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Parent and Early Childhood Educators Role in Supporting Sleep Hygiene in

Preschool-Aged Children

Master's Thesis

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Abstract

Introduction: Research has indicated that achieving adequate sleep quality and duration is crucial for optimal growth and development of children and is a predictor of adult health and well-being. However, research on strategies to promote optimal health and development in children has largely ignored sleep quality and duration as an essential component. Research on early childhood day and night time sleep practices can add to the growing body of research on how sleep contributes to children's health and well-being. Methods: Data was collected from seven parents and seven early childhood educators (ECEs) in Halifax using focus groups and phone interviews. This research provided an opportunity for parents and ECEs to share their unique experiences related to preschool-aged children's sleep quality and duration. Results: Analysis of the transcripts followed a thematic analysis and resulted in a description of parent and ECEs experiences with and understanding of preschool-age children's sleep quality and duration. Five themes were identified, including: 1) consistent and predictable rest time routines, 2) communication between home and child care, 3) balancing of values and beliefs, 4) the impact of sleep on children's development, and 5) availability of professional development and workshops. Significance: This research contributes to the broader understanding of parent and ECEs perceptions of the relationship between sleep and preschool-aged children's health and development and may provide guidance to future research and individuals directly connected to preschool-aged children such as policy makers, parents, and ECEs.

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Introduction

Research on strategies to promote optimal health and development in children has largely ignored sleep quality and duration as an essential contributing component to optimal child development even though "the whole day matters" (Tremblay, Chaput, et al., 2017). There is emphasis of creating a balance between physical activity, sedentary behaviors, and sleep in the recently published Canadian 24-Hour Movement Guidelines for the Early Years (Tremblay, Chaput, et al., 2017). Developed through an extensive research review, these guidelines promote optimal development in children from birth to 4 years of age and include the recommended duration of quality sleep children should obtain. Duration refers to the length of time spent engaged in a particular activity (Tremblay, Carson, et al., 2017). Sleep quality refers to (a) spending the majority of time in bed sleeping (85% or more), (b) falling asleep within 30 minutes or less, (c) waking no more than once per sleep period, and (d) being awake for 20 minutes or less after initially falling asleep (Ohayon et al., 2017). How children sleep during the day and night, in particular the quality of their sleep and the accumulation of sleep within a 24hour period, are demonstrated to affect a child's development (Bathory & Tomopoulos, 2017). Evidence-based research has indicated that achieving adequate sleep quality and duration is crucial for optimal growth and development of children as well as a predictor of adult health and well-being (Bathory & Tomopoulos, 2017; Tremblay, Chaput, et al., 2017). Evidence-based practice refers to how research informs the practices of practitioners and parents (Dunst & Trivette, 2009). Therefore, including research on early childhood day and night time sleep practices can contribute to the growing body of knowledge on how sleep contributes to children's health and well-being.

Sleep is an essential component of children's growth and learning in various domains of development (Michaud & Chaput, 2016). ParticipACTION, which is a Canadian organization focused on helping Canadians sit less and move more, has published two report cards that include sleep as an essential component. By including sleep in the ParticipACTION report cards, a heightened awareness of looking at the child's whole day for opportunities to promote optimal development has been introduced into the mainstream media. In the 2016 report, Canadian children received a grade of B indicating that 67% to 73% of children (5-17 years of age) were meeting the recommended sleep guidelines outlined in the Canadian 24-Hour Movement Guidelines for the Early Years (ParticipACTION, 2016; Tremblay, Chaput, et al., 2017). In the most recent report, Canadian children received a grade of B+ indicating that 74% to 79% of children (3-17 years of age) are meeting the guidelines (ParticipACTION, 2018). Although there was a slight increase in the overall grade received from 2016 to 2018, it cannot be determined whether there was an increase in score for children 3 to 5 years of age as they were not included in the 2016 report card. Further exploration into the sleep practices used by parents and early childhood educators (ECEs) is needed to fully understand a child's whole day and how it has an impact on their health and development. Parent-child and ECE-child relationships make up a significant part of a child's proximal environment, commonly referred to as the microsystem (Bronfenbrenner, 1977), and for that reason it is critical to take into consideration both parent and ECEs influences when exploring the sleep hygiene practices in early childhood using an Ecological Systems Theory lens (Bronfenbrenner, 1979). Therefore, the aim of this study was to consider the influence of a child's microsystem, their proximal environment, relative to the quality and quantity of sleep in young children. Carson, Clark, Ogden, Harber, & Kuzik (2015) state that over 50% of children attend some form of out-of-home child care; therefore, attention

to the responsibilities of both parents and ECEs as promotors of good sleep hygiene was identified as an important focus for this research study.

This study explored parents and ECEs experiences with, and their understandings of, preschool-aged children's sleep quality and duration in child care centres across Halifax, Nova Scotia, Canada. This exploration of parents and ECEs knowledge and awareness of the importance of sleep quality and duration in children may inform further recommendations for the promotion of children's optimal development through sleep hygiene practices throughout the day. Examination of the unique experiences and understandings of parents and ECEs relative to children's sleep quality and duration can contribute to the existing research on sleep hygiene practices used by adults in a child's microsystem. Results may be used to further guide policies of early learning programs around sleep and information sharing with parents about childhood sleep hygiene practices.

Research Questions

The following research questions were explored with parents and ECEs:

- 1. How do parents and early childhood educators view the relationship between sleep quality and duration and optimal early childhood development?
- 2. How do sleep hygiene practices fit into preschool-aged children's daily routine at home and at child care?
- 3. How do parents and ECEs access information relative to preschool-aged children's sleep quality and duration?

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Glossary of Terms

Early years: Refers to the first 6 years of a child's life (Nova Scotia Department of Education and Early Childhood Development, n.d.-b).

Level 1, 2, or 3 ECE Classification: Refers to the ECE classification approved by the Nova Scotia Government Department of Education and Early Childhood Development upon completion of required course work and practicums in Child and Youth Study (Nova Scotia Department of Education and Early Childhood Development, n.d.-a)

Preschool-aged children: Refers to children that are 3 years of age and older who do not attend school (Nova Scotia Department of Education and Early Childhood Development, 2018a).

Proximal environment: Refers to the relationships between the person of interest and other individuals in their immediate setting (i.e. parent, teacher, and sibling). According to Bronfenbrenner's Ecological Systems Theory, the proximal environment would refer to the microsystem (Bronfenbrenner, 1977).

Sleep hygiene: Refers to practices and habits that an individual engages in to promote optimal sleep quality and duration (National Sleep Foundation, 2018).

Chapter 2

Review of Literature

Throughout the day of a typical young child, opportunities for physical activity and sedentary behavior are provided at home and in child care settings. These activities receive an abundance of attention across the early years care, development, and learning literature. Yet only recently has the subject of sleep emerged as a focal point within this context of the early years, therefore the related research is limited. The following review is the literature currently available at this point in time. Using an Ecological System Theory lens, the microsystem consists of the relationships within an individual's immediate environment and how those relationships influence that individual (Bronfenbrenner, 1977). In this study, the focus was on the child as the central individual and parents and ECEs as the immediate relationships.

The need for adequate sleep in childhood has been demonstrated as an essential component of healthy growth and development, as well as a significant predictor of adult health and well-being (Bathory & Tomopoulos, 2017; Tremblay, Chaput, et al., 2017). However, the extent to which this knowledge translates into parenting and early childhood practices remains unclear. The most recent evidence presented in the ParticipACTION report card (2018) finds 84% of Canadian children ages 3 to 4 years of age were reported as meeting the sleep guidelines as recommended in the Canadian 24-Hour Movement Guidelines for the Early Years (ParticipACTION, 2018; Tremblay, Chaput, et al., 2017). The data suggests that over 15% of Canadian preschool children are missing out on the benefits of sleep quality and duration as recommended in the Canadian 24-Hour Movement Guidelines (Tremblay, Chaput, et al., 2017). The purpose of the following literature review is to examine the foundational literature in this area in order to determine potential factors contributing to this phenomenon. In this review, the

physiology of sleep and sleep patterns in the early years is presented, as well as an examination of research identifying factors that influence childhood sleep including family factors and child care environments. Each discussion closes with a summary of recommendations found in the childhood sleep literature. Overall, this review concludes with the observation that perspectives from parents and ECEs is lacking and supports a study to explore the role of parents and ECEs in supporting sleep hygiene with preschool-aged children.

Physiology of Sleep

Aspects of a child's environment can influence the underlying physiology of sleep relative to its quality and duration. The overarching circadian and sleep/wake cycles create a balance between children's natural tendencies to be awake or asleep. The circadian and sleep/wake cycles can be influenced by a child's proximal environment and work to either support the balance of the child's natural tendencies or inhibit it. The circadian and sleep/wake cycles adjust to the child as the child moves from infancy (0-18 months), to toddler (18 months to 3 years), to preschool (3 to 5 years) age. Likewise, children's patterns of sleep also change as the child ages. The proximal environments in which a child is raised can impact the progression of the different phases of sleep experienced by children before 5 years of age. Environments that encourage too little or too much sleep can be detrimental to a child's development and the optimal sequence of sleep phases.

Circadian and sleep/wake cycles. The process of sleep is regulated by two different systems that work together interchangeably. The circadian system is a 24-hour cycle that generates biological rhythms (Bathory & Tomopoulos, 2017). These biological rhythms consist of the sleep and wake cycle, body temperature cycle, alertness, daily cycles of hormonal discharge, and blood pressure regulation (Bathory & Tomopoulos, 2017). A child's circadian

clock gives the child external and internal cues, such as light and body temperature respectively, to signify the sleep/wake cycle. For instance, when the sun rises in the morning, the child's circadian clock automatically recognizes that external cue as an indicator to wake up.

On the other hand, the sleep/wake homeostasis is the biological need to maintain equilibrium or homeostasis between sleep and wake (Bathory & Tomopoulos, 2017). During waking hours, children's daily activities produce sleep-promoting substances called somnogens in the central nervous system (Bathory & Tomopoulos, 2017). With the increase in somnogens, the body is driven to sleep. For instance, the more physical activity a child engages in during the day, the more somnogens their body will produce. With more production of somnogens, the body will require more sleep to reach equilibrium or homeostasis. Maintaining this equilibrium or homeostasis promotes optimal central nervous system development which is closely linked with the duration and quality of sleep in humans (Vaughn, Elmore-Staton, Shin, & El-Sheikh, 2014).

Patterns of sleep in childhood. From birth, infants engage in a sleep pattern called polyphasic sleep (Nothard et al., 2015a; Staton, Smith, & Thorpe, 2015). Polyphasic sleep consists of multiple episodes of sleep within a 24-hour period. Up until around age two, infants require multiple naps during the day in addition to their nighttime sleep. The Canadian 24-Hour Movement Guidelines suggests that infants (0-3 months) obtain 14 to 17 hours of sleep within a 24-hour period (Tremblay, Chaput, et al., 2017). It is suggested that infants (4-11 months) obtain 12 to 16 hours of sleep within a 24-hour period (Tremblay, Chaput, et al., 2017). Furthermore, children between the ages of one and two are suggested to accumulate 11 to 14 hours of sleep within the polyphasic sleep pattern until around age two and the amount of sleep required decreases in three

phases before age two, children are still taking multiple naps a day, however the amount is decreasing, and children are working towards to next sleep pattern. Around 2 years of age, children move into a sleep pattern called biphasic sleep (Nothard et al., 2015a; Staton et al., 2015). Biphasic sleep consists of only two episodes of sleep within a 24-hour period. The majority of sleep for children in a biphasic sleep pattern happens during the nighttime sleep period. Children in the biphasic sleep pattern only require one nap during the day in addition to their nighttime sleep. Once children are around 3 or 4 years of age, most move into the last sleep pattern called monophasic sleep (Nothard et al., 2015a; Staton et al., 2015). Monophasic sleep consists of only one sleep episode within a 24-hour period. When children hit the preschool age (3-5 years of age), most children no longer require a daytime nap. Young preschoolers between the ages of 3 and 4 years of age are transitioning into the last sleep pattern and are suggested to obtain 10 to 13 hours of sleep within a 24-hour period (Tremblay, Chaput, et al., 2017). Young preschoolers may still require a nap during the day to obtain the recommended amount of sleep for preschoolers, however, by the time children reach the older preschooler age (4-5 years of age), children usually transition fully into the monophasic sleep pattern and no longer need their daytime nap.

Too little or too much sleep. When children do not receive enough sleep it is believed that it could have developmental implications that can affect their lifelong learning (Keefe-Cooperman & Brady-Amoon, 2014). If children receive insufficient sleep, it can impact their social, emotional, cognitive, language and literacy and various other domains of development. Insufficient sleep has also been linked to the predisposition of behavourial difficulties in children (Schumacher et al., 2017; Yuwen et al., 2016). One of the contributing factors in behvaioural difficulties in children to

discourage and decrease challenging behaviors (Schumacher et al., 2017). It has been found that children who experience sleep loss, even over a period of just one day and night, have a disconnect between the key processes in emotional development (Schumacher et al., 2017). These key processes underlie key childhood outcomes such as social-emotional development, school readiness and mood.

Inadequate sleep does not just mean not getting enough sleep, it can mean getting too much sleep as well. Children are recommended to sleep anywhere from 10 to 17 hours, depending on their age (Tremblay, Chaput, et al., 2017). Children's age is the key factor in deciding whether or not the child is getting too much or too little sleep. For instance, young preschool children (between the ages of 3 and 4 years) are recommended to obtain 10 to 13 hours of sleep within a 24-hour period. (Tremblay, Chaput, et al., 2017). However, research has suggested that going above these recommendations in the form of naps and longer nighttime sleep, may be detrimental. Schumacher et al. (2017) found that the children who napped during the day, with age being controlled for, on average scored 3.580 points lower on a full-scale IQ test. Similar, longer duration of daytime naps has been found to be associated with a decrease in nighttime sleep as well as poorer outcomes on cognitive measures (Staton et al., 2015). Last, the quality of children's nighttime sleep has also found to have been negatively affected by daytime naps (Staton et al., 2015). This may suggest that children that are receiving too much sleep may be affecting their sleep onset at night as well as their sleep quality and duration.

Recommendations. Research suggests that to encourage adequate sleep, consistent bedtime routines should be maintained (Bathory & Tomopoulos, 2017; Keefe-Cooperman & Brady-Amoon, 2014; Sciberras, Song, Mulraney, Schuster, & Hiscock, 2017). These routines can consist of having a set time to start getting ready for bed, a time to read a story and a time for lights out to follow the natural progression of a child's circadian and sleep/wake cycle. Every routine can be different; however, it is the concept and practice of a consistent routine that is referenced in the literature. The lack of a consistent routine and sleep schedule has implications. Children who do not have a consistent sleep routine experience sleep latency, nocturnal awakening, and lower levels of cognitive functioning which can result in too little sleep (Keefe-Cooperman & Brady-Amoon, 2014). These bedtime routines not only give children an external cue or warning that sleep is coming, but also something that is predictable and consistent in their lives (Bathory & Tomopoulos, 2017). Last, consistent bedtime routines are associated with decreased bedtime resistance, lower levels of daytime sleepiness, less delayed sleep onset, and fewer sleep duration difficulties (Sciberras et al., 2017).

The Relationship of Sleep and Developmental Systems

The adults within a child proximal environment have an impact on their sleep quality and duration which in turn influences the child's development. Children's emotional, social, and cognitive development can be influenced by children's relationships with people in their immediate environment relative to their sleep quality and duration. To promote optimal development, it is recommended that children obtain the suggested amount of sleep as well as high quality sleep (Tremblay, Chaput, et al., 2017), however, not all children do.

Emotional development. Recent research has indicated that children's sleep is important to their development in various developmental systems including emotional development (El-Sheikh, Arsiwalla, Staton, Dyer, & Vaughn, 2013). The quality of sleep is just as important as the duration of sleep. Insufficient sleep can disrupt the behavioral components that enable optimal emotional functioning throughout infancy to adolescence (Schumacher et al., 2017). Emotional functioning, such as response inhibition and self-regulation are two functions among

many that can be affected. Self-regulation in particular, refers to the process of individuals being able to control their behaviors, emotions, and attention (Schumacher et al., 2017). Deficits in emotional functioning and the inability to self-regulate are the hallmarks of various challenging child behaviors (Schumacher et al., 2017).

Poor sleep quality and duration is also associated with an increase in anxious/depressed behavior, withdrawn behavior, and aggressive behavior (Keefe-Cooperman & Brady-Amoon, 2014). This emphasizes the importance to not only get as much sleep as needed but to also obtain quality sleep. Disruptions of sleep in children have also been positively correlated with problem behaviors (Yuwen et al., 2016). Also, the duration of sleep has been positively correlated with reasoning about emotional states in recent research (Vaughn et al., 2014). Overall, poor sleep quality and sleep hygiene practices are detrimental to children's development. Engaging in poor sleep hygiene and obtaining poor sleep quality predisposes children to later development of behavioral and emotional impairments (Yuwen et al., 2016).

Social development. Children's sleep quality and duration also has an effect on social development indicating that positive sleep hygiene practices are important to try and follow. Bates et al. (2002) found that sleep disruptions were negatively correlated with teachers' ratings of child adjustment. In other words, children who are not receiving optimal sleep are having a harder time adjusting to school and peers. Lemola et al. (2011) also found that sleep duration was positively correlated with social competence, self-esteem, and optimism meaning that the more sleep children acquired throughout a 24-hour period, the more the child would be accepted by their peers, be engaged with their peers, as well as have motivation to socialize.

Cognitive development. Likewise, cognitive development has been found to be impacted by children's sleep quality and duration (El-Sheikh, Arsiwalla, et al., 2013). Nighttime

sleep patterns have been linked to cognitive skills at 3 years of age and longer durations of nighttime sleep in children are positively associated with cognitive functioning (Keefe-Cooperman & Brady-Amoon, 2014; Staton et al., 2015). Again, this stresses the importance of obtaining an adequate quantity of sleep as well as quality sleep. Like emotional development, insufficient sleep disrupts behavioral components that are important for optimal cognitive development (Schumacher et al., 2017). Therefore, engaging in positive sleep hygiene practices not only enables optimal cognitive development, but various other developmental systems as well. Keefe-Cooperman & Brady-Amoon (2014) suggest that longer sleep latency (the time it takes to fall asleep) and sleep efficiency (increased nocturnal awakening and increased daytime sleepiness) have been seen in children who were unprepared for school advancement.

Vaughn, Elmore-Staton, Shin & El-Sheikh (2015) conducted a study on sleep as a support for social competence, peer relations, and cognitive functioning in preschool children. Vaughn et al. (2014) replicated results found in other studies indicating that sleep duration is positively correlated with receptive vocabulary. Furthermore, the researchers found that sleep duration was positively correlated with cognitive competence as well. Lam, Mahone, Mason & Scharf (2011) also indicated that daytime sleep duration was negatively associated with performance on cognitive tests.

Factors Influencing Sleep Patterns

The physiology of children's sleep is not the only area that can be affected by a child's proximal environment. Aspects of a child's proximal environment such as the sleep environment, child care centre routine, family dynamics, the parental awareness, family background, as well as the amount of screen time children engage in can also have an effect on children's sleep quality

and duration. Examining these aspects is fundamental in understanding how aspects of a child's proximal environment influences the child's sleep quality and duration.

Characteristics of the sleep environment. The environment can have an impact on how well and how long children sleep. An observational study by Marriott, Staton, Thorpe & Smith (2013) looked at early childhood education centres and found that although all centres provided a rest period for children, only 39% provided an environment that promoted sleep. Environments that support sleep are those that are comfortable, predictable and of low arousal (Staton et al., 2015). To promote an environment that is comfortable, mats, beds, pillows and various other furniture can be used. Having an environment that is predictable is also beneficial. A consistent routine, layout and duration of either nap time or nighttime sleep offers children a sense of security and a point of reference. The optimal sleep environment should also be of low arousal. Environments that incorporate natural colors rather than bright playful colors will allow children to relax and not be over stimulated by the colors. Also, having environments where there is not a lot of toys or visual clutter present aids in the calming effect of rest times.

Child care centre daily routine. In order to promote optimal early childhood development, it is important that ECEs create a balanced daily routine that provides opportunity for rest and physical activity during the day (Siren-Tiusanen & Robinson, 2001). When child care routines follow children's natural biological and sleep-wake rhythms, it can reduce the opportunity for over-stimulation. Being aware of each individual child's needs, and regularly reflecting on whether their current routine is the most effective, can help ECEs to create an appropriate routine. Further, it is important for ECEs and adults within the child care centre to consider the noise level they are creating by engaging in conversation with one another or setting up future activities (Siren-Tiusanen & Robinson, 2001). When ECEs and other adults present in child care centres are mindful of noise levels during designated rest times, it can promote high sleep quality and duration by avoiding children being woken up by extra stimuli in the classroom (Siren-Tiusanen & Robinson, 2001). In addition, careful consideration to activities planned for children not sleeping during rest time, or activities to take place after rest time, is needed to reduce noise levels.

Family dynamics. The proximal environment that a child is raised in is one of the many aspects of a child's life that can influence children's sleep quality and duration. Particularly, research has shown that familial stress is one possible determinant of childhood sleep problems (Bell & Belsky, 2008). Research indicates that poor parent-child relationships is associated with sleep difficulties such as too much or too little sleep, nocturnal enuresis, nightmares, and trouble sleeping (Liu et al., 2000). Other familial stress such as separation or divorce (Kahn et al., 1989) and abuse (Sadeh, 1996) have also been associated with childhood sleep problems.

The presence of intimate partner violence within a child's proximal environment has also been associated with sleep problems in children (Humphreys, Lowe, & Williams, 2009). Insana, Foley, Montgomery-Downs, Kolko, & Mcneil (2014) explored children exposed to intimate partner violence relative to sleep difficulties and functioning outcomes. Researchers found that two thirds of children exposed to intimate partner violence had at least one sleep problem (Insana et al., 2014). These sleep problems included children having difficulties initiating sleep, wetting the bed, nightmares, and daytime sleepiness (Insana et al., 2014).

Another aspect of the family dynamic relative to children's sleep problems is socioeconomic status (Bagley, Kelly, Buckhalt, & El-Sheikh, 2015; El-Sheikh, Bagley, et al., 2013). Children from lower socio-economic status homes may exhibit poorer sleep quality and more inconsistent sleep wake patterns (Bagley et al., 2015; El-Sheikh, Bagley, et al., 2013). Literature explaining why children from lower socio-economic status homes have an increased prevalence of sleep problems is sparse, however some studies have indicated the sleep environment, presleep worries, ethnicity, and parental perceived socio-economic well-being may contribute (Bagley et al., 2015; El-Sheikh, Bagley, et al., 2013). Additional research has explored socioeconomic status as a moderating variable between child sleep and developmental outcomes. The associated childhood sleep problems and developmental outcomes has been shown in research to be intensified by lower socio-economic status (Buckhalt, El-Sheikh, Keller, & Kelly, 2009; El-Sheikh, Kelly, Buckhalt, & Hinnant, 2010). Similar, the positive relationship between maternal depressive symptoms and variability in children's weekday total sleep was stronger with family dynamics who reported a lower household income (de Jong et al., 2016).

Parental awareness. In an eight-article systematic review conducted by McDowall, Galland, Campbell & Elder (2017), researchers found that parent's knowledge about children's sleep was generally low. Within this systematic review, one study found that only 10.6% (n=170) of parents answered more than half of the items correct on a questionnaire about children's typical sleep patterns (Schreck & Richdale, 2011). Likewise, the average correct answers were 34.7%. Another two studies included in this systematic review indicated that 76% (n=184) and 52% (n=253) of parents underestimated the need of their children's sleep, however, only 8% and 13% thought their child had inadequate sleep (Owens & Jones, 2011; Owens, Jones, & Nash, 2011). This demonstrates the need to provide access to information for parents surrounding the importance of sleep, the developmental benefits of sleep, as well as what typical sleep patterns look like in children in general. Owens & Jones (2011) indicated in their study that parents with "more than high school education" scored higher on their questionnaire revolving around parent's knowledge of child sleep. Parents have a tremendous impact on their child's development throughout childhood, therefore if parents do not have access to information about childhood sleep in particular, that could have a detrimental effect on their child's development and well-being.

Parents are one of the main influences in a child's microsystem throughout childhood which enables them to have a great impact on their child's growth and development. Children are dependent on the adults around them and their understanding of optimal development in regard to sleep, as well as reliant on their parents to recognize any abnormal sleep developments such as sleep disorders (McDowall, Galland, Campbell, & Elder, 2017). If parents have not received or been able to access education in regard to optimal sleep, their children may not be receiving the recommended duration and high-quality sleep. In regard to preschooler's sleep, parents limited awareness about daytime sleep and sleep patterns (biphasic to monophasic sleep) could impact their daytime learning (McDowall et al., 2017). Preschool children could be missing out on daytime learning opportunities due to any number of factors related to sleep; persistent daytime sleepiness or behavioral and emotional problems arising throughout the day due to poor sleep throughout the night.

Family background. Sleep hygiene practices differ across ethnic backgrounds. In their study on cross-cultural differences in infant and toddlers sleep, researchers have identified that predominately Asian countries had later bed times and shorter nighttime and total sleep duration in young children (Mindell, Sadeh, Wiegand, How, & Goh, 2010). It has also been identified that compared to the United States, Chinese children went to bed later and woke up earlier than United States children, resulting in about one hour less of sleep within a 24-hour period (Liu, Liu, Owens, & Kaplan, 2005). Similar, Italian children, when compared to children in the United

States, were reported going to bed later and sleeping fewer hours as well (Ottaviano, Giannotti, Cortesi, Bruni, & Ottaviano, 1996).

There has also been evidence of ethnic differences in sleep patterns within a particular country. For instance, the United States has a diverse population with various ethnicities. A study conducted on cultural influences on the bedtime behaviors of young children found that African American children had later bedtimes, similar wake times, and shorter sleep durations than Caucasian children (Mclaughlin Crabtree et al., 2005). In addition, researchers have indicated that shorter sleep duration, poorer sleep quality, and higher instances of sleep problems are present in racial minority children compared to White children (Patrick, Millet, & Mindell, 2016). Patrick et al. (2016) findings state that African American children work up at the same time. This indicates that African American children may be receiving less sleep than their White counterparts. Furthermore, Patrick et al. (2016) also found that parents of African American children reported lower bedtime routine consistency, more bedtime difficulties, longer sleep onset latencies and shorter nighttime sleep durations.

These differences could potentially be explained by the different cultural practices that are in effect when looking at various ethnicities and how the children within those ethnic backgrounds sleep. Furthermore, different ethnicities place emphasis on different aspects of childhood and family life, which can change the way children are brought up and/or parented resulting in a difference of sleep behaviors.

Amount of screen time. Children have access to more technology and screens now which can have an effect on children's sleep quality and duration. Children under the age of two are not recommended to have any screen time (Tremblay, Chaput, et al., 2017), however, a

recent study has shown that 66% of children under the age of two watch television and videos for approximately 56 minutes a day (Bathory & Tomopoulos, 2017). This screen time not only takes away from quality interactions with caregivers but is also used as a soothing mechanism instead of teaching self-regulation skills. If screens are used to put children to sleep, it may result in the loss of self-soothing skills and children being able to fall asleep on their own (Mostafavi, 2016).

The Canadian 24-Hour Movement Guidelines for the Early Years Tremblay et al. (2017) recommends that preschool-aged children engage in no more than 1 hour of screen time per day. A systematic review conducted by Vanderloo (2014) on preschool-aged children's screen time use in child care centres found that preschool-aged children spent 0.1 to 1.3 hours per day engaged in this behaviour. The large variation in screen time duration per day was due to two studies reporting very little screen time use and the remaining six studies reporting high levels of screen time use. Engaging in this sedentary behaviour was found to be negatively associated with ECEs education level. That is, the more education an ECE had obtained, the less screen time that preschool-aged classroom engaged in on a daily basis (Vanderloo, 2014). The findings of this systematic review suggest that some children may be receiving a considerable amount of screen time at childcare, in relation to the recommendations from the 24-Hour Movement Guidelines.

Recommendations. Research provides various suggestions to parents on how to increase positive sleep hygiene practices. One suggestion that has been widely talked about is limiting or avoiding screen time in the evening (Bathory & Tomopoulos, 2017; Lo, 2016). Lo (2016) conducted a study on the relationship between sleep habits and nighttime sleep and found that children who engaged in television viewing in the evening had significantly worse sleep quality than children who did not (increased amount of sleep terrors, nightmares, sleep talking and daytime sleepiness). In order to maintain the typical circadian rhythm for optimal sleep,

melatonin needs to be released. Melatonin levels decrease when exposed to light since light is a natural way for our circadian cycle to know it is time to wake up. However, evening television or other forms of screen time expose children to light, which inhibits the secretion of melatonin when children need it the most. Over half of the children in Lo's (2016) study were categorized as participating in bedtime television viewing. This indicates that those children may not be receiving enough melatonin to have high quality sleep and duration of sleep.

Resources for Parents and ECEs

Parents and ECEs are a prominent feature of a child's proximal environment. With over 50% of children attending some form of out-of-home care, parents and ECEs together serve a fundamental purpose in making sure children receive the recommended duration and quality of sleep (Carson et al., 2015). The following sections explore the information on how parents and ECEs in Nova Scotia, Canada, access information both formally (i.e. books or research articles) and informally (i.e. internet or word of mouth) relative to preschool-aged children's sleep quality and duration.

Formal resources. An understanding of what formal information is made available to parents and ECEs is essential in understanding the relationship between a child's proximal environment and the child's quality of sleep and duration. These formal resources are evidence-based and serve as a foundation for parents and ECEs to support the sleep hygiene practices in the children they care for.

Parents. The Nova Scotia Department of Health and Wellness offers new parents a line of books that covers children from birth to 3 years of age upon arrival of a new baby. These books titled *Loving Care: Birth to 6 Months, Loving Care: 6 to 12 Months,* and *Loving Care: 1 to 3 Years* were written by Janis Wood Catano in 2008, 2009, and 2011 respectively and have

been last updated in 2015 (Nova Scotia Department of Health and Wellness, 2017). All three version of Loving Care are given to new parents when parents leave the hospital after the birth of their child. Within *Loving Care: Birth to 6 Months*, Wood Catano (2008) discusses duration of sleep, a baby's sleep-wake cycle, helping your baby sleep, and sleep safety. This section on sleep is not extensive, only accumulating 11 pages of the 120 that the book is. Similar, *Loving Care: 6 to 12 Months* discusses sleep in much of the same fashion. Information on sleep is brief and spans only 8 pages out of the total 140 pages offering insight again to parents about helping your child sleep and sleep safety (Wood Catano, 2009). Last, *Loving Care: 1 to 3 Years* covers helping your child sleep as well as sleep safety (Wood Catano, 2011). This section covers 11 pages out of the total 184 pages which mimic the short length related to sleep in the previous two books.

The *Loving Care* series offers parents a guide on the basics of sleep in children from birth to 3 years of age; however, this information is not extensive, spanning a few pages of the book. Supplemental information and resources could be made available to parents in order to provide parents with information relating sleep quality and duration with child development. On the other hand, sleep quality and duration does not become less important after 3 years of age. Information regarding preschool children (3 to 5 years of age) as well as school-aged children's sleep quality and duration is also important to educate parents on the link between sleep quality and duration to emotional, social, and cognitive development (El-Sheikh, Arsiwalla, et al., 2013).

ECEs. Early childhood course work and practicums (Level 1 ECE Classification) are offered from the Jane Norman College, the Nova Scotia College of Early Childhood Education (NSCECE), and the Nova Scotia Community College (NSCC) across the province. 2-year diploma programs (Level 2 ECE Classification) are offered from the Jane Norman College,

NSCECE, NSCC, Island Career Academy and Université Sainte-Anne. Last, a 4-year degree program (Level 3 ECE Classification) is available through Mount Saint Vincent University. Although research has shown the importance of high sleep quality and duration in children to emotional, social, and cognitive development (El-Sheikh, Arsiwalla, et al., 2013), there is no course within these nine programs specifically focused on sleep in early childhood. All programs require students to take two courses related to child development however, upon examining the descriptions of each child development course required by the six institutes, the focus is on child development broadly and does not mention sleep as a fundamental aspect. It is important to note however, that course syllabi were not examined which may have provided a more in-depth description of the course content. Overall, content related to childhood sleep, specifically, was not evident in the available documents reviewed at this point in time.

Besides educator's personal interest in maintaining and furthering their education after they have completed their course work, the required educational upkeep is 30 hours every 3 years of professional development. Professional development workshops serve as a tool for ECEs to revamp their practices and learn about the current best practices. No specific topic of professional development is required; therefore, ECEs are able to decide which workshops to participate in. As a result, there may be missed opportunities for ECEs to attend related professional development to learn about children's high sleep quality and duration benefits. These professional development opportunities are guided by current regulations and policies surrounding early childhood education. A review of the professional development offered for ECEs was conducted through the Nova Scotia Department of Education and Early Childhood Development, 2018c). Of the 43 professional development opportunities available at this point in time, none specifically speak to childhood sleep. Therefore, ways in which ECEs in Nova Scotia are gaining knowledge in relation to children's sleep quality and duration needs is unknown.

Informal resources. Parents and ECEs spend a great amount of time with children and children engage in sleeping for the most part with a parent or ECE present. Although there are not many formal resources of information presented to parents and ECEs regarding children's sleep quality and duration, parents and ECEs access information through informal sources such as the internet or media. Parents and ECEs rely on their own personal experiences growing up to educate themselves, as well as reply on siblings or relatives (Baker, Sanders, & Morawska, 2017). These informal resources are reflected through their beliefs and values which in turn are reflected through their practice.

Conclusion

A review of related literature indicates that supporting the understanding of sleep processes and functions as well as factors that impact the attainment of sleep are necessary to support healthy development in early childhood. However, the Canadian research suggests that more than 15% of preschool children are not obtaining quality sleep or the recommended duration for the child's age. Many reasons may exist for this. In particular, the resources available to parents and the training required of ECEs may be a factor. Also, the limited literature surrounding parents and ECEs experiences with and understandings of preschool-aged children's sleep quality and duration is evident. Parents and ECEs are two of the most fundamental actors in a child's proximal environment, therefore it is essential to consider their influences on a child's sleep quality and duration. This study was designed to gather perspectives directly from parents and ECEs to explore their experiences with, and understandings of preschool children's sleep quality and duration.

Chapter 3

Methods

The purpose of this research study was to explore parents and ECEs experiences with and their understandings of preschool-aged children's sleep quality and duration relative to child wellbeing. Information was gathered from parents and ECEs recruited in the Halifax child care community using focus groups and phone interviews following a semi-structured interview guide that focused on child sleep hygiene practices at home and in child care centres. Focus group and interview interactions were recorded and transcribed verbatim. Analysis of the transcripts followed the thematic analysis method described by Braun & Clarke (2006) and resulted in the presentation of a description of parents and ECEs experiences with, and understandings of preschool-age children's sleep quality and duration.

Methodology

The constructivist approach was applied through an exploration of the unique experiences that parents and ECEs hold related to children's sleep quality and duration (Bryman, 2016b). Parents and ECEs are active players in a child's life and influence their overall health and development therefore their differing experiences were explored to understand the unique experiences had by parents and ECEs. The multiple realities of parents and ECEs were considered together throughout the study to form overall meaning that addressed the three research questions. To do so, a qualitative description approach was followed providing an illustration of narratives of experiences had by parents and ECEs with preschool-aged children's sleep quality and duration (Willis, Sullivan-Bolyai, Knafl, & Cohen, 2016). Focus groups and phone interviews were the method of data collection to share the unique experiences of multiple adults within a child's proximal environment. Analysis of these various perspectives provided a rich description of the shared and unique experiences of parents and ECEs relative to preschoolage children's sleep quality and duration (Willis et al., 2016).

Procedure

Recruitment. Parents and ECEs were first recruited utilizing the Nova Scotia Directory of Licensed Child Care Facilities (Nova Scotia Department of Education and Early Childhood Development, 2018b). Child care centres who offered a full day preschool program located in Halifax were considered. Only full day preschool programs were considered due to the need for there to be a rest period. Preschool programs include programs for children 3 to 5 years of age, with mixed age group classrooms (18 months to 5-years-old) being excluded. Initially child care centres located within or near the Clayton Park and Fairview area (\geq 5km from Mount Saint Vincent University) were considered in order to offer a nearby, public, collectively easily accessible location for focus groups.

Upon meeting these characteristics, the researcher examined child care centres to determine whether they were in compliance or not with the Department of Education and Early Childhood Development Day Care Regulations (Nova Scotia Department of Education and Early Childhood Development, 2018a). Of the child care centres that were in compliance, past violations were considered by the researcher to determine if any violation were related to rest time. Child care centres who were in compliance with no violations related to rest time were contacted (n= 21). The first line of contact was with the director of the child care centre, where a letter of invitation (Appendix A) was provided by the researcher indicating the purpose of the study, who could participate, date/time, location, researchers contact information, as well as informational posters to distribute (Appendix B & C). The researcher gained access to the directors through contact information found on the Nova Scotia Department of Education and early access to the directors through contact information found on the Nova Scotia Department of Education and early contact information and the early exactly and the early contact information and the early exactly exa

Early Childhood Developments Directory of Licenced Child Care Facilities website (Nova Scotia Department of Education and Early Childhood Development, 2018b).

Of those 21 centres, five centres responded after a second follow up email was sent by the researcher; one centre accepted, two centres accepted parent posters but not ECE, and two centres declined. Due to the low numbers, participants were then also recruited through child care centres that were \geq 7.5 km from Mount Saint Vincent University. Of the seven additional centres that were contacted, two responded after a second follow up email.

To widen the reach of potential participants, participants were first recruited through social media on a Facebook group called "ECE Community: HRM & Nova Scotia". Again, there was a low response. To address this challenge, the geographical location was widened to include all of Halifax County. Parents were then recruited through posters put in preschool children's cubbies as well as Facebook and Twitter. Likewise, ECEs were recruited again using Facebook. For parents, a total of four centres distributed posters within each preschool-aged child's cubby, two posts were made on a personal profile on Facebook, and one tweet on a personal account on Twitter. For ECEs, a total of three posts were made on a Facebook group page.

Inclusion/Exclusion Criteria. Parents of preschool-aged children and preschool ECEs from varying child care centres across Halifax participated in this study. Parents were eligible to participate if they were a parent of a 3- to 5-year-old child attending regulated child care or the Pre-primary Program in Halifax. ECEs were eligible to participate if they were currently working in a preschool-aged classroom at a regulated child care centre or Pre-primary Program in Halifax and held a valid Level 1, 2, or 3 ECE classification. Parents and ECEs were ineligible to participate if they did not meet the above criteria.

Research Design

Two types of data collection methods were used in this study; phone interviews and focus groups. Analysis of the content of the focus group and interviews provided insight into how parents and ECEs are obtaining information pertaining to preschool children's sleep quality and duration. Attitudes and practices towards preschool-aged children's rest time in child care centres and what could be changed to encourage positive growth were also explored.

The primary source of data collection was through individual phone interviews with parents of preschool-aged children and ECEs working in a preschool-aged classroom in a child care centre in Halifax. In total, 12 phone interviews were completed (parent n=7, ECE n=5). Another means of data collection was through a focus group with ECEs. Focus groups consist of elements from two separate methods; group interviews and focused interviews (Bryman, 2016a). Group interviews are when a group of individuals come together to discuss multiple topics, whereas a focused interview is when individuals are chosen because they have experience with the topic at hand (Bryman, 2016a). Focus groups incorporate both methods, bringing together a group of individuals who have had experience with the topic at hand. One focus group took place with two ECEs present.

Before both the phone interviews and focus group begun, participants read and signed the informed consent form (Appendix D) and filled out the appropriate demographic questionnaire (Appendix E & F). In regard to focus groups, participants signed a confidentiality agreement as well before the focus group began (Appendix G). These documents were given back to the researcher for their records and secure storage. Participants were also given a copy of these documents for their records. Upon completion of the phone interviews and focus group, participants were invited to add their name to the draw for one of two Sobeys gift cards.

Phone interviews and the focus group followed a conventional style utilizing a semistructured guide with predetermined questions. See Appendix H and I for a list of questions. Furthermore, general probes such as "what do you mean by that" or "why do you think that happens" were asked to further clarify a participants' statement or to further investigate the meaning of a statement.

Ethical Considerations

Ethics approval for this research was gained through Mount Saint Vincent University's Research Ethics Board. In order to accurately document the perspectives of parents and ECEs, focus groups and interviews were voice recorded and transcribed verbatim by the researcher. Written consent was obtained from all participants that partook in the study which outlined the purpose, what the tasks would be, any risks or discomforts associated, how the research would benefit the participants as well as the researcher, and emphasized the importance that the research was voluntary and participants could withdraw at any time (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, & Social Sciences and Humanities Research Council of Canada, 2014). The written consent form also indicated the agreement of having the focus group or phone interview voice recorded. Informed consent was obtained from each participant at the beginning of each focus group or prior to the phone interview to ensure that participants understood their participation in the research was completely voluntary (Canadian Institutes of Health Research et al., 2014). In addition, a confidentiality form was signed from each participant partaking in a focus group indicating that the information shared in the focus group should remain confidential as well as where all information will be stored (Canadian Institutes of Health Research et al., 2014). All information pertaining to a participant was kept confidential throughout the entire research process.

Participants' identities were only known to the researcher, co-supervisors, and in the case of focus groups, where multiple participants took part together. Throughout the illustration of results, participant confidentiality was maintained by removing any identifying characteristics, names, or locations mentioned in quotes. Paper data was kept in a locked drawer in the researcher's office at Mount Saint Vincent University, with only the researcher having access to the drawer. Audio files were kept on a password protected computer and MSVU Microsoft OneDrive location.

Analysis

Audio-recorded data was transcribed verbatim using ExpressScribe. Transcriptions from each focus group and phone interviews were imported into Nvivo Version 12 and coded line by line by the researcher. The analysis process followed a thematic analysis process. Thematic analysis refers to a method of analysis used to identify rich detail emerging from the data itself (Braun & Clarke, 2006).

In this particular research study, the analysis process begun by listening to and transcribing each form of data. Following transcription, transcripts were read through and audio files were listened to for a second time to make corrections and to familiarize the researcher with the data (Braun & Clarke, 2006). This allowed the researcher to begin to understand the data that had been collected. From there, an initial codebook was created by the researcher and incorporated codes that captured meaningful data from the focus group and interviews. As the coding process took place, inductive coding was used to capture as many codes as possible. Narratives of individuals' experiences were coded throughout each focus group and phone interview and compared across other transcripts to determine any common links (Braun & Clarke, 2006). In order to identify themes that were emerging, the researcher first identified

important ideas that were indicated throughout the data. These ideas were then reviewed and discussed by the researcher and co-supervisors to determine the meaning and importance of each. From there, the researcher revised these ideas to reflect themes within the data. Themes were again reviewed and discussed by the researcher and co-supervisors to ensure an accurate description of participants' experiences. The final themes were then examined to determine whether they were representative of what was being discussed throughout the focus group and interviews (Braun & Clarke, 2006). A detailed description of each theme is presented in a subsequent section.

Rigour and Trustworthiness

In order to gain the rich rigor criteria for quality, studies have to use sufficient, appropriate and complex approaches to their sampling, data collection, and data analysis (Tracy, 2010). Rigour refers to explaining the process of a research study in a way where others can fully understand the steps and procedures followed throughout the research study to enable them to replicate your methods. In order to ensure rigour in the data collection and analysis process, these processes were made transparent to participants and others during the data collection period as well as in this final thesis. Focus groups and phone interviews were audio recorded and transcribed verbatim to capture exact details and conversations that occurred. Also, all data collection and analysis was completed by one researcher to enhance rigour within this research study by providing consistency.

The credibility of a research study refers to trustworthiness of the findings (Tracy, 2010). Trustworthiness refers to ensuring research findings are credible, transferable, confirmable, and dependable. That is, to ensure your findings are trustworthy, researchers must be confident the findings are true, be able to apply them to other contexts, be derived from the participants' words, and be replicable. To ensure trustworthiness in this data collection and analysis process, a description of previous literature provided context in which the study took place. Furthermore, to contribute to the trustworthiness of the research study, data was collected across participants to reflect multiple realities and the researcher's co-supervisors also acted as peer reviewers throughout the entire process. Similar, throughout the entire process an audit trail was maintained including important decisions made and why, responses from child care centre directors, and the reasoning behind choosing particular child care centres. This audit trail provided context to the description of the methods previously stated. Further, multivocality emerges from expressing the findings from the point of view of the participants; the resultant themes in this research are closely linked to what the participants expressed during the focus group and phone interviews. Last, quotes are present in the results section to 'show' rather than 'tell' the findings of this research from the participant perspective.

Chapter 4

Results

During the thematic analysis process, 23 codes were derived from participants' voices and experiences discussed throughout the data collection period. These codes helped inform the three research questions and provided contextual information related to the participants and child care centre their child attended, or they were employed. The following sections illustrate a broad summary of participants and a description of themes that were identified through the data analysis process. These themes include 1) consistent and predictable rest time routine, 2) communication between home and child care, 3) balancing of values and beliefs, 4) the impact of sleep on children's development, and 5) availability of professional development and workshops.

Participants

A target range of four to eighteen parents and four to eighteen ECEs was met with seven parents and seven ECEs participating. Of the 14 participants, all were female. There was a mix between biological, single, and adoptive parents as well as two child and one child households. The age range of preschool-aged children whose parents participated in the study was between 3 and 5 years of age. For parents with two children, the age of their other child was between 6 months and 11 years of age. The majority of ECEs who participated held a Level 2 ECE classification, however there was representation across all levels. Years of experience as an ECE overall ranged from 2.5 years to 18 years. Likewise, years spent working in a preschool-aged classroom specifically ranged from 2.5 years to 18 years.

Child care centres that children attended or ECEs were employed at varied in size and programs that they offered. Child care centres ranged from one classroom to eight classrooms within the centre with the most common number of classrooms being two and eight. Likewise,
child care centres ranged from one type of program offered to four types of programs (infant, toddler, preschool, and school-aged programs). The most common number of programs offered at a child care centre was three.

All participants discussed the value of good quality sleep. Parents and ECEs provided information that was similar with respect to the value of sleep. Over half of the participants explicitly stated that they felt good quality sleep and duration was important to children's overall development. The most common response was that good quality sleep and the appropriate amount of sleep for a child has a positive impact on children's emotional expression and selfregulation. In addition, by having good sleep, children exhibited positive behaviours, were more focused and attentive to their learning throughout the day and were able to problem solve and socialize more with peers and adults if they had had optimal sleep. Further, many sleep hygiene practices were outlined by parents and ECEs throughout the data collection process. Sleep hygiene practices implemented differed based on the setting. For instance, participants discussed the following sleep hygiene practices that were implemented in child care centres: soft lighting, quiet music, supplementary activities provided, and allowing the children to wake up on their own. Participants discussed the following sleep hygiene practices that were implemented at home: no television before bed and personal hygiene activities such as baths and brushing teeth. Participants also discussed having a consistent rest time routine and reading books and stories before resting both in child care centres and at home.

Identified Themes

Through the analysis process, five themes were identified by combining codes across data sources. These themes stood out as important take away messages from conversations with parents and ECEs related to sleep hygiene practices, sleep quality and duration importance, professional development and workshops, parent and ECE beliefs and values, and daily rest time information. Each theme will be discussed in the context of parents and ECEs and how they verbalized the information. Quotes are used to illustrate participants' exact, unique voices, rather than summarizing comments to provide a rich qualitative descriptive account of participants' experiences.

Theme 1: Consistent and Predictable Rest Time Routines. Sleep hygiene practices

were identified as an important aspect of rest time routines at home and in child care centres. These sleep hygiene practices revolved around having a consistent, predictable rest time routine that incorporated limiting television before bed, having quiet background music or a noise machine playing, reading books with children, and engaging in personal hygiene activities. ECEs described this as having a consistent location for individual children's beds during rest time and having the same teachers in the room during rest time each day.

"Their beds are all situated in a certain spot in the classroom. [They] stay consistent so wherever their bed is, is kind of where their bed remains for the year." [ECE]

Parents described the importance of consistency in terms of following the same routine each night and ensuring routines were consistent across settings (i.e. child care centres vs. home). This was described as providing a stress-free, predictable sequence of events children were prepared for each day.

"... having the same bedtime routine every night, so sort of making it predictable so it's not stressful at all, it's sort of you know wind down time and like I notice both my kids just thrive off that routine and that safe feeling from that routine." [Parent]

Parents and ECEs also mentioned preparing the environment to support sleep. The two most common sleep hygiene practices parents and ECEs mentioned were creating soft lighting in the classroom and complete darkness at home and having quiet background music or a noise machine drown out extra stimuli. Soft lighting in the classroom was used to provide a relaxing atmosphere to promote resting. In addition, particularly in the case of children who were light sleepers, a noise machine was used to prevent outside sound disrupting the quality and duration of that child's sleep. Similar, quiet time music was indicated to be used in various child care centres.

"We typically play either meditation CDs or sleep music and they usually get a choice. We'll go "do you want meditation or music today?" and that would be kinda [sic] how it goes." [ECE]

Engaging in a period of reading before rest time in child care centres and at home was indicated by the majority of parents and ECEs. Parents stated they used story time as a means to transition from the daily events into a relaxed rest time, to chat about the day, and to provide ample time for children to transition from daily activities to going to sleep.

"We always set aside at least 20 25 minutes to read stories and generally just talk about the day and see if there's anything the kids have on their minds." [Parent]

"... we really have to give _____ (Child's name) a lot of heads up and preparation because if she— we can't spring anything on her because she gets again really combative... we put the baby to bed and then we go into our bed and we'll read some stories. So we read about 3 or 4 stories..." [Parent]

ECEs indicated that story time was also used as a means of transition between lunch and rest

time. Parents said that during story time in child care centres, ECEs would often send children to

the washroom to engage in personal hygiene activities before rest time.

"... children get up from lunch, they scrape their dishes, and then they go to the bathroom, and then get a book and sit on their beds for a couple of minutes while we just organize the classroom and everyone finishes up lunch." [ECE]

"They do a little story time and in the middle of story time they're each sent to the washroom to have a pee. After they're done in the washroom, they go straight to their bed and they're provided books to read on their beds till about quarter to one." [Parent]

One aspect of the rest time routine that some parents included, and others did not, was

screen time. Some parents described using television as a means of occupying the children while

the parent was preparing dinner or getting other children ready to bed. The time children spent

engaged in watching television ranged from 15 to 30 minutes. On the other hand, one parent described how they had to cut television out of their daily routine in general, but also their sleep routine because of challenging behaviours that arose from watching television.

"TV is a really big no no for us in our family. We were using it to help us— it wasn't on all day but it was like ok I'm going to get lunch ready, I'll put on a show for you. I'm gonna [sic]⁺ get supper ready, I'll put on a show for you. Trying to get the baby ready for bed, we would put on like a half an hour show for _____ (Child's name) just so that she could be entertained while we got the baby ready for bed and then we found that her behavior started to change. She became really saucy, a lot of attitude, she became fairly combative, like she would be hitting and throwing things, and kicking so we decided to cut TV out cold turkey and that's been a huge success for us." [Parent]

Theme 2: Communication between Home and Child Care. Many parents indicated

they did not receive daily information about their child's rest time. Some parents were unaware

of the sequence of events child care centres followed leading up to rest time, whereas some

parents knew exactly the routine that was followed. Of the parents that knew, they were all ECEs

in the child care centre their child attended or the same classroom.

Parents who did not receive daily information about their child's rest time routine stated it would

be helpful information to know on a regular basis. Parents indicated that whether their child had

a nap during the day and for how long that nap lasted, impacted their nighttime routine and sleep.

"... typically he's in his bed with a nap at 8 and he's asleep by 8:30. Without a nap he's in bed at 7 and asleep by 7:20. And that's pushing it to make it to that 7 o'clock. He's exhausted. Typically doesn't eat supper because he's so overdone, he's just beside himself waiting to go to bed." [Parent]

Particularly, one parent indicated it would help her know what was working and what was not

working for her child in relation to their sleep quality and duration. Similar, she would be able to

communicate with the ECEs if something they were doing would not work best for her child.

"If they're doing something for example at daycare that works really well for her, we would like to know about it. Or on the flip side, if they're doing something that we know

¹ [sic] refers to when a participant uses grammatically incorrect structure or mispronounces a word. [sic] is written after the error to indicate that it is the participants exact words rather than an error in transcription.

will get in the way of her settling down we would want to know about that too so we could talk to them and provide suggestions." [Parent]

Likewise, many ECEs indicated they did not share daily information with parents unless

parents were to explicitly ask or it was out of the norm for the child.

"If we have a child who is a regular napper, and they weren't to nap or they didn't nap as long as you know the typical nap time is for them, then we would mention it at the end of the day because it's out of the norm for them, or if they did sleep and they're not usually a sleeper then we'll also again mention it because it's kinda [sic] out of the norm for that individual. But yeah on a daily basis if everything is you know par for the norm then nap time is usually not discussed at the end of the day unless of course if a parent asked "oh hey did they nap today?" but I would say 90% of the time, nap doesn't come up in conversation." [ECE]

Some ECEs mentioned that this approach to information sharing was different from younger

classrooms in the child care centre. ECEs indicated that rest time information would be shared to

parents who had children in younger classrooms daily, but not preschool classrooms.

Theme 3: Balancing of Values and Beliefs. ECEs identified balancing their own values

and beliefs regarding rest time with those of parents as challenging. Many ECEs indicated that

some of the children's parents in their class requested that their child did not sleep. When asked

how ECEs respond to families asking that their child not sleep or have a restricted amount of

time to sleep, one ECE stated:

"... some of our children, their families feel that they don't need a nap anymore and they don't want them to nap so that has you know, that comes up in conversation sometimes with the families and so we'll discuss you know well we obviously don't force them to sleep and if they fall asleep then we allow them to sleep and if we go over and can gently say you know their name and they wake up then we'll say "would you like a rest time toy"." [ECE]

In some cases, placing restrictions on children's naps went against what ECEs thought was best

for the child and caused an internal feeling that was undesirable.

"I do find the part I struggle the most with is the waking the kids up. That's the part that—that I find tricky. And I agree completely with what you're saying that I understand why the parents feel the need for it, I definitely do but I do struggle with whether that's appropriate or not." [ECE] "... parents complaining about the length of time the children slept and wanting us to keep them awake where you were actually physically trying to engage them or physically moving their body to keep them awake. And it always felt yucky..." [ECE]

With their own beliefs and values, ECEs discussed the importance of finding a balance with

families that could support both children and families.

"... the power struggles with parents trying to you know meet the need of the child versus the parents needs because it's a balance act for sure." [ECE]

"I taught at my other centre for 8 years and it was a nightmare naptime. It was always a challenge. I either had the parents who really really wanted them to sleep because they wanted that quality time at dinner, they wanted to be with their child or I had the parents who worked all day they just they needed their child to bed at a decent hour so I can empathize at both positions..." [ECE]

"There seems to be more individual needs regarding sleep for this age group in particular the length of nap they need, so a lot of communication with parents is important in my experience." [ECE]

In response to families asking for their child not to sleep or to sleep for a limited amount

of time, ECEs stated that the solutions has to fit with the parents' schedule and work for that family. However, it was mentioned by parents that if more information was available about how much sleep children should be getting depending on their lifestyle, temperament, and age, that potentially ECEs and parents could find a balance where children are getting adequate sleep quality and duration, neither too little nor too much sleep.

In addition, some parents discussed how having a scheduled rest time in a preschool-aged classroom was difficult for them, or other parents they knew. These challenges consisted of skewing the nighttime routine such as later bedtimes and a longer length of time getting ready for bed and the length of the rest time for children who did not sleep. In particular, for children who do not sleep or have restrictions on their naps, it was indicated that a lengthy rest period could be used more effectively. One parent discussed how she wished there was no rest time because her

child did not sleep therefore, she would be on her bed playing with toys for that length of time rather participating in more stimulating activities.

"... I would appreciate if they didn't have a nap time at all. If they could dim the lights and be like more of a rest time where they play, they read books or they do puzzles and they have quiet time as opposed to forcing— not forcing but insisting that the kids have that quiet time. Because I mean for _____ (Child's name) it's just 2 hours where she's on her bed doing nothing and I mean she could need— I mean it's great that she gets toys but it would be great if she could be reading or if she could be doing puzzles." [Parent]

Theme 4: The Impact of Sleep on Children's Development. Over half of participants

explicitly stated that they thought sleep was important to children's overall development. The remaining participants implied that sleep was important without explicitly stating it. Specifically, most parents and ECEs indicated that children who obtained adequate sleep quality and duration were better able to express their emotions, self-regulate, have a positive mood, and maintain their typical personality. When asked to describe why sleep was important for children to learn and grow, participants discussed how a lack of sleep effects their children or the children they work with.

"... he's just so emotional he can't regulate himself as well when you know, if he doesn't have enough sleep." [Parent]

"... you can definitely kinda [sic] see it, during the day they might be a little bit more emotional, things bother them more than they usually do..." [ECE]

"When he does not have enough sleep at night, he gets easily upset the next day..." [Parent]

"... their personality is just not their typical self..." [ECE]

"... proper sleep is very beneficial in regard to her mood, temperament, and her disposition throughout the day." [Parent]

In regard to sleep quality and duration and social development in young children, ECEs

discussed an impact on socialization when children lacked sleep.

"Sometimes I look at them in the afternoon and think "oh they're starting to fade" and if they had a little rest in their body they would be a lot more successful with problemsolving, with sharing with friends... [and] the way they respond." [ECE]

"... you might notice that they're having a harder time with their peers..." [ECE]

"... spends less time playing with his friends." [Parent]

"I find that if they're either tired or sick they won't talk to as many of their friends, they'll usually just sit back and watch." [ECE]

Another area of development that was indicated by parents and ECEs to be impacted by lack of sleep was children's behaviour. Both said that the amount of sleep one child receives has an impact on their behaviour. When children do not obtain adequate sleep quality and duration, it was said to affect their quality of play and the activities they engaged in. Instead of engaging in typical activities of the child, they were usually quiet, on their own, or so tired they just lay on

the carpet or couch in the room.

"... it goes back to the whole quality of play thing afterwards right. A lot of their kids are not—you're waking them up but they're lying on the carpet cause [sic] really they could be still sleeping right. You wake them up and take their bed away, their eyes are open, but they're literally doing nothing other than that." [ECE]

In addition, externalizing behaviours such as hitting, tantrums, acting out, and hyperactivity were also discussed in relation to behaviours children exhibit when they do not have enough sleep or quality sleep.

Last, inadequate sleep was also discussed in regard to the lack of focus and attention.

Parents and ECEs mentioned that children were less attentive, harder to focus on tasks, their

listening skills were diminished, and they did not understand the expectations of them at home or

in the child care centre when they lacked adequate sleep quality and duration.

"She doesn't understand the expectations for her. And she can't seem to process a lot of what's going on around her if she's not fully rested." [Parent]

"... knowing a child that doesn't have enough sleep definitely impacts their learning, they're just not as attentive, their listening is not as strong I guess you could say as it would be if they had a full nights rest." [ECE]

One parent also compared children to adults who lacked sleep. When discussing how sleep

allows children to learn and grow, she indicated how as an adult she is affected by lack of sleep

therefore since children develop at a fast rate in the early years, there is a greater impact on

children who lack adequate sleep quality and duration.

"I think of myself when I'm tired and how nothing makes sense. I get overwhelmed and I don't feel well. And I can only imagine with little kids' brains growing as fast as they are and the amount of information they're taking in, if I'm confused as a grown up if I don't get sleep, I can only imagine how over whelming it is for them." [Parent]

Theme 5: Availability of Professional Development and Workshops. Of the seven

ECEs that were interviewed, none had attended any professional development or heard of any

being offered. When discussing two different programs where ECEs obtained their education,

they discussed if sleep was covered in courses, it was only brief.

"We did a child development course so it was probably brief if there was anything but no, there wasn't a lot of information covered on it." [ECE]

"... I don't really remember anything that way. I feel like I may have touched a little bit on— I think it was a clinical psychology or something along those lines courses and there may have been something to do with that but I can't really recall the information." [ECE]

Specifically related to preschool-aged children, ECEs stated that there was more information

available for children younger than 3 years of age. One ECE discussed how she would use the

information if she had access to it.

"If I actually had more information so that I could look at someone and show them maybe a pamphlet or something saying this isn't the best way, I think that would have helped me as a parent." [ECE]

Similar, the majority of parents indicated they had not attended any parental workshops

or information sessions related to preschool-aged children's sleep quality and duration. One

parent who did not attend any workshops stated "*I've never even heard of those actually*" when asked whether she had attended any workshops or information sessions for parents about children's sleep. On the other hand, of the parents who indicated they did attend workshops, one parent had specified because she was an adoptive parent, she received invitations to workshops through the adoption agency related to general topics, but also related to sleep.

Further, the majority of parents and ECEs indicated they had looked for information on their own and in most cases found some source describing what they were looking for. The type of information that parents and ECEs looked for varied on most counts. Parents said they looked for information related to how to make children's sleep good quality sleep, how to promote positive behaviour with good sleep, the differences between research and practice, as well as the right amount of sleep for children.

"I have the developmental profiles book so I do check that out every now and then just to see if it's normal for her to sleep like she does..." [Parent]

ECEs said they looked for information related to when to allow children to sleep, what the

benefits of good sleep were, and the right amount of sleep for children.

"I've looked for before to is do you allow them to sleep when they need to sleep versus keeping them awake for allotted time? Cause [sic] I find that is always a struggle right because we fit everything into these little blocks but the kids don't always fit into those little blocks..." [ECE]

"I've always wanted to know what the right amount of time for children to have a good nap. Like when parents are coming and saying they want their child woke at half hour. Is that a good time or should 20 minutes be better or would 45 minutes would be better? Like what kind of sleep are we interrupting them from when we're trying to wake them up." [ECE]

A variety of different sources were used to access information including the internet (Google),

academic courses, books, colleagues, and professional services (i.e., physician, consultant,

licensing officer).

Chapter 5

Discussion

The purpose of this research study was to explore parents and ECEs experiences with and understandings of preschool-aged children's sleep quality and duration at home and in child care. The three research questions that guided this study revolved around the perceived connection between sleep quality and duration and optimal childhood development, which, if any, sleep hygiene practices were used daily at home and at child care centres, and how parents and ECEs accessed information relative to preschool-aged children's sleep quality and duration. Through these questions, seven parents and seven ECEs provided narratives which allowed the researcher to identify themes. These themes included the balancing of values and beliefs between parents and ECEs related to sleep, the impact sleep has on children's development, the importance of consistent and predicable rest time routines, communication between home and child care about those rest time routines, and the availability of professional development and workshops related to sleep. Together, these themes helped to inform the research questions.

Factors Influencing Sleep

Sleep is an essential aspect of healthy growth and development in young children. ECEs voiced a difference in values and beliefs in relation to preschool-aged children's sleep quality and duration than parents relative to their own experiences. ECEs identified that they need to balance their values and beliefs with parents to create an environment that is appropriate for the child. Although demographic information related to ethnicity, socio-economic status, and culture was not collected from participants, this may have helped to explain why there were differing values and beliefs related to sleep. As mentioned previously, different ethnicities value contrasting practices and exhibit different sleep patterns in children (Liu et al., 2005; Mclaughlin

Crabtree et al., 2005; Mindell et al., 2010; Ottaviano et al., 1996; Patrick et al., 2016). These sleep patterns included later bedtime, inconsistent sleep routines, and earlier wake up times. However, the impact sleep has on children's development, which is discussed in a subsequent section, was similarly expressed by both parents and ECEs. Similar, another important factor that could help to explain the differing values and beliefs was participants' own childhood experiences. This could have influenced how participants reflected their ideas towards sleep.

Parents' balance between work and family life could be a key factor when looking at values and beliefs related to sleep. In this study, all fourteen participants were female. Literature has stated that parenting is often prescribed as a mother's role resulting in the balance of work and family life (Eagly, Wood, & Diekman, 2000). The average age of women who are having their first child was 29.2 years of age in 2016 which may indicate that many women are pursuing post-secondary education before having children (Provencher, Milan, Hallman, & D'Aoust, 2018; Trenholme Counsell, 2017). Therefore, women may then be put in the position where they need to balance their work and family lives. This is an increase of age from previous years which has continued to follow the same increasing trajectory (Milan, 2013). Further, the amount of women, aged 25 to 64, who hold a post-secondary degree or certificate in Canada has significantly increased from 15% in 1991 to 35% in 2015 (Ferguson, 2016). With the increasing age of women having their first child, this may indicate that more women are being educated and having a career of their own before starting a family which may result in the task of balancing work and family life.

At the end of the day, parents are tired too. One study suggests that adults spend an additional seven hours per week at home completing work related tasks (Spinks & Battams, 2015). This then reinforces the idea that parents' balance of work and family life could be a

component to take into consideration when looking at their values and beliefs related to preschool-aged children's sleep quality and duration. If routines and tasks are not running smoothly, parents may start to feel work-family guilt which is the conflict between employment and family tasks (Eagly et al., 2000). If children are having difficulties sleeping or have a late bedtime due to having a daytime nap, restrictions may be put into place for those daytime naps in order for the bedtime routine to flow smoothly. This in turn may give parents a sense of fulfillment in their parenting responsibilities and have less work-family guilt because bedtime routines and the balance of work-family life is less challenging (Eagly et al., 2000). If bedtime routines are challenging, parents, in particular mothers, may perceive backlash from society creating a feeling of "failure to fulfill primary caregiving duties" (Eagly et al., 2000). This could help to explain why some ECEs and parents have different beliefs and values related to restrictions on naps in particular.

There are also various sleep hygiene practices that parents and ECEs can engage in to promote adequate sleep quality and duration in preschool-aged children. Across both settings of home and child care, parents and ECEs identified various sleep hygiene practices that were similar and specific to that context. Sleep hygiene literature indicated that having a consistent rest time routine helps children's body's physically recognize that it is time to go to sleep (National Sleep Foundation, 2018). All parents and ECEs identified having a consistent and predictable rest time routine as a fundamental component to promoting adequate sleep quality and duration in preschool-aged children. This included preparing the environment, having time to read and explore stories, as well as limiting television time.

One aspect of the environment that was regularly referred to in supporting sleep was having a completely dark room or a room with soft lighting. Children's circadian system sends external and internal cues to the child which indicates whether they should be asleep or awake (Bathory & Tomopoulos, 2017). For instance, having a dark room signifies to the child that it is time to rest as opposed to bright lights signifying it is time for the child to wake up. Another aspect of the environment that was mentioned was providing quiet music or white noise to relax or drown out extra stimuli. This enables children to be able to self-regulate and relax their bodies (Staton et al., 2015). Similar, allowing children time to read and explore stories independently or with an adult reinforces the quiet atmosphere that is relaxing.

On the other hand, as mentioned above, screen time can have an effect on children's sleep quality and duration. This can make it harder for children to self-regulate their emotions when it comes to the end of the day, as well as make it challenging for parents when behaviours arise when initiating rest time routines (Bathory & Tomopoulos, 2017; Lo, 2016). One parent identified having to cut television out of their rest time routine because of the issues that arose. Externalizing behaviours were discussed which explained the child's lack of interest in going to sleep. Again, this can be explained by the phenomenon of when children watch television before bed, or engage with any type of screen time, it decreases the amount of melatonin that is produced (Lo, 2016). The creation of melatonin by a child's body is used to signify it is time to go to sleep. If this creation of melatonin is hindered, it can affect the quality and quantity of sleep children are receiving. This emphasizes the importance of being mindful and consistent when creating a rest time routine that works for children.

Communication

Communication is key in any relationship to build trust, respect, and to foster transparency (Hutton, 2014). In particular, communication between parents and ECEs is important for various reasons. In general, if parents are aware of the activities and routines their child is following throughout the day, it allows parents to talk to their child about their day more concretely and have more meaningful conversations (Higgins & Cherrington, 2017). Further, if there is a foundational relationship between parents and ECEs, ECEs can serve as a social support for parents (Rolfe & Armstrong, 2010). In this role, an ECE can provide parents with emotional support (e.g., empathy, encouragement) as well as instrumental support (e.g., practical information, resources).

Overall there was a limited amount of communication between child care centres and home relative to preschool-aged children's sleep quality and duration from participants in this study. Of the parents who did receive information about their child's rest time or knew the rest time routine, they were ECEs themselves. It then could be argued that those parents knew the routine of the classroom already without having to ask because they worked in the same centre. Likewise, potentially they could have had better relationships with the ECEs working with their children because they were colleagues. This could improve the amount of information that was shared and the openness of the conversation since they had the foundational piece of a relationship already.

Conversely, the parents who did not receive rest time information unless they asked indicated they were unaware of the rest time routine. This limited awareness can affect children's daytime learning and contribute to a poor parent-child relationship (Liu et al., 2000; McDowall et al., 2017). Parents and ECEs are typically jointly responsible for children in the early years, therefore it is important for parents and ECEs to communicate information relative to a child's sleep quality and duration. If there is communication between parents and ECEs on a daily basis, it contributes to the understanding of the child's *whole day* (Tremblay, Chaput, et al., 2017). If a child did not receive adequate sleep, they might be in bed earlier at home or at child care. This can take away from quality time, or activities where parents or ECEs and children build a relationship. It is important to understand a child's *whole day* in order to promote optimal growth and development.

Further, this phenomenon of limited quality communication between home and child care centres in preschool-aged classrooms has been noted in the literature. Perlman & Fletcher (2012) conducted an extensive naturalistic observation with more than 1000 guardians of preschool-aged children during drop-off at a child care centre. In this study they found that on average, guardians spent 63 seconds in the child's classroom. During this time, ECEs provided or requested child related information to/from 15% of the guardians. Among the various structural quality indicators such as ratio, staff education, and professional development, used by Perlman & Fletcher (2012), a greater number of hours of professional development was the only indicator that increased the likelihood of ECE providing guardians with information. In this study, with the availability of professional development related to preschool-aged children's sleep quality and duration reported as low, this may help to explain why communication between home and child care centres may have been limited.

Further, communication between home and child care centres related to preschool-aged children's rest time followed a different approach than younger age groups. This could be because the Nova Scotia Day Care Regulations, 32.2, states that licensed child care centres must provide daily information for infants and toddlers only (Nova Scotia Department of Education and Early Childhood Development, 2018a). This information includes daily routines such as nap, eating, and toileting, outings and activities, and any unusual occurrences. This daily log also has to have a section where parents can write their comments or special instructions for a particular day.

Similar, limited communication between home and child care centres about children's rest time could be again because as children age, typically their sleep pattern becomes easier to manage. Some ECEs indicated that rest time information was shared in younger classrooms but not in preschool classrooms in their centres. This could be because sleep may be seen as more challenging in infants and toddler versus preschoolers or there is more information to report since infants and toddlers typically have at least one period of sleep during the day (Nothard et al., 2015b; Staton et al., 2015). Sleep does not become less important as children age because it is getting easier to manage. Sleep is just as important in preschool as it is in infancy.

Formal and Informal Resources

In response to a question asked regarding whether the participant had attended professional development or workshops related to preschool-aged children's sleep, the majority of parents and ECEs identified that they had not. It was indicated by participants that there was more information available related to children's sleep quality and duration in general, than specifically preschool-aged children's sleep quality and duration. This could be that as children grow older, sleep becomes an easier part of the child's routine during the day with the elimination of a day time sleep period (Nothard et al., 2015b; Staton et al., 2015), therefore it is less frequently presented in professional development and workshops because it is a less pressing issue than some other concerns. As children age, they move from a polyphasic to a monophasic sleep pattern indicating there may be less information to convey to parents and ECEs. Still, all children progress differently within and across ethnicities. Various parents had indicated that they had looked for information about sleep quality and duration when their child was younger, but not for the preschool years. However, participants did mention turning to books as a way to access information relative to preschool-aged children's sleep specifically. This relates back to the course description search conducted by the researcher in the beginning phases of this research study as described in the literature review. ECEs that participated in this study reinforced the suggestion from the researcher that none of the six institutions offered a specific course related to sleep in early childhood. Furthermore, if sleep was covered in coursework, it was recalled by the participants to be brief. In order to support ECEs delivery of developmentally appropriate practices related to sleep and ways to promote optimal sleep quality and duration, information should be provided during their training and subsequent opportunities to continue their professional development. Information regarding preschool-aged children's sleep quality and duration is important for ECEs understanding of the link between sleep quality and duration to emotional, social, cognitive development (El-Sheikh, Arsiwalla, et al., 2013). It is important to note, that this was identified by these participants and may not be representative of all ECEs in Nova Scotia. Further research needs to be conducted to determine the collective experience of ECEs and students across Nova Scotia in relation to sleep quality and duration professional development specifics.

When discussing evidence-based practice, the experiences of parents and ECEs, whether formal or not, contribute to the development of practice-based evidence, not just research. Many participants indicated they use informal resources such as the internet and conversations with other adults as a way to gather information relative to preschool-aged children's sleep quality and duration. Knowledge and expertise of parents and ECEs contributes a unique perspective to the formation of developmentally appropriate practices and evidence-based practice that formal research may not. In some cases, the experiences of parents and ECEs can lead to acquiring developmentally appropriate practices in relation to the children and context they live or work in. To capture these unique experiences of parents and ECEs in relation to their experiences with and understandings of preschool-aged children's sleep quality and duration, more research is needed. Further, to ensure that parents and ECEs are receiving the most up to date, developmentally appropriate practices related to sleep quality and duration, professional development and parental workshops could be made available regularly for all ages, not just infants and toddlers.

In addition, a recent study looking at how parents gather information regarding parenting practices, various strategies were outlined. For example, the majority of parents indicated they received information from friends/other parents (71%), the internet (65%), relied on previous experiences with older children (59%), and from spouses/partners (50%) (Baker et al., 2017). Therefore, a user friendly data-base could be created to gather credible resources that are easily accessible by both parents and ECEs as well as other professionals in the early childhood profession. These credible recourses could then be immersed into everyday conversations with friends, other parents, and spouses/partners. Further, barriers families may face when accessing or using these resources would need to be considered. As mentioned above, families from different ethnic and socio-economic backgrounds may have a greater challenge with accessing and then utilizing these resources. Also, these resources may not be culturally appropriate for a diverse group of people. Strategies on how to make these resources accessible and applicable to everyone and then utilized properly would need to be explored.

Effects of Inadequate Sleep

Both parents and ECEs discussed the impact sleep has on children's behaviour, focus, and self-regulation. This is in line with previous research that states that sleep has an impact on emotional, social, and cognitive development (El-Sheikh, Arsiwalla, et al., 2013; Lemola et al., 2011; Schumacher et al., 2017). In regard to social development, ECEs mentioned that poor sleep quality or not enough sleep negatively effects a child's socialization with adults and peers. However, many parents were unable to comment on whether poor sleep effected their child's socialization with peers. This could be because ECEs are more likely to observe children interacting with other peers on a daily basis unless children have siblings, friends, or relatives they see outside of child care. With optimal sleep quality and duration, children are more motivated to socialize and engage with their peers (Lemola et al., 2011). Therefore, obtaining adequate sleep quality and duration does not only encourage children to participate in activities more, but also gives them the opportunity to be able to problem-solve, think, and play with peers.

Conclusion

Overall, communication was seen as an important factor in understanding the *whole day* of the child. Similar, balancing personal beliefs with others relative to sleep quality and duration in preschool-aged children was illustrated as a challenge. Last, professional development and workshop opportunities may improve parents and ECEs understanding of preschool-aged children's sleep quality and duration.

Strengths and Limitations

The purpose of this research was to qualitatively explore parents and ECEs unique experiences with and their understanding of preschool-aged children's sleep quality and duration. Qualitative research is designed to gather unique narrative experiences of participants therefore findings are not meant to be generalized but rather can be transferred or related to other unique experiences of individuals. Also, qualitative research allows a researcher to acquire an in-depth understanding of participants' unique experiences. By exploring two prominent figures in a child's microsystem, findings were able to illustrate ways in which parents and ECEs are currently supporting preschool-aged children's sleep quality and duration and identify areas of improvement. Due to the design of this research, the child's perspective was not included. Discussions with participants focused around their experiences, rather than the child's. This enabled the researcher to begin to understand the impact that parents and ECEs have on preschool-aged children's sleep quality and duration.

In this study, many participants shared the same point of view which may have been from their professional background. Participants indicated they came from an early childhood, nursing, teaching, or psychology background. Therefore, the majority, if not all, had a similar mindset when it came to the importance of sleep in early childhood. The relative homogeneity of perceptions regarding sleep allowed the researcher to understand what might be important when promoting adequate sleep quality and duration. Additional research is needed to gather more diverse perspectives on sleep quality and duration.

Another potential limitation to this study was that all fourteen participants were female. However, having only female participants volunteer for the study reinforces the notion that there may be gendered roles in parenting and child care. Research has suggested that the early childhood education profession has been greatly dominated by females over the years (Peeters, 2007). In addition, there has been discussion in the literature in regard to parenting as the mother's role (Eagly et al., 2000). It is possible that additional themes could have been identified if there had been males who participated.

Last, some important information could have been missed by using individual interviews as the main source of data when wanting to gather a collective understanding of sleep quality and duration experiences and knowledge. In individual interviews, the researcher is left to probe the participant to clarify statements or to dig deeper into what the participant is saying. On the other hand, in focus groups, participants build of each other and expand upon statements of other participants indicating their similar or different experiences. It can be argued that richer information is brought forward through focus groups and although it is not believed that the themes that emerged through these individual interviews would not have been evident, however, there may be other important themes that could have be explored through focus groups.

Implications

The overarching implication of this research study is that communication between parents and ECEs may need to be supported in order to promote optimal early childhood development in preschool-aged children. The findings of this study suggest that it is important that parents and ECEs receive and communicate the same information when caring for a particular child to avoid confusion for the child as well as themselves. Practices and policies related to communication between parents and ECEs are important to ensure both parties are receiving the information they need in order to help those children learn and grow. Particularly for preschool-aged children, less information may be communicated to parents from the child care centres in general compared to younger children even though daily activities of preschoolaged children still have a tremendous effect on their overall growth and development. Similar, if there was more open communication between parents and ECEs, individuals could begin to understand differing perspectives on sleep quality and duration in preschool-aged children.

Further, professional development and workshops need to be made available in relation to preschool-aged children's sleep quality and duration in order to facilitate high quality conversations between parents and ECEs. By providing these opportunities, parents and ECEs can better supported each other with struggles they are facing and grow their own knowledge related to sleep quality and duration. Last, these open conversations will in turn strengthen those relationships between parents and ECEs that are critical to providing the best care and learning for the children involved.

Knowledge Mobilization

These findings will be made available to the public through Mount Saint Vincent University's archives in the format of a Master's thesis. More specific, the main findings will be displayed in the form of an infographic to parents, ECEs, and child care centres that participated as a way to thank them for their participation. An infographic will also be distributed to the Nova Scotia Department of Education and Early Childhood Development to aid in future decisionmaking regarding policies, programs, and regulations. Last, this Master's thesis will be published in an academic journal.

Conclusion

All parents and ECEs indicated that adequate sleep quality and duration was important to optimal growth and development in children. Sleep was indicated to have an impact on selfregulation, behaviour, focus and attention, and socialization with peers and adults. It was stated that if children did not receive enough sleep or the quality of their sleep was not adequate, there was an effect on children's overall emotional, social, and cognitive development.

Second, rest time routines at home and at child care were fairly similar, however, the sleep hygiene practices used varied on some counts. At home, sleep hygiene practices such as no television before bed and personal hygiene routines such as bathing were used. At child care, sleep hygiene practices such as soft lighting and music, supplementary activities provided, and allowing the children to wake up on their own were indicated. Similar sleep hygiene practices mentioned by both parents and ECEs was having a consistent rest time routine and reading books and stories before resting.

In regard to the third research question, the perceived availability of professional development and workshop opportunities was mentioned by parents and ECEs to be low. Rather than attending professional development and workshop opportunities, participants indicated they looked for information relative to sleep quality and duration on their own. The type of information that parents and ECEs looked for varied on most counts. Information such as the recommended amount of sleep, when to allow children to sleep, and how to promote adequate sleep quality were sought out. To access this information, a variety of different sources were used such as the internet, books, professionals, and conversations with other adults.

Overall, adequate sleep quality and duration in preschool-aged children was valued by participants. Implementing a consistent rest time routine and other sleep hygiene practices allows

children to feel safe, relaxed, and comfortable in an environment where their overall development can flourish. This research provides a glimpse into experiences had by parents and ECEs relative to preschool-aged children's sleep quality and duration and offers ways in which they could be supported to grow their understanding and practices.

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Appendix A

Letter of Invitation



Department of Child and Youth Study

To Whom it may Concern,

My name is Stephanie McCabe and I am a graduate student in the Master of Arts (Child and Youth Study) program at Mount Saint Vincent University. I am conducting research as part of my degree requirements. I am inviting your preschool early childhood educators (with a Level 1, 2, or 3 classification) and their preschool-aged children's parents to participate in my study *Parents and Early Childhood Educators Role in Supporting Sleep Hygiene in Preschool-aged Children*. My co-supervisors are Dr. Joan Turner and Dr. Jessie-Lee McIsaac of Mount Saint Vincent University, Department of Child and Youth Study.

The purpose of my research is to explore how parents and early childhood educators obtain information relative to preschool children's sleep quality and duration as well as to understand the information that parents and early childhood educators already hold. Similarly, the perspectives on the purpose that rest time serves in child care centres will also be explored.

Parents and early childhood educators will have the choice of participating in one of two focus group time slots (two choices for each). Focus groups will be held at [LOCATION] on [DATE] and [DATE] at [TIME]. Attached are informational posters to distribute to parents and Early childhood educators outlining the purpose of the study, date/time, location, and contact information. Please place posters in a common area for parents (i.e. drop off/pick up area) and early childhood educators (i.e. staff room). If you would like me to deliver posters to your centre, please let me know.

If you have any questions about this research, please feel free to contact myself, Stephanie McCabe, Dr. Joan Turner, Dr. Jessie-Lee McIsaac or the MSVU Research office.

Please do not hesitate to contact me. I look forward to hearing from you.

Thank you, Stephanie McCabe

Appendix B

ECE Poster Invitation



What: Take part in a <u>focus group</u> or <u>individual phone interview</u> to discuss the important role sleep plays in allowing preschool-aged children to learn and grow and how sleep fits into children's daily routine in child care

Who can participate? ECEs working in a Preschool room with a Level 1, 2, or 3 classification in a regulated child care centre/Pre-primary Program in HRM

When: Whenever works best for you!

Where: Mount Saint Vincent University (focus groups) or by telephone (interviews)

Additional Details: Each participant will be entered into a draw for 1 of 2 \$25 Sobeys gift cards



If interested or have any questions please contact **Stephanie McCabe**

This research study is being completed to fulfill the requirements of the Masters of Art (Child and Youth Study) at Mount Saint Vincent University

Appendix C

Parent Poster Invitation



What: Take part in a <u>15 minute phone interview</u> to discuss the important role sleep plays in allowing preschool-aged children to learn and grow and how sleep fits into children's daily routine at home and in child care

Who can participate? Parents and guardians of preschool-aged children (3- to 5-years old) in regulated child care centres/Pre-primary Programs across HRM

When: Whenever works best for you!

Where: By telephone

Additional Details: Each participant will be entered into a draw for 1 of 2 \$25 Sobeys gift cards



If interested or have any questions please contact **Stephanie McCabe**

This research study is being completed to fulfill the requirements of the Masters of Art (Child and Youth Study) at Mount Saint Vincent University

Appendix D

Informed Consent Form



Department of Child and Youth Study

Dear Parents or Early Childhood Educators,

Hello, my name is Stephanie McCabe and I am a graduate student in the Masters of Arts (Child and Youth Study) department at Mount Saint Vincent University.

Purpose

To fulfill the requirements of my program, I am conducting this research under the supervision of Dr. Joan Turner and Dr. Jessie-Lee McIsaac on parent and early childhood educators' perceptions and understandings of preschool children's sleep quality and duration. The aim of this study is to explore how parents and early childhood educators obtain information relative to preschool children's sleep quality and duration as well as to understand the information that parents, and early childhood educators already hold. Similarly, the perspectives on the purpose that rest time serves in child care centres will also be explored.

Procedure

Participants are asked to take part in a 60-minute focus group at a public location in Clayton Park/Fairview community or a 15-20 minute phone interview and contribute to the discussion as much or as little as they feel necessary or comfortable sharing. Discussions during the focus groups and phone interviews will be voice recorded and later transcribed verbatim. No identifying characteristics (i.e. names, child care centre names) will be published in the final report. All identifying characteristic will be removed from the transcripts before analysis. Transcripts will be analyzed by coding prominent concepts and ideas that emerge from the focus groups. These codes will then inform the final report and discussion of the study findings.

Benefits

This research may benefit parents and early childhood educators by providing new information regarding preschool children's sleep quality and duration. Important recommendations may be discussed within a focus group that inform parents and early childhood educators personal parenting or teaching practice. This research will also provide a safe space for parents and early childhood educators to discuss various avenues of thought relative to preschool children's sleep quality and duration. Findings may provide direction for future policy/regulation changes in Nova Scotia. Little research has been conducted on parents' and early childhood educators' access to information in regard to preschool-aged children's sleep as well as their

understanding about how sleep can help children learn and grow. This research will contribute to the limited information available at this time.

Voluntary Participation and Withdrawal

Participation is completely voluntary and presents minimal risk to you. Participants may withdraw from the study at any point during the focus group, however, information they have already shared cannot be removed because the researcher has not identified who is who in the focus groups.

If you have any questions about this research, please feel free to contact myself, Stephanie McCabe, Dr. Joan Turner, Dr. Jessie-Lee McIsaac or the MSVU Research office.

By signing this consent form, you are indicating that you have fully read and understand the above information and agree to participate in this study. You will be given a copy of this consent form for your files.

Participant's Signature		Date
Researcher's Signature		Date
	Audio Recording	
Interviews will be recorded using au Please select one of the following op	idio recording to assist	t with the accuracy of your responses.
I consent to audio recording:	Yes	No
Participant's Signature		Date
Researcher's Signature		Date
Halifa	y Nova Scotia B3M 2	16 Canada
Tel 90	2 457 6255 • Fax 602	457 6723

msvu.ca/cys

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Appendix E

Demographic Questionnaire for Parents

- 1. What is your relationships to the child?
- 2. How many children do you have? _____
- 3. Ages of children: _____

4. Distance to child care centre from home (approximate km): _____

5. If you know, how long does your child sleep during the day at child care?

6. How long does your child sleep during the day on weekends?

- 7. How long does your child sleep during the night on a weekday or weekend?
- 8. Do you have any additional comments on your child's sleep journey at child care and at home?

Appendix F

Demographic Questionnaire for ECEs

- 1. What classification level do you have? (1, 2, or 3): _____
- 2. Where did you attend school to receive your classification level?
- 3. How long have you been working as an ECE? (specify years or months)
- 4. How long have you been working in a preschool-aged (3- to 5-years-old) room? (specify years or months)
- 5. Have you ever attended any professional development related to children's sleep?
- 6. Any additional comments on your experience with preschool-aged children's sleep?

Appendix G

Confidentiality Form



Department of Child and Youth Study

Confidentiality Agreement

I, the undersigned, acknowledge that all information of a confidential or private nature, shared in the focus group *Parents or ECEs and preschool-aged children's sleep hygiene* will be kept by me in the strictest confidence. I will refrain from sharing information including names of participants, details of experiences, nature of interaction, any personal data or business of the other participants, which may come to my knowledge or attention in the course of facilitated discussion.

I, the undersigned, understand and acknowledge that the researcher has a responsibility to report any disclosure of harm or intent to harm a child or vulnerable person, or a participants' intent to harm themselves.

By signing this consent form, you are indicating that you have fully read and understand the above information and agree to maintain confidentiality regarding information shared at this focus group. You will be given a copy of this consent form for your files.

Participant's Signature

Date

Researcher's Signature

Date

Halifax Nova Scotia B3M 2J6 Canada Tel 902 457 6255 • Fax 602 457 6723 msvu.ca/cys

Appendix H

Semi-Structured Parent Focus Group/Interview Questions

- 1. Tell me about your family and the child care centre your child attends
- 2. Tell me a bit about your child's sleep journey from birth
- 3. Tell me about your child's sleep routine now
 - When does your child go to sleep/wake-up at home?
 - Where do they sleep at home? (own bed, shared bedroom, shared bed)
 - Is it the same every night?
 - Group probes: Did anyone else have a similar or different experience?
- 4. Tell me what you know about your child's rest time in their child care centre
 - How long is the rest period?
 - Do they sleep?
 - If not, what do they do?
 - Group probe: Did anyone else have a similar or different experience?
 - Group probe: What are your thoughts on how rest time happens in your child's child care?
- 5. How does good sleep allow your child to learn and grow?
 - Learn skills?
 - Socialize?
- 6. Has anyone looked for information or advice about your child's sleep?
 - If yes, what kind of information?
 - How did you find it?
 - Where did you find it?

Appendix I

Semi-Structured ECE Focus Group Questions

- 1. Tell me about yourself and the child care centre you work at
- 2. Tell me about the rest time routine in your child care centre?
 - Sequence of events (i.e. lunch, bathroom, books, mat, length?)
 - Group probe: Any similar or different experiences?
- 3. On average, how long do the children in your class sleep?
 - Group probe: Any similar or different experiences?
- 4. How do you share information about rest time with families?
 - Do you get feedback?
- 5. How does good sleep allow children to learn and grow?
 - Learn skills?
 - Socialize?
- 6. Has anyone looked for information or advice about preschool-aged children's sleep?
 - If yes, what kind of information?
 - How did you find it?
 - Where did you find it?
 - Professional development/workshops?