Basch, Gutin, Stein, Contento, Irigoyen, & Zybert, 1994), cardiovascular disease, and Type II diabetes mellitus (Tremblay et al., 2010). In particular, excessive screen-viewing, often used as a proxy for sedentary behaviours (Vanderloo, 2014), has been linked to a multitude of ramifications among preschool-age (i.e., 2.5-5 years) and school-age (i.e., 5-17 years) children, including: behavioural (Paik & Comstock, 1994) and academic issues (Hancox, Milne, & Poulton, 2005), decreased fitness (Tremblay et al., 2011c), and increased risk of obesity (Dietz & Gortmaker, 1985; Gortmaker, 1996; Dennison, Erb, & Jenkins, 2002; Hancox & Poulton, 2006). Screen-viewing encompasses a variety of activities including watching television (TV), DVDs/VHSs, video games, playing on computers, and using smartphones (Vanderloo, 2014). Alarmingly, international statistics indicate that young children in Canada (3-4 years; Active Healthy Kids Canada, 2013), the United States (4-7 years; Heelan & Eisenmann, 2006; Rideout, Foehr, & Roberts, 2010), and Australia (2-6 years; Cox, Skouteris, Rutherford, Fuller-Tyszkiewicz, & Hardy, 2012; Hinkley, Salmon, Okely, Crawford, & Hesketh, 2012) are spending between 1.5 to 7.0 hours daily, engaged in screen-viewing activities. Given that the early years play a vital role in the development of long-term health-related behaviours, including physical activity and sedentary pursuits (Certain & Kahn, 2002), early intervention is essential to prevent excessive sedentary time, specifically screen-

viewing, from tracking throughout the lifespan (Janz, Burns, & Levy, 2005; Kelly, Reilly, Jackson, Montgomery, Grant, & Paton, 2007).

Physical activity for preschool-age children, often referred to as *active play* (Truelove, Vanderloo, & Tucker, 2017), can transpire in a variety of environments, but the ultimate goal is simply “getting kids moving” (Canadian Society of Exercise and Physiology [CSEP], 2012a, p. 3). These activities can range from climbing stairs and moving around the home, to playing outside and exploring the environment (CSEP, 2012a). CSEP (2012a; 2012b) recently released physical activity and sedentary behaviour guidelines for the early years (1-4 years). Consistent with other international recommendations (Australian Department of Health and Ageing, 2008; United Kingdom Department of Health, 2011) these guidelines state that young children should engage in a *minimum* of 180 minutes of physical activity (at any intensity; i.e., total physical activity [TPA]) per day in order to achieve the necessary health benefits. As children reach the age of 5 years, in Canada, they should strive to accumulate at least 60 minutes of moderate-to-vigorous physical activity (MVPA) per day; some examples include “hopping, jumping, skipping and bike riding” (CSEP, 2012a, p. 3). In addition, CSEP’s (2012b) sedentary behaviour guidelines suggest that caregivers should minimize the time preschool-age children spend being sedentary during their waking hours. Sedentary behaviours include prolonged sitting, lying, or being restrained (e.g., stroller, high chair, car seat, etc.; CSEP, 2012b). For healthy growth and development, CSEP (2012b) recommends children under 2 years of age should not engage in any screen-time (e.g., TV, computer, etc.), and for children 2-4 years, screen-time should be limited to under one hour per day.

The physical activity behaviours of preschool-age children are commonly described as short intermittent bursts of activity, followed by low intensity periods (Bailey et al., 1995). Preschoolers are commonly believed to be highly active by nature by parents and caregivers (Adamo et al., 2010; Goldfield et al., 2012); however, a great deal of research that has directly measured physical activity in preschool-age children have elucidated that this may not be the case (Bornstein, Beets, Byun, & McIver, 2011; Goldfield et al., 2012). A number of review papers and studies have been conducted to objectively assess preschoolers' physical activity (Bornstein et al., 2011; Dencker & Andersen, 2008; Hnatiuk, Salmon, Hinkley, Okely, & Trost, 2014; Oliver, Schofield, & Kolt, 2007; Tucker, 2008). These investigations distinguished between the time children spent in light-intensity physical activity (LPA) and/or MVPA as well as time spent engaged in sedentary pursuits, particularly prolonged sitting and screen-viewing. In 2008, a systematic review of 39 studies from seven countries, including United States, Scotland, Finland, Australia, Chile, Estonia, and Belgium, revealed that only 54% of preschool-age children engaged in a minimum of 60 minutes of daily activity (Tucker, 2008). In contrast, a recent cross-sectional study found that, on average, young Canadian children aged 2.5-5 years accumulated 232 daily minutes of TPA; however, the majority of this time was at light intensity, while 5% of their day (29 min) was spent in MVPA, and 63% (6.6 hr) of their waking time was spent in sedentary behaviours (Borkhoff et al., 2015). Additionally, based on combined data collected from two cycles of the Canadian Health Measures Survey (CHMS), a national survey, between 2009-2011 (cycle 2) and 2012-2013 (cycle 3), children aged 3-4 years accumulated an average of 283 min/day of TPA and 5-year-old children accumulated an average of 287 min/day of TPA; however, these

children were sedentary for approximately half of their waking hours and spent an average of 2 hours per day in front of screens (Garriguet, Carson, Colley, Janssen, Timmons, & Tremblay, 2016). With respect to these findings, only 73% of 3–4-year-olds and 30% of 5-year-olds are meeting their respective Canadian physical activity recommendations, and the screen-time targets were met by 22% of 3–4-year-olds and 76% of 5-year-olds (Garriguet et al., 2016). Furthermore, even when physical activity levels appear to be sufficient, children’s sedentary behaviours have remained high (Vanderloo et al., 2015) and researchers have reported that sedentary behaviours may account for 63 to 79% of a preschooler’s waking hours (Borkhoff et al., 2015).

Although recent studies of objectively measured physical activity report preschoolers are sufficiently active (Borkhoff et al., 2015; Garriguet et al., 2016), others report insufficient activity levels (Hinkley, Salmon, Okely, Hesketh, & Crawford, 2012; Vanderloo & Tucker, 2015), and some studies’ results are inconclusive (Bornstein et al., 2011; Hnatiuk et al., 2014). The variability in physical activity rates, in addition to high levels of sedentary time, may be a consequence of the measurement and computational techniques used in these aforementioned studies (Vanderloo, D’Alimonte, Proudfoot, Tucker, & Timmons, 2015). Nonetheless, these findings indicate that there remains significant room for improvement in these behaviours among Canadian preschoolers (Garriguet et al., 2016) and future research should aim to reduce inconsistencies in the employed methodologies to better understand preschoolers’ physical activity levels and sedentary time (Hnatiuk et al., 2014).

Preschool-Age Children

During the early years of life, researchers have shown that children are known to be very receptive to change (Goldfield et al., 2012). Young children's health behaviours tend to be more malleable as they have not yet adopted an unhealthy lifestyle, making alterations to behaviour easier during this stage compared to older children, adolescents, or adults (Goldfield, Raynor, & Epstein, 2002; Goldfield et al., 2012). As such, the preschool years are widely recognized as an optimal time to intervene for targeting lifestyle behavioural interventions, specifically physical activity, with hopes of mitigating the decline in activity often seen during the transition from childhood to adolescence (Engelen et al., 2013; Goldfield et al., 2012).

The Importance of the Childcare Environment

The early years present a vital window of opportunity for intervention in the promotion of healthy behaviours, especially since children as young as 2 years of age have shown to benefit from daily activity (Marcus et al., 2000). As such, numerous studies have been conducted in the childcare environment as it provides access to a large number of children during a critical period of their growth and maturation (Borkhoff et al., 2015; Bornstein et al., 2011; Garriguet et al., 2016; Hinkley et al., 2012; 2014). Moreover, a large number of Canadian children with working parents (upwards of 80%) are enrolled in some form of non-parental care (Bushnik, 2006). However, regardless of the measurement tool (i.e., pedometer, accelerometer, heart-rate telemetry, and direct observation) and the potential for this setting to encourage active behaviours and reduce sedentary pursuits (e.g., screen-viewing), research has consistently shown low participation rates in physical activity among preschoolers attending childcare facilities

(Hinkley et al., 2012; Pate, Pfeiffer, Trost, Ziegler, & Dowda, 2004; Vanderloo et al., 2015), and high rates of sedentary time (Temple, Naylor, Rhodes, & Higgins, 2009; Tucker, Vanderloo, Burke, Irwin, & Johnson, 2015).

Children enrolled in early learning environments spend a considerable amount of time in this setting (Rice & Trost, 2014), making these facilities (e.g., centre-based childcare, home-based childcare, and preschool) an ideal setting for implementing children's health interventions, including those focused on improved physical activity and limited sedentary opportunities (Bower et al., 2008; Dowda et al., 2004). For instance, children with employed or studying mothers typically spend an average of 29 hours per week in childcare (Bushnik, 2006; Statistics Canada, 2005). Using a settings-based health promotion approach (Dooris et al., 2007; Goldfield et al., 2012), it is believed that the social and physical environments in which children spend their time have a powerful influence on their physical activity patterns and behaviour (Bower et al., 2008; Finn, Johannsen, & Specker, 2002; Goldfield et al., 2012; Reilly, 2010). As such, the childcare environment presents an appropriate avenue to emphasize the adoption of a physically active lifestyle (Tucker, van Zandvoort, Burke, & Irwin, 2011). Additionally, the childcare setting serves as an opportunity to introduce lessons, activities, and programming that reinforce not only physical activity, but other lifelong health practices such as food preferences, eating habits, motor skills, and limiting sedentary pursuits (Gill, King, & Webb, 2005).

The appeal and advantage of targeting childcare settings to promote physical activity is the potential of wide-scale public health benefits, including healthier child development and bodyweights (Goldfield et al., 2012). Despite these benefits, reports

continue to suggest overweight and obesity are more common in children who attend centre-based childcare settings compared to children receiving care by a relative or parent (Geoffrey et al., 2012). In combination with the increased rates of overweight and obesity among children in centre-based care, research has also identified that children in these centres engage in less physical activity and more sedentary pursuits than preschoolers in other early learning arrangements (Tucker et al., 2015; Vanderloo et al., 2015).

Specifically, Vanderloo and colleagues used Actical® accelerometers to objectively measure the physical activity levels of young children in three early learning environments (i.e., centre-based childcare, home-based childcare, and full-day kindergarten; Vanderloo et al., 2015). On average, children in full-day kindergarten accumulated significantly more MVPA (3.33 min/hr; $p < .05$) than those in centre- (1.58 min/hr) and home-based (1.75 min/hr) childcare, and also accumulated significantly more TPA (20.31 min/hr; $p < .05$) than those in centre-based childcare (18.36 min/hr; Vanderloo et al., 2015). Furthermore, Tucker and colleagues (2015) as part of the same study (*Learning Environments' Activity Potential for Preschoolers*; LEAPP) explored sedentary time of preschoolers in the same three early learning environments (i.e., full-day kindergarten, centre-based childcare, and home-based childcare; Tucker et al., 2015). Tucker and colleagues (2015) concluded that preschoolers, in general, engage in high levels of sedentary time, with those attending centre-based childcare spending the most time being sedentary (41.62 mins/hr), followed by preschoolers in home-based childcare (40.72 mins/hr) and full-day kindergarten (39.68 mins/hr; Tucker et al., 2015). Overall, significant differences in sedentary time were observed between full-day kindergarten and centre-based childcare ($p < .05$; Tucker et al., 2015).

Given that preschoolers spend the majority of their day in childcare, the corresponding physical activity levels and sedentary pursuits are especially concerning (Tucker et al., 2015; Vanderloo et al., 2015). Vast differences, upwards of a 50% variation (Pate et al., 2004), are seen in preschoolers' physical activity levels, depending on the individual childcare centre attended (Boldemann et al., 2006; Dowda, Pate, Trost, Almeida, & Sirard, 2004; Finn et al., 2002; Hinkley et al., 2008; Pate et al., 2004; Worobey, Worobey, & Adler, 2005), suggesting that centre attributes, including: indoor/outdoor play space; the availability of gross motor equipment; and physical activity-related policies or staff training/education, influence the level of physical activity participation among preschoolers (Cardon, Van Cauwenberghe, Labarque, Haerens, & De Bourdeaudhuij, 2008; Gordon et al., 2013; Pate, McIver, Dowda, Brown, & Addy, 2008; Vanderloo, Tucker, Ismail, & van Zandvoort, 2012; Vanderloo et al., 2014). Overall, the early learning environment plays a strong role in predicting the physical and sedentary activity behaviours of preschoolers (Pate et al., 2008), making this an important setting to consider.

There is a growing body of evidence that suggests the implementation of physical activity-related programs, policies, and practices in early learning environments can strongly influence preschoolers' physical activity participation (Bower et al., 2008; Dowda et al., 2004; Finn et al., 2002; Goldfield et al., 2012; Vanderloo et al., 2014). Although some childcare organizations provide recommendations, guidelines, or standards for physical activity and sedentary opportunities, no set of regulations exist that directly target the physical activity environment of childcare facilities (McWilliams et al., 2009). Due to the lack of comprehensive recommendations and inconsistent

implementation of policies in any capacity, McWilliams and colleagues (2009) developed “The Best Practice Guidelines for Physical Activity at Childcare” for childcare centres in the United States. This document now serves as a reference guide for researchers and childcare providers worldwide, and offers an overview of effective methods and procedures that have been shown to maximize the health benefits of physical activity within the childcare setting (McWilliam et al., 2009). Although, policy and practice implementations in the childcare environment are still scarce, since this review was published, researchers have continuously made strides in identifying components of childcare centres (e.g., fixed and portable equipment; Dowda et al., 2004; Gordon et al., 2013), as well as staff awareness and behaviours (Bower et al., 2008; Vanderloo et al., 2014) that support physical activity participation and regulate sedentary pursuits in children. This research is vital to ensuring early learning environments are promoting adequate levels of physical activity among young children to the best of their ability (Tucker et al., 2013).

The Role of Physical Activity Policies and Practices in Childcare

Since early prevention via physical activity has been noted as a promising strategy for combating the prevalence of childhood obesity (World Health Organization [WHO], 2012), a major focus in this endeavor has been the creation of policies and practices specifically targeting the amount of physical activity children should accumulate while attending childcare centres. An increased recognition of the role that policies and the associated practices play in shaping the physical activity levels of children has recently been noted (Ajja, Beets, Chandler, Kaczynski, & Ward, 2015; Brownson, Kelly, & Eyler, 2008; Sallis et al., 2003). At their core, international initiatives put forth by the WHO

range from building upon existing mandates, to addressing gaps in strategies with regard to increasing physical activity participation and decreasing sedentary pursuits in different contexts around the world (Commission on Ending Childhood Obesity, WHO, 2016). Characteristics of these initiatives include but are not limited to: the amount of physical activity accumulated by children and youth; presence of written policies with regard to physical and sedentary activity; the provision of professional training for staff on nutrition and physical activity promotion; the quality of physical activities offered; and, the evaluation processes for various settings and age groups (Ajja et al., 2014; 2015; Beets, Wallner, & Beighle, 2010; Moag Stahlber, Howley, & Luscri, 2008; Story, Nanney, & Schwartz, 2009; Weaver, Beets, Webster, Beighle, & Huberty, 2012; WHO, 2016; Wiecha, Gannett, Hall, & Roth, 2011). Given the large population of children attending early learning environments and the extended exposure that children have to these settings, the adoption or implementation of supportive policies with regard to physical activity and sedentary behaviour is of critical importance (Brownson & Jones, 2009; Brownson, Hoehner, Day, Forsyth, & Sallis, 2009; Oakes, Mâsse, & Messer, 2009; Sallis, 2009).

In an effort to increase the physical activity levels of children attending early learning environments, many researchers, policymakers, public health practitioners, and community leaders world-wide have devoted increased funds and resources to develop effective, feasible, and sustainable health promoting interventions aimed at creating supportive physical activity childcare environments (Brennan, Brownson, & Orleans, 2014; Sallis, Carlson, Mignano, Lemes, & Wagner, 2013; Tucker et al., 2016). As such, there continues to be a growing body of research dedicated to assessing the

presence/absence of formal physical and sedentary behaviour policies in childcare settings, and their associations with preschool children's physical activity participation (Erinosho, Hales, Vaughn, Mazzucca, & Ward, 2015). For instance, Dowda and colleagues (2009) examined the effects of preschool policies and characteristics on children's physical activity and sedentary behaviours in 20 US preschools. In this study, childcare settings were classified as *physical activity promoting* if their policies and activities included ≥ 3 field trips/month, ≥ 4 community organization visits/month, ≥ 60 minutes of teacher-led physical activity/day, and 60 minutes of outside time/day (Dowda et al., 2009). Dowda and colleagues (2009) reported that children attending a childcare setting that was classified as a *physical activity promoting* spent fewer minutes per hour in sedentary activities, and more minutes in MVPA, compared to *non-physical activity promoting* settings (Dowda et al., 2009). Similarly, Bower et al. (2008) found in 20 centres in North Carolina, children engaged in greater levels of MVPA (15% vs. 9%), and less time in sedentary activities (50% vs. 61%) at centres with practices and policies that supported active play opportunities. As indicated by the aforementioned research (Bower et al., 2008; Dowda et al., 2009), the presence of physical activity promoting policies have shown to positively impact the physical activity levels in preschoolers, as well as reduce sedentary behaviours (Erinosho et al., 2015). In light of the increasing obesity rates and decreasing participation in physical activity among young children, ensuring early learning environments are supporting physical activity by way of policies and practices, may be an optimal strategy to improve the physical activity levels of preschool-aged children (Vanderloo, Tucker, Ismail, & van Zandvoort, 2012).

Despite Canada's nation-wide recommendations, physical activity remains an ambiguous component in Canadian childcare programs (Canadian Resource and Research Unit [CRRU], 2013). In addition, given that there are limited physical activity or sedentary behaviour regulations explicitly outlined for early learning environments in Canada (Bushnik, 2006; Vanderloo et al., 2013), it is likely that childcare centres across the country vary substantially in their practices and policies with regard to physical activity and sedentary behaviour provision (Fees, Trost, Bopp, & Dzewaltowski, 2009; Vanderloo et al., 2012). For instance, in Ontario, the Child Care and Early Years Act (2014) specifies that each child should be provided with two hours of outdoor playtime (oftentimes a proxy for physical activity) for every 6 hours in care. In Alberta, British Columbia, Manitoba, and the Northwest Territories, childcare programs must provide each child with daily outdoor play periods, but does not specify a time requirement (Alberta Child Care Accreditation Standards, 2013; Child Care Licensing Regulation, 2002; Child Day Care Act, 1990; Community Child Care Standards Act, 2004). While some provinces and territories may have regulations pertaining to physical activity, they are generally not specific and differ in the amount, location (i.e., outdoor/indoor activity), and frequency of physical activity opportunities (CRRU, 2013; Vanderloo et al., 2012). Given the extensive research outlining the powerful impact the environment has on a child's capacity to develop positive health habits, it is important to recognize whether the presence of policies is supporting or deterring physical and sedentary activity participation among young children (Vanderloo et al., 2012).

Positioning within a Theoretical Health Promotion Model

The present study aligns with the PRECEDE-PROCEED model of health promotion (Green & Kreuter, 2005). Consisting of nine phases, the PRECEDE-PROCEED model involves an initial identification of the desired outcome, an assessment of possible causes responsible for the health concern, followed by the development of strategies to address these concerns and finally, an evaluation of an intervention program intended to achieve the desired outcome (Green & Kreuter, 2005).

The PRECEDE-PROCEED planning model embodies two key aspects: (1) planning, and (2) evaluation (Crosby & Noar, 2011). The planning aspects are shown in Phases 1 through 5 and comprise the ‘precede’ portion of the model. Phase 1, *social diagnosis*, aims to identify and assess a health issue that is believed to have a substantial impact on the quality of life of a population of interest. Focus groups conducted with parents and childcare staff have previously identified the challenge of supporting physical activity participation among the preschool population (Active Healthy Kids Canada, 2013; Tucker et al., 2011). Phase 2, *epidemiological diagnosis*, seeks to create measurable health-related objectives and understand possible genetic factors that may play a role in the health issue being addressed in Phase 1, in addition to providing prevalence data. Recent systematic reviews have indicated that there are low physical activity levels among the preschool population (Tucker, 2008) and sedentary pursuits among this cohort, specifically screen-viewing (Vanderloo, 2014), are alarmingly high (Borkhoff et al., 2015). Moreover, these data have been confirmed within the Canadian population (Active Healthy Kids Canada, 2013), with only 15% of 3–4-year-olds and 5% of 5-year-olds meeting the Canadian guidelines for *both* physical activity and sedentary

behaviour (Colley et al., 2013). Phase 3, *behavioural and environmental diagnosis*, draws on literature assessing the behavioural and environmental factors that may further explain the health issue. The significant numbers of preschool children enrolled in centre-based programs and young children's decrease in health promoting behaviours have indicated that community settings are important contexts for the implementation of preventative health efforts (Pate, 2001). Numerous studies have been conducted to examine factors, both behavioural (e.g., children's physical activity and sedentary behaviours; Borkhoff et al., 2015; Hinkley et al., 2012; Vanderloo & Tucker, 2015) and environmental (e.g., childcare settings; Temple et al., 2009; Vanderloo et al., 2015). In particular, studies have shown that certain characteristics of the childcare environment (i.e., indoor/outdoor play space; the availability of gross motor equipment; and staff training/education) have a significant influence on a preschoolers' activity participation and sedentary behaviours (Cardon et al., 2008; Gordon et al., 2013; Pate et al., 2008; Vanderloo et al., 2012, 2014). Overall, this current research aims to further assess and better understand these factors through a policy lens, and the role policies play in supporting favourable health behaviours. Phase 4, *educational and ecological diagnosis*, evaluates and categorizes behaviour-influencing factors that may be predisposing, reinforcing, and enabling. Finally Phase 5, *administrative and policy diagnosis*, evaluates capacity and resources available to implement programs and modify policies in order to effectively achieve the desired outcomes described in the previous phases (Crosby & Noar, 2011; Green and Kreuter, 2005).

The final four phases, and the evaluation aspects of the model, make up the 'proceed' portion (Crosby & Noar, 2011). Phase 6 speaks to the implementation phase of

the model, where appropriate intervention methods and strategies are selected. Lastly, Phases 7 (*process*), 8 (*impact*), and 9 (*outcome*) address the various levels of program evaluation (Crosby & Noar, 2011).

The current study aligns with the *administrative and policy diagnosis* (Phase 5) aspect of this model. In this phase, organizational barriers and facilitators, as well as resources, are identified and evaluated to ensure the health interventions are sustainable, feasible, and supporting the desired health outcome. Identifying these factors through a policy lens can provide valuable feedback for future health promotion initiatives and strategies by allowing more targeted and effective program objectives (Green & Kreuter, 2005). Specific to this study, the administrative and policy approach allows for the objective assessment of the childcare environment, which can prove to be beneficial in identifying areas in need of improvement to successfully increase the physical activity levels and decrease sedentary pursuits of preschoolers. By applying this approach, this study will offer a better understanding of the policies governing childcare settings, specifically, the presence of physical activity and/or screen-viewing policies. This is necessary for understanding how these environments support or deter preschoolers' physical activity and screen-viewing behaviours. In light of this information, the findings of this work may result in policy modifications in the childcare setting that serve to support active behaviours among this target population.

Study Rationale

Research suggests the adoption and implementation of policies within the childcare setting presents an ideal avenue to support a system-level approach to physical activity promotion among young children (Larson, Ward, Neelon, & Story, 2011; Vanderloo et

al., 2012; Ward, Mazzucca, McWilliams, & Hales, 2015). However, given that childcare facilities in Canada are regulated by a different government agency in each province and territory, these regulations provide limited and inconsistent guidance about the amount, frequency, and type of physical activity required (and sedentary time restricted) for children attending childcare (Statistics Canada, 2006; Vanderloo et al., 2012).

Additionally, in the absence of a provincial-/territorial-regulated policy, childcare facilities across Canada may create or enforce a physical activity and/or screen-viewing policy specific to their own centre or organization. Due to the lack of specific regulations or recommendations for physical activity and screen-viewing in early learning environments, childcare providers must decide individually what policies and programming they wish to offer within their facility, and as such, this has made it difficult to ensure children attending their facilities are engaging in appropriate activity (Vanderloo et al., 2012). In addition, researchers stress the integral role that childcare providers play in supporting physical activity and other health behaviours through their curriculum and daily programming of activities (Chow & Humbert, 2011; Copeland, Kendeigh, Saelens, Kalkwarf, & Sherman, 2012; Robinson, Webster, Logan, Lucas, & Barber, 2012). Therefore, the implementation of comprehensive policies with regard to physical activity and screen-viewing may be one mechanism to guide and support these behaviours among young children (Wright et al., 2015). In an effort to promote positive health behaviours among preschool-age children, the presence of an all-encompassing physical activity policy, in addition to regulated screen-viewing opportunities, within the early learning environment has the potential to significantly impact the prevalence of young Canadians engaging in appropriate physical activity levels. However, the presence

and components of current physical activity and screen-viewing policies in Canadian childcare centres remains unknown.

Purpose of this Study

The purpose of this study was to explore the *presence* and *characteristics* of existing physical activity policies in childcare centres across Canada. A secondary objective was to examine screen-viewing policies within these facilities. It was hypothesized that there would be variability between provinces and territories in the presence of these targeted policies, as well as in the characteristics of existing policies for both physical activity and screen-viewing alike. The proposed study represents a systematic approach to gathering evidence of the physical activity policy landscape in Canadian childcare facilities.

For the purpose of this study, the term “childcare” referred to organized care outside the home for children ages 2 to 5 years (e.g., nursery schools, daycare centres, centre-based facilities, and preschool). Additionally, centre-based childcare referred to any licensed early learning program for young children that provides a standardized system of care to children in a school- or institution-like setting.

CHAPTER II

Methods

Study Design and Procedures

Using a cross-sectional study design, this project explored the presence and characteristics of existing physical activity and screen-viewing policies at centre-based childcare facilities across Canada. Eligible childcare centres were identified using the respective provinces'/territories' online Ministry registries. Canadian centre-based childcare facilities that offer care to young children (e.g., daycare centre, preschool, and nursery school) were identified and invited to participate. Given the potential inter-provincial/territorial variation, it was important to invite as many centres as possible. Ethics approval for the present study was provided by the Non-Medical Research Ethics Board (REB108092) at Western University (Appendix A).

Recruitment and data collection. In an effort to contact as many centre-based childcare centres as possible, convenience sampling was used to recruit participants. A database was created in Excel that contained the name, location (province/territory), and contact information (i.e., email address) of all identifiable centre-based childcare centres within Canada. The appropriate representative (e.g., program coordinator and/or the director/administrator, or general childcare contact information) at each centre was contacted via email to request participation in the study (Appendix B). A reminder email was circulated one and three weeks later. In light of the initial low response rate from the territories, maritime, and prairie provinces, an additional email reminder was sent, nine weeks later, to these regions to try and secure stronger representation (Appendix G). The appropriate representative at each centre-based childcare centre was asked to complete the online survey via a link embedded in the email invitation (Appendix B). The online

survey was available in English and French. Voluntary completion of the online survey indicated consent to participate.

Participants

Inclusion criteria. All centre-based childcare centres (e.g., daycare centre, preschool, and nursery school) that offered care (full-time and part-time) to young children and were listed on the provincial/territorial registries, were invited to complete the survey. Efforts were made to circulate the survey to the most appropriate representative. In addition, every attempt was made to avoid circulating the invitation to regulated family-/home-based childcare centres, babysitters, shopping mall child-minding centres, after school programs, and programs targeting older children that were captured in the provincial registries (e.g., school-age programs). These forms of care were excluded from this study because their policies could be quite different from centre-based childcare.

Sample size. All centre-based childcare facilities in Canada that offered care to young children were contacted and invited to participate. Given that centres were invited to complete the survey online, and taking into account the removal of duplicates and bounce-back email contacts, the total sample size of centre-based childcare representatives contacted was 7,512. The number of participating centres was documented so a response rate could be calculated.

Instruments and Tools

Platform of survey. The online invitation was sent to all accessible childcare contacts to invite them to participate in this study using the SurveyMonkey™ platform. This email was designed to draw the participant's attention to the Letter of Information

(LOI; Appendix D) that was included as the first page of the survey. Only participants who pressed the “submit” button on the last page of the online survey had their data sent to the researchers. After the initial email invitation, the researchers sent out a reminder email (Appendix E; Appendix F; Appendix G) to all the appropriate representatives at each centre one week, three weeks, as well as nine weeks (to maritime, northern, and prairie provinces/territories only) later. The purpose of the reminder emails was to thank those who had already participated, and to remind those who had not completed the survey to do so if interested, by the survey close date. As advised by the Dillman Total Design Method, evidence informed recommendations with regard to properly timed follow-up emails were used in order to gain a high response rate (Dillman, 2011).

Tools. The Environment and Policy Assessment and Observation Self-Report tool (EPAO-SR; Appendix H; Appendix I), a paper and pencil survey designed to explore the nutrition, physical activity, and sedentary behaviour environment within childcare centres (Ward et al., 2015), was modified (with permission) and used as the main foundation for the survey in this study. The EPAO-SR is a valid and reliable tool that provides a comprehensive scope of the physical activity and sedentary behaviour environments of the childcare centre (Ward et al., 2015). Psychometric properties of this tool for the written physical activity policies subscale include reliability and validity scores of 0.93 and 0.27, respectively. Other physical activity opportunity subscales included items such as time outside, indoor and outdoor teacher-led activity, and gross motor activity. Reliability and validity estimates surrounding these subscales range from 0.32 to 0.83 and 0.05 to 0.63, respectively. In addition, sedentary opportunity subscales included items such as TV time, seated time, and sedentary equipment, and the corresponding reliability

and validity estimates range from 0.70 to 0.82 and -0.01 to 0.47, respectively (Ward et al., 2015). With respect to these properties, it is important to note that this tool, as well as the scoring protocol, is currently in the process of being revised and as such, these psychometric properties are likely to change. This self-report tool is designed to evaluate a childcare centre's provisions (i.e., food/beverages served, active and sedentary opportunities, physical activity equipment, and the outdoor environment), practices (i.e., nutrition and physical activity social environment), and policies (i.e., both nutrition and physical activity; Ward et al., 2015). For the purpose of this study, only the physical activity and screen-viewing policy subscales were used (none of the nutrition-related subscales were applied). Questions regarding the physical activity environment (e.g., the size of indoor/outdoor physical activity space; the type of indoor/outdoor physical activity space; and the type of fixed [e.g., climbers, jungle gym] and portable play equipment [e.g., balls, push/pull toys]) were also used. Confirmation from the tool's creators about the appropriateness of using only the policy subscale was received (personal communication with Dr. Ward on June 10, 2016).

The EPAO-SR is divided into three surveys: the Director Report (Appendix H), the Staff Daily Questionnaire, and the Staff General Questionnaire (Appendix I; Ward et al., 2015). While it was not feasible to capture information from childcare staff at facilities across the country, we used the Director Report policy subscale, with the addition of five questions from the Staff General Questionnaire (pertaining to: equipment, environment, space, confidence, and training opportunities), which were modified to be addressed by the director. These modifications included changing the term "classroom" to "centre" as well as asking the regulatory body (i.e., provincial-level, organization-level, or centre-

level) of the policies enforced at the centres for each individual physical activity and sedentary behaviour item listed. With regard to the sedentary behaviour portion of the questionnaires, only questions specific to screen-viewing use were included in the modified version. In addition, since “active play” is often used as a proxy for physical activity, both terms were used throughout the modified version of the survey (Truelove et al., 2017).

Specific to the Staff General Questionnaire, there were two modified questions surrounding the childcare representative’s confidence in supporting healthy behaviours in their respective childcare centres. One question referred to the representative’s perceived confidence in supporting and creating physical activity opportunities. The scores for this question ranged on a subscale from 1 to 4 (e.g., 1 = very confident and 4 = not at all confident). The second question referred to the childcare representative’s confidence in *their staff’s* ability to support physical activity participation and limit sedentary pursuits. These scores ranged on a subscale from 1 to 6 (e.g., 1 = strongly disagree and 6 = strongly agree).

Overall, the survey captured information pertaining to: (1) the centre’s demographic information (e.g., location, age of children, and hours of care offered) as well as demographic information of the childcare representative completing the survey (e.g., work title, educational background, and years of experience in childcare setting); (2) the presence of a physical activity policy among childcare centres; (3) the characteristics of physical activity policies and/or regulations (e.g., specified amount and/or nature [indoor/outdoor play] of physical activity opportunities); (4) the presence of a screen-viewing policy; and, (5) the characteristics of childcare centres’ playground

(e.g., natural [e.g., natural materials, rock structures, vegetation, etc.] versus recreation structures [e.g., slides, swings, climbers, etc.]) and equipment available (e.g., fixed [e.g., climbers, jungle gym], and portable [e.g., balls, push/pull toys]). In addition to the aforementioned questions modified from the EPAO-SR tool, the researchers also included questions pertaining to: whether the childcare centre directors are familiar with Canadian Physical Activity and Sedentary Behaviour Guidelines for the Early Years (CSEP, 2012a; 2012b); childcare centres' level of involvement in creating active opportunities (e.g., structured/unstructured play), teaching physical activity-related concepts (e.g., health benefits of physical activity [e.g., improved temperament, motor proficiency, strong bones and healthy muscles, enhanced brain function, etc.]), and receptivity of childcare centres implementing a physical activity policy. In addition, the survey included open-ended questions surrounding these topics to allow the childcare representative to expand on their responses and as such, secure policy characteristics. Once approved by Western's ethics review board and launched online, the survey was reviewed by researchers with expertise in preschoolers' physical activity behaviours to ensure the language and questions were appropriate (i.e., to ensure the survey has face validity).

Because of the geographic distance and the potential participant pool, the survey was circulated online via Survey Monkey™. The survey allowed the appropriate representative at each childcare centre the option to skip questions and still submit the survey. The survey consisted of 29 questions. Upon completion, participants had the opportunity to provide their contact information if they wished to be entered into a draw to win one of ten \$25 Indigo Bookstore gift cards. Participants were only contacted again

if they specifically requested a copy of the study's results and/or they were the recipient of one of the gift cards.

Data Analysis

All statistical analyses were conducted in SPSS (version 24). Descriptive statistics were used to explore the demographic characteristics of the childcare centres and participating childcare representatives. Frequencies were run to examine the number of childcare centres that implement a physical activity policy, as well as how many are familiar with the national physical activity and sedentary behaviour guidelines. In addition, based on the data collected from the online surveys, means and standard deviations were calculated to describe the confidence of childcare representatives to support healthy physical activity and screen-viewing behaviours at their childcare centres. Lastly, analyses were to be conducted to compare inter-provincial differences; however, given the low participation rate in some provinces, these analyses were not feasible.

All open-ended questions from the online survey were entered and reviewed in QSR NVivo 10. Specifically, the framework from the modified EPAO-SR survey, question 2 in particular, was used to determine the *parent nodes* (e.g., location, amount, type, etc.). Deductive content analysis was then carried out to identify common themes (i.e., *child nodes* [e.g., description, facilitation, licensing requirements, etc.]) in participants' responses by examining the characteristics of the language used as well as the content or contextual meaning of the text (Hsieh & Shannon, 2005).

CHAPTER III

Results

A total of 1,290 childcare representatives accessed the survey (for a response rate of 17%), and of those, 514 provided complete data. With regard to childcare type, the majority of venues, 956 (76%) were classified as centre-based childcare, while 132 (10%) identified as a home-/family-based (which made them ineligible to complete the survey), 149 (12%) as a preschool, and 17 (1%) as a church-based facility. The majority of childcare representatives were female ($n = 488$; 95%). The age of participants ranged from 20 to over 65 years, with nearly half of participants (45%) having 21 years or more of experience in the childcare industry. Childcare representatives reported caring for children from the infant cohort (under 18 months; $n = 237$) to school-aged children (4.1-5 years; $n = 340$), with the majority offering care to toddlers (18 months-2.4 years; $n = 349$) and preschoolers (2.5-4 years; $n = 425$). See Tables 1 and 2 for complete participant and centre demographic information.

The majority of participants represented a childcare centre in Ontario ($n = 255$; 46%), followed by British Columbia ($n = 104$; 19%) and the prairie provinces ($n = 103$; 19%). However, good representation was achieved in Quebec ($n = 34$; 6%), New Brunswick ($n = 26$; 5%), and the territories ($n = 11$; 2%). While Nunavut, Yukon, and the Northwest Territories had low participation numbers relative to the total number of completed surveys in this study, their individual response rates with respect to the total number of childcare facilities within each territory were considerably higher (i.e., Yukon, 11%; Northwest Territories, 12%; and Nunavut, 12%). The maritime and prairie provinces individual response rates were also relatively high, ranging from 7 to 19%.

Finally, British Columbia, Quebec, and Ontario's individual provincial response rates were much lower, ranging from 2 to 7%. See Table 3 for complete provincial and territorial representation information.

Frequency/Description of Physical Activity Policies in Canadian Childcare Centres

Of the participating childcare centres, 295 representatives (44%) indicated having a written physical activity policy for young children. The majority of these written policies were reported by Ontario ($n = 144$) and British Columbia ($n = 32$) representatives, followed by Alberta ($n = 14$), Quebec ($n = 12$), and New Brunswick ($n = 11$).

Characteristics of these policies included the amount of: time children spend outdoors ($n = 395$; 63%); teacher-led active play ($n = 101$; 16%); and, physical activity education for children ($n = 91$; 16%). Furthermore, the majority of childcare representatives ($n = 227$; 42%) noted that their physical activity policies for children were provincially regulated. These existing physical activity "policies" were created either "in accordance with the licensing regulations" for the centre or outlined as a requirement by the ministry of the centre's respective province or territory (e.g., Child Care and Early Years Act in Ontario; Child Day Care Facilities Operator Standards in New Brunswick). In addition, 44 (8%) representatives indicated having policies that were cited as an organizational regulation, 163 representatives (30%) indicated policies regulated at the independent centre, and 96 representatives (18%) reported having no written policy with regard to physical activity. See Table 4 and Table 5 for complete physical activity policy information.

Childcare Representatives' Perspectives on Physical Activity Policies

When exploring participants' comments, as captured via the open-ended questions, detailed descriptions on the physical activity policies present within their respective

facilities were provided. Specifically, childcare centres located in Ontario, Quebec, and New Brunswick frequently reported having a regulated policy surrounding the *amount of physical activity* time required for children each day. Overall, the amount of physical activity, either regulated or common practice ranged from a minimum of 30 minutes to 7 hours per day, and some inter-provincial differences were observed. However, the most commonly reported time was 2 hours of daily outdoor playtime (Alberta, Manitoba, Ontario, Quebec, New Brunswick, and Yukon), with British Columbia consistently reporting the highest amounts of physical activity (4 to 7 hours of outdoor playtime). Despite most provinces and territories stating they had a policy regarding physical activity time for children, many centres used required and mandated outside playtime, as a proxy for physical activity.

Participants also spoke about the location of physical activity affordances, the form of activity that takes place during physical activity sessions, seasonal variability with respect to physical activity sessions, as well as physical activity education at their corresponding centres. Each of these are discussed below – please see Tables 6 to 10 for text-based examples and summaries from these survey questions, which illustrate the major topics explored in the survey and the subsequent themes that emerged from the collected responses.

Location of physical activity opportunities. Overall, no noticeable variations between provinces and territories were observed when discussing the *location of physical activity* opportunities. The majority of childcare centres stated having two to three active play sessions that took place both indoors and outdoors, but most commonly outdoors. The outdoor play areas were most often a playground or large yard and were described as

being an “exploration” or “natural” setting. In addition, outdoor activities included gross motor movement such as running, skipping, jumping, as well as nature walks and playground free play. Outdoor activity time was preferred; however, if the weather did not permit outdoor play, an indoor space such as a gym or large multi-purpose room was used, if available. Indoor activities most commonly cited included dancing, yoga, gymnastics, or teacher-led activities. See Table 7 for a summary of responses regarding *location of physical activity* opportunities at childcare centres.

Seasonal variability and physical activity sessions. Consistently across all provinces and territories, inclement weather (e.g., excessive rain, fog, snow and/or extreme temperatures [above 30°C or below -25°C]), was frequently reported to hinder outdoor physical activity opportunities at childcare centres (see Table 7). In some cases, participants acknowledged the challenge that weather posed for outdoor play, and if available, access to an indoor space such as a gym was used to offer children gross motor opportunities. While not typically reported, one centre even had a sheltered play area for outdoor activity when the weather was not suitable so “the children can still have some time in the fresh air even when rainy or foggy”. Compounding the outdoor playtime afforded to young children, the amount of time spent outdoors was dependant on how quickly the children could get ready to go outside (e.g., when children require more time to get ready to go outside, this cuts into the actual time they are provided outside). As such, during winter months, outdoor playtime was often cut short due to the time needed for dressing in snowsuits, etc.

Type of activity during physical activity sessions. Similar to location of physical activity time, the *type of activity* in which the children participated in also presented no

noticeable variations between provinces and territories across Canada. Many of the childcare centres indicated offering a balance of both structured and unstructured activities. Since the majority of centres reported following a child-led or emergent curriculum, unstructured or free play was the most frequently cited form of activity. However, there was also an acknowledgement by some centres of the importance of child-led play and supporting a child's motivations and interests to be active through both structured, teacher-led, and unstructured playtime. Examples of structured activities included circle time as well as organized games such as soccer and basketball. Some modifications to the structured form of teaching activity was to provide "active supervision with provocations," rather than teacher-led activity specifically. Additionally, unstructured activities involved playground free play, hula-hoops, imaginative play, going for a walk, and/or playing in the park. See Table 8 for a summary of responses surrounding the *type of activity* offered at childcare centres during physical activity sessions across Canada.

Physical activity education at childcare centres. While recognized as essential to the healthy development of young children, there was far less discussion regarding physical activity education among the childcare representatives' responses, compared to other items explored in the survey. Overall, most childcare centres acknowledged the importance of physical activity education and the benefits of being physically active in childhood. Many centres mentioned encouraging physical activity with the children attending their centres, stating that "getting up and moving is very important". In addition, some centres discussed the importance of healthy eating and outside time. However, confusion was exhibited regarding the definition of physical activity education

and as such, there was variation in the answers provided among the participants. Some centres indicated the promotion of physical activity education through their programming or curriculum, while others stated not having a formal education mechanism in place, but that physical activity education is provided in a “let’s have fun manner” or when children demonstrate interest. Furthermore, some centres reported following guidelines or programs put forth by their corresponding provinces or territories. Programs such as HOP (Healthy Opportunities for Preschoolers in British Columbia), LEAP (Literacy, Education, Activity, and Play for Toddlers in Saskatchewan), and ministry guidelines including the Child Care and Early Years Act in Ontario, and the “Gazelle et Potiron” in Quebec.

Training in the knowledge and understanding of physical activity education for children was reported by many centres as being very important. Although many centres reported not having a policy specifically around physical activity training for staff, the staff’s participation in physical literacy workshops, training, or professional development seminars were highly encouraged. In addition, some centres highlighted having designated staff certified to teach physical activity education or inviting trained fitness instructors to facilitate physical activities with the children and staff.

Physical activity education for parents was encouraged by childcare centres across all provinces and territories. Many childcare centres mentioned involving parents/guardians through volunteer opportunities or inviting their participation at community events that support physical activity through building healthy relationships and role modelling healthy habits. In addition, many centres provided physical activity education resources for parents such as newsletters, pamphlets, and notices for upcoming

workshops or training opportunities. Overall the importance of physical activity education for children and parents, as well as the participation in physical activity training for staff, was recognized and encouraged by many of the participating childcare centres.

Frequency/Description of Screen-Viewing Policies in Canadian Childcare Centres

In comparison to physical activity policies in childcare, 178 (29%) facilities identified having a written policy regarding screen-viewing. These policies were frequently reported by Ontario ($n = 67$) and British Columbia ($n = 27$), followed by Alberta ($n = 18$), Quebec ($n = 12$), and New Brunswick ($n = 8$). Characteristics of these policies included: amount of time children watch television ($n = 178$; 29%); amount of time children spend working on the computer/iPad ($n = 110$; 18%), and the type of television/video programming children are allowed to watch on a daily basis ($n = 135$; 23%). The majority of childcare centres reported having a centre-specific screen-viewing policy ($n = 173$; 34%), as compared to 7% ($n = 36$) being cited as having policies provincially regulated, and 15% ($n = 75$) having policies dictated at the organization-level. Approximately 30% ($n = 152$) of centres reported having no written screen-viewing policy. See Table 4 and 5 for complete screen-viewing policy information.

Childcare Representatives' Perspectives on Screen-Viewing Policies

When exploring participants' comments, as captured via the open-ended questions, detailed descriptions on the screen-viewing policies present within their respective facilities were provided by the childcare representatives.

Amount and type of screen-viewing in childcare centres. In terms of screen-viewing policies in childcare centres, the majority of centres expressed having no screens

at their facility or a zero-tolerance policy. Some centres did specify using screens; however, only in a limited capacity (i.e., less than 20 minutes) or for special occasions (i.e., 2-3 times a year). For example, screen-viewing may take place on holidays such as Halloween or Christmas, instances of inclement weather, and/or Professional Development (PD) days. In most cases, when screen-viewing is allowed, the purpose was primarily educational and supervised. Additionally, iPads or videos on the computer were also used as part of the tailored learning program suited to meet the educational goals for special needs children. Based on a review of participants' comments, no major differences were observed with regard to the type of screens adopted in the centres, whether the participant was referring to computer/iPad or TV/video screen-viewing.

Childcare Representatives' Training and Confidence for Supporting Healthy Behaviours

Just over half of childcare representatives participated or planned to participate in physical activity training, with 142 (27%) representatives receiving training in the past 12 months, 145 (28%) receiving training more than 12 months ago, and 7 (1%) attending a training session in the next 6 months. Overall, 209 (40%) childcare centre representatives reported receiving no physical activity training for young children. The most frequently cited topics discussed during the training sessions included: activities to promote gross motor development ($n = 241$); leading children in physical activity ($n = 219$); creating supportive physical activity environments ($n = 210$); music and movement ($n = 210$); and health benefits ($n = 148$).

With regard to childcare representatives' self-efficacy, their perceived ability to increase outdoor active play time ($M = 1.60$; $SD = 0.85$), renovate a play space ($M = 2.39$;

$SD = 1.13$), and enforce physical activity policies at childcare centres ($M = 1.47$; $SD = 0.69$), was measured on a 4-point scale. A complete review of the mean and standard deviation scores for confidence levels of representatives are presented in Table 11.

When asked about the Canadian Physical Activity (CSEP, 2012a), and screen-viewing portion of the Sedentary Behaviour Guidelines (CSEP, 2012b) for the Early Years, 87 (16%) and 61 (11%) childcare representatives correctly recalled these recommendations, respectively. Of the participating centres, 338 (62%) of the childcare representatives stated that they believe most young Canadians do not engage in sufficient levels of physical activity. See Table 12 for a complete account of childcare representatives' awareness of the early year's guidelines.

Table 1

Childcare Representative Demographic Information (n = 514)

	<i>N</i>	<i>%</i>
Sex		
Male	7	1.4
Female	488	94.9
Age		
20 – 24 years	3	0.6
25 – 34 years	75	14.6
35 – 44 years	147	28.6
45 – 54 years	177	34.4
55 – 64 years	83	16.1
65 + years	9	1.8
Ethnicity		
Caucasian	395	76.8
African Canadian	5	1.0
Aboriginal/First Nations	24	4.7
Hispanic	6	1.2
Asian	13	2.5
Arabic	4	0.8
Other	20	3.9
Position at childcare centre		
Director	253	49.2
Assistant director	22	4.3
Program co-ordinator	21	4.1
Supervisor	109	21.2
Manager	51	9.9
Other	58	11.3
Years of experience in childcare setting		
< 1 year	1	0.2
1 – 5 years	50	9.7
6 – 10 years	79	15.4
11 – 15 years	62	12.1
16 – 20 years	83	16.2
21 years +	229	44.6
Educational background		
High school	2	0.4
College	283	55.2
University	173	33.7
Post-graduate degree	45	8.8
Other	10	1.9

Note: Some values shown in the table may not add up to 100% or $n = 514$ as some participants chose not to answer certain questions.

Table 2

Childcare Centre Demographic Information (n = 514)

	<i>N</i>	<i>%</i>
Classification of childcare facility		
Centre-based	956	76.2
Preschool	149	11.9
Church-based	17	1.4
Location of childcare setting		
Urban	370	72.8
Rural	138	27.2
Number of children enrolled at centre		
1 – 44	183	35.5
45 – 94	207	40.1
95 – 134	65	12.6
135 – 174	24	4.7
175 +	15	2.9
Number of staff employed at centre		
1 – 20	443	82.4
21 – 40	67	13.0
41+	14	2.7
Utilization of physical activity policy		
Yes, already have one in place	146	28.5
Yes, would consider it	317	61.8
No	12	2.3

Note: Some values shown in the table may not add up to 100% or $n = 514$ as some participants chose not to answer certain questions.

Table 3

Childcare Centre Provincial and Territorial Representation (n = 514)

Province/Territory	<i>N</i>	%	Total Number of Centres Contacted (<i>n</i>)	Response Rate (%)	Written Physical Activity Policies (<i>n</i>)	Written Screen-Viewing Policies (<i>n</i>)
British Columbia	104	18.9	1742	6.0	32	27
Alberta	31	5.6	243	12.8	14	18
Saskatchewan	39	7.1	201	19.4	7	6
Manitoba	33	6.0	223	14.8	5	3
Ontario	255	46.3	3694	6.9	144	67
Quebec	34	6.2	1562	2.2	12	12
Nova Scotia	6	1.1	32	18.8	4	2
New Brunswick	26	4.7	159	16.3	11	8
Prince Edward Island	8	1.5	46	17.4	2	1
Newfoundland & Labrador	4	0.7	59	6.8	2	0
Yukon	2	0.4	19	10.5	1	1
Northwest Territories	6	1.1	51	11.8	3	3
Nunavut	3	0.5	25	12.0	0	0

Note: Some values shown in the table may not add up to 100% or $n = 514$ as some participants chose not to answer certain questions.

Table 4

Childcare Centre Physical Activity and Screen-Viewing Policies

Does your centre have a <u>policy</u> that includes a statement about...	Yes, written policy	Yes, <u>not</u> written policy but general practice	No
	N (%)	N (%)	N (%)
the amount of physical activity time for children	295 (44.1)	304 (45.4)	70 (10.5)
the amount of active play time for children	230 (36.5)	323 (51.3)	77 (12.2)
the amount of teacher-led active play time	101 (16.0)	329 (52.1)	202 (32.0)
the amount of time children spend outdoors each day	395 (63.0)	197 (31.4)	35 (5.6)
appropriate clothing & shoes needed for outdoor play	436 (67.5)	174 (26.9)	36 (5.6)
staff behaviour during outdoor play time	289 (46.3)	255 (40.9)	80 (12.8)
giving extra inside active play time as a reward	23 (3.7)	112 (17.9)	492 (78.5)
not taking away inside active play time as a punishment	99 (15.9)	134 (21.5)	389 (62.5)
giving extra outside play time as a reward	20 (3.2)	125 (20.1)	477 (76.7)
not taking away outside play time as a punishment	90 (14.5)	134 (21.6)	396 (63.9)
the size of indoor active play space	171 (28.5)	185 (30.9)	243 (40.6)
the type of indoor active play space	122 (21.1)	201 (34.8)	255 (44.1)
the amount of fixed play equipment (i.e., climbers, jungle gym)	88 (14.6)	166 (27.5)	350 (57.9)
the type (i.e., climbers, jungle gym) of fixed play equipment	70 (12.2)	168 (29.2)	337 (58.6)
the amount of portable play equipment (i.e., balls, push/pull toys)	99 (16.7)	259 (43.7)	235 (39.6)
the type (i.e., balls, push/pull toys) of portable play equipment	80 (14.4)	229 (41.3)	245 (44.2)
the size of outdoor active play space	226 (40.1)	167 (29.7)	170 (30.2)
the type of outdoor active play space	139 (25.6)	172 (31.7)	231 (42.6)
the amount of time children can watch television/video each day	178 (29.3)	152 (25.0)	277 (45.6)
the type of television/video programming children are allowed to watch	135 (22.9)	141 (23.9)	313 (53.1)
the amount of time staff can spend watching television/video	79 (13.4)	104 (17.7)	406 (68.9)

the amount of time children spend working on the computer/iPad	110 (18.3)	161 (26.8)	329 (54.8)
the amount of time staff spend working on the computer/iPad	90 (15.1)	190 (31.8)	317 (53.1)
the amount of time children can play video games	94 (15.9)	114 (19.2)	385 (64.9)
the amount of time staff can play video games	69 (11.8)	92 (15.8)	423 (72.4)
staff supervision of children's media (e.g., television, computer, video, etc.) use	108 (18.6)	158 (27.1)	316 (54.3)
the use of media (e.g., television, computer, video, etc.) as a reward/punishment for children	43 (7.3)	89 (15.2)	454 (77.5)
physical activity education for children	91 (15.5)	212 (36.2)	283 (48.3)
physical activity training for staff	55 (9.3)	193 (32.6)	344 (58.1)
physical activity education for parents	29 (5.0)	113 (19.3)	442 (75.7)

Note: Some values shown in the table may not add up to 100% as some participants chose not to answer certain questions; bolded questions indicate questions that have been qualitatively analyzed (see Tables 6 to 10). These questions were adapted, with permission, from the Environment and Policy Assessment and Observation Self-Report tool (EPAO-SR; Ward et al., 2015)

Table 5

Regulatory Bodies of Childcare Centre Physical Activity and Screen-Viewing Policies

	Provincial- /Territorial level	Organization- level	Centre- level	No policy	Other
	N (%)	N (%)	N (%)	N (%)	N (%)
the amount of physical activity time for children	227 (42.4)	44 (8.2)	163 (30.4)	96 (17.9)	6 (1.1)
the amount of active play time for children	191 (36.0)	58 (10.9)	183 (34.5)	94 (17.7)	4 (0.8)
the amount of teacher-led active play time	50 (9.5)	75 (14.2)	221 (41.9)	172 (32.6)	10 (1.9)
the amount of time children spend outdoors each day	279 (52.5)	32 (6.0)	177 (33.3)	38 (7.2)	5 (0.9)
appropriate clothing & shoes needed for outdoor play	40 (7.5)	103 (19.4)	343 (64.6)	39 (7.3)	6 (1.1)
staff behaviour during outdoor play time	77 (14.6)	101 (19.2)	274 (52.0)	65 (12.3)	10 (1.9)
giving extra inside active play time as a reward	13 (2.6)	35 (7.0)	104 (20.8)	282 (56.5)	65 (13.0)
not taking away inside active play time as a punishment	42 (8.3)	43 (8.5)	118 (23.4)	238 (47.1)	64 (12.7)
giving extra outside play time as a reward	14 (2.8)	31 (6.2)	111 (22.0)	276 (54.8)	72 (14.3)
not taking away outside play time as a punishment	52 (10.3)	40 (7.9)	119 (23.6)	229 (45.3)	65 (12.9)
the size of indoor active play space	253 (49.4)	36 (7.0)	106 (20.7)	100 (19.5)	17 (3.3)
the type of indoor active play space	149 (29.0)	52 (10.1)	156 (30.4)	136 (26.5)	21 (4.1)
the amount of fixed play equipment (i.e., climbers, jungle gym)	102 (20.0)	52 (10.2)	154 (30.1)	170 (33.3)	33 (6.5)
the type (i.e., climbers, jungle gym) of fixed play equipment	111 (21.7)	54 (10.6)	151 (29.5)	162 (31.7)	33 (6.5)
the amount of portable play equipment (i.e., balls, push/pull toys)	100 (19.5)	57 (11.1)	185 (36.0)	151 (29.4)	21 (4.1)
the type (i.e., balls, push/pull toys) of portable play equipment	83 (16.2)	61 (11.9)	196 (38.2)	153 (29.8)	20 (3.9)
the size of outdoor active play space	312 (61.1)	35 (6.8)	82 (16.0)	70 (13.7)	12 (2.3)
the type of outdoor active play space	181 (35.6)	53 (10.4)	136 (26.8)	120 (23.6)	18 (3.5)

the amount of time children can watch television/video each day	36 (7.1)	75 (14.9)	173 (34.3)	152 (30.2)	68 (13.5)
the type of television/video programming children are allowed to watch	35 (6.9)	72 (14.2)	180 (35.6)	150 (29.6)	69 (13.6)
the amount of time staff can spend watching television/video	20 (4.0)	61 (12.2)	149 (29.9)	186 (37.3)	83 (16.6)
the amount of time children spend working on the computer/iPad	19 (3.8)	70 (14.0)	174 (34.9)	169 (33.9)	67 (13.4)
the amount of time staff spend working on the computer/iPad	15 (3.0)	72 (14.3)	181 (36.1)	173 (34.5)	61 (12.2)
the amount of time children can play video games	19 (3.8)	61 (12.3)	156 (31.6)	177 (35.8)	81 (16.4)
the amount of time staff can play video games	12 (2.4)	59 (12.0)	136 (27.6)	191 (38.7)	95 (19.3)
staff supervision of children's media (e.g., television, computer, video, etc.) use	29 (5.8)	68 (13.6)	186 (37.3)	152 (30.5)	64 (12.8)
the use of media (e.g., television, computer, video, etc.) as a reward/punishment for children	23 (4.7)	52 (10.6)	136 (27.6)	188 (38.2)	93 (18.9)
physical activity education for children	43 (8.5)	67 (13.2)	186 (36.8)	167 (33.0)	43 (8.5)
physical activity training for staff	19 (3.7)	85 (16.8)	170 (33.5)	186 (36.7)	47 (9.3)
physical activity education for parents	14 (2.8)	55 (11.0)	141 (28.3)	221 (44.4)	67 (13.5)

Note: Some values shown in the table may not add up to 100% as some participants chose not to answer certain questions; bolded questions indicate questions that have been qualitatively analyzed (see Tables 6 to 10). These questions were adapted, with permission, from the Environment and Policy Assessment and Observation Self-Report tool (EPAO-SR; Ward et al., 2015).

Table 6

Childcare Representatives' Responses about Policies Surrounding the Amount of Physical Activity Time at Childcare Centres Across Canada

British Columbia

*Licensing requires this - at least 2 hours a day
Guaranteed an hour of outside play time (minimum)
All children will participate in 2-6 hours of outdoor play and physical activity daily*

Alberta

*[A]t least 6 gross motor activities per week per educator
[D]aily activity outdoors up to 2 h[ours] each day
[C]hildren will engage in physical activity for a minimum of 30 minutes every day*

Saskatchewan

*We follow the healthy start program which recommends 180 minutes or more of moving activity per day
One hour at least to run freely. Two to three guided physical activities per day
[A]t least 30 min a day*

Manitoba

*We are outside in the playground at least once a day
1-4 hours per day of outside play
Average active play is 3 hours per day. We use school gym only when absolutely necessary*

Ontario

*Our policy does not state physical activity - it does state time outside [time] - a minimum of 2 hours per day
As per the CCEYA [Child Care Early Years Act], children are expected to play outdoors for a minimum of two hours per day
180 min[utes] daily of physical activity including structured and unstructured*

Quebec

*2 hours outdoor daily structured and unstructured
3 hours per day on average
Children 18 months - 4 years of age should be active 180 minutes throughout the day*

Nova Scotia

*We spend more than 50% of the day outside...
[M]inimum 30 minutes each morning and afternoon
At least 1.5 hours per day*

New Brunswick

We are strongly encouraged to encourage physical activity outside for at least 2 hours a day

We follow the New Brunswick Operators Standards set forth by the Department of Education and Early Childhood Development which mandates a minimum of two hours daily of outside play

[M]inimum of 3 hours daily

Prince Edward
Island

Approx[imately]1.5 hours in the [AM] then 1.5 in the afternoon

The amount of physical play happens at least 1 hour in the morning (outside) and at least 1-2 hours in the afternoon (outside or in the gym)

The children & staff are out at least 3-4 times daily for back yard play...

Newfoundland &
Labrador

On average 3 hours of outdoor play per day

Yukon

We require our children to get at least 1-2 hours of physical activity daily, half will be structured and half unstructured

Northwest
Territories

20 minutes to 30 minutes of unstructured/structured outdoor/indoor

[T]he daily program plan is to include gross motor activity daily

Children receive at least 60 minutes per day of physical activity

Nunavut

[H]alf hour free play

Note: These responses were collected from the open-ended questions corresponding with the bolded questions in Table 4. Some provinces/territories had fewer responses, and therefore, fewer quotes were available.

Table 7

Childcare Representatives' Responses about Policies Surrounding Location of Physical Activity Opportunities at Childcare Centres Across Canada

Indoor

[I]t is in our daily routine to have indoor physical activity inside for half an hour to one hour (ON)

If it is not appropriate to go outside for the day the children will be lead in indoor running games, obstacle courses, yoga, and dancing (YU)

... we encourage gross motor movements in the classrooms throughout the day (NS)

We have a huge gym where the play is often unstructured (BC)

We do not have access to an indoor gym but our rooms have moveable furniture so that it can be pushed aside to make a space big enough for active play (MB)

Outdoor

[M]ajority of time is outdoors... (QB)

Two hours a day of outdoor play, weather permitting (MB)

Children are to go outside daily (NWT)

[S]pacious, variety of activity opportunities which includes climbing, crouching, crawling, planting, sliding, etc. (NB)

Focus on creating 'natural' environments, but also have climbers, swings, and bike paths in some yards (BC)

Weather

Our policy is that we go outside daily when the weather permits it, following the CSA [Canadian Standards Association] guidelines (BC)

Children are outside everyday except when the weather is bad, ex[ample] excessive rain or snow and very cold temperatures (SK)

Children have 2 daily active play time outside (weather dependent) or in the gym (NWT)

If weather does not permit outdoor play, an indoor gym is used for the same structure (ON)

At least twice per day outside playtime weather permit (QB)

All age groups are outside at least 2 times a day, in all weather (NS)

Note: These responses were collected from the open-ended questions corresponding with the bolded questions in Table 4. Location of physical activity opportunities and weather was not separated by province and territory because the responses for these topics did not present sufficient variation.

Table 8

Childcare Representatives' Responses about Policies Surrounding Physical Activity Type Offered at Childcare Centres Across Canada

Structured	<p><i>[M]inimum 45 minutes per week indoor structured activity (yoga, dance; BC)</i></p> <p><i>Two to three guided physical activities per day (SK)</i></p> <p><i>Structured mostly inside but some outside approx[imately]1 hour a day (PEI)</i></p> <p><i>Teacher-led active play varies from day to day (MB)</i></p>
Unstructured	<p><i>[O]ur program is play based and children spend most of their day in unstructured play (AB)</i></p> <p><i>2 h[ours] unstructured (NB)</i></p> <p><i>[A]ll unstructured in/out as the children see fit (ON)</i></p> <p><i>We are a child led center. We do set up suggested activities; however, it is not led by a teacher (NB)</i></p>

Note: These responses were collected from the open-ended questions corresponding with the bolded questions in Table 4. Physical activity type was not separated by province and territory because the responses for these topics did not present sufficient variation.

Table 9

Childcare Representatives' Responses about Policies Surrounding Physical Activity Education in Childcare Centres Across Canada

Children

We have visitors who share various physical activities with the children and educators talk with the children about, and role model the benefits of physical activity (ON)

[A]s a play-based learning centre we try make everything a lesson (BC)

Physical literacy is promoted during gross motor activities (AB)

We could spend more time on teaching the children the importance of physical activity (NS)

Staff

We have designated teachers that teach Physical Education! These teachers go through 6 months of CEFA [Core Education & Fine Arts] training (BC)

All staff are expected to complete on-going training in regards to all developmental areas for children (AB)

Encouraged but not a requirement presently (ON)

Not enough - need more resources, and cost can be a problem (MB)

Parents

We provide literature for parents about physical activity and healthy eating habits (NB)

We promote all healthy habits to our parents including proper sleep, good nutrition and exercise. We do this through monthly newsletters, parent information nights, documentation and offering resources (BC)

[T]his is not something that is currently implemented, but would be a great idea to educate parents on physical activity that their children need and enjoy (ON)

Note: These responses were collected from the open-ended questions corresponding with the bolded questions in Table 4. Physical activity education was not separated by province and territory because the responses for these topics did not present sufficient variation.

Table 10

Policies Surrounding the Amount and Type of Screen-Viewing in Childcare Centres Across Canada

Amount

No more than 20 minutes (2.5 years and up; ON)

We have a policy to limit any screen time to selective times when used for educational purposes (NB)

Absolutely none. We are a screen free environment (BC)

Technology policy - 15 minutes of screen time per week/ one movie day a month (AB)

Computer/iPad

Toddlers/preschool[ers] use the iPad for music and pictures and videos to research their interests (e.g., boats and google imaging boats), school-age children use the iPad for taking pictures and researching (ON)

... only watch a dvd on the laptop on special occasions (e.g., Halloween, Christmas; NB)

[O]nly special needs children can use iPad for specialized apps suited to their needs or education goals, as set up by specialists (MB)

TV/Video

TV/Video usage is largely restricted and used only for educational purposes (ON)

If weather is very bad we will sometimes put on a movie (BC)

On special occasions only. At Christmas time we have a pajama day and we watch a movie (QB)

Note: These responses were collected from the open-ended questions corresponding with the bolded questions in Table 4. Screen-viewing was not separated by province and territory because the responses for these topics did not present sufficient variation.

Table 11

Confidence of Childcare Representatives to Support Healthy Physical Activity and Screen-Viewing Behaviours

	<i>M (SD)</i>
1. *How <u>confident</u> do you feel in your ability to...	
increase outdoor active play time at the centre?	1.60 (0.85)
add new active play equipment at the centre?	2.04 (1.02)
renovate a play space at the centre?	2.39 (1.13)
create physical activity policies for the centre?	1.65 (0.81)
make physical activity curricula changes at the centre?	1.68 (0.84)
influence staff behaviour on the playground at the centre?	1.50 (0.70)
enforce physical activity policies at the centre?	1.47 (0.69)
2. †I feel <u>confident</u> that my staff can...	
teach children in my centre why being physically active is good for them?	5.04 (1.35)
help the children in my centre to be physically active for at least 60 minutes each day?	5.06 (1.35)
limit the amount of TV children in my centre watch to less than 30 minutes per day?	5.47 (1.35)
limit the amount of computer/iPad time children in my centre have to less than 30 minutes per day?	5.47 (1.35)
get children in my centre to be physically active even when they aren't interested?	5.47 (1.29)

Note: * = scores on 1 to 4 subscale (e.g., 1 = very confident, 2 = somewhat confident, 3 = a little confident, 4 = not at all confident); † = scores on 1 to 6 subscale (e.g., 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = slightly agree, 5 = agree, 6 = strongly agree). Confidence was calculated by taking the mean of each participant's score. *SD* = standard deviation.

Table 12

Childcare Representatives' Awareness of the Canadian Physical Activity and Sedentary Behaviour Guidelines for the Early Years

	<i>N</i>	<i>%</i>
Daily Physical Activity recommendations for children 2 – 4 years? (<i>n</i> = 537)		
30 minutes	19	3.5
60 minutes	102	19.0
90 minutes	38	7.1
120 minutes	97	18.1
180 minutes	87	16.2
I don't know how many minutes	66	12.3
I'm not familiar with these guidelines	128	23.8
Daily Screen-Time recommendations for children 2 – 4 years? (<i>n</i> = 537)		
30 minutes	177	33.0
60 minutes	61	11.4
90 minutes	7	1.3
120 minutes	15	2.8
180 minutes	4	0.7
I don't know how many minutes	97	18.1
I'm not familiar with these guidelines	176	32.8
Do you believe young Canadians engage in sufficient levels of PA per day? (<i>n</i> = 543)		
Most do not	338	62.2
About half do	110	20.3
Most do	53	9.8
I don't know	42	7.7

Note: Some values shown in the table may not add up to 100% as some participants chose not to answer certain questions.

CHAPTER IV

Discussion

The purpose of this study was to explore the existence and characteristics of physical activity policies in childcare centres across Canada, and secondarily, to examine screen-viewing policies within these facilities. Previous research indicates that the childcare environment accounts for a significant proportion of the variability in physical activity levels and sedentary time in young children while in care (Boldemann et al., 2006; Bower et al., 2008; Dowda et al., 2004; Finn et al., 2002; Pate et al., 2004; Tucker et al., 2013; Vanderloo et al., 2015; Worobey et al., 2005). In particular, studies have indicated that the presence of policies within childcare centres, such as specified time for outdoor play and the amount of space and equipment available, can positively impact the physical activity levels as well as reduce sedentary pursuits among preschoolers (Bower et al., 2008; Dowda et al., 2009; Erinoshio et al., 2015; O'Neill, Dowda, Benjamin Neelon, Neelon, & Pate, 2017; Tremblay, Boudreau-Larivière, & Cimon-Lambert, 2012). In addition, education and training of staff and their behaviour on the playground has been shown to influence young children's physical activity behaviours (Troost, Ward, & Senso, 2010). Due to the lack of specific guidelines for physical activity and sedentary behaviour in childcare centres in Canada (Vanderloo et al., 2012), the policy landscape within early learning environments has remained unknown. The present study extends this body of research by identifying the presence and aforementioned aspects of the policies surrounding these behaviours (i.e., physical activity and screen-viewing pursuits) within Canadian childcare centres. A number of important findings warrant discussion.

The first key finding of this study was the low and inconsistent report of written physical activity policies in childcare centres. Less than 50% of representatives indicated having a written policy regarding the amount of physical activity young children receive each day. This finding is important in light of previous research that suggests that childcare-based policies are effective at producing increased activity participation among young children (Bower et al., 2008; Dowda et al., 2009; O'Neill et al., 2017; Tremblay et al., 2012). In line with the aforementioned studies, and the growing global concern about childhood obesity (Wang & Lobstein, 2006), promoting physical activity and deterring sedentary behaviours among young children has become increasingly important. With this recognition, recommendations and guidelines for physical activity and sedentary behaviour policies within childcare centres are emerging from researchers and public health practitioners world-wide (Pate & O'Neill, 2012). As such, the outcomes of this study align with those of Wolfenden et al. (2011), Gerritsen, Morton, and Wall (2016), and Hinkely et al. (2015). Specifically, Wolfenden and colleagues (2011) interviewed supervisors from licensed preschools and daycare centres in Australia and reported similar findings regarding physical activity-related policies and practices of childcare services. This research determined that few childcare facilities had a written physical activity policy (41%) or had staff trained in physical activity (49%; Wolfenden et al., 2011). Additionally, Gerritsen et al. (2016) investigated written policies, equipment, strategies, and barriers to children's activity in early childhood education settings and also reported time children spent in active play and using screens while in care. Gerritsen and colleagues (2016) surveyed licensed childcare services in Auckland and Waikato, New Zealand and discovered 35% had a written activity policy; however, no policies

addressed screen use within the centres. Finally, in Hinkely et al.'s study (2015), differences in physical activity environments, policies, and practices between childcare centres in Melbourne, Australia and Kingston, Canada were explored. When compared, a higher percent of Canadian centres had a formal physical activity policy (77% vs. 28%); however, a higher percent of Australian centres provided an indoor area for physical activity (91% vs. 55%) and physical education for staff (16% vs. 5%). Overall, these studies all stress the importance of ensuring young children are engaging in appropriate levels of physical activity and sedentary behaviour.

With respect to the content analysis of the open-ended questions, the detailed and abundant descriptions of the physical activity policies suggested some inter-provincial differences in the responses and provided context with respect to the interpretation of "physical activity policy". For example, in some instances childcare centres specified the recommended *amount* of physical activity time children should be accumulating throughout the day (e.g., 180 minutes) or the *intensity* of physical activity children should be participating in to gain the greatest health benefits (e.g., progressive increase needed so that they can move towards attaining 60 minutes of high intensity exercise in the day). Moreover, when policies were not explicitly stated, centres highlighted their understanding of the importance of physical activity for children and mentioned that their children engage in "active play throughout the day" or that children are "driven" to be active. In addition, despite many centres reporting a daily outdoor playtime of 2 hours, some childcare representatives used this *required outside playtime* as a proxy for a *physical activity policy*. With this in mind, it is also important to note that although a large number of centres acknowledged having a physical activity policy regulated by the

province (42%), many of these provincial regulations only specify required outdoor playtime opportunities, and not the daily *amount* of physical activity children should be obtaining. Specifically, many Ontario facilities reported having a physical activity policy; however, these facilities have a mandated outdoor playtime accreditation standard (Child Care and Early Years Act, 2014). While it is possible that these centres do in fact implement a physical activity policy, given that they reported such a high number of these as provincially regulated, it is equally plausible that childcare staff interpreted the mandated outdoor play requirement as a physical activity proxy. While outdoor active playtime is important to help children achieve sufficient levels of physical activity, this accreditation standard is not a specific policy outlining the *amount* or *intensity* of physical activity children are required to obtain while in care. Additionally, these findings align with those of Vanderloo and colleagues (2012) who reviewed Canadian provincial/territorial childcare legislation regarding physical activity participation and discovered that although many provinces/territories provided physical activity recommendations, none provided specific time requirements for daily physical activity. Considering this confusion and lack of physical activity regulations specific to childcare centres, enforcing regulations that not only support but also mandate explicit physical activity opportunities could play a significant role in ensuring children are obtaining the recommended amount and intensity of daily activity (Vanderloo et al., 2012).

Since Canada has such variation in climate, certain provinces and territories reported providing more time to go outdoors, and in turn, more opportunity for physical activity participation. For instance, the warmer climate in British Columbia, on average, may support children having more time outside, whereas many of the remaining

provinces and territories consistently reported inclement weather to be a barrier to obtaining the required amount of outdoor playtime. As a result, these limited opportunities to participate in outdoor play may hinder the amount of physical activity children are engaging in overall (Tucker and Gilliland, 2007). Furthermore, previous research has suggested that the time children spend in outdoor play is linked with positive health outcomes (Christiana et al., 2016; Thompson Coon, Boddy, Stein, Whear, Barton, & Depledge, 2011), in particular the participation in more MVPA (Vanderloo et al., 2013). Despite academic debate and public discussion about the relative benefits and harms of active outdoor play (Tremblay et al., 2015), recent reviews have continued to highlight the importance of outdoor play for children's health and development (Brussoni et al., 2015; Gray et al., 2015). Therefore, it may be important for physical activity policies within childcare centres to not only provide the required time allotment but also include alternative opportunities or suggestions to ensure children are engaging in the required amount of physical activity while attending care, regardless of the weather conditions.

In terms of sedentary behaviour, only 29% of childcare centres identified having a written policy regarding screen-viewing. Despite few centres employing screen-viewing specific policies, the majority reported having no screens at their facilities. In some instances, screen-viewing pursuits were described as limited or used in a teaching capacity; however, a recent review has shown that with higher engagement in sedentary opportunities (e.g., access to computers, television, and videos) children spend less time in MVPA (Vanderloo et al., 2014). With this in mind, if these screen-viewing behaviours are not regulated they have the potential to displace beneficial active play. These findings

are consistent with previous research, suggesting that sedentary behaviour policies, specifically screen-viewing regulations, are limited within childcare centres (Erinosho et al., 2015; Tucker et al., 2015; Vanderloo et al., 2013; Ward, Vaughn, McWilliams, & Hales, 2009). Despite serving educational purposes at times, future efforts are needed to ensure childcare centres are supervising and limiting screen-viewing in accordance with the Canadian guidelines (i.e., less than 60 minutes per day; CSEP, 2012b).

Although there are many important aspects of young children's environments, educators and childcare providers play an integral role in establishing and promoting lifelong physical activity behaviours in the early years (Goldfield et al., 2012). Previous research has emphasized the strong influence childcare providers can have through educating and role modelling healthy behaviours for children in their care (Chow & Humbert, 2011; Copeland et al., 2012; Robinson et al., 2012). In this current study, very few centres reported having a written policy regarding physical activity education for staff (9%) and children (15%), and 40% of childcare representatives reported receiving no physical activity training for young children. Qualitative content analysis of the questions pertaining to physical activity education identified that although many childcare representatives recognized the importance of physical activity education for the staff as well as the children, the cost or lack of resources proved to be a barrier to providing this service. These comments echo those in previous research examining childcare providers' perspectives, who noted their acknowledgement of the need for additional resources and training in order to provide physical activity education for preschoolers (Fees et al., 2009; Tucker et al., 2011).

Furthermore, childcare providers are often recognized as the ‘gatekeepers’ of healthy behaviours and well-being, and as such, it is important to examine their own knowledge and practice of physical activity and sedentary behaviour guidelines (Tucker et al., 2011). Alarming, only 16% and 11% of childcare representatives correctly recalled the Canadian recommendations for physical activity and sedentary behaviour, respectively. Some of the research focusing on facilitating early childhood educators’ knowledge of healthy practices resulted in mixed findings. Bellows and colleagues (2008) interviewed 79 teachers from 34 Head Start programs and found that current health promotion practices were lacking and one barrier to the implementation of healthy practices was insufficient training. Additionally, speaking to childcare provider training specifically, Martyniuk and Tucker (2014) explored early childhood education (ECE) students’ physical activity-related knowledge and educational experience during their formal training in Ontario. The findings of this study identified that 72% of ECE students had not completed any physical activity/physical education specific courses, while only 29% were familiar with, and 2% accurately reported, the Canadian Physical Activity Guidelines for the Early Years (Martyniuk & Tucker, 2014). Moreover, knowledge levels have been related to self-efficacy, as well as readiness to change behaviors (Bandura, 2004; 2006). Di Noia and Prochaska (2010) indicated that through consciousness raising, gaps in knowledge may be resolved and as a result, may increase awareness of the issues and acceptance of the need to change behaviors. As such, knowledge may be associated with readiness to change and the confidence to do so may influence early childhood educators’ adoption of healthy practices within the childcare setting (Derscheid, Kim, Zittel, Umoren, & Henry, 2014). Lastly, Gerritsen and colleagues’ (2016) research

identified strategies to promote physical activity in childcare including increasing the requirements for, and availability of, teacher training and ongoing professional development about physical activity for children. Half of the early childcare educator services ($n = 119$; 50%) participated in this research did not have anyone they would consider to be a *physical activity champion*, defined as “someone who actively shares knowledge and skills, raising awareness and promoting positive change about physical activity” (Gerritsen et al., 2016, p. 322). Childcare providers play a pivotal role in fostering healthy physical activity and sedentary behaviours and as such, effective resources and training opportunities aimed at increasing knowledge and awareness of physical activity and sedentary behaviour recommendations should be at the forefront (Tremblay et al., 2012). Therefore, the adoption of comprehensive policies regulating the amount and type of physical activity education and training opportunities for ECE students as well as staff, may be one strategy to facilitate and support these environments and ensure that all young children are receiving adequate and appropriate physical activity and sedentary behaviour programming (Martyniuk & Tucker, 2014; Wright et al., 2015). Overall, these studies, in addition to this current study, add to the much-needed body of research helping to inform the development of best practice and policy guidelines on a local and global scale, with the ultimate goal of enhancing opportunities for optimal physical activity levels and screen-based sedentary behaviours within childcare centres.

The present study is grounded in the PRECEDE-PROCEED model of health promotion (Green & Kreuter, 2005), and aligned well with the administrative and policy assessment (Phase 5) stage of the model. In terms of Phase 5, this study proved beneficial in identifying the existence of physical activity and screen-viewing policies currently

present within childcare centres across Canada. This study explored various characteristics of these policies (e.g., amount of daily physical activity and screen-viewing opportunities, access to and availability to indoor and outdoor active play spaces, physical activity education training opportunities, and familiarity with Canadian physical activity documents and guidelines) and highlighted the frequency of these aspects, through a policy lens, within the childcare environment. Specifically, the results of this study provide researchers, childcare administrators, and policymakers with valuable feedback regarding the existing policies and areas in need of improvement in order to support physical activity participation and deter sedentary behaviour more effectively. This study supports the findings of previous research, underscoring the need for physical activity supporting written policies; clearer guidelines on specific amount, frequency, or type of physical activity required for optimal child development; and limiting screen-viewing pursuits (Erinosho et al., 2015; Gerritsen et al., 2016; McWilliams et al., 2009; Vanderloo et al., 2012; Ward et al., 2009). Additionally, supplementing policy with accessible resources (e.g., posters, information sheets about physical activity and screen-viewing, etc.), as well as consistent provision of early childhood educator (staff) training, represent important steps for putting said policies into action (Martyniuk & Tucker, 2014; Tremblay et al., 2012; Vanderloo et al., 2012; Wright et al., 2015). In light of these findings, evidence-based recommendations and modifications can be made to develop and implement future health promotion initiatives, via policies, that are better equipped to encourage the appropriate physical activity and screen-viewing behaviours among the preschool population.

Strengths and Limitations

This study is the first to provide evidence of the physical activity and screen-viewing policy landscape in Canadian childcare facilities. Strengths of this study include a relatively large population sample of childcare representatives from across Canada as well as the use of a widely-recognized and valid tool aimed at exploring the physical activity and sedentary behaviour environment within childcare centres (Ward et al., 2015). In addition, the use of such a widely-recognized tool can prove beneficial when comparing findings of the current study with previous research (Bower et al., 2008; Hinkely et al. 2015; Lyn, 2013; O'Neill et al., 2017; Ward, Benjamin, Ammerman, Ball, Neelon, & Bangdiwala, 2008; Vanderloo et al., 2014; 2015). However, limitations of this study must also be acknowledged.

The main limitation of this research was that it only collected self-reported information from childcare representatives, rather than conducting an environmental scan of each childcare's policy documents. While this would have provided a more accurate picture of policy rates and characteristics of said policies, it was not feasible given that over 7000 childcare centres are registered in Canada. Also, as a consequence of the self-report nature of this tool, no evidence is available to know how well (or not) the policy is implemented and followed in respective childcare facilities. In addition, because Canada has two official languages, and to maximize participation, the EPAO-SR was translated into French for this study. While we consider this a strength of the present study, a limitation of undertaking this process means that no reliability or validity scores are available for this version of the tool. Thirdly, while every effort was made to encourage survey completion, a possible limitation of this study was the response rate of 17%, slightly below the average response rate of 23% for online-based survey research (Nulty,

2008; Shih & Fan, 2008). This limits the ability to generalize these findings to all childcare facilities across the country. While responses were collected from childcare representatives located in all provinces and territories, representation from the territories and some of the maritime provinces was low, and therefore, comparative analyses between provinces were not possible. This would have been an additional contribution of this work, given childcare centres are regulated at the provincial/territorial level, not nationally.

In an effort to secure policy characteristics, open-ended questions were added to the survey, and in doing so, the overall length of the survey was extended which increased the required completion time. As such, a large portion of participants failed to complete the survey in its entirety. This resulted in some missing data regarding the centres' demographics (specifically location) as these questions were positioned toward the end of the survey, and in turn, limited the inter-provincial/territorial comparisons that could be conducted.

It is also important to recognize that in an attempt to contact as many childcare facilities as possible, the respective provinces'/territories' online Ministry registries were used. With this being said, it is possible these registries may not have been a complete or updated representation of the sample of childcare facilities within each province and territory overall and as a result, the contact information for a few of the centres were duplicates or resulted in bounce-back emails. We believe this may have played a role in the underestimation of sample sizes for each province and territory collected in this study, and in turn, the low report of written policies.

Additionally, while a low report of written policies was observed in this current study, the majority of responses were collected from Ontario ($n = 255$; 46%). While efforts were made to secure a strong presentation from all provinces and territories, Ontario had the largest sample of childcare facilities in Canada ($n = 3694$), which accounted for half of all centres contacted. With respect to this finding, we believe the reasoning behind this province's high number of reported physical activity and sedentary behaviour policies (i.e., 144 and 67, respectively) is twofold; (1) since the survey was created in Ontario, there may have been increased buy-in for the childcare facilities located within the province to complete the survey, and, (2) given the childcare facilities knowledge of their provincial accreditation regulation surrounding amount of outdoor playtime each day, centres within Ontario may have felt more inclined to answer.

Of particular note concerning the regulatory bodies identified as enforcing these reported policies within Canadian childcare centres (i.e., provincial-level, organization-level, and centre-level), it is unclear if the childcare representatives completed this question based on the *written policy* and/or the *general practice* surrounding each topic in their respective centres (e.g., amount of active play time for children, the size of the indoor/outdoor active play space, amount of time children can watch television/video each day, physical education for children, etc.). Despite efforts to clarify the definition of physical activity-related policies, different interpretations of the term "policy" may be a reason for the discrepancy between the reported number of policies as well as the corresponding regulatory body data reported in Table 4 and Table 5, respectively.

Lastly, although the sample for this research included a diverse range of participants from across Canada, it is possible that childcare representatives may have felt

the need to give socially desirable responses, and in turn, report the existence of physical activity or screen-viewing policies, instead of choosing responses that are reflective of the true policy landscape within their respective childcare centre. As such, these results could possibly paint a skewed picture of the policy environment in Canadian childcare centres overall. Additionally, if this is the case, the prevalence of policies reported in this study could be an overestimate. Despite these limitations, this research is the first to assess the presence and components of physical activity and screen-viewing policies in Canada. Since there are limited physical activity or sedentary behaviour regulations explicitly outlined for early learning environments in Canada (Bushnik, 2006; Vanderloo et al., 2012), this study provides valuable insight into the policies surrounding healthy behaviours currently in place in Canadian childcare settings.

Conclusion and Future Directions

Physical activity and screen-viewing policies in childcare are not common in Canada, as only 8% and 30% of facilities provided an organization-level or centre-specific physical activity requirement, and 15% and 34% of facilities provided organization-level or centre-specific requirements surrounding screen-viewing pursuits, respectively. In light of provincial childcare regulations and some accreditation standards, the results of this study provide important findings to consider when developing recommendations for physical activity and screen-viewing policies for childcare centres across Canada. This study provides a starting point to better understand the integral role policies in childcare settings play in supporting physical activity levels and deterring screen-viewing pursuits among the preschooler population. Furthermore, due to the increasing obesity rates and low participation rates in physical activity among

preschoolers in childcare, ensuring these environments are promoting physical activity by way of comprehensive policies, may be a viable and cost-effective strategy to improve the physical activity levels of preschool-age children (Wright et al., 2015; Gortmaker et al., 2011). Overall, this study provides guidance for future health promotion strategies, specifically pertaining to the adoption of physical activity and screen-viewing policies within the childcare environment. Future research efforts are warranted to continue to develop evidence-based recommendations, and add to the growing body of research dedicated to supporting healthy behaviours among young children.

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Appendix A: Western University Non-Medical Research Ethics Board Approval



**Western University Non-Medical Research Ethics Board
NMREB Delegated Initial Approval Notice**

Research Ethics

Principal Investigator: Dr. Patricia Tucker
Department & Institution: Health Sciences/Occupational Therapy, Western University

NMREB File Number: 108092
Study Title: The Examination of Physical Activity and Screen-Viewing Policies and Practices in Childcare Centres Across Canada

NMREB Initial Approval Date: July 21, 2016
NMREB Expiry Date: July 21, 2017

Documents Approved and/or Received for Information:

Document Name	Comments	Version Date
Recruitment Items	Appendix B - Invitation Email	2016/07/04
Western University Protocol	Received July 13, 2016	
Letter of Information & Consent		2016/07/05
Recruitment Items	Appendix E - 1 week follow up	2016/07/04
Recruitment Items	Appendix F - 3 week follow up	2016/07/04
Instruments	Appendix C - Survey - French	2016/07/01
Instruments	Appendix C - Survey - English	2016/06/19

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the above named study, as of the NMREB Initial Approval Date noted above.

NMREB approval for this study remains valid until the NMREB Expiry Date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario.

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

The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.


Ethics Officer, on behalf of Dr. Riley Hinson, NMREB Chair or delegated board member

Ethics Officer: Erika Basile Nicole Kanaki Grace Kelly Katelyn Harris Vikki Tran Karon Gopaul




Appendix B1: Invitation Email to Childcare Directors - English

Subject Line: Invitation to Participate in Research

Dear Childcare Representative:

Researchers at Western University are conducting a study to explore the presence and characteristics of physical activity policies and practices within childcare settings across Canada. We are contacting **all** childcare directors/administrators whose facility offers childcare services to young children (5 years and under). We are asking you to complete an online survey via Survey Monkey. Participation in this anonymous survey is completely voluntary, and will take approximately 10 minutes to complete. If you are interested in participating, please begin by reviewing the additional details in the Letter of Information (attached to this email). The survey can be accessed at the following link:

<https://www.surveymonkey.com/r/HR8NCDG>

We would very much appreciate your completion of this survey, as it will provide valuable information about the ways in which childcare centres engage preschoolers in physical activity. The survey link will stay open until September 30th, 2016.

Thank you very much for considering this request and if there is someone else we should contact, could you please direct me accordingly. We would be happy to share the results of the survey at the completion of the study. Please let me know if you have any questions or require any more information, we would be happy to address any of your inquiries.

Please note that in 1 and 3 week(s) we will send a reminder email about the online survey.

Warm regards

Trish Tucker

Trish Tucker, PhD
Assistant Professor - School of Occupational Therapy
Elborn College, Rm 2547
Western University
London, Ontario CANADA

Appendix B2: Invitation Email to Childcare Directors - French

Subject Line: Invitation à participer à une étude de recherche

Cher directeur/directrice de la garderie:

Des chercheurs de l'Université Western mènent une étude pour explorer la présence et les caractéristiques des politiques et pratiques de l'activité physique dans les milieux de garde d'enfants à travers le Canada. Nous communiquerons avec **tous** les directeurs / administrateurs de garde d'enfants dont l'installation offre des services de garde pour les jeunes enfants (5 ans et moins). Nous vous demandons de remplir un sondage en ligne via Survey Monkey. La participation à cette enquête anonyme est entièrement volontaire, et prendra environ 10 minutes. Si vous êtes intéressé à participer, s'il vous plaît commencer en lisant les détails supplémentaires dans la lettre d'information (ci-joint à ce courriel). Pour compléter ce sondage en français, suivez ce lien: <https://www.surveymonkey.com/r/TGNWB22>

Nous serions très reconnaissants de votre participation à cette enquête, car elle fournira des informations précieuses sur la façon dont les centres de garde d'enfants d'âge préscolaire se livrent à l'activité physique. Les liens de l'enquête resteront ouverts jusqu'au 30 Septembre 2016.

Merci beaucoup pour votre considération de cette demande et s'il y a quelqu'un d'autre que nous devrions contacter, pourriez-vous s'il vous plaît nous diriger en conséquence. Nous serions heureux de vous partager les résultats de l'enquête à la fin de l'étude. S'il vous plaît laissez-nous savoir si vous avez des questions ou si vous avez besoin de plus d'information, nous serions heureux de répondre à toutes vos questions.

S'il vous plaît noter que dans une et trois semaine(s), nous vous enverrons un courriel de rappel au sujet de l'enquête en ligne.

Cordialement,
Trish Tucker

Trish Tucker, PhD
Assistant Professor - School of Occupational Therapy
Elborn College, Rm 2547
Western University
London, Ontario CANADA



Appendix C1: Environment and Policy Assessment and Observation Tool – Self Report (EPAO-SR) Childcare Representative Survey - English



Exploring Physical Activity and Screen-Viewing Policies in Canadian Childcare Centres

Instructions: Please respond to all questions by choosing the most appropriate response. You may skip any question(s) or choose to withdraw from the study at any time up until you submit the survey. Please note that voluntary completion of this anonymous survey confirms your consent, which will allow researchers to use these data for analysis and publication purposes. No personal information will be linked with any of your answers and all data will be grouped with other participants' responses. The survey will take approximately 10 minutes to complete. There are no right or wrong answers to this survey so please be as accurate, complete, and honest as possible.

We appreciate your willingness to participate and thank you for your time.

Section A: Physical Activity Policies and Practices

1. Please indicate the classification of your childcare facility:

- | | |
|---|---|
| <input type="checkbox"/> Centre-based | <input type="checkbox"/> Church-based |
| <input type="checkbox"/> Home-/family-based | <input type="checkbox"/> Other, please specify: _____ |
| <input type="checkbox"/> Preschool | |

*If you are classified as a home-/family-based centre, **we thank you for your time and willingness to participate, but you will not be required to complete the remaining questions and will be directed to the end of the survey.***

For the purpose of this study, we have adopted the Canadian Society of Exercise Physiology's (CSEP) definition of **physical activity** as: *any bodily movement that results in increased breathing, heart rate, and energy expenditure*. Examples include: active recreation and exercise (e.g., running, playground activities, playing sports, etc.), leisure activities (e.g., yoga, gardening, etc.), and/or active transportation (e.g., bike riding, brisk walking, etc.). Please note that **active play** will be used as a proxy for physical activity throughout this survey.

2. Below is a list of topics or statements which may or may not be included in your written or unwritten **physical activity policies**. For each, fill in the bubble that indicates whether or not a policy at your centre covers that topic.

<i>Does your centre have a policy that includes a statement about...</i>	<i>Yes, written policy</i>	<i>Yes, not written policy but general practice</i>	<i>No</i>	<i>If yes, please provide a description [e.g., amount (time), types (unstructured/structured), and/or location (outdoor/indoor) of physical activity, etc.]</i>
a. the amount of physical activity time for children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b. the amount of active play time for children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c. the amount of teacher-led active play time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d. the amount of time children spend outdoors each day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e. appropriate clothing & shoes needed for outdoor play	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f. staff behaviour during outdoor play time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
g. giving extra inside active play time as a reward	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
h. not taking away inside active play time as a punishment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
i. giving extra outside play time as a reward	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
j. not taking away outside play time as a punishment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
k. the size of indoor active play space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
l. the type of indoor active play space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
m. the amount of fixed play equipment (i.e., climbers, jungle gym)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
n. the type (i.e., climbers, jungle gym) of fixed play equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

o. the amount of portable play equipment (i.e., balls, push/pull toys)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
p. the type (i.e., balls, push/pull toys) of portable play equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
q. the size of outdoor active play space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
r. the type of outdoor active play space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
s. the amount of time children can watch television/video each day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
t. the type of television/video programming children are allowed to watch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
u. the amount of time staff can spend watching television/video	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
v. the amount of time children spend working on the computer/iPad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
w. the amount of time staff spend working on the computer/iPad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
x. the amount of time children can play video games	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
y. the amount of time staff can play video games	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
z. staff supervision of children's media (e.g., television, computer, video, etc.) use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
aa. the use of media (e.g., television, computer, video, etc.) as a reward/punishment for children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
bb. physical activity education for children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

cc. physical activity training for staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
dd. physical activity education for parents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

3. Below is a list of topics or statements which may or may not be included in your written or unwritten **physical activity** policies. If yes, please fill in the bubble that indicates the enforcer of that policy.

<i>Does your centre have a <u>policy</u> that includes a statement about...</i>	Provincial-level	Organization-level	Centre-level	No policy in place	Other, please specify:
a. the amount of physical activity time for children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b. the amount of active play time for children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c. the amount of teacher-led active play time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d. the amount of time children spend outdoors each day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e. appropriate clothing & shoes needed for outdoor play	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f. staff behaviour during outdoor play time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
g. giving extra inside active play time as a reward	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
h. not taking away inside active play time as a punishment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
i. giving extra outside play time as a reward	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
j. not taking away outside play time as a punishment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
k. the size of indoor active play space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

l. the type of indoor active play space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
m. the amount of fixed play equipment (i.e., climbers, jungle gym)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
n. the type (i.e., climbers, jungle gym) of fixed play equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
o. the amount of portable play equipment (i.e., balls, push/pull toys)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
p. the type (i.e., balls, push/pull toys) of portable play equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
q. the size of outdoor active play space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
r. the type of outdoor active play space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
s. the amount of time children can watch television/video each day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
t. the type of television/video programming children are allowed to watch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
u. the amount of time staff can spend watching television/video	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
v. the amount of time children spend working on the computer/iPad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
w. the amount of time staff spend working on the computer/iPad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
x. the amount of time children can play video games	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
y. the amount of time staff can play video games	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
z. staff supervision of children's media (e.g., television, computer, video, etc.) use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

aa. the use of media (e.g., television, computer, video, etc.) as a reward/punishment for children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
bb. physical activity education for children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
cc. physical activity training for staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
dd. physical activity education for parents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

4. If you are familiar with the **Canadian Physical Activity Guidelines for the Early Years**, do you recall the **minimum amount** of time that children 2 – 4 years should be **physically active** each day?

- 30 minutes
- 60 minutes
- 90 minutes
- 120 minutes
- 180 minutes
- I don't know how many minutes
- I'm not familiar with these guidelines

5. If you are familiar with the **Canadian Sedentary Behaviour Guidelines for the Early Years**, do you recall the amount of **screen time** children 2 – 4 years should be **limited to** each day?

- 30 minutes
- 60 minutes
- 90 minutes
- 120 minutes
- 180 minutes
- I don't know how many minutes
- I'm not familiar with these guidelines

6. Based on your work experiences so far, do you believe young Canadians engage in sufficient levels of **physical activity** per day (as per the Canadian guidelines)?

- Most do not
- About half do
- Most do
- I don't know

Section B: Confidence and Support

7. Please answer each of the following questions to the best of your ability. Fill in the bubble for the choice that answers the question for **you**. If you are not certain, make your best guess. Remember there are no right or wrong answers to these questions; we want to know how you really feel.

9. Have you or your staff ever received training in **physical activity** for young children (e.g., continuing education workshop, college class for credit, etc.) or training on a specific physical activity curriculum?

- Yes, within the past 12 months
- Yes, more than 12 months ago
- No, but I'm attending a training in the next 6 months
- No [skip to question #11]
- Other, please specify: _____

10. What type of information on **physical activity** was included in the training.

(Please check all that apply)

- Helping children grow physically
- Playground safety
- Children and media
- Creating physical activity environments
- Music and movement
- Leading children in physical activity
- Activities to promote gross motor development
- Fitness/exercise
- Health benefits (e.g., improved temperament, motor proficiency, strong bones and healthy muscles, enhanced brain function)
- Other, please specify: _____

Section C: Equipment, Environment, and Space

These questions ask about the equipment, environment, and space at your centre. Please respond to each question.

11. Which statement best describes the area **outside** your centre where children are allowed to play? *(Mark only one)*

- Space for large group running games (e.g., tag with entire class)
- Space for small group (2-3 children) running games
- Only space for individual running/skipping/hopping
- No space for running (individual or group)

12. What playground **type** is available at your childcare centre?

- Natural (e.g., natural materials, rock structures, vegetation [trees, shrubs, etc.]
- Recreation Structures (e.g., slides, swings, climbers, etc.)
- Mixed (Natural/Recreation Structures)
- Other, please specify: _____
- None

13. How many times do the children attending your childcare centre have the opportunity to go **outside** on a typical day?

- 0 times *[skip to question #15]*
 3 times
 1 time
 4 or more times
 2 times

14. What is the duration of each **outdoor** session on a typical day?
 _____ minutes

15. When children in your centre are **inside** where do they participate in **physically active** play (e.g., gross motor activity like running, jumping, hopping, tumbling)? *(Please check all that apply)*

- No space for this type of activity inside *[skip to question #17]*
 The classroom
 Gym or large multipurpose room
 Other, please specify: _____

16. Which **one** of the answers that you marked above is where this type of physical activity most often takes place in your centre? *(Mark only one)*

- The classroom
 Gym or large multipurpose room
 Another classroom
 Other, please specify: _____

Section D: Demographics of Childcare Centre

17. Location of your childcare centre:

- | | |
|---|--|
| <input type="checkbox"/> British Columbia | <input type="checkbox"/> New Brunswick |
| <input type="checkbox"/> Alberta | <input type="checkbox"/> Prince Edward Island |
| <input type="checkbox"/> Saskatchewan | <input type="checkbox"/> Newfoundland & Labrador |
| <input type="checkbox"/> Manitoba | <input type="checkbox"/> Yukon |
| <input type="checkbox"/> Ontario | <input type="checkbox"/> Northwest Territories |
| <input type="checkbox"/> Quebec | <input type="checkbox"/> Nunavut |
| <input type="checkbox"/> Nova Scotia | |

18. Urban Rural

19. Please state the age of children in your care (in years). *(Please check all that apply)*

- Under 18 months
 18 months – 2.4 years
 2.5 – 4 years
 4.1 – 5 years
 Other, please specify: _____

20. Please state the number of **children** enrolled at your centre:

- 1 – 44
 45 – 94
 95 – 134
 135 – 174
 175 +
 Other, please specify: _____

21. Please state the number of **staff** employed at your centre:

- 1 – 4
 5 – 10
 11 – 15
 16 – 20
 21 – 30
 31 – 40
 41 +
 Other, please specify: _____

22. Please state the hours of operation of your centre:

Start time: _____ Closing time: _____

23. What is your childcare centre's receptivity to implementing a physical activity policy?

- Yes, we already have one in place
 Yes, we would consider it
 No
 Other, please specify: _____

Section E: Participant Information

24. Please indicate your sex: Male Female

25. Please state your age:

- < 19 years
 20 – 24 years
 25 – 34 years
 35 – 44 years
 45 – 54 years
 55 – 64 years
 65 + years

26. Please indicate your ethnicity:

- Caucasian
 African Canadian
 Aboriginal/First Nations
 Hispanic
 Asian
 Arab
 Other, please specify: _____
 I prefer not to answer

27. Please state your position at the childcare centre at which you are currently employed:

- Director
- Assistant Director
- Program Co-ordinator
- Supervisor
- Manager
- Other, please specify: _____

28. Please indicate your years of experience in the childcare setting:

- < 1 year
- 1 – 5 years
- 6 – 10 years
- 11 – 15 years
- 16 – 20 years
- 21 years +
- Other, please specify: _____

29. Please indicate your educational background:

- High School
- College
- University
- Post-graduate degree
- Other, please specify: _____

Thank you for completing this survey. Please click the **Done** button to submit your survey.

As appreciation for your time, please copy and paste this link into your browser and complete the survey to indicate if you would like to be entered in a draw for the chance to win one of ten, \$25 Indigo gift cards. Also, follow the link if you are interested in the outcomes of this research study and wish to receive the results:

<https://www.surveymonkey.com/r/5QJ37FS>

Note: Before leaving this page, please ensure you click the **Done** button prior to following the link. Thank you.

Token of Appreciation & Survey Results

As appreciation for your time, please indicate here if you would like to be entered in a draw for the chance to win one of ten, \$25 Indigo gift cards:

- Yes, I would like to be entered into the draw. Email address: _____
- No, I do not wish to be entered into the draw.

If you are interested in the outcomes of this research study and wish to receive the results, please indicate here:

- Yes, I wish to receive the results of this study. Email address: _____
- No, I do not wish to receive the results of this study.

Please note: no personal information will be linked with any of your answers from the previous survey.

Appendix C2: Modified EPAO-Self Report Childcare Representative Survey - French



L'exploration des politiques concernant l'activité physique et l'utilisation des écrans dans les centres canadiens de garde d'enfants

Instructions: S'il vous plaît répondre à toutes les questions en choisissant la réponse la plus appropriée. Vous pouvez sauter toute question(s) ou choisir de vous retirer de l'étude à tout moment jusqu'à ce que vous soumettiez le questionnaire. S'il vous plaît noter que l'achèvement volontaire de ce questionnaire anonyme confirme votre consentement, ce qui permettra aux chercheurs d'utiliser ces données à des fins d'analyse et de publication. Aucune information personnelle ne sera pas liée à aucune de vos réponses et toutes les données seront regroupées avec les réponses des autres participants. Le sondage prendra environ 10 minutes. Il n'y a pas de bonne ou de mauvaise réponse à ces questions, donc s'il vous plaît soyez aussi précis, complets et honnête que possible.

Nous apprécions votre volonté de participer et nous vous remercions pour votre temps.

Section A: Les politiques et pratiques concernant l'activité physique

1. S'il vous plaît indiquer la classification de votre installation de garde d'enfants:

- Dans un centre Dans une église
 Dans un centre domicile/ basé sur la famille Autre: _____
 Préscolaire

Si vous êtes classé comme un centre domicile / basé sur la famille, **nous vous remercions de votre temps et votre volonté de participer, mais vous ne serez pas tenus de répondre aux prochaines questions et serez dirigés vers la fin du questionnaire.**

Pour cette étude, nous avons adopté la définition de la Société canadienne de physiologie de l'exercice (SCPE) de l'**activité physique** : *tout mouvement corporel qui se traduit par une augmentation de respiration, le rythme cardiaque et la dépense énergétique.* Voici quelques exemples : les loisirs actifs et de l'exercice (par exemple, en cours d'exécution, les activités de jeux, du sport, etc.), les activités de loisirs (par exemple, le yoga, le jardinage, etc.), et / ou le transport actif (par exemple, le vélo, la marche rapide, etc.). S'il vous plaît noter que le jeu actif sera utilisé comme proxy pour l'activité physique tout au long de cette enquête.

2. Voici une liste des sujets ou des déclarations qui peuvent ou peuvent ne pas être inclus dans vos politiques d'activité physique écrites ou non. Pour chacun, cocher la boîte qui indique si une politique à votre centre adresse ce sujet ou non.

Est-ce que votre centre a une <u>politique</u> qui comprend une déclaration au sujet de ...	<i>Oui, une politique écrit</i>	Oui, pratique générale <u>non</u> écrite	<i>Non</i>	Si oui, s'il vous plaît fournir une description [par exemple, la quantité (temps), types (non structurés / structurés), et / ou le lieu (Extérieur / intérieur) de l'activité physique, etc.]
a. la quantité de temps d'activité physique pour les enfants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b. la quantité de temps de jeu actif pour les enfants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c. la quantité de temps de jeu actif dirigée par l'enseignant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
d. le montant de temps que les enfants passent à l'extérieur à chaque jour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e. vêtements et chaussures appropriée pour jouer en plein air	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f. le comportement du personnel pendant le temps de jeu en plein air	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
g. donnant du temps de jeu actif supplémentaire à l'intérieur comme une récompense	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
h. ne pas réduire au temps de jeu actif à l'intérieur comme une punition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
i. donnant du temps de jeu supplémentaire à l'extérieur en récompense	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

j. ne pas réduire le temps de jeu à l' extérieur comme une punition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
k. la taille de l'espace de jeu actif à l' intérieur	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
l. le type d'espace de jeu actif à l' intérieur	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
m. la quantité d'équipement de jeu fixe (ex. les grimpeurs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
n. le type d'équipement de jeu fixe (ex. les grimpeurs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
o. la quantité d'équipement de jeu portable (balles, jouets)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
p. le type d'équipement de jeu portable (balles, jouets)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
q. la taille de l'espace de jeu actif extérieur	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
r. le type d'espace de jeu actif extérieur	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
s. le nombre de temps les enfants peuvent regarder la télévision / vidéo à chaque jour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
t. le type de programmation à la télévision / vidéo que les enfants sont autorisés à regarder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
u. la quantité de temps que le personnel peut passer à regarder la télévision / vidéo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
v. le montant de temps que les enfants passent à travailler sur l'ordinateur / iPad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
w. la quantité de temps le personnel peut passer à travailler sur l'ordinateur / iPad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
x. la quantité de temps que les enfants peuvent jouer à des jeux vidéo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

y. la quantité de temps le personnel peuvent jouer à des jeux vidéo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
z. la supervision de l'utilisation des médias pour les enfants (par exemple, télévision, ordinateur, vidéo, etc.) par le personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
aa. l'utilisation des médias (par exemple, télévision, ordinateur, vidéo, etc.) comme une récompense / punition pour les enfants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
bb. l' éducation par rapport à l'activité physique pour les enfants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
cc. la formation par rapport à l'activité physique pour le personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
dd. l' éducation par rapport à l'activité physique pour les parents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

3. Voici une liste des sujets ou des déclarations qui peuvent ou peuvent ne pas être inclus dans vos politiques d'activité physique écrites ou non. Si oui, s'il vous plaît remplir la bulle qui indique l'exécuteur de cette politique.

Est-ce que votre centre a une <u>politique</u> qui comprend une déclaration au sujet de ...	Au niveau provincial	Au niveau de l'organisation	Au niveau du centre	Pas de politique en place	Autre
a. la quantité de temps d' activité physique pour les enfants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
b. la quantité de temps de jeu actif pour les enfants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
c. la quantité de temps de jeu actif dirigée par l'enseignant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

d. le montant de temps que les enfants passent à l'extérieur à chaque jour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
e. vêtements et chaussures appropriée pour jouer en plein air	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
f. le comportement du personnel pendant le temps de jeu en plein air	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
g. donnant du temps de jeu actif supplémentaire à l'intérieur comme une récompense	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
h. ne pas réduire au temps de jeu actif à l'intérieur comme une punition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
i. donnant du temps de jeu supplémentaire à l'extérieur en récompense	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
j. ne pas réduire le temps de jeu à l'extérieur comme une punition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
k. la taille de l'espace de jeu actif à l'intérieur	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
l. le type d'espace de jeu actif à l'intérieur	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
m. la quantité d'équipement de jeu fixe (ex. les grimpeurs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
n. le type d'équipement de jeu fixe (ex. les grimpeurs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
o. la quantité d'équipement de jeu portable (balles, jouets)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
p. le type d'équipement de jeu portable (balles, jouets)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
q. la taille de l'espace de jeu actif extérieur	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
r. le type d'espace de jeu actif extérieur	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
s. le nombre de temps les enfants peuvent regarder la	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

télévision / vidéo à chaque jour					
t. le type de programmation à la télévision / vidéo que les enfants sont autorisés à regarder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
u. la quantité de temps que le personnel peut passer à regarder la télévision / vidéo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
v. le montant de temps que les enfants passent à travailler sur l'ordinateur / iPad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
w. la quantité de temps le personnel peut passer à travailler sur l'ordinateur / iPad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
x. la quantité de temps que les enfants peuvent jouer à des jeux vidéo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
y. la quantité de temps le personnel peuvent jouer à des jeux vidéo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
z. la supervision de l'utilisation des médias pour les enfants (par exemple, télévision, ordinateur, vidéo, etc.) par le personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
aa. l'utilisation des médias (par exemple, télévision, ordinateur, vidéo, etc.) comme une récompense / punition pour les enfants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
bb. l' éducation par rapport à l'activité physique pour les enfants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
cc. la formation par rapport à l'activité physique pour le personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
dd. l' éducation par rapport à l'activité physique pour les parents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

4. Si vous connaissez les **lignes directrices d'activité physique canadien pour la petite enfance**, vous rappelez-vous le **montant minimum de temps** que les enfants de 2 - 4 ans devraient être **physiquement actifs** à chaque jour?

- 30 minutes
 180 minutes
 60 minutes
 Je ne sais pas combien de minutes
 90 minutes
 Je ne connais pas ces lignes
 120 minutes
 directrice

5. Si vous connaissez les **lignes directrices de comportement sédentaire canadiens pour la petite enfance**, vous rappelez-vous le **montant de temps** auquel **d'écran** que les enfants de 2 - 4 ans devraient être **limitées** à chaque jour?

- 30 minutes
 180 minutes
 60 minutes
 Je ne sais pas combien de minutes
 90 minutes
 Je ne connais pas ces lignes
 120 minutes
 directrices

6. Sur la base de vos expériences de travail à data, croyez-vous que les jeunes canadiens se livrent à des niveaux suffisants **d'activité physique** par jour (selon les lignes directrices canadiennes)?

- La plupart n'atteindre pas des niveaux recommandés
 Environ la moitié atteindre des niveaux recommandés
 La plupart atteindre des niveaux recommandés
 Je ne sais pas

Section B: La confiance et le soutien

7. *S'il vous plaît répondre à chacune des questions suivantes au meilleur de votre capacité. Cochez la boîte pour le choix qui répond à la question pour vous. Si vous n'êtes pas certain, faites une estimation. Rappelez-vous il n'y a pas de bonne ou de mauvaise réponse à ces questions; nous voulons savoir comment vous vous sentez.*

<i>Comment vous sentez-vous confiant dans votre capacité à ...</i>	<i>Très confiant</i>	<i>Assez confiant</i>	<i>Un peu confiant</i>	<i>Pas du tout confiant</i>
a. augmenter le temps de jeu actif à l' extérieur du centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. ajouter de l' équipement nouveau	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. rénover un espace de jeu au centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. créer des politiques d'activité physique pour le centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. apporter des modifications aux programmes d'études physiques au centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

d. limiter la quantité de temps que les enfants peuvent jouer sur l'ordinateur / iPad à moins de 30 minutes par jour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. amener les enfants dans mon centre à être physiquement actif, même quand ils ne sont pas intéressés	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. Est-ce que vous ou des membres de votre personnel avez déjà reçu une formation **d'activité physique** pour les jeunes enfants (*par exemple, atelier d'éducation continue, cours de crédit collégial, etc.*) ou de formation sur un programme d'activité physique spécifique?

- Oui, au cours des 12 derniers mois
- Oui, il y a plus de 12 mois
- Non, mais je participe à une formation dans les six prochains mois
- Non [*prenez en compte la question n ° 11*]
- Autre: _____

10. Quel type d'information sur **l'activité physique** a été inclus dans la formation. (S'il vous plaît cocher toutes les cases qui s'appliquent)

- Aider les enfants à grandir physiquement
- La sécurité des cours de récréation
- Les enfants et médias
- Créer des environnements d'activité physique
- La musique et le mouvement
- Mener des activités physiques pour les enfants
- Activités pour promouvoir le développement de la motricité globale
- Exercice
- Les avantages de santé (par exemple, l'amélioration de tempérament, compétences moteur, des os et des muscles sains, la fonction cérébrale améliorée)
- Autre: _____

Section C: L'équipement, l'environnement, et l'espace

Ces questions portent sur l'équipement, l'environnement, et de l'espace dans votre centre. S'il vous plaît répondre à chaque question.

11. Lequel des énoncés suivants décrit le mieux la zone **en dehors** de votre centre où les enfants sont autorisés à jouer? (choisissez un seul)

- Espace pour les grands jeux de groupe (avec toute la classe)
- Espace pour les petits jeux de groupe (2-3 enfants)
- Seulement de l'espace pour la course individuelle / sauter / sauts
- Pas d'espace pour courir (individu ou groupe)

12. Quels **types** de jeux sont disponibles dans votre centre de la petite enfance?

- Naturel (par exemple, des matériaux naturels, les structures rocheuses, la végétation [arbres, arbustes, etc.]
- Structures de loisirs (par exemple, des toboggans, des balançoires, des grimpeurs, etc.)
- Mixte (Structures Naturel / Loisirs)
- Autre: _____
- Aucun

13. Combien de fois est-ce que les enfants qui fréquentent votre centre de garde d'enfants ont la possibilité d'aller à **l'extérieur** au cours d'une journée typique?

- 0 fois [*prenez la question # 15*]
- 1 fois
- 2 fois
- 3 fois
- 4 fois ou plus

14. Quelle est la durée de chaque session **en plein air** au cours une journée typique?

_____ minutes

15. Lorsque les enfants dans votre centre sont à **l'intérieur**, où participent-ils à des activités physiques (par exemple, l'activité motrice brute comme courir, sauter, sautiller)? (*S'il vous plaît cocher toutes les cases qui s'appliquent*)

- Pas d'espace pour ce type d'activité à l'intérieur [*prenez la question n ° 17*]
- La salle de classe
- Le gymnase ou la grande salle polyvalente
- Autre: _____

16. Laquelle des réponses que vous avez marqués ci-dessus est où ce type d'activité physique prend place le plus souvent dans votre centre? (*choisissez un seul*)

- La salle de classe
 Le gymnase ou la grande salle polyvalente
 Une autre salle de classe
 Autre : _____

Section D: Les données démographique du centre de garde

17. Lieu de votre centre:

- | | |
|---|--|
| <input type="checkbox"/> Colombie-Britannique | <input type="checkbox"/> Nouveau-Brunswick |
| <input type="checkbox"/> Alberta | <input type="checkbox"/> Île-du-Prince-Édouard |
| <input type="checkbox"/> Saskatchewan | <input type="checkbox"/> Terre-Neuve et Labrador |
| <input type="checkbox"/> Manitoba | <input type="checkbox"/> Yukon |
| <input type="checkbox"/> Ontario | <input type="checkbox"/> Territoires du nord-ouest |
| <input type="checkbox"/> Québec | <input type="checkbox"/> Nunavut |
| <input type="checkbox"/> Nouvelle-Écosse | |

18. Urbain Rurale

19. Votre charge (en années). (*S'il vous plaît cocher toutes les cases qui s'appliquent*)

- Moins de 18 mois
 18 mois – 2.4 ans
 2.5 – 4 ans
 4.1 – 5 ans
 Autre: _____

20. S'il vous plaît indiquer le nombre **d'enfants** inscrits à votre centre:

- | | |
|-----------------------------------|---------------------------------------|
| <input type="checkbox"/> 1 – 44 | <input type="checkbox"/> 135 – 174 |
| <input type="checkbox"/> 45 – 94 | <input type="checkbox"/> 175 + |
| <input type="checkbox"/> 95 – 134 | <input type="checkbox"/> Autre: _____ |

21. S'il vous plaît indiquer le nombre de **personnes employées** à votre centre:

- | | |
|----------------------------------|---------------------------------------|
| <input type="checkbox"/> 1 – 4 | <input type="checkbox"/> 21 – 30 |
| <input type="checkbox"/> 5 – 10 | <input type="checkbox"/> 31 – 40 |
| <input type="checkbox"/> 11 – 15 | <input type="checkbox"/> 41 + |
| <input type="checkbox"/> 16 – 20 | <input type="checkbox"/> Autre: _____ |

22. S'il vous plaît indiquer les heures de fonctionnement de votre centre:

Heure de début: _____ Fermeture: _____

23. Quelle est la réceptivité de votre centre de garde d'enfants à mettre en œuvre une politique d'activité physique?

- Oui, nous en avons déjà un en place
 Oui, nous le considérons
 Non
 Autre: _____

Section E: Renseignements sur le participant

24. S'il vous plaît indiquer votre sexe: Male Femelle

25 S'il vous plaît indiquer votre âge:

- | | |
|--------------------------------------|--------------------------------------|
| <input type="checkbox"/> < 19 ans | <input type="checkbox"/> 45 – 54 ans |
| <input type="checkbox"/> 20 – 24 ans | <input type="checkbox"/> 55 – 64 ans |
| <input type="checkbox"/> 25 – 34 ans | <input type="checkbox"/> 65 + ans |
| <input type="checkbox"/> 35 – 44 ans | |

26. S'il vous plaît indiquer votre appartenance ethnique:

- | | |
|--|---|
| <input type="checkbox"/> Caucasien | <input type="checkbox"/> Asiatique |
| <input type="checkbox"/> Africain-canadien | <input type="checkbox"/> Arabe |
| <input type="checkbox"/> Autochtones / Premières nations | <input type="checkbox"/> Autre: _____ |
| <input type="checkbox"/> Hispanique | <input type="checkbox"/> Je préfère ne pas répondre |

27. S'il vous plaît indiquer votre position à la garderie à laquelle vous êtes actuellement employé:

- Directeur
 Directeur adjoint
 Coordonnateur du programme
 Superviseur
 Gestionnaire
 Autre: _____

28. S'il vous plaît indiquer vos années d'expérience dans le milieu de garde:

- | | |
|--------------------------------------|---------------------------------------|
| <input type="checkbox"/> < 1 ans | <input type="checkbox"/> 16 – 20 ans |
| <input type="checkbox"/> 1 – 5 ans | <input type="checkbox"/> 21 ans + |
| <input type="checkbox"/> 6 – 10 ans | <input type="checkbox"/> Autre: _____ |
| <input type="checkbox"/> 11 – 15 ans | |

29. S'il vous plaît indiquer votre formation:

- | | |
|---|---------------------------------------|
| <input type="checkbox"/> École secondaire | <input type="checkbox"/> Cégep |
| <input type="checkbox"/> Collège | <input type="checkbox"/> Autre: _____ |
| <input type="checkbox"/> Université | |

Merci d'avoir terminé ce sondage. S'il vous plaît cliquer sur le bouton **Terminé** pour soumettre votre sondage.

Comme appréciation pour votre temps, s'il vous plaît copier et coller ce lien dans votre navigateur et remplir le questionnaire pour indiquer si vous souhaitez être inscrit dans un tirage au sort pour la chance de gagner l'une des dix cartes-cadeaux pour Indigo (valeur de 25 \$). En outre, suivre le lien si vous êtes intéressé par les résultats de cette étude de recherche et que vous souhaitez recevoir les résultats:

<https://www.surveymonkey.com/r/F2SGBPT>

Remarque: Avant de quitter cette page, s'il vous plaît assurez-vous cliquez sur le bouton Terminé avant de suivre le lien. Je vous remercie.

Les marques d'appréciation et les résultats de l'enquête

Comme appréciation pour votre temps, s'il vous plaît indiqué si vous souhaitez être inscrit dans un tirage au sort pour la chance de gagner l'une des dix cartes-cadeaux pour Indigo (valeur de 25 \$):

- Oui, je voudrais être inscrit au tirage. Adresse courriel: _____
- Non, je ne veux pas être entré dans le tirage au sort.

Si vous êtes intéressé par les résultats de cette étude de recherche et que vous souhaitez recevoir les résultats, s'il vous plaît indiqué ici:

- Oui, je souhaite recevoir les résultats de cette étude. Adresse courriel: _____
- Non, je ne souhaite pas recevoir les résultats de cette étude.

Notez bien : aucune information personnelle ne sera liée à aucune de vos réponses à l'enquête précédente.

Appendix D1: Letter of Information - English**AN EXPLORATION OF PHYSICAL ACTIVITY AND SCREEN-VIEWING POLICIES IN CHILDCARE CENTRES ACROSS CANADA****Investigators**

The following researchers from the University of Western Ontario are investigating policies and practices pertaining to physical activity and screen-viewing among *young children (5 years and under)*:

Trish Tucker, PhD, [REDACTED]
Jennifer Irwin, PhD, [REDACTED]
Shauna Burke, PhD, [REDACTED]
Leigh Vanderloo, PhD (candidate), [REDACTED]
Emily Ott, MSc (candidate), [REDACTED]

Background

Research has previously indicated that preschool-aged children may not be engaging in adequate amounts of physical activity. Childcare centres have been identified as an appropriate venue to support and encourage physical activity participation among young children. The presence of specific physical activity policies may be one mechanism of promoting physical activity among this population.

Purpose of the Study

The aim of this study is to compare the presence and characteristics of existing physical activity and screen-viewing policies in childcare centres across Canada. Using the online provincial and territorial registries, all facilities offering care to young children will be contacted via email to request participation. The survey will ask questions including the presence and characteristics of physical activity and screen-viewing policies in your facility, characteristics of your facility's playground, and confidence in supporting physical activity participation at your facility.

If You Agree to Participate

If you agree to participate in this study you will be asked to complete a 10-minute online survey via Survey Monkey.

Confidentiality

The information collected will be used for research purposes only, and neither your name nor any personally identifiable information will be collected. All data will be grouped with other participants for publishing and presentation purposes. All information collected for

the study will be kept confidential and will not be connected personally to you or your facility in any way. Only the investigators of this study will have access to any data collected. All electronic files will be saved on password-protected computers. Representatives of The University of Western

Ontario's Non-Medical Research Ethics Board may require access to study-related records to monitor the conduct of the research.

Risks & Benefits

There are no known or anticipated risks or benefits to you for participating in this study. However, by participating, you will provide researchers with valuable information about the physical activity and screen-viewing policies and practices that childcare centres utilize within their facility.

Voluntary Participation

Your participation in this study is voluntary. You may decide to not be in this study. Even if you consent to participate you have the right to not answer individual questions or to withdraw from the study at any time prior submitting the survey.

Implied Consent

You indicate your voluntary agreement to participate by responding to the survey. You do not waive any legal rights by consenting to this survey.

Compensation

Upon completion of the survey, you will be provided with instructions on how to enter your name into a draw to win one of 10, \$25 Indigo gift cards, as appreciation for your time.

Questions

If you have any questions about the conduct of this study or your rights as a research participant you may contact the Office of Research Ethics, Western University at [REDACTED]. If you have any questions about this study, please contact Dr. Trish Tucker at [REDACTED]). If you would like to receive a copy of the overall results of the study, please indicate on the survey upon completion.

Please print a copy of this letter for your records.

Appendix D2: Letter of Information - French**UNE EXPLORATION DES POLITIQUES DE L'ACTIVITÉ PHYSIQUE ET DE L'ÉCRAN-VISIONNEMENT DANS LES GARDERIES AU CANADA****Chercheurs**

Les chercheurs suivants de l'Université de Western Ontario mène une enquête sur les politiques et pratiques relatives à l'activité physique et de l'écran-visionnement chez *les jeunes enfants (5 ans et moins)*:

Dre. Trish Tucker, PhD, [REDACTED]

Dre. Jennifer Irwin, PhD, [REDACTED]

Dre. Shauna Burke, PhD, [REDACTED]

Leigh Vanderloo, candidate au doctorat, [REDACTED]

Emily Ott, candidate à la maîtrise, [REDACTED]

Contexte

La recherche a indiqué précédemment que les enfants d'âge préscolaire peuvent ne pas être engagés dans des quantités suffisantes d'activité physique. Les garderies ont été identifiées comme un lieu approprié pour soutenir et encourager la participation à l'activité physique chez les jeunes enfants. La présence de politiques d'activité physique spécifique peut être un mécanisme de promotion d'activité physique au sein de cette population.

But de cette étude

Le but de cette étude est de comparer la présence et les caractéristiques des politiques d'activité physique et de l'écran-visionnement existants dans les centres de garde d'enfants à travers le Canada. En utilisant les registres provinciaux et territoriaux en ligne, tous les établissements offrant des soins aux jeunes enfants seront contactés par courriel pour demander la participation. L'enquête pose des questions, y compris la présence et les caractéristiques de l'activité physique et les politiques de l'écran-visionnement dans votre établissement, les caractéristiques de terrains de jeux pour votre centre, et la confiance dans le soutien de l'activité physique dans votre établissement.

Si vous acceptez de participer

Si vous acceptez de participer à cette étude, vous serez invité à remplir un questionnaire en ligne de 10 minutes via Survey Monkey.

La confidentialité

L'information recueillie sera utilisée à des fins de recherche uniquement, et ni votre nom, ni aucune information personnelle identifiable ne sera recueillie. Toutes les données

seront regroupées avec d'autres participants à des fins de publication et de présentation. Toutes les informations recueillies pour l'étude seront gardées confidentielles et ne permettront pas de vous identifier, ni d'identifier votre centre d'aucune façon. Seuls les chercheurs de cette étude auront accès à toutes les données collectées. Tous les fichiers électroniques seront sauvegardés sur des ordinateurs protégés par mot de passe. Des représentants du bureau d'éthique de l'Université de Western Ontario peuvent nécessiter l'accès à vos dossiers liés à l'étude pour surveiller la conduite de la recherche.

Les avantages possibles et les risques de votre participation à l'étude

Il n'y a pas de risque ou d'avantage prévus ou connus pour participer à cette étude. Toutefois, en participant, vous devrez fournir aux chercheurs des informations précieuses sur l'activité et l'écran-visionnement, et des politiques et des pratiques physiques que les centres de garde d'enfants utilisent dans leur établissement.

Participation volontaire

Votre participation à cette étude est volontaire. Vous pouvez décider de ne pas être dans cette étude. Même si vous consentez à participer, vous avez le droit de ne pas répondre à des questions individuelles ou de vous retirer de l'étude à tout moment avant la présentation de l'enquête.

Consentement implicite

Vous indiquez votre accord volontaire à participer en répondant à l'enquête. Vous ne renoncez aucun droit légal en consentant à cette enquête.

L'indemnisation

À l'issue de l'enquête, des instructions sur la façon d'entrer votre nom dans un tirage au sort vous seront fournies pour gagner l'un des dix cartes-cadeau de 25\$ pour Indigo pour démontrer l'appréciation de votre temps.

Questions

Pour plus de renseignements sur cette étude, vous pouvez contacter la chercheuse principale, Dre Trish Tucker [REDACTED] ou [REDACTED]. Si vous avez des questions au sujet de la conduite de cette étude ou à propos de vos droits en tant que participant à la recherche, vous pouvez contacter: le Bureau de l'éthique de la recherche à l'Université de Western Ontario: [REDACTED].

S'il vous plaît imprimer une copie de cette lettre pour vos dossiers.

**Appendix E1: Reminder Email to Early Learning Environment Representatives
(1 week - English)**

Subject Line: RESEARCH STUDY REMINDER – Examining Physical Activity Policies in Canadian Childcare

Dear Childcare Representative:

If you have already completed our survey regarding physical activity policies and practices within the childcare setting, we would like to thank you for your time and effort. We very much appreciate your contribution to our research.

If you haven't already done so, and are still interested in completing the survey, please visit the following link: <https://www.surveymonkey.com/r/HR8NCDG>. If possible, we ask that you complete the survey by September 30th, 2016. As a reminder, the survey only takes approximately 10 minutes to complete.

Thank you again for your willingness to participate.

Warm regards

Trish Tucker, PhD

Trish Tucker, PhD
Assistant Professor - School of Occupational Therapy
Elborn College, Rm 2547
Western University
London, Ontario CANADA



**Appendix E2: Reminder Email to Early Learning Environment Representatives
(1 week - French)**

Subject Line: Un rappel d' étude de recherche – un examen des politiques de l'activité physique et de l'écran-visionnement chez les jeunes enfants en garderie

Cher directeur/directrice de la garderie :

Si vous avez déjà terminé notre enquête sur les politiques et les pratiques d'activité physique dans les garderies, nous tenons à vous remercier pour votre temps et d'efforts. Nous apprécions beaucoup votre contribution à notre recherche.

Si vous ne l'avez pas déjà terminé, et sont toujours intéressés à remplir le questionnaire, s'il vous plaît visiter le lien suivant : <https://www.surveymonkey.com/r/TGNWB22>. L'enquête sera fermée le 30 Septembre, 2016. L'enquête ne prend environ 10 minutes à accomplir.

Merci beaucoup pour votre considération de cette demande.

Cordialement,

Trish Tucker, PhD

Trish Tucker, PhD
Assistant Professor - School of Occupational Therapy
Elborn College, Rm 2547
Western University
London, Ontario CANADA



**Appendix F1: Reminder Email to Early Learning Environment Representatives
(3 weeks - English)**

Subject Line: RESEARCH STUDY REMINDER – Examining Physical Activity Policies in Canadian Childcare

Dear Childcare Director/Representative:

If you have already completed our survey regarding physical activity policies and practices within the childcare setting, we would like to thank you for your time and effort. We very much appreciate your contribution to our research.

If you haven't already done so, and are still interested in completing the survey, please visit the following link: <https://www.surveymonkey.com/r/HR8NCDG>. If possible, we ask that you complete the survey by September 30th, 2016. As a reminder, the survey only takes approximately 10 minutes to complete.

Thank you again for your willingness to participate.

Warm regards,

Trish Tucker, PhD

Trish Tucker, PhD
Assistant Professor - School of Occupational Therapy
Elborn College, Rm 2547
Western University
London, Ontario CANADA



**Appendix F2: Reminder Email to Early Learning Environment Representatives
(3 weeks - French)**

Subject Line: Un rappel d' étude de recherche – un examen des politiques de l'activité physique et de l'écran-visionnement chez les jeunes enfants en garderie

Cher directeur/directrice de la garderie :

Si vous avez déjà terminé notre enquête sur les politiques et les pratiques d'activité physique dans les garderies, nous tenons à vous remercier pour votre temps et d'efforts. Nous apprécions beaucoup votre contribution à notre recherche.

Si vous ne l'avez pas déjà terminé, et sont toujours intéressés à remplir le questionnaire, s'il vous plaît visiter le lien suivant : <https://www.surveymonkey.com/r/TGNWB22>. L'enquête sera fermée le 30 Septembre, 2016. L'enquête ne prend environ 10 minutes à accomplir.

Merci beaucoup pour votre considération de cette demande.

Cordialement,

Trish Tucker, PhD

Trish Tucker, PhD
Assistant Professor - School of Occupational Therapy
Elborn College, Rm 2547
Western University
London, Ontario CANADA



**Appendix G1: Reminder Email to Early Learning Environment Representatives
(9 weeks - English)**

Subject Line: RESEARCH STUDY REMINDER – Examining Physical Activity Policies in Canadian Childcare

Dear Childcare Representative:

If you have already completed our survey regarding physical activity policies and practices within the childcare setting, we would like to thank you for your time and effort. We very much appreciate your contribution to our research.

In the interest of collecting a strong representation of childcare facilities from each province and territory in Canada, the survey deadline has been extended to October 19th, 2016. If you haven't already done so, and are still interested in completing the survey, please visit the following link: <https://www.surveymonkey.com/r/KKXQR36>. As a reminder, the survey only takes approximately 10 minutes to complete.

Thank you again for your willingness to participate.

Warm regards

Trish Tucker, PhD

Trish Tucker, PhD

Assistant Professor - School of Occupational Therapy
Elborn College, Rm 2547
Western University
London, Ontario CANADA



**Appendix G2: Reminder Email to Early Learning Environment Representatives
(9 weeks - French)**

Subject Line: Un rappel d' étude de recherche – un examen des politiques de l'activité physique et de l'écran-visionnement chez les jeunes enfants en garderie

Cher directeur/directrice de la garderie :

Si vous avez déjà terminé notre enquête sur les politiques et les pratiques d'activité physique dans les garderies, nous tenons à vous remercier pour votre temps et d'efforts. Nous apprécions beaucoup votre contribution à notre recherche.

Dans l'intérêt de recueillir forte représentation des garderies de chaque province et territoire du Canada, la date limite de l'enquête a été étendue au 19 Octobre 2016. Si vous ne l'avez pas déjà fait, et sont toujours intéressés à remplir le questionnaire, s'il vous plaît visitez le lien suivant: <https://www.surveymonkey.com/r/KKXQR36>

Merci beaucoup pour votre considération de cette demande.

Cordialement,

Trish Tucker, PhD

Trish Tucker, PhD
Assistant Professor - School of Occupational Therapy
Elborn College, Rm 2547
Western University
London, Ontario CANADA



Appendix H: Environment and Policy Assessment and Observation Tool – Self Report (EPAO-SR) General Director Questionnaire

0971489907 EPAO-SR Project
 1 / 10 GDQ1 v. 1.0 General Director Questionnaire



This survey contains several sections designed to help us better understand what happens in your child care center. Please think only about the 3-to-5 year old classrooms and not the infant and toddler classrooms. Read the brief instructions for each section before answering the questions in that section. Please answer each question to the best of your ability. Thank you for your time!

Today's Date: / /

What is your position?

Director Assistant Director Program Coordinator other → _____

Section I: Menus and Food Preparation for 3–5 year classrooms
These questions ask about the menu and food preparation at your center.

1. For each meal/snack listed below, fill in the bubbles that describe all the way(s) food is provided to children at your center. *[Mark all that apply.]*

<i>meal/snack</i>	<i>by Center prepared on-site</i>	<i>by Center prepared off-site</i>	<i>food must be brought from home</i>	<i>We do not serve this meal/snack.</i>
a. breakfast	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. AM snack	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. lunch	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. PM snack	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

↓ ↓
If any food is provided by your Center (either on- or off-site) please continue with Q. 2.

↓
If all food is brought from home, please skip to Q. 9.

2. Are children **allowed** to bring food from home for regular meals or snacks, **not including** holidays/celebrations or special occasions (e.g., food allergies, illnesses, restricted diets)?

yes no → *if no, skip to Q. 3*

2a. If yes, are there **written** guidelines (e.g., a statement in the parent handbook) about what can or cannot be brought from home?

yes → *if yes, explain*
 no

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EPAO-SR Project

2 / 10 GDQ1 v. 1.0

General Director Questionnaire



3. How many weeks is your **lunch** menu cycle (number of weeks before it repeats)?

- 1 week 4 weeks other → _____
 2 weeks 6 weeks
 3 weeks no lunch menu cycle

4. Who develops the menus a majority of the time? *[Mark all that apply.]*

- I do (Director) management
 the cook or other food prep staff dietitian/nutritionist
 other child care staff/teachers other → _____

*If any meal or snack is prepared **on-site** at your Center, please continue with Q. 5.
If not, please skip to Q 8.*

5. Which statement best describes your food preparation and food storage area? *[Mark only one choice.]*

- We have a full kitchen in the same building as classrooms.
 We have a full kitchen, but in an adjacent building to classrooms.
 We have a modified kitchen (refrigerator, freezer, microwave) for limited food prep.
 We **only** have room to store and prepare non-perishable food items.
 other

6. Who prepares (cooks or gets food ready to eat) the food for meals and/or snacks a majority of the time?
[Mark only one choice.]

- a designated cook
 float staff
 the teachers
 I do (child care director)

6_1. Does the person you selected above have training in nutrition beyond the required CACFP (federal food program) training?

- yes no

1672489906 EPAO-SR Project
 5 / 10 GDQ1 v. 1.0 General Director Questionnaire

2. How often does your center provide nutrition and/or physical activity **information** to parents in the form of **handouts, newsletter articles, bulleting board topics postings on your website** or through **email**?

- monthly
- 2 times per year
- less than 1 time per year
- quarterly
- 1 time per year
- never → *if never, skip to Q. 3*

2a. What topics are included in the nutrition and physical education opportunities for parents?
[Mark all that apply.]

- the importance of family meals
- cooking
- planning quick, healthy meals
- information on media & screen time
- eating out
- how to be active as a family
- snacks
- benefits of being physically active
- healthy eating during celebrations
- developmentally appropriate gross motor activities
- general healthy eating
- other → _____
- recipe swap

3. How many fundraising activities have you done in the **past 12 months**?

3a. If you have done fundraising activities, please list the items sold (*e.g., wrapping paper, donuts, etc.*) and/or the fundraising activities you did during the past year (*e.g., picture day, Fall Festival, etc.*)

Section 3: Physical Environment *These questions ask about things around your center. Please answer each to the best of your ability.*

1. Where is the soda/drink machine located in your facility? *[Mark all that apply.]*

- We do not have a drink machine on site. → *[Skip to Q. 2]*
- in the staff break room/kitchen
- at the front entrance/hallway
- in another room or building

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EPAO-SR Project

7/10 GDQ1 v. 1.0

General Director Questionnaire



Section 4: Policies *These questions ask about the policies at your center. Please refer to your **policy manuals** in answering these questions and answer each to the best of your ability.*

*Below are a list of topics or statements which may or may not be included in your written or unwritten **nutrition** policies. For each, fill in the bubble that indicates whether or not a policy at your center covers that topic.*

1. Does your center have a policy that includes a statement about . . .	<i>yes, written policy</i>	<i>yes, not written policy, but general practice</i>	<i>no</i>
a. nutrition education for children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. nutrition training for staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. nutrition education for parents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. child feeding practices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. encouragement of new foods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. family style meals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. rules for food brought in by staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. types of food served on the menu	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. cultural foods served	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. menu cycle length (length before menu repeats)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. availability of drinking water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. type of milk served (e.g., 1%, whole, flavored)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. amount of 100% fruit juice served per child	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. staff role modeling of eating behaviors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. informal nutrition talk at meals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. food program (CACFP) guidelines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. encouraging healthier foods, such as fruits & vegetables for meals/snacks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. discouraging unhealthier foods, such as chips, cakes and sugar sweetened beverages, for meals/snacks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
s. encouraging non-food items for parties & celebrations (e.g., stickers & party hats)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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EPAO-SR Project

9/10 GDQ1 v.1.0

General Director Questionnaire

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3. Does your center have a policy that includes a statement about . . . [continued]

	<i>yes, written policy</i>	<i>yes, not written policy, but general practice</i>	<i>no</i>
j. the size of indoor active play space	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. the type of indoor active play space	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. the amount of fixed play equipment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. the type of fixed play equipment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. the amount of portable play equipment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. the type of portable play equipment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. the size of outdoor active play space	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. the type of outdoor active play space	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. the amount of time children can watch television/video each day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
s. the type of television/video programming children are allowed to watch	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
t. the amount of time staff can spend watching television/video	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
u. the amount of time children spend working on the computer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
v. the amount of time staff spend working on the computer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
w. the amount of time children can play video games	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
x. the amount of time staff can play video games	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
y. staff supervision of children's media use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
z. the use of media as a reward/punishment for children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
aa. physical activity education for children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
bb. physical activity training for staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
cc. physical activity education for parents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. What policies did you refer to when answering Question 3? [Mark all that apply.]

- state policy
- center policy
- school district policy
- other → _____

Appendix I: Environment and Policy Assessment and Observation Tool – Self Report (EPAO-SR) Staff General Questionnaire

9330295742 EPAO-SR Project
 1 / 13 GEN1 v. 1.0 Staff General Questionnaire

EPAO-SR - -



This survey contains several sections designed to help us better understand what happens in your classroom. Please answer each question as accurately as possible. Thank you for your time!

Today's Date: / / 20

Section I: Equipment, Environment and Space
These questions ask about the equipment, environment and space at your center. Please respond to each question.

1. When children in your class are **inside** where do they participate in **physically active** play (ex. gross motor activity like running, jumping, hopping, tumbling)? *[Mark all that apply.]*

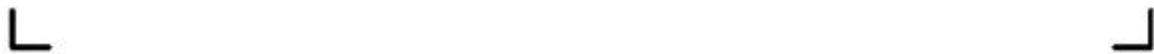
- no space for this type activity inside → *skip to Q. 2*
- our classroom
- gym or large multipurpose room
- another classroom
- other → *specify* _____

1a. Which **one** of the answers that you marked above is where this type of physical activity most often takes place? *[Mark only one.]*

- our classroom
- gym or large multipurpose room
- another classroom
- other

2. How would you rate your classroom in terms of the space available for active play games/gross motor activities?

<i>no room, only able to use for quiet play</i>		<i>room for limited movement activities (walking, skipping, hopping, jumping, etc.)</i>		<i>room for all gross motor activities including running</i>
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5



9931295749 EPAO-SR Project
 2 / 13 GEN1 v. 1.0 Staff General Questionnaire

□□ - □□ - □□

3. Which of the following items does **your classroom** play kitchen contain? *[Mark all that apply.]*

- We do not have a play kitchen. → *skip to Q. 4*
- milk
- fruit
- soda
- vegetables
- juice
- canned goods
- hamburgers/hot dogs
- commercial fast food
- other meats/beans/eggs
- dessert items (cookies, cakes, ice cream, etc.)
- dairy besides milk
- bread/grain products (rice, pasta, bread, etc.)
- other → *specify on the line below*
-

4. Where is drinking water for children located? *[Mark all that apply.]*

- in **your** classroom out of a **faucet/tap**
- in **your** classroom out of a **drinking fountain**
- in **your** classroom from a **pitcher** or **water cooler** with **cups**
- in a **neighboring** classroom out of a **faucet/tap**
- in a **neighboring** classroom out of a **drinking fountain**
- in the **hallway** out of a **drinking fountain**
- outdoors** out of a **drinking fountain**
- outdoor** from a **pitcher** or **water cooler** with **cups**

5. Which statement best describes the area **outside** your center where children are allowed to play?
[Mark only one.]

- space for large group running games (example: tag with entire class)
- space for small group (2-3 children) running games
- only space for individual running/skipping/hopping
- no space for running games (individual or group)

9442295746 EPAO—SR Project □□ - □□ - □□
 4 / 13 GEN1 v. 1.0 Staff General Questionnaire

Please mark the bubble that indicates whether or not each toy or type of equipment listed below is available for use by **your class** at the child care center where you currently work.

8. Which of the following does your center have?	Yes	No
a. balls	<input type="radio"/>	<input type="radio"/>
b. climbing structures (that can be moved by staff or children)	<input type="radio"/>	<input type="radio"/>
c. floor play equipment (tumbling mats, etc.)	<input type="radio"/>	<input type="radio"/>
d. jumping play equipment (jump ropes, hula hoops, mini tramps)	<input type="radio"/>	<input type="radio"/>
e. parachute	<input type="radio"/>	<input type="radio"/>
f. push/pull toys (wagon, scooters, wheelbarrows, big dump trucks tec.)	<input type="radio"/>	<input type="radio"/>
g. riding toys (tricycles, cars, scooters)	<input type="radio"/>	<input type="radio"/>
h. rocking or twisting toys (rocking horse, sit and spin)	<input type="radio"/>	<input type="radio"/>
i. sand/water tables	<input type="radio"/>	<input type="radio"/>
j. sand/water play toys (shovels, scoops, buckets)	<input type="radio"/>	<input type="radio"/>
k. slides (that can be moved by staff or children)	<input type="radio"/>	<input type="radio"/>
l. twirling play equipment (ribbons, scarves, batons, etc.)	<input type="radio"/>	<input type="radio"/>
m. small portable pool used for swimming, splashing or other water play)	<input type="radio"/>	<input type="radio"/>
n. portable tunnels (can be moved by staff or children)	<input type="radio"/>	<input type="radio"/>
o. TV	<input type="radio"/>	<input type="radio"/>
p. DVD/VCR	<input type="radio"/>	<input type="radio"/>
q. computer(s)	<input type="radio"/>	<input type="radio"/>
r. video game(s) (e.g., V-tech, X-box, Playstation, Game boy, etc.)	<input type="radio"/>	<input type="radio"/>

Section 2: Practices
 These questions ask about teaching practices at your center or in your class. Please respond to each question.

1. How important is it for teachers to be actively involved in their classes' **mealttime** (nutrition activities)?
 [Mark only one.]
- | | |
|---|--|
| <input type="radio"/> It is not particularly important. | <input type="radio"/> It is important. |
| <input type="radio"/> It is sort of important. | <input type="radio"/> It is extremely important. |

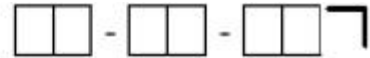


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7/13 GEN1 v. 1.0

EPAO-SR Project

Staff General Questionnaire



1b. What type of nutrition information was included in the training? *[Mark all that apply.]*

- | | |
|---|--|
| <input type="radio"/> food program (CACFP) guidelines | <input type="radio"/> gardening with children |
| <input type="radio"/> food safety | <input type="radio"/> Chef Combo |
| <input type="radio"/> food pyramid/general nutrition | <input type="radio"/> Color Me Healthy |
| <input type="radio"/> cooking with children | <input type="radio"/> Be Active Kids |
| <input type="radio"/> healthy snack ideas | <input type="radio"/> other → <i>specify</i> _____ |

1c. How often is this information used in **planned** nutrition lessons?

- once a week or more
- 2-3 times per month
- once a month
- once a year
- less than once per year

2. Have you ever received training in **physical activity** for young children (*e.g., continuing education workshop or college class for credit*) or training on a specific physical activity curriculum?

- yes, within the past 12 months
- yes, more than 12 months ago
- no, but I'm attending a training in the next 6 months → *skip to Q. 3*
- no → *skip to Q. 3*

2a. How often do you attend trainings on nutrition?

- 2 times per year or more
- 1 time per year
- less than 1 time per year
- rarely



Appendix I1: Letter of Thanks for Childcare Representatives (English)

Subject Line: Examining Physical Activity Policies in Canadian Childcare

Dear Childcare Representative:

On behalf of our research team, I would like to thank you for participating in this study. The information collected may inform the development of future childcare policies and regulations relative to physical activity participation and limiting sedentary behaviours. In addition, the findings of our study will provide guidance for future health promotion initiatives implemented in the childcare environment within Canadian childcares, overall.

If you could please provide us with your preferred mailing address, we would be happy to send you an Indigo gift card as a token of our appreciation for your participation in this project.

Warm regards

Trish Tucker, PhD

Trish Tucker, PhD
Assistant Professor - School of Occupational Therapy
Elborn College, Rm 2547
Western University
London, Ontario CANADA



Appendice I2: Letter of Thanks for Childcare Representatives (French)

Sujet: Examen des politiques sur l'activité physique dans les services de garde au Canada

Cher représentant des services de garde:

De la part de notre équipe de recherche, je vous remercie de votre participation à cette étude. Les renseignements recueillis peuvent éclairer l'élaboration de futures politiques et règlements relatifs à la participation à l'activité physique et à la limitation des comportements sédentaires. De plus, les résultats de notre étude serviront de guide pour les futures initiatives de promotion de la santé mises en œuvre dans le milieu des services de garde d'enfants au Canada.

Si vous pouviez nous fournir votre adresse postale préférée, nous serions heureux de vous envoyer une carte-cadeau Indigo comme preuve de notre reconnaissance pour votre participation à ce projet.

Cordialement,

Trish Tucker, PhD

Trish Tucker, PhD
Assistant Professor - School of Occupational Therapy
Elborn College, Rm 2547
Western University
London, Ontario CANADA



Appendice J: NVivo Node Tree

❖ Amount of Physical Activity/Active Play

- British Columbia
- Alberta
- Saskatchewan
- Manitoba
- Ontario
- Quebec
- Nova Scotia
- New Brunswick
- Prince Edward Island
- Newfoundland & Labrador
- Yukon
- Nunavut
- Northwest Territories

❖ Location (Physical Activity/Active Play)

- General
 - British Columbia
 - Alberta
 - Saskatchewan
 - Manitoba
 - Ontario
 - Quebec
 - Nova Scotia
 - New Brunswick
 - Prince Edward Island
 - Newfoundland & Labrador
 - Yukon
 - Nunavut
 - Northwest Territories
- Indoor
 - British Columbia
 - Alberta
 - Saskatchewan
 - Manitoba
 - Ontario
 - Quebec
 - Nova Scotia
 - New Brunswick
 - Prince Edward Island
 - Newfoundland & Labrador
 - Yukon

- Nunavut
- Northwest Territories

➤ Outdoor

- British Columbia
- Alberta
- Saskatchewan
- Manitoba
- Ontario
- Quebec
- Nova Scotia
- New Brunswick
- Prince Edward Island
- Newfoundland & Labrador
- Yukon
- Nunavut
- Northwest Territories

❖ Type of Activity

➤ General

- British Columbia
- Alberta
- Saskatchewan
- Manitoba
- Ontario
- Quebec
- Nova Scotia
- New Brunswick
- Prince Edward Island
- Newfoundland & Labrador
- Yukon
- Nunavut
- Northwest Territories

➤ Structured

- British Columbia
- Alberta
- Saskatchewan
- Manitoba
- Ontario
- Quebec
- Nova Scotia
- New Brunswick
- Prince Edward Island
- Newfoundland & Labrador
- Yukon
- Nunavut
- Northwest Territories

➤ Unstructured

- British Columbia

- Alberta
- Saskatchewan
- Manitoba
- Ontario
- Quebec
- Nova Scotia
- New Brunswick
- Prince Edward Island
- Newfoundland & Labrador
- Yukon
- Nunavut
- Northwest Territories

❖ **Teacher-led Activity**

- Amount
- Description
- Policy Regulation

❖ **Outdoor Play**

- Amount
- Description
- Policy Regulated
- Other

❖ **Space (Size and Type)**

- Indoor
 - Description
 - Licensing Requirements
 - Other
- Outdoor
 - Description
 - Licensing Requirements
 - Other

❖ **Physical Activity Education**

- Children
 - Child-led
 - Curriculum
 - Facilitation
 - Policy
- Staff
 - Training
 - Resources
 - Policy
 - Other
- Parents
 - Encouragement
 - Resources

❖ **Screen-Viewing**

- Amount
 - Computer – iPad
 - Education
 - Entertainment
 - Other
 - TV – Video
 - Education
 - Entertainment
 - Other
 - Videogames
- Reason
 - Free-Play
 - Special Needs
 - Special Occasion
 - Weather
- Type (TV/Video)
 - Education
 - Entertainment
 - Other

Curriculum Vitae

PERSONAL INFORMATION

Name: Emily C. Ott
 Place of Birth: Owen Sound, Ontario, Canada
 Citizenship: Canadian

EDUCATION

Master's of Science – Health and Rehabilitation Sciences (MSc)	2015-Present
Field: Health Promotion Western University, Ontario	
Bachelor of Science, Honors – Biological Science (BSc)	2010-2014
Minor, Psychology: Brain and Cognition University of Guelph, Ontario	

MASTER'S THESIS TITLE

Exploring Physical Activity and Screen-Viewing Policies in Canadian Childcare Centres

AWARDS AND ACHIEVEMENTS

Recipient of award for “Best Oral Presentation” – Health and Rehabilitation Sciences Graduate Research Conference	2017
Canadian Obesity Network – Chapter Champion Award (\$250)	2016
College of Biological Sciences Dean's Honor List	2014
Undergraduate Entrance Scholarship, University of Guelph (\$2,000)	2010

WORK EXPERIENCE

Research Associate , Western University, ON	2015-Present
Child Health & Physical Activity Lab, Health and Rehabilitation Sciences	
<ul style="list-style-type: none"> • Plan and implement individual and multidisciplinary team projects (i.e., assist with ethics submissions, questionnaire development, and knowledge translation activities) • Organize and manage multiple literature searches/reviews • Collect data from records and further develop the computer skills necessary to input and code data using MS Excel, SPSS, and NVivo software 	
Teaching Assistant , Western University, ON	2016
HS 2000A/B – Highway to Health	
<ul style="list-style-type: none"> • Provided educational support for health sciences students through mentorship • Facilitated tutorials and discussion groups to provide ongoing feedback and evaluation on each student's progress 	

Community Development Assistant, The Arthritis Society, ON 2016

- Supported and promoted the research objectives and programs of the organization
- Assisted with campaign logistics, community relations, and data entry
- Aided in the creation of various educational programs and stakeholder research summaries

SCHOLARLY AND PROFESSIONAL ACTIVITIES

Executive Member, Community Outreach Coordinator 2015-Present

Canadian Obesity Network – Students and New Professionals – Western Chapter

- Lead and promote initiatives involving obesity research, fundraisers, and events at Western University and off-campus organizations

Executive Member 2015-Present

Health & Rehabilitation Sciences Graduate Research Conference Committee

- Organize conferences that encourage student research collaboration and professional development

Assistant Moderator 2015

SPACE Study, Western University

- Facilitated and coordinated two focus groups for the Supporting Physical Activity in the Childcare Environment (SPACE) study

PROFESSIONAL DEVELOPMENT AND CERTIFICATIONS

Introduction to Public Health in Canada (course), Public Health Agency Canada 2017

Accessibility at Western (AODA) – Accessibility in Teaching 2016

WHO Growth Chart Training Program (Modules 1-5) 2016

Workplace Hazardous Material Information System (WHMIS) Training 2016

Tri-Council Policy Statement – 2 (TCPS-2) Core Certificate 2015

TESOL/TESL/TEFL Certification (100-hour), Oxford Seminars 2014

PROFESSIONAL AFFILIATIONS AND MEMBERSHIPS

Health Promotion Canada 2017-Present

Canadian Knowledge Transfer and Exchange Community of Practice 2017-Present

Child & Youth Network, London, ON 2016-Present

North American Society for Pediatric Exercise Medicine (NASPEM) 2016-Present

Canadian Obesity Network, Western University 2015-Present

Society of Graduate Students, Western University 2015-Present

CONFERENCES AND PRESENTATIONS

Ott, E., Vanderloo, L. M., & Tucker, P. *Examining Physical Activity and Sedentary Behaviour Policies in Childcare Centres across Canada*, Health and Rehabilitation Sciences Graduate Research Conference, Western University, London, ON, Feb 1, 2017, Undergraduate Thesis. Oral Presentation.

Ott, E., Vanderloo, L. M., & Tucker, P. *Exploring Physical Activity and Sedentary Behaviour Policies in Canadian Childcare Centres*, Canadian Obesity Summit, Banff, AB, April 25-29, 2017, Abstract and Oral Presentation.