



LUND UNIVERSITY  
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# “Everybody can do it”

Enhancing preschool employees’ wellbeing  
by promoting exercise engagement during working hours

by

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# Abstract

The workplace is an ideal place to enhance employees' wellbeing, and health promotion is being integrated into organisations by employers as a way to enhance performance quality. Employees are motivated in different ways to live healthy and active lifestyles. However, organisations vary in the ability to enable certain types of health programs, such as allowing employee to exercise during working hours.

Preschools are non-profit organisations that provide care and education to the youngest members of our society, and preschool employees are at a high risk of occupational stress exposure. This research presents preschool increasing employees' exercise engagement during working hours as a stress-coping strategy. Two Icelandic preschools that have integrated exercise into their routines are studied in a multiple case-study format. Furthermore, the prevalence of integrated employee exercise in Icelandic preschools was explored by an online survey sent to all Icelandic preschool managers and had a participation rate of 52%. This survey also explored preschool managers' perception of the impediments preventing the implementation of exercise during work hours.

The results of the research revealed that only a very small portion of Icelandic preschools enable employees to engage in exercise during working hours. The reason for such a low number is the resource scarcity the preschools face which relates to limited funding: lack of manpower, time management and employee absenteeism. The preschools that have managed to integrate employees' exercise to their routine utilize the time that most of the children are sleeping or resting during midday to fit in the exercise. This research found that in order for organisations such as preschools, which have little resource capacity, to manage and promote exercise engagement during working hours, there needs to be effective and supportive leadership, motivating work culture that promotes healthy lifestyles, and collaboration and solidarity among employees within the preschool. The reported benefits of exercise in the two case study preschools included more efficiency in work performance in the second half of the day. Furthermore, the internal morale benefits with more enjoyment within the workforce.

Keywords: Preschool Employee Wellbeing, Work Exercise, Health Promotion Programs, Healthy Workplace, Stress Management, Preschool Quality

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# 1 Introduction

World Health Organisation perceives the workplace as being the priority setting for promoting and protecting people's health in the 21<sup>st</sup> century (WHO, 2010). Encouraging employees to live healthy and active lifestyles has become a common thread in organisations nowadays. Motivating employees to increase activity levels during and after work has also become more prevalent and has been related to the reduction of stress symptoms (Kettunen, Vuorimaa & Vasankari, 2015) and a decrease in absenteeism (Carnerthon, Whitsel, Franklin, Kris-Etherton, Milani, Pratt & Wagner, 2009). Many organisations have built their own gym facilities within their workplaces for their employees' convenience as a motivator. However, the capacity for employers to enable and endorse exercise engagement during working hours varies between organisations.

Preschools are establishments where this option remains a challenge. Preschools must provide care and education for society's youngest individuals who require constant supervision. Moreover, preschool managers are often constrained by a tight financial budget, so their flexibility is limited. Working with young children is rewarding but challenging both physically and mentally. Subsequently, early childhood workers are at high risk of experiencing occupational stress, especially since demands for early childhood education has increased, causing more work-load and hectic day schedules (Wagner, Forer, Cepeda, Goelman, Maggi, Angiulli, Wessel, Hertzman, & Grunau, 2013). Occupational stress is a physical and emotional response that occurs due to an imbalance between the demands of work and the capability and resources available to meet these demands (Kaur, 2011).

A preschool's output is measured in quality, and employees' wellbeing arguably contributes to the quality level. As Thøgersen-Ntoumani and Fox (2005) point out, employees' wellbeing contributes to both individual and occupational outcomes. However, the employees' central role and their wellbeing is often overlooked when quality is measured (La Paro, Thomason, Lower, Kintner-Duffy & Cassidy, 2012) with there being more emphasis on employees' behaviour (Einarsdottir, 2008).

This thesis will research how managers can enhance their employees' quality of working life with interventions in their managerial work, which can also help sustain and improve further internal quality with limited resources. As an instrument, exercise will be presented as a stress-coping strategy. Using a qualitative approach, a multiple-case study was conducted by interviewing managers and four employees in two Icelandic preschools that have managed to integrate employees' exercise into their routine. Additionally, a quantitative online survey was sent to all preschool managers' in Iceland with two goals: count the prevalence of integrated employee exercise programs and understand the managers' perceptions of the main barriers that hinder them in integrating exercise into their employees' routines.

## 1.1 Background

The municipalities in Iceland are legally bound to operate preschools and provide all children the ability of enrolling into a preschool, regardless of their disability or background (Lög um leikskóla 90/2008). Preschool is neither compulsory nor free of charge (Einarsdóttir, 2011), however, preschool teaching has been defined as the first level of education in the Icelandic educational system since 1994 (Lög um leikskóla 78/1994). Predominantly, Icelandic children begin their preschool era in the year they turn two years old and stay until they leave for primary school in the fall of the year they turn six.

The number of children enrolled in Icelandic preschools has been growing simultaneously. Between 1998 and 2013, the number increased by 31% (Hagstofa Íslands, 2015a). 82% of children ages one- to five-years old in Iceland attended preschool in 2012 (Hagstofa Íslands, 2012a). In comparison to other OECD countries, preschool attendance among three- and four-year-olds in Iceland is one of the highest at 95,3% (Organisation for Economic Co-operation and Development, 2011). Moreover, the hours children spend a day in preschool has been growing (Hagstofa Íslands, 2012a). In 2013, 93% of all children in Icelandic preschools were registered for seven hours or more per weekday whereas 54% with eight hours per day and 31% for nine hours (Hagstofa Íslands, 2015a).

Preschool managers administer day-to-day operations and activities according to laws and regulations on behalf of the municipality (Lög um leikskóla 90/2008). In December 2013, the total number of preschools in Iceland was 256 (Hagstofa Íslands, 2015b). Operating costs of preschools are mostly in the hands of municipalities. The contribution from parents covers roughly 20% of the cost for their child (Einarsdóttir, 2008), which is mostly for nutritional costs. Financial budget expenditure estimations for 2015 in Reykjavík, the capital of Iceland, expect that 87% of the total operating cost for preschools will be covered by the municipality with the remaining 13% coming from the parents (Reykjavíkurborg, 2014a). However, operating costs for the municipality will increase from previous years to lower the cost covered by the parents (Reykjavíkurborg, 2014b).

## 1.2 Research Purpose

As the background information provided earlier illustrates, Icelandic preschools operate on a tight budget. Moreover, most children in Iceland enrol in preschool and attend for the similar amount of time as a full-time working adult. The purpose of this research is to understand the problems that preschool manager's face and why it is imperative for the manager to find ways to reduce stress levels among their employees.

The primary research questions of this paper is:

- How can employees' wellbeing be enhanced by their preschool manager?

Moreover, secondary questions were formulated to narrow challenges and benefits further.

- What is the prevalence of planned worksite exercise engagement among Icelandic preschools?
- What are the barriers for preschool managers to promote employees physical activity engagement during working hours?
- What determines the effectiveness of physical activity health promotion in the preschool setting?
- What are the benefits of integrating employees' exercise engagement into the preschool routine?

My hope with this research is to bring some guidance for preschool managers to consider organising time for their employees to exercise during working hours. Therefore, this research has a practical dimension. Moreover, by bringing attention to the impediments and necessity of providing good quality working life for preschool employees, authorities may be reminded that preschool employees' wellbeing is a variable to consider when preschool's quality is to be improved.

### 1.3 Outline of the Thesis

The paper will start by reviewing existed literature that correlates to the subject and framework of theory will be formulated from the literature in order to comprehend the data from the research. After the relevant literature has been presented, the methodology of this research will be described in order for the reader to encompass how this research was conducted and why these methods were tailored for this research project. Afterwards, qualitative and quantitative empirical data will be presented and briefly explained. The empirical data will then be further analysed and discussed in relation to the theoretical framework. Last, the conclusion of this research will be presented.

## 2 Literature Review

In this chapter, the literature that relates to the research objectives will be presented. The chapter starts by briefly discussing preschool quality, following with what is known in the literature about preschool employees' health. Health promotion in the workplace with the goal of enhancing employees' wellbeing with emphasis on exercise to reduce stress and increase work performance is listed. Furthermore, factors that are essential for effective and sustainable health promotion in the workplace; organisational culture and leadership commitment are discussed.

### 2.1 Preschool quality

Preschools are non-profit organisations with performance measured in the quality of the care provided. A number of studies reveal linkage between the quality of preschool care and later development of children (Love, Harrison, Sagi-Schwartz, IJsendoorn, Ross, Ungerer, Raikes, Brady-Smith, Boller, Brooks-Gunn, Constantine, Kisker, Paulsell & Chazan-Cohen, 2003). Moreover, the preschool is valued as playing important role in every child's life (Einarsdottir, 2011). For instance, PISA findings suggest that children who attend pre-primary school tend to do better later in school than those who do not (OECD, 2010). In the Icelandic preschool laws 90/2008, every preschool must aim at enhancing overall quality and measure it yearly to identify needs of improvement. Thus, the preschool managers' aim is to enrich the quality of the care and education provided. According to Icelandic preschool laws (90/2008), quality should be measured internally by managers and staff and externally by the municipality agents. How preschool quality is actually measured varies between countries. A common measurement of quality is the number of children in a group, teacher/child ratio and the amount of qualified childhood educators (see e.g. Brodin & Renbland, 2014). However, no relation has been made between the quality of preschool and the wellbeing of the employees. Preschool employees are a fundamental resource for good preschool quality and thus should be a variable taken into more consideration when preschool quality is measured.

#### 2.1.1 Preschool employees' health

The existing literature has given preschools employees' wellbeing limited attention and existed studies have predominantly focused on preschool teachers. However, In Iceland the proportion of preschool teachers is only 35% of total preschool employees (Hagstofa Íslands, 2015a). Hall-Kenyon et al (2013) stress that demands towards preschool education have been increasing with more emphasis on the standardization in practice, responsibility and academic outcomes of the children. However, how these increased demands affect the wellbeing of the preschool teachers and other employees has gained limited attention in the literature.

When demands increase, one may assume that workload increases, specifically without adding resources. Occupational stress is well documented in the teaching profession. Smith, Brice, Collins, Matthews & McNamara (2000) measured the levels of occupational stress among 27 different occupations. Their findings imply that the teaching and childcare work setting scores clearly highest.

Wagner et al (2013) argue that the literature neglects perceived occupational stress among individuals working in early childhood education setting and they further stress that the literature focus is primarily on burnout. Their study findings suggest that those who were married and lived in a stable community with no children of their own felt less perceived stress. In contrast, individuals that used an avoidant stress coping style, worked full-time and expressed feelings of frustration and/or exhaustion reported higher levels of stress (Wagner et al, 2013). In Tsai, Fung and Cow (2006) findings, work-related stressors and time managements were the most salient sources of participants' experience of stress. Work-related stressors are e.g. too heavy of a work load, administrative work and class size. Time-management stressors are e.g. having to do many things at the same time and not being able to finish tasks. Fatigue and emotional stress were the most common manifestations of stress in the Tsai et al (2006) study. Fatigue includes physical exhaustion and physical weakness whereas emotional stress includes feelings of vulnerability, insecurity, depression and anxiety. Tsai et al (2006) argue that teachers that harbour such feelings can show withdrawal or aggressive behaviour towards students and their co-workers.

Moreover, Kelly and Berthelsen (1995) studied sources of stress among eight preschool teachers in Australia through a qualitative approach by analysing their reflective journals they carried with them over period of two weeks. Several themes emerged through the analysis such as time pressure, non-teaching tasks, maintaining early childhood philosophy and practise, personal needs and issues with parents. The research dates twenty years back, but still the demands towards the teachers were identified as stressors although no external pressure took part. However, external pressure is much more prevalent today as Hall-Kenyon et al (2013) point out.

Additionally, Sigursteinsdóttir, Rafnsdóttir and Einarsdóttir (2011) studied stress sources in Icelandic preschool teachers in 2011. The purpose of their research was to identify, through a mixed method of both qualitative and quantitative approaches, the effects of the financial crisis that hit Iceland in 2008 on pre-and primary school teachers. A focus group of nineteen preschool teachers articulated that before 2008, there was deficiency in people working in preschools, but after the crises it had worsened. Recruitments had been cut down and the employees could really feel the scarcity of employees (European Commission, 2011). Thus, the demands are the same but fewer people are available to respond to them. As one respondent said, "we just have to run faster". It was clear in all focus groups both among preschool-and primary teachers that they were experiencing more exhaustion and found it harder to cope with the work load while being more or less under staffed.

Further, in a study completed by Sigursteinsdóttir et al (2011), absenteeism of other employees was also reported as a source of stress. Absenteeism had increased greatly after the 2008 financial crisis, and the teachers expressed that work stress is a big contributor. Árnadóttir et al (2014) came to the same conclusion in their qualitative study among preschool employees in

the largest municipality outside of the capital area in Iceland where the absenteeism rate had increased by 25.6% between the years 2010 and 2013. In the same survey, absence of other employees was rated the most significant job-related stress factor.

The four studies identified previously on sources of stress were all conducted on relatively small samples. Wagner et al (2013) includes only 69 childhood workers in Canada. Furthermore, in the Tsai et al (2006) study, the sample covered only 113 teachers. Thus, they should be reviewed with caution but they still further identify the need of wide-range, cross-cultural studies on occupational levels of stress in early childhood workers.

Research into mental stress levels has now been discussed, but the occupation also comes with the physical stress that caring for young children demands. A study on New Zealand's preschool teachers' perception of their health was conducted by McGrath and Huntington (2007). Their findings suggest that the teachers perceive themselves to be healthy in general. However, the teachers expressed concerns that work related stressors due to ergonomics and challenging work situations such as sitting on the floor and using furniture at children's heights may cause physical strains in the long run. Moreover, other work-related health stressors are long term effects of noise exposure. Fredrik et al (2012) studied hearing impairments and tinnitus among Swedish preschool employees. Their findings conclude that noise exposure measured on average around 71 dB (A). To put that into perspective, industrial work places measures around 80 dB (A). Moreover, symptoms of tinnitus were found in 31% of the employees. In Árnadóttir et al (2014), noise exposure was a commonly mentioned stressor among preschool employees.

Levels of stress can directly and indirectly influence our wellbeing and our perception of health. Sigursteinsdóttir et al (2011) quantitatively measured perceived health among pre-and primary teachers after the 2008 financial crisis. Their quantitative findings correlate to the increased stress that was found in their focus groups with 25% of preschool teachers perceiving their mental health to be poorer than before the financial crisis and 20% reporting that their physical health had worsened. These numbers increased between the years 2010 and 2011, indicating that although years had passed since the crisis, the effects are still in place and even increasing. However, these numbers have not been retested since 2011 and need to be updated in order to see more long term effects of the financial crisis on preschool teachers' perceived mental and physical health. Sigursteinssdóttir et al's (2011) findings are supported by Kulkarni's (2008) conclusions regarding the effects that downsizing organisations have on the employees after cuts in relation to levels of stress.

The long-term exposure to occupational stress can have serious implications in the long run on both the individual and organisational level. Teaching-related stress affects a teacher's health, well-being, and work performance (Larchick and Chance, 2004). It is in the hands of the preschool manager to create a healthy workplace environment and secure good work life quality for his or her employees. In doing so, he or she will be enhancing the quality of the care their school provides for children and their parents. Research into health promotion initiatives from employers will now be presented as a way to work on enriching employees' health and wellbeing.

## 2.2 Workplace health promotion

In the workplace setting, encouraging employees to change poor lifestyle choices into healthy behaviours is a well-known wellness initiative addressed by employers' (Coomer, 2014). Health promotion can cover a wide range of programs for health and lifestyle improvements in the workplace including e.g. increasing physical activity, healthier nutrition choices, smoking interventions and stress management (Wierenga, Engber, Empelen, Dujits & Hildebrandt, 2013; Goldgruber & Ahrens, 2009). Due to stress levels known in preschool workers, exercise will be presented as a stress coping mechanism and additionally as a tool to boost job performance. There are several dimensions that need to be addressed to understand sustainable health promotion programs in the workplace; the managers' role and the work culture. These dimensions will be addressed further on.

### 2.2.1 Exercising to reduce stress and increase performance

Existing literature has established the prevention mechanism of being physically active and what benefits it can endorse for stress relief. According to Nagel and Brown (2003), physical activity builds up resilience to stress and can provide long-term effects in avoiding future stressful events. A study among 136 school-based employees revealed that employees who engage in even only moderate exercise coped better with stress and were less likely to use emotional-oriented stress coping styles than those who were physically inactive, who also had no effective stress coping methods. Moreover, those who were physically active were less likely to report perceived stress (Gillian, Naquin, Zannis, Bowers, Brewer & Russell, 2013). Austin, Shah, & Muncher (2005) studied high school teachers coping styles to stress. Their findings revealed that the most used moderator to decrease levels of stress was exercise. Moreover, exercise was the only conclusive and positive strategy that the teachers used as a stress coping strategy. Bogaert, Martelaer, Deforche, Clarys, & Zinzen's (2014) study findings on primary school teachers revealed that those teachers who reported less perceived good health were more likely to be inactive, and physical activity during leisure times was found to give the best health outcomes for the teachers as a stress coping mediator. Furthermore, a twelve-month physical exercise intervention among working adults showed decrease in stress symptoms and improved mental resources (Kettunen et al, 2015). The positive effects of the intervention remained even after a twelve-month follow up. Additionally, those who had the highest levels of stress reported before intervention ended up benefiting the most from it.

Barr-Anderson, Au Young, Whitt-Glover, Glenn and Yancey's (2011) systematic review of forty published articles concluded that an increase in work performance was tied to short bouts of physical activities in the workplace. Moreover, twelve of the studies in their review found improvements in cognitive performance and work productivity of employees. The strength of their review is that they include studies with average duration of one year for more profound results with some longer research reporting outcomes after three-to-six years. Moreover, most of the research in their review was conducted in a school setting, making it especially relevant to this study. Barr-Anderson et al's (2011) findings are supported by Pronk and Kottke's (2009) review of literature, which concluded that employers should consider ways in which they can

integrate physical activity into the organisational business planning process to improve employees' health and consequently enhance business performance.

In existing literature, much research exists that examines physical activity among employees in school settings. However, only one study was found which indirectly studied preschool teachers' exercise engagement. In that study conducted by Williams, Carter, Kibbe and Dennison (2009), preschool teachers took part in a walking intervention which was a secondary research objective in a study of the implementation of activity programs into schools' curriculum directed the pre-schoolers. The teachers received a pedometer to count steps taken and were encouraged to increase their step count. Their findings showed that no specific increase in total step counts occurred during the working day. However, the teachers had increased their frequency of activities in leisure time during the intervention. This further demonstrates the lack of research attention that has been exclusively aimed at preschool employees. Stress in preschool employees is similar to primary school teachers, however, Kelly and Berthelsen (1995) point out additional stressors of non-teaching tasks that come with caring for young children, indicating that the stress experienced by preschool teachers may arguably be greater than that experienced by primary school teachers.

Motivating employees to engage in even moderate exercise can thus improve their resilience towards stress and generate healthier stress coping styles according to the previously presented research. Thus, promoting an active lifestyle as a stress coping strategy may be a good way for managers to enhance the wellbeing of their employees. Furthermore, decreasing levels of stress in employees through engaging in physical activity reduces absenteeism rate in the long run and has been supported by many authors (see e.g. Shepard, 1999; Carnethon et al, 2009).

However, for these initiatives to work, employees need to be willing to participate. Shepard (1999) argues that those who participate are part of a health-conscious minority that already participate in community fitness programmes. This idea is supported by Marshall's (2004) meta-analysis that short-term physical education programs and worksite fitness facilities are commonly only attended by employees that already live active and healthy lifestyles. For a more sustainable and well-attended wellness program, the working culture needs to promote such initiatives.

### 2.2.2 Organisational culture

“Organisational culture” is defined by Patnaik (2011) as the attitudes, views, experiences, values and beliefs inherent in the organisation. This organizational culture is shared by the individuals in the organisation and controls the interaction between them and stakeholders. It is what guides the behaviour within the organisation but is not the behaviour itself (Alvesson & Sveningsson, 2008). Alvesson and Sveningsson (2008) emphasis the overall agreement in the literature that the organisational culture is the core aspect behind a wide range of important topics such as motivation, commitment, and resource allocation. Organisational culture influences employees' motivation directly and their performance indirectly (Sokro, 2012). Moreover, it is a common belief that the organisational culture either facilitates or impedes strategy implementation to accomplish change within the organisation (Alvesson & Sveningsson, 2008).



Health promotion interventions can be implemented within all organisations according to Goldgruber and Ahrens (2009). However, the organisational culture must be analysed beforehand (Bäckström, Lagrosen and Eriksson 2014; Goldgruber & Ahrens, 2009). Intervention needs to be adapted to the organisation to serve its needs because culture varies between organisations (Goldgruber & Ahrens, 2009; Alvesson & Sveningsson, 2008; Patnaik, 2011). Building an infrastructure for health promotion requires a change in culture with a shift to shared language and focus on the necessities of health, if this workplace thinking is not already in place (Heward, Hutchins, & Kehleher, 2007). Hence, implementing the same health promotion activities within two similar organizations might not be as equally effective. A manager must thus consider how the current working culture promotes or does not promote an active lifestyle. Change in organisational culture is very complex and various perspectives have emerged around the possibilities for cultural change (Alvesson & Sveningsson, 2008). However, there is a common consensus around the importance of effective leadership for successful and sustainable health promotion implementation.

### 2.2.3 Manager's role

In planning for the implementation of a health promotion program into an organisation, the responsibility rests mainly within the management team (Plath, Köhler, Krause & Pfaff, 2008). Conway and Monks (2011) emphasize that it is important to involve middle managers in early stages when changes are to be made due to their influence on their subordinates. Middle managers' commitment and motivation for the changes are therefore imperative. This need is supported by Pronk and Kottke, (2009) who stress that mid-level managers are central to spread the initiatives of program implementation. Effective leadership is also essential at all levels in the educational system and the designated leaders need to be able to motivate others towards collective goals (Hoyle, Samek & Valois, 2008). Effective leadership can be obtained through the performance of quality management.

The effects of quality management on employees' health have been well established in the literature. According to Lagrosen and Lagrosen (2014, pp. 388), "quality management is a complex phenomenon that contains several different components". Lagrosen and Lagrosen (2003) describe quality management involving three layers. The first layer refers to techniques the practical tools such as statistics. The next layer is models, which includes the systems used for quality management. The last layer is the organisational values. The values are believed to be the most important part of quality management and refer to the assumptions which guide the organisational behaviour (Lagrosen and Lagrosen, 2014).

Quality management is practised in various sectors and even though an organisation may not publicly promote its work with implemented quality management strategies, the organisation may very well be practising values that are cherished within the realm of quality management without actually realizing it. Bäckström, Larsson and Wiklund (2009) studied three successful Swedish organisations that all had achieved excellence within their industries. The aim of their study was to identify the methodologies the organisations had used to create and sustain healthy and successful organisations. Their findings suggest that all three organisations practise according to values that are promoted in quality management.

The value ‘leadership commitment’ is most frequently connected to workplace health. Lagrosen, Bäckström and Lagrosen (2010) describe the underlying dimensions of ‘leadership commitment’ to be integrity, presence and communication, empathy, and continuity of the leader. These dimensions are described further in the *table 1*:

*Table 1: Dimensions of ‘leadership commitment’ by Lagrosen et al (2010)*

<b>Integrity</b>	<b>Presence and Communication</b>	<b>Empathy</b>	<b>Continuity</b>
Manager characteristics such as being fair, trustworthy and independent	Manager practises visible leadership and his/her communication with subordinates is clear and distinct	Manager is aware and is attentive to his/her employee’s needs; understands their situation	Manager stays in his/her position for a long time which builds up trust; makes cooperation easier

Bäckström et al (2014) studied health-promoting activities within eight Swedish elementary schools to see if they had any effects on employees’ perception on their own health as well as if the health programs that were implemented had any effect on the values rooted in the organisational culture. Their findings suggest that health program implementation increased teachers’ perception of their own health. However, the program did not affect the quality management of the organisational culture, which confirmed that health-promoting programs that aim at individual health may not increase the workplace health or influence the culture without ‘leadership commitment’. Bäckström et al’s (2014) findings emphasize how leadership influence is a clear differentiator between schools regarding the effectiveness of health promotion programs. Furthermore, Bäckström et al (2009) point out that the managers should be good role models and adopt healthy and positive lifestyles to further motivate their employees. Moreover, warm and enthusiastic leadership is crucial for long-term success of health promotion program (Shepard, 1999).

*Drawing together the literature, preschool employees’ are at risk of high occupational stress exposure. Exercise as a health-promoting activity may have positive effects on preschool employees’ wellbeing as a stress-coping strategy. However, the managers’ role is very important in creating healthy workplace and effectively implementing such program and the work culture can either impede or promote such implementation. Furthermore, the lack of research in this area as it pertains to preschool managers and employees indicates that studies into this concept would be both new and different.*

## 3 Methodology

The following chapter presents the methodology that has been used in this. To address the literature gap, this research intends to contribute to a mixed method of both qualitative case study and quantitative questionnaires that was tailored to interpret the research questions. With the former approach, six interviews were completed with managers and employees of two Icelandic preschools; with the latter approach, an online survey was created and sent to all preschool managers in Iceland. This chapter aims at describing the motivation behind the research approach chosen. Moreover, the research process will be illustrated and the validity and reliability will be discussed.

### 3.1 Research Design

This research was designed with a mixed approach to answer the research questions at hand. Mixed method is a type of research that combines elements of both qualitative and quantitative measures to illustrate breadth and depth at the same time (Johnson et al, 2007). For this research I opted for a qualitative dominant mixed research method approach since this research relies on the meaning and depth that qualitative method offers. However, recognising that the research could benefit from adding quantitative data, an online survey was added as a supplementary to get a more holistic view of preschools' organisational barriers for integrated employees' exercise during working hours. This survey furthermore also explores the prevalence of the phenomenon among Icelandic preschools. Whether or not preschool managers have thought about the topic and if they are likely in the future to work on ways to integrate employees' exercise was explored in order to understand the practical use.

The complementary strengths of designing the research this way is that it provides more relevant information to the research purpose and reduces the weakness of having only the information about preschools' barriers from preschool managers who have successfully integrated employees' exercise within their school. Hence, I have met the weakness of the qualitative approach of presenting data from very small sample by complementing the approach with data from a large sample of preschool managers (Johnson et al, 2007).

In the qualitative approach, a comparative case study of two preschools was favoured. Case studies are preferable when the question covers "how" something has or can be done (Yin, 2009). Every preschool is unique in structure and multiple-case study thus yields more analytical benefits (Yin, 2009). Case studies also provide insight into the causal process of the phenomenon (Yin, 2009). Therefore, by studying two diverse preschools that both have successfully managed to integrate employees exercise into their organisational routines, this research is stronger than if single case study had been chosen.

Multiple methods can be employed within a specific case, which creates a deeper understanding of the case that is being studied. However, as Icelandic preschools are being studied and my residency is in Sweden, I did not have opportunity to travel to Iceland within the set time frame for my data collection. Thus by examining the cases I was restricted to only use interviews conducted by phone. Nevertheless, as Yin (2009) points out, human affairs and behavioural events are what most case studies are handling and interviews are best suited to gain insights into these factors.

In this study, I have taken the stance within the paradigm of interpretivism. The analytical process relies on my own understanding and how I interpret both theoretical and empirical data. The topic is a special interest of mine for the reason that most of my work experience is within the preschool profession. As Thomas (2013) points out, with interpretivism I am a participant in my own research and my background knowledge enables me to grasp further understanding of the data. I am, however, aware that my previous experience can influence my interpretation in certain way (Thomas, 2013).

## 3.2 Data Collection

When selecting the participants to interview, I contacted three preschools that I knew in some way generated time for the employees' to exercise during the working week with two responding. Additionally, I asked both managers if I could speak to one or two employees that utilize the exercise made accessible to them. It was in the hands of the two managers to choose representative employees for the interview. The research process is described more in depth in the ensuing sections.

### 3.2.1 Interview guide

The perceptions and feelings we experience in our surroundings can vary substantially from one person to the other. Thus, when the objective is to gain insight and understanding into the meaning that an individual has with a specific concept, flexibility is imperative for the individual's expression. Therefore, the interviews that were conducted were semi-structured with several pre-determined questions handoff my choosing. Two sets of questionnaires were made, one for the managers and one for the employees (see Appendix A). For the interviews with the managers, the aim to see the motives behind why and how they have successfully managed to integrate employees' exercise. Moreover, the questions addressed how the managers perceive this implementation and how this implementation can benefit preschools as an organisation with regards to their internal quality. For the employee interviews, the aim was to grasp their views on how these exercise programs enhance their quality of working life. As the writing process progressed, additional questions needed to be addressed. Thus, I sent the managers four additional questions by email, available in appendix A.

The benefit of using a semi-structured interview is that it "provides the best of both worlds as interviewing is concerned" (Thomas, 2013, pp. 198). By structuring the interviews with the

issues I wanted to cover, the risk of omitting important concepts was reduced and all participants received the same basic set of questions for comparison. Moreover, a semi-structured interview schedule gives more freedom to probe deeper if an idea the participants mention needs a follow up. At the end of all of the interviews, I asked all of the participants if there was something else around the subject they felt was important to mention. An additional benefit of using semi-structured interviews is that the research can take a different direction than the researcher initially intended because the person contributing his or her views adds something new to the topic.

As previously mentioned, I was not able to fly home to Iceland to conduct the interviews for the data collection. I therefore called all my participants through my computer with a specific software called *Blink* which provides the option of recording the phone call. All of the interviews lasted from ten-to-forty minutes. Through all the interviews I was at home with no one around me to interrupt. Telephone interviews have their disadvantages. Social indicators e.g. body language and facial expressions, which can be noted in face-to-face interviews, are unnoticeable. However, for this research project, that was not considered an indispensable fact and through telephone interviews, the voice and intonation are in place (Opdenakker, 2006). The tables below illustrate the participants in the interviews.

Table 2: Participants preschool A.

Subject	Manager A	Employee 1A	Employee 2A
Age	48 / Female	35 / Female	37 / Female
Work Title	Preschool manager	Department leader	Support staff
Education	Preschool teacher	Preschool teacher	Preschool bridge/ highschool level
Preschool work experience	22 years / 9 years manager	8 years	14 years

Table 3: Participants preschool B.

Subject	Manager B	Employee 1B	Employee 2B
Age	61	52	49
Work Title	Preschool manager	Preschool teacher	Support staff
Education	Preschool teacher, technical designer, management for one year, health and health upbringing / University level	Preschool teacher	Sports teacher
Preschool work experience	9 years as manager	31 years	24 years

### 3.2.2 Online survey

Preschool managers were the focus in the quantitative portion of this research. Using Google Forms as a platform, an online survey was sent out to all preschool managers in Iceland (N=256). I contacted The Preschool Managers Labour Union in Iceland with the request of them sending the survey to their members. The initial time frame for the survey to be open was ten days. The day before the date set for the survey to be closed I decided to extend the time frame by two days and sent another email with the hope of collecting more responses. The survey was thus open for twelve days in total.

The mission of the online survey was to be precise and straightforward because the number of participants decreases in the proportion to the survey length (Thomas, 2013). The survey consisted of ten questions in total. The format varied between the respondent replying “yes” or “no” to questions about whether employees’ exercise is part of the respective preschool work routine on how many questions were set up for him/her to answer (see appendix B). Half of the questions were closed, with only yes or no option. The participation rate was 52% with answers collected from 131 preschools out of 256 (Hagstofa Íslands, 2015d). In four cases, assistant preschool managers responded to the survey in the absence of the manager. The distribution of the location of the preschools is presented in the table below. The distribution of respondents’ location is very similar to the actual distribution among the preschools in Iceland.

*Table 4: Respondent Distribution*

	Capital area	Southwest Iceland	West Iceland	North Iceland	East Iceland	South Iceland
Amount of Preschools / Total ratio countryside	141 / 55.1%	15 / 5.9%	27 / 10.5%	36 / 14%	16 / 6.3%	21 / 8.2%
Participants / Participant ratio	70 / 53.4%	8 / 6.1%	10 / 7.6%	23 / 17.6%	7 / 5.3%	13 / 10%

## 3.3 Data Analysis

To analyze the qualitative data, what Thomas (2013) calls a “constant comparative method” was employed. This method involves repeatedly reading through the data and simultaneously marking the data with codes by various colours. After the coding of the data for this research, the data was categorized in to themes. No computer was used when mapping the qualitative data, only pen and paper. For the survey, Excel was used to gather data into tables.

### 3.3.1 Transcription and translation

The first step in the analysing process began with the transcription of the interviews into a written text from the recordings in order to facilitate an overview (Kvale, 1996). Transcribing is a time consuming process but minimizes the risk of losing relevant information. All of the interviewees' identities were concealed in the transcription process so no specific answer could be traced to a certain individual. The transcript then became the material for the qualitative portion of the analysing process.

All interviews were conducted in Icelandic, which is the native language of myself and my participants. Therefore, in order to present the empirical findings in this thesis, I had to translate my participant's meanings. Translation is risky and can come with some distortion due to dissimilarities between the respective languages. In order to avoid this distortion, I strove to translate the participants' phrasing as closely as possible. However, some words used in Icelandic do not exist in the English language.

## 3.4 Validity and Reliability

In this study, three individuals were interviewed from each of the two preschools. This number did not provide much coverage within each preschool but I chose to interview fewer people so that I could include more perspectives from different schools. Moreover, the managers chose the employees to be interviewed. It is questionable whether they chose their peers who best represented the common beliefs of their fellow employees. According to the quantitative data, very few preschools enable employees' exercise, thus the two preschool are out of few preschools that integrate employee exercise so the validity increases.

However, both preschools are located in the same municipality and as it was discussed in the introduction, municipalities operate the largest portion of preschools in Iceland. Financial funding in this municipality to preschools might be higher than in other municipalities in Iceland. This specific municipality was not affected by the financial crisis in 2008 as much as many others were, thus the financial stability in this municipality is strong in comparison to many other Icelandic municipalities. Moreover, how this would work in a preschool in rural areas is unknown, because these preschools are both situated in the capital area. These aspects therefore should be considered when discussing the reliability of this research. However, as Thomas (2013) argues, with interpretative research the aim is not to generalize. Hence, if another person would replicate this research, the same findings would vary due to the interpretative stance involving my personal history being part of the research.

## 4 Empirical findings

In the following chapter the empirical findings will be presented. First, the results from the online survey are briefly elaborated; second, the preschools that took part in the case-study will be explained. Following these two sections, the interview data will be presented.

### 4.1 Online survey

The participation rate in the online survey was very high, with completed surveys collected from around half of all preschools in Iceland. In the survey, eight preschools out of 130 reported that they had integrated employees' exercise into their daily work routines. The information that was provided with the survey clearly indicated that measuring their physical activity while supervising the children was not part of the survey's objective. However, it was clear when analyzing the data that two out of the eight schools misunderstood the survey and described employees' physical activities with the children instead of exercise aimed at benefiting the wellbeing of the employees. Thus, this finding indicates that very few preschools in Iceland offer this sort of program for their employees.

Those who answered "yes" to this question about integrated exercise were asked about their perception regarding the necessity of providing this opportunity for their employees. The answers aimed mostly at the need of preschool employees' health to be in place, both physically and mentally. Survey respondents also said that by being active and healthy, they can have happier staff and more job satisfaction in addition to the employees' being a role models for the children. Moreover, it was mentioned that when the employees feel better it lowers absenteeism.

Furthermore, the managers that enable employees' exercise in their daily work were asked about the type of physical activity employees engaged in, and they were given the chance to mark all relevant answers from a list of exercise types. The most common type was walking and running/jogging. However, some answers were clearly tying walking/running to doing activities with the children, indicating that they were not separate. One respondent also reported swimming. In the question of how often they exercised per week, two responded once per week, two responded twice per week and one responded three times per week. Fifteen responded to "other" by listing activities employees engage in with the children. One manager said that they tried to implement an exercise program once but it did not work due to absenteeism among the employees. Six respondents answered the question about how long of a duration they spend exercising per each exercise time. One respondent said they exercised for twenty minutes, two respondents for thirty minutes and two respondents for one hour. The respondent who marked three times per week in the previous question regarding how often they exercise marked one and a half hours and left a comment about employees being active with the children. It is clear



that there was confusion when the managers were filling out the survey, which distorts the results. However, the online survey clearly indicates that employees can be active in general in their work routines.

The managers who said that employees' exercise is not part of their routine were also asked if they have thought about integrating some exercise into their daily work. The slight majority, or 54%, said that they have thought about it (64 out of 119 who answered the question). Furthermore, managers were asked about their perception about whether they believe that they will integrate employees' exercise into their routines in the future. 46 % responded "yes" (52 out of 117 who answered the question). The managers in general seemed to be willing to enable their employees to exercise during working hours, however next question elaborates on what hinders them in doing it.

All of the respondents in the survey were asked about their perceptions towards the main impediments for integrating employees' exercise. Figure one below elaborates on that the findings; lack of people, lack of time, employees' absenteeism and limited financial support. Limited financial resources further correlates to the other reasons, as low funding prevents the recruitment of more people due to the limited amount of positions each preschool can afford to pay. All answers to this question are listed in appendix C.

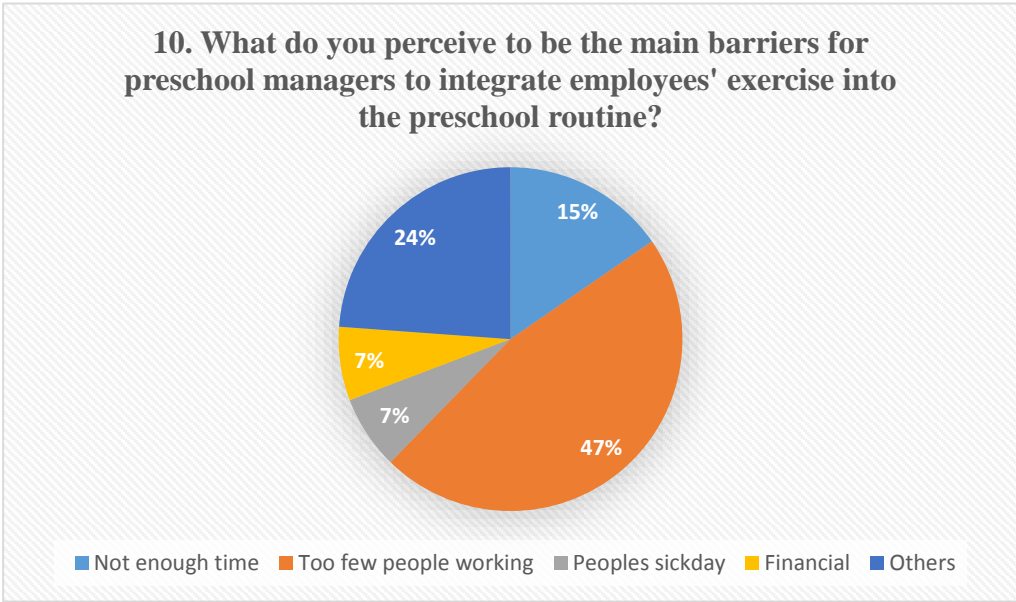


Figure 1: Managers perception of preschools barriers.

## 4.2 Cases background

Preschool A is medium sized with four departments where the children are mixed in age. This preschool follows a certain preschool health methodology and is referred to as a 'Health Preschool' (direct translated from the Icelandic word Heilsuleikskóli). To be considered a part of this preschool methodology approach and be referred to as 'Health preschool' it has to fulfil several requirements. These requirements include having nutrition based on healthy,

unprocessed food and a certain amount of planned exercise as a part of the weekly schedule for children at all ages (Samtök Heilsuskóla, 2013).

Preschool B is small sized with two departments. One department is for the younger children from one to two years old and the other for three to five year olds. The school is in the transformation process of becoming only preschool for toddlers between twelve months and two years old. The transformation will be complete when the older children leave the preschool for primary school. The preschool’s aim is to provide healthy nutrition and active environment for both the children and the staff. Most children in both preschools attend the preschools for eight hours per day. The table below further demonstrates the details of the two preschools.

Table 5: Preschools information

	Number of Employees	Children total number and age	Location
Preschool A	23 total employees Nine preschool teachers One development therapist	80 children Aged from ten months to six years	Capital Area
Preschool B	Eleven total employees Six preschool teacher	30 children Aged eighteen months to six years	Capital Area

### 4.3 Managers’ motivation and implementation

This chapter explains the two managers’ motivation for integrating employees’ exercise and how the implementation was carried through. Manager B earned a university diploma in the subject ‘health and health upbringing’ and one of the courses was about implementing health promotion into the work place. She explains that there is where her implementation began;

...In the course we were supposed to think about ways to improve the workplace morale and what the employer could do to increase it. And this was health and health upbringing so it was obvious that it would have something to do with exercise...

She further expresses that it was something she had always wanted to do within her preschool. As mentioned, preschool B is transforming into a preschool predominantly for the youngest children from twelve months to two years old. The youngest tend to sleep some amount during

the day and because of that she saw a good opportunity for using that time to do something for the staff. She explains how coffee breaks in preschools often consist of one 20 minute break early in the day and another of 15 minutes later in the day. She had changed this process a few years back and currently her employees take their breaks together in the middle of the day for a total of 40 minutes. She added five minutes for her employees because people often need to run errands. She figured as a way for the employees to be able to exercise, she would have to increase the break to one hour so there was 30 minutes to go out to run/jog/walk and then another 30 minutes for lunch break. They began this policy in 2013 and every employee has the chance to go once a week. The employees go out in groups of two or three together so every day there is one group that exercises. Recently, they started to increase the policy to two times a week per employee, and the plan is to increase it even further. Manager B explains further her ambition towards the future to use their toy shed and make a little gym facility with few gym equipment's.

Preschool A, however, just began an exercise policy recently and had been doing it for approximately one month when the interviews were conducted. They had become a '*health preschool*' four years ago and the manager was very satisfied with the state of the preschool and with the work that they were doing with the children, e.g. many planned activities for them. She says:

*...Now I need to think about my staff. What can I do? ... So we began by establishing a walking group after work. But that did not work because "this one did not get a baby sitter" and "this one could not there"... So I thought I needed to do something during the working day where I could reach them easily...*

Similar to preschool B, preschool A uses the midday because it is when some of the children sleep and the older children rest and listen to stories. Employees in preschool A have the chance to go twice a week, on Tuesdays and Thursdays, with those participating using both days. Employees are divided into two groups; the first half goes at 12:30 and walks/jogs/runs for 20 minutes and then they have ten minutes to undress, with the latter group leaving at 13:00. If there are people missing from work they address it first thing in the morning and work on solution so that everyone who wants to can go out. Similar to preschool B, this policy does not influence their normal coffee breaks. However, on the days they exercise they split their coffee breaks to 20 minutes in the morning and 15 minutes later in the day. On the "normal" days the employees take 35 minutes straight in the midday.

#### 4.4 Employees' wellbeing and preschool quality

The interviewed managers both emphasized that their employees' wellbeing correlates to the quality of their preschools. "When you feel good, you perform better" according to the manager from preschool A. The managers do not believe that authorities take preschool employees' wellbeing into consideration when preschool quality is evaluated. Both managers say that it is something that is overlooked in quality measurements. Manager A said that authorities should pay more attention to preschool employees' wellbeing and gave the example that if they did,

they would for example offer gym memberships instead of swim card that do not suit all employees' needs; employees should instead be supported to participate in exercise they enjoy.

Furthermore, manager A says that the labour union for preschool teachers only supports health intervention, not preventions. One manager in the online survey also mentioned this limitation with the preschool teachers' labour union. The Icelandic preschool teacher labour union provides subsidises when the teacher needs to go to e.g. physiologist or needs physiotherapy. However, the labour union does not provide discounts for gym memberships or other preventative measures that enhance preschool teachers' health. The municipalities' labour unions that other preschool employees belong to do offer gym membership discounts to some extent. Manager B hopes that people will start to acknowledge the benefits exercising can have, whether it is during working hours or in leisure time. Manager B also feels positive vibes from her superiors about what she is doing for her employees.

## 4.5 Problems with implementation

Like in the online survey, the two managers were asked about their perception of the main barriers preschools face for integrating exercise into the employees' routines. Manager B said that solidarity and collaboration are the main barriers because she believes that it is possible everywhere if people want to make it work. Manager A also emphasizes that this can be done everywhere. All preschools have resting time during the midday where there is capacity to arrange schedules and circumstances so that people can 'sneak' away. She also stated that the exercise does not have to be 20 minutes; it can be only ten minutes. Employee 2B, who is an educated sports teacher, also emphasizes that exercising can be done everywhere if people put their minds to it. Manager A explains the barriers as:

*...The thing with preschools today are significant demands... We are supposed to do so much that people barely find time to take coffee breaks to be able to do everything that needs to be done. I think we have come too far with the preschools, we need to slow down a little bit... You know, stay in the "now" and enjoy it. That is how it was when I started twenty years ago... now there is so much extra, much of administrative work, reports...*

When the managers were asked about their perceptions about health promotion becoming sustainable, manager A emphasizes that managers need to give their employees the capacity to do so and not be afraid to stick to it. They should not say that it is not possible due to the job demands. It is always possible, and the employees often find ways to do it themselves if they are interested in doing so. Manager B says that she, for example, uses performance measurements that motivate her to do better with her personal exercise. Furthermore, when asked if they believe that whether they themselves participating has any effect, manager A says that it should not matter, the important thing is how the manager implements it. She is not always able to participate and emphasized that the employees were exercising for their own sakes and should therefore not think too much about others. However, manager B disagreed and said that a managers' participation is absolutely a factor.

## 4.6 Participation through motivated work culture

Before implementation, both managers approached their staff to see if there was interest in planning time for exercising during the working day. Manager A explains:

*So I said “should we test to go out for a walk twice a week for twenty minutes?” ... And I said that it was not mandatory, those who wanted to get it extra...I asked on Thursday and we started Tuesday week after...*

Manager B approached her department leaders first to hear their thoughts, because like in preschool A, participation would not be mandatory. The leaders liked the idea so she further gauged the interest among other employees, and everybody wanted to get involved.

There was a clear overall consensus that the work culture in both preschools promotes living an active lifestyle. Manager A and employee 1A both mention that due to the health methodology that the preschool follows, healthy active living is embedded into the preschools' overall philosophy. Employee 1A believes that this philosophy motivates employees to be more active in general. Furthermore, manager A mentioned specific educational activities where the children learn through exercise that they have implemented into the curriculum. Included in the curriculum are exercise ideas for the employees to participate in with the children. Employee 2A explains that they participate in health promoting activities such as “cycling to work” and “walking to school”, programs initiated at the community level. Thus, it was clearly visible that being active is something embedded in to the culture of both of the schools.

What was vibrant in the interviews is how motivated employees are with one another and how it has enhanced the internal morale. Manager A expressed the overall happiness:

*... they are happier and they come back in laughing so loud “you cheated”, “you took a short cut” and something like that, and then they are saying “wait, are you not going today?, why are you not going” ... so there is a good humour, I think it is just positive... some even get in the racing mood, who is first... there comes this rivalry in them [she laughs] ...*

She further states that they enjoy being together and that this is a good addition to the employees' fellowship. However, nobody is forced to do anything they are not willing to do and everybody that participates control their own intensity. Manager A feels like the culture leans even more towards being active after they began these exercises and that the employees are being more health conscious. Recently, half of the employees signed up together for an online coaching that was offered for free on Facebook for one month.

For the participation rate, around half of the employees in preschool A take part but all employees in preschool B are involved. Manager A said that the number of those participating increases as they get motivated seeing others come back in a good and fresh mood. A few of the individuals in preschool A find it does not fit into the day's schedule and have trouble working it in. However, she believes that everybody will participate in the end because of the positive influence it is having on the preschool's morale. Due to the short amount of time since

preschool A began the policy, it takes time to adjust to the changes. However, manager A says that all of the participating employees are very pleased with it and that will persuade those who do not currently participate. Some employees who did not want to participate at first do so now. Both manager A and employee 2A are certain that this exercise initiative influences people to be more active in leisure time. Employee 2B (the sports teacher) made an “exercise bank” that they keep in their staff room for the employees and at times they have had “exercise of the day”. The exercises are aimed at specific body parts that they need to keep strong, such as shoulders. This helps motivate the employees even further in their exercises.

The weather was a commonly mentioned topic, in that it did not stop the employees from going out for their exercise. Icelandic weather can be very turbulent and the previous winter was especially stormy, but the employees went out in all weather conditions. Manager B bought good outdoor outfits for her employees that she got at a whole sale and for those working full time she bought walking shoes. Manager B said that a good outfit promotes even more motivation to go outside, regardless of the weather conditions. Her preschool is small in employee number, which means it was easier for her to purchase exercise outfits for her employees. Manager B states that now exercising has become a part of their work culture and a part of their routine. She also goes to yoga in the midday. It is clear that collaboration is also enhanced within both preschools. Manager B emphasizes that collaboration is the core to making the initiative work and no retention in the staff was in the way for making this work.

## 4.7 Occupational stress in preschools

There was total agreement between the two managers that the preschool work is a stressful occupation, both physically and mentally. Manager A says that people that have started and quit say that the work is much harder than they expected. Parents even say that they “deserve a Nobel Prize” for their work. However, her emphasis is that people work at preschools because they enjoy it. Moreover, she talks about the increased demands and administrative work that has become a part of the preschool profession. The staff sometimes experiences that they are suffocating in stress to meet all these demands and how the schedule is so hectic in order to be able to meet all of the expectations.

There are times that are more stressful than others. These stressful points occur both on specific times during the day and during some periods throughout the year which are more stressful than others. Employee 1B explains that stress points occur when new children start preschool for the first time, and manager B also emphasizes the stressful times that occur every fall and describes how mentally challenging it can be, even for her in her office when new children are adopted in to the preschool with all the crying that follows. Some take weeks and months to fully adapt.

She also talks about the importance of taking care of the employees due to the high stress levels, and the stress is why she has been focusing on exercise. The work is very demanding mentally and if the employees have had a challenging morning, it is helpful to be able to go out in the midday and clear their minds while walking/jogging. Furthermore, manager B wants preschool professionals to remain within the profession, so they need to be able to cope with the stress

and be in a good shape physically to cope with the physical challenges that the job demands. Manager A mentioned the same idea, a preschool employee's body needs to be in decent shape and she looks at this exercising as a part of preventing physical complications in her staff.

Type of stress differs between caring for the younger or older children according to the interviews. Employee 1A says:

*...There are certain stress points during the day... especially since I am with the youngest children then the stress is more physical than within the departments with the older children where it is more mental... Now we have one to two years old... you are holding them much... and of course there is mental stress also... Actually we sit a lot on the floor maybe that is a physical stress too...*

Moreover, employee 2A says that the stress varies with the children's mood and also that absence of other employees increases stress. Employee 2B is the only interviewee who says that she does not experience stress herself now but she did when her children were young. She felt it was mentally challenging to raise children while working in preschool and that it often felt like she was in work 24 hours a day. Thus, for the past few years the work has become more fun. She has predominantly been working with the older children where the stress is more mental than physical, but due to the preschool's transformation towards working with the youngest children she is beginning to again experience the physical demands that follow when caring for the younger children. This transition is why it is important that the employees keep their bodies strong to be able to cope with caring with younger children. Employee 2B says it is fantastic how well they have managed to emphasize exercise within the workforce.

Manager B emphasizes the stress during the wintertime when dressing all the children and how the Icelandic weather plays a large part. It is stressful to dress all of the children to go outside. "It would not be the same if we lived in Florida". She says she tries as hard as she can to improve the work situations, but it is impossible to make them perfect and there will always be demanding work positions that call for the body to be strong.

## 4.8 Problems due to absenteeism

Many preschool employees have young children of their own. Manager A says that it is common that when employees' children get sick that the person working at a preschool stays at home because commonly the spouse has a higher salary. She further stresses the burden that absenteeism has on preschools in general:

*...I know because I have been in this committee... [in two municipalities]... and the absenteeism is substantial in preschools, it is unnatural... it is pretty sad and that is what is breaking down the employees because it is always the absence of other employees you understand... the stress is there because you maybe have one for replacement but there are three or four people not showing up for work...*

To work with this problem in her preschool, she started absenteeism chats with her employees who were absent for more than five days over a period of three months. Absenteeism had decreased by 35% last year after she started these discussions. However, while absenteeism does occur they manage to arrange circumstances so that the absenteeism does not prevent the other employees from exercising. Manager A is certain that exercising can decrease absenteeism among preschool employees. Contrastingly, absenteeism is not problematic in preschool B. The employees do not call in sick often; only when they are very sick. Manager A has even sent people home who showed up for work but were clearly too sick. Hence, employee absences do occur and the preschools have to be solution driven so that they can allow other employees time to go out and exercise according to her.

## 4.9 Exercising in a ‘fellowship’

There was clearly overall agreement that the integration of exercise into both preschools’ employee routines was nothing but positive. In preschool B there was a survey among employees regarding the exercise promotion and there was 100% satisfaction. Manager A experiences nothing but happiness with it and everyone who participates enjoys it.

All four employees that were interviewed are pretty active in general during their leisure time and mostly take walks or participate in other activities. When the employees were asked about their intensity during their work promoted exercise, they all emphasized that they want to get something out of it and that it is no “slow-go”. However, it varies with whom they exercise with and how they set the intensity. In general they tend break a sweat and try to exercise as fast as they can. During the winter they mostly walk due to the weather, but now they have started to jog and run more. Manager B described how some run longer distances while others walk shorter distances.

What was interesting during the interviews was how they all express how this arrangement makes the group dynamics of the preschool better. Both managers emphasize to their employees that they are “not allowed” to talk about the job while they are out exercising together. This restriction motivates them to have more interpersonal conversations. Employee 2A says: *“You don’t always have to go to a café to shake the people together. This is really clever way of doing that because we can do it during working hours”*. The employees talk about how conversations with their co-workers are different while they are not supervising children and that it is a different form of conversation than the discussions that occur during normal coffee breaks; they have a better opportunity to chat one on one.

## 4.10 Renewal and reenergized

All employees express how good they feel after they have gone out for their walks and runs. Employee 1B loves being able to take care of exercising during work. She often comes home from work exhausted and feels it is good to be done with her daily exercise. Moreover, it is



refreshing and breaks down the day. *“It nourishes body and soul”* she emphasizes. Employee 2A also talks about the influence the exercise has on her life after work. She feels more energetic these days and feels that she manages to cope better with the tasks that wait for her when she comes home to her children. She is not as exhausted. Manager B mentioned that public health recommendations encourage 30 minutes of exercise a day, and that her employees are able to finish their daily activity level during work with these exercises.

Employee 2B talks about how she feels renewed after her exercise. Her emphasis is that she returns to the children feeling much fresher than when she takes her regular coffee breaks and that she manages to “disconnect” better from the work in the time she is exercising. She says she had heard of employees from other preschools envying herself and her co-workers for having this option. Patience is also a crucial part of the job, and employee 1A mentioned that she is more patient after she comes back from their running or walking. She feels like she copes better with the rest of the day. Manager A also stresses this fact, saying that it *“gives them stronger second half of the day”*. Therefore, in general the employees’ express how they become more efficient the days they are able to disconnect from the work and making them cope better with the rest of the day. The managers also elaborate on how this can make employees perform better in their work because they when you feel good you perform better, especially in such demanding work situations.

## 4.11 Children’s’ role models

The aim of this study was to explore preschool employees exercise engagement without the children, thus when they are not supervising the children. However, during both the interviews and in the online survey, exercise with the children was mentioned. Employee 2B which is the sports teacher mentioned the days they go out:

*...One of the day when I get back from the walk I go straight out with the children and then I do exercises in the garden in continuation so I get super good exercise on Tuesdays...*

Manager A believes that when the employees feel good they become more active with the children. Her emphasis is that the employees are role models for the children and thus it is imperative that they are active with the children: *“even out in the playground the other day they started doing lunges and all kinds of exercises”*. Manager B talks about how she has extended the exercise availability among her employees:

*...I had heard about a woman that had stroller training courses when she was in maternity leave... she thought about it as a mother and child in a stroller but I thought that it was not possible to send out one employee with one stroller for one child. So I checked if I could get quadruplet stroller... thought we could get an exercise out of it... so she halt course for the employees... so once a week they went out walk/run and once a week with the stroller two and two together... but it doesn’t work during the winter... and the children loved it... we are starting it again now...*

## 5 Analysis and discussion

Drawing from the empirical findings presented in the last chapter, some themes emerged. First is the limited access to resources in Icelandic preschools, rooted in limited financial flexibility that prevents managers to enable employees' exercise in their routine. For the two preschools that have managed to do it, there was a sense of strong leadership commitment along with work culture that promoted active lifestyle which made implementation more effective. Furthermore, the benefits of integrated exercise seem to be both on the individual level as well as on the organisational level. Employees feel more energised afterwards and it also creates stronger relationships between co-workers. Furthermore, the objectives of this research was to study employees' exercise engagement without the children involved. However, preschool managers have the capacity to motivate employees to enhance their physical activity level while still supervising the children and being at the same time role models for the children. This was emphasised both in the online survey and in the interviews.

### 5.1 Resource scarcity

In what ways a manager is be able to initiate a health promotion program in the workplace depends on available resources. According to the online survey, only six preschools offer employees' extra breaks to exercise during work hours. This points out that limited resources are intertwined within the whole preschool system in Iceland. The majority of the impediments brought up in the online survey are associated with limited funds, and with a lack of manpower, as these appear to be the most common barrier stated. Managers are restricted by the municipality by only recruiting the necessary amount of staff to meet the children/employee ratio. Preschools even seem to be having trouble managing to cover regular coffee breaks. As one manager said in the online survey: "*We cannot put the children into the closet while we go exercise*".

Time management was the next most reported barrier in the online survey. Educational demands, with more standardization in practice and administrative work has increased, causing preschools becoming crowded with responsibilities that they need to accomplish (Wagner et al, 2013; Einarsdottir, 2011). Every day needs to be well organised to meet everything that is anticipated from the preschools with only a set number of employees. This time-management issue does not seem to be a new phenomenon but rather a salient component within the preschool profession. Kelly and Berthelson (1995) study dated twenty years back addressed this issue with time-management reported by the preschool teachers. In those days, preschools did not face much external pressure towards their performance. However, it has been growing simultaneously over the years and education has become more predominant. The society values the preschool years as an influential and treasured part in child development (Einarsdottir, 2011;

Love et al, 2003). Thus, the external force from the society today towards quality of the preschools is greater than ever. This time management issue seems to be cross-national if compared to Tsai et al (2006) study among Hong Kong female kindergarten teachers, which reported time management as the most salient issue reported by the teachers. Icelandic and Chinese educational systems are very dissimilar but the problem seems to be apparent in both countries. Early childhood education and care needs to accomplish more balance in time management.

Last frequently mentioned barrier in the online study is the major absenteeism rate apparent in preschools. This comes to no surprise because absenteeism seems to have been a major problem in Icelandic preschools as both Sigursteinsdóttir et al (2011) and Árnadóttir et al (2014) found out in their surveys, especially after the financial crisis in 2008. Furthermore, manager A knows first-hand how big of a problem this is in preschools in general after working in two preschool committees in two municipalities, describing the rate to be “unnatural”.

It comes as no shock that resources are limited in the Icelandic preschool system. Icelandic preschools are non-profit organisations with their financial resources controlled by the municipalities. The municipalities vary in their financial balance, however, many have been struggling heavily since the financial crisis and costs are kept low. Hence, providing quality childcare seems not to be as easy as it used to be in the years of prosperity in Iceland before 2008. Moreover, the number of children in the preschool system has increased heavily with nearly all children attending preschool (Hagstofa Íslands, 2015a) but at the same time the educational system has suffered from a great cut in budget (European Commission, 2011). Consequently, the preschool system suffers from this lack of manpower (Sigursteinsdóttir et al, 2011).

In relation to occupational stress, the interviews brought attention to several sources of stress that are an unavoidable part of the job. Physical stress in preschools is triggered by bending, lifting and other ergonomics features (McGrath & Huntington, 2007) and mental stress from e.g. noise exposure due to children crying. However, the preschool profession is also under a heavy risk of additional stress exposure due to the barriers elaborated on previously. According to Sigursteinsdóttir et al (2011) study, preschool teachers have reported their physical and mental health to have gotten worse after the financial crisis, implying that preschool employees' wellbeing is in a great risk

In the interviews, there was one particular group of employees' that needs to be given special attention to. One employee talked about that the job is not stressful now, but it was very mentally challenging when her children were young. Although Wagner et al (2013) findings suggest that individuals that had no children of their own felt less perceived stress, their findings might be linked to employees' having young children to care for while also working in a preschool. There is no attempt made to generalize here, but rather suggest that this particular group of employees' in the preschool setting, that count for a big portion of the employees are given special attention. Especially as manager A emphasis, that this group of employees have less opportunities to exercise in leisure time. Thus, she found it necessary to give her employees a chance to exercise during work in order for this particular group to benefit from it the most.

The amount of preschools that enable employees to exercise during working hours to be so rare correlates to the impediments that hinder the managers. Not enough manpower in general means that managers do not have people to cover for one another while exercising. Additionally, employees' absenteeism impedes it even further. Thus, preschools suffer from lack of manpower in general due to the amount of employees' the manager is permitted to recruit but work understaffed in addition to that. When there is not enough manpower, managing time to finish tasks is challenging. Time management problems occur in many parts because when employees' continuously work understaffed, the tasks pile up.

## 5.2 Making it work

Due to the scarce resources prevalent in Icelandic preschools it seems very problematic for managers to enable exercise during working hours for the employees'. The two preschools interviewed however show that it can be accomplished. Effective, warm and committed leadership and a collaborative work culture that promotes an active lifestyle was apparent within both respective preschools that face the same impediments of recruiting according to child/employee ratio. As elaborated on in a previous chapter, absenteeism is a barrier in which hinders preschool managers to give employees' time to exercise during work hours. Absenteeism occurs in both preschools just like in every other work place. However, the two managers seem to have managed to keep it under control.

In preschool A, when there are people absent the days they go out, they address it first thing in the morning and employees move between departments within the preschool so that everybody that wants to go out for their exercise breaks can, which demands collaboration among all employees. They want to support one another because they are aware of the beneficial side effects they get out of it. As manager A's emphasis, if the employees really want to go out they can figure out ways in collaboration. Furthermore, manager A has managed to lower the absenteeism rate among her employees' by initiating discourses with employees that are absent for more than five days over three months. Consequently, absenteeism decreased by 35%. Why there has been such a decrease in a short amount of time is unidentified. However, one way to explain it might be that feeling more recognised and understood by their employer increases employees' job commitment (Lagrosen et al, 2014). Moreover, manager B does not elaborate much on absenteeism. However, it is emphasised that employees take responsibility together as a group and employees are reminded that being absent increases the workload on the remaining staff. Why there is so low absenteeism in preschool B might relate to the active lifestyle promoted in the school as being physically active has been related to lower rates of absenteeism (Shepard, 1999; Carnerthon et al, 2009).

The aim of this study was not to examine the leadership styles of the two managers. The interviews however gave some ideas about what values they seem to practise. Leadership commitment is a predominant factor known to influence employees' perceived health (Lagrosen & Lagrosen, 2014; Bäckström et al, 2009; Bäckström et al, 2014) and apparent in the interviews was the managers' commitment in doing what they can to enhance their employees' sense of wellbeing. With that being said, the managers seem to practice some of

the values of 'leadership commitment' known within 'Quality management' presented by Lagrosen et al (2010). Quality management is not strategically integrated in to the preschools practise. However, according to Bäckström et al (2009), organisation can be practising values according to quality management without being 'working according to quality management'. For example, both managers show great 'empathy' towards their employees'. They are fully aware of the challenges that come with the job physically and mentally and endorse to promote a good quality work environment. Thus, by promoting active and healthy lifestyle in the workplace the employees' are better equipped to meet all these challenges. A part of empathy is to understand employees' situation (Lagrosen et al, 2010). The 'continuity' dimensions refer to stable management which enhances more trust among management and employees (Lagrosen et al, 2010). Trust is important for cooperation between management and employees. Furthermore, 'presence and communication' refers to the leadership being visible and communication being clear (Lagrosen et al, 2010). Through the interviews seemed to work in close collaboration with their employees'.

Both managers confronted their ideas about managing time for the employees to exercise, with their employees before implementation. Manager B worked on solutions with his middle managers before confronting the rest of the employees. This is an essential part because middle managers influence their subordinates, so the management needs to ensure their commitment to health promotion programs as well (Conway and Monks, 2011). Furthermore, the management team needs to adapt to the behavioural changes they are promoting as well and be role models for the rest of the employees for an even more profound effect of the health promotion (Bäckström et al, 2009) which both respective managers do when they have the chance to.

The willingness and interest among the employees in respective preschools played a part in how successful it was for both preschool managers to integrate employees' exercise into the routine. In the online survey, employees' lack of interest was mentioned as a barrier for employees exercising during work. The interest among the employees in these two preschools can be explained by the work culture that promotes an active lifestyle according to the interviews. Both preschools accentuate on healthy and active lifestyle and their curriculum involves around it. Manager A and employee 1A are both confident that the schools philosophy aiming at providing healthy and active environments for the children influences the employees as well. Goldgruber & Ahrens (2009) argued that for health promotion initiatives to be sustainable, the culture needs to promote it. Considering the enthusiasm in both managers in being committed to this health promotion policy, there is a good chance that they turn into a long-term success (Shepard, 1999). It has already become a long-term success for preschool B that started nearly two years ago with all employees participating and have even been slowly expanding their goals.

Drawing from these conclusion, the factors behind why these two preschools have been able to effectively integrate exercise into their routine is committed leadership and a health promoting work culture. Absenteeism is not plaguing them greatly perhaps because committed leadership and a collaborative and healthy work culture enhances employees' health and wellbeing which decreases absenteeism rate. However, absenteeism does occur in the two respective preschool which they find solutions to due to collaboration between employees'. According to the managers and employees, this is possible in every preschool if they set their mind to accomplish

it. Furthermore, all participants in the interviews highly recommend it and especially in preschools as a way to ease perceived stress in employees.

### 5.3 Happier and more efficient employees'

Occupational stress is without a doubt prevalent in preschools. However, the employees in the interviews made no big deal out of the stress and did not elaborate on stressors due to working understaffed. Thus, the two managers seem to have been able to create a work environment for their employees that minimizes stress levels. According to the interviews, keeping your body and soul in place is imperative to cope with the work stressors and everybody agreed that being physically active is important for body functioning. All four employees that were interviewed are rather active in general. However, they are not working out systematically at a gym or any kind of competitive sport. Shepard (1999) and Marshall (2004) argued that those who participate in worksite health promoting activities tend to be the health conscious majority that already participate in a community health programs. That is a valid point and something that employers need to consider when promoting healthy behaviour changes in the workplace. Initiatives need to be planned in a way that they reach all individuals within the organisations, more specifically those who can benefit from it the most (Kettunen et al, 2015) such as those that are mostly inactive and with the highest levels of reported stress. Absenteeism discussion like manager A has with her employees' is a good strategy to pinpoint these employees out.

The managers made it clear from the start that nobody was forced to participate but that it would give them an extra break to their regular coffee breaks. Getting extended coffee break is a motivator for the employees to participate. There were no measures done in this research to see whether the employees in the two respective preschools are active in general so it cannot be ruled out that those who are participating are only the ones that were active beforehand. However, during the interviews it was implied that people were in various shapes and that people get to set their levels of intensity to what they feel comfortable with. For example, manager B mentioned that some run long distances while others walk shorter distances. However, although participants seem at various fitness levels it seems that all participants in both preschools want to get something out of it and that everybody is going as fast as their body allows them with the goal of increasing fitness levels.

There were several beneficial side effects reported for the integrated exercise into the routine. On the individual level, the employees talked about being reenergized and that it helped them coping better with the rest of the day and becoming more efficient in work performance. Attention was also brought to more patience. Going out and pumping up the heart rate gives different kind of disconnect from the job than the regular coffee breaks. Furthermore, what emerged also as a benefit is more work-life balance with less exhaustion making it easier to cope with tasks that needs to be done after work.

On the organisational level, the exercise engagement influenced the internal morale. They all express enjoyment and laughter that comes with this arrangement. Manager A describes it as the internal morale has been enhanced in a positive way and that the employees seem to be

happier in general. The happiness around these arrangement influences the participation in preschool A where people that were not interested in participation initially have started to participate and manager A is certain that everybody will participate eventually due to the enjoyment she feels around this among her staff. Thus, motivation and social support seem to be powerful tools affecting the participation rate. It was clear in the interviews that employees motivate each other to be active and participate and even start competing with one another but in a positive way.

The employees in the interviews seem very satisfied in their job and do it because it gives them joy, which in turn can decrease levels of perceived stress (Wagner et al, 2013). That might explain why the employees did not make too much big of a deal about the stress that is a part of the work. They have all worked for quite some time in a preschool with work experience varying from eight to 31 years. These four employees cannot be generalised for the preschool profession but are a valuable source for what contributes to a good preschool work environment. The aim of this study was to see if preschool managers could promote physical activity in the work place as a stress coping strategy for employees. Additionally, exercising in a teams has gained more than just an enhanced individual wellbeing, the whole workforce is profiting.

## 5.4 Opportunities

As previously elaborated on, preschools face limited amount of resources such as lack of money and manpower. The aim of this study was to see if and how preschool managers can promote exercise engagement among employees without supervising the children at the same time. However, what emerged in the online survey and in the interviews were the opportunities managers have in their hands to promote increased activity level among employees while also supervising the children.

Preschool A has been implementing a learning approach aimed at the children through physical activities where employees' contribution is encouraged with ideas on how the employees can participate. Williams et al (2009) study showed an increase in leisure time physical activity among preschool teachers during curriculum implementation of exercise activities among preschoolers. Although that study was done on a very small sample of preschool teachers it suggest that employees' level of activity might possibly be increased due to the preschools curriculum. Specifically if the activities planned aim at employees' participation. It is very common that preschools have planned exercise activities for the children, the older children in most parts, but how much varies between preschools.

In the online survey, many managers pointed out that employees can be active and get a decent amount of exercise out with the children if they choose to do so. These activities do not have to be long to be beneficial according to the managers in the interviews. Small working bouts in the workplace have been related to boost teachers' performance in studies in several school settings according to Barr-Anderson et al (2011) meta-analysis. Furthermore, only moderate exercise engagement has been correlated to build up resilience for stress episodes (Gillian et al,

2013). Hence, preschool managers can facilitate the type of work environment they are involved in, with many outdoor activities, and motivate the employees to be active.

Preschool employees are role models for the children and being active with the children yields positive impressions on the children. It does not have to be planned activities for the children, simply spontaneous exercising in the playground by getting the children involved is a fun way for children and employees to do together. Employees in the respective preschool have engaged in all kind of exercises while supervising the children to a great amusement among children. However, the opportunities vary whether supervising the older or younger children. One employee in the interviews emphasised that these exercises they participate in without the children were necessary for the employees' that work mostly with the youngest children. They do not get out as often due to how turbulent the weather conditions can be in Iceland while the older children are able to go out in all kinds of weather conditions. However, with the younger children sleeping in the midday, there is more capacity to go out during the midday for those predominantly supervising the youngest children.

Manager B utilized that capacity of working much outdoors by initiating stroller-exercises that the employees engage in with the children (not mandatory). Two employees go together with four children in a stroller and do exercises with great enjoyment among the children. Moreover, one manager in the online survey had done the same. Though, that kind of activities can only be done during the summer time. However, this illustrates that if the manager is resourceful there are many opportunities available for him to promote employees' exercise engagement and hopefully their wellbeing along the way. The manager is responsible for improving quality of the preschool, which the two respective preschool managers are certain that employees' wellbeing impacts. The online survey further shows that there is will among preschool managers to give their employees flexibility to exercise during working hours but do not find the way to do it. By starting to promote exercise engagement while supervising the children would be a good way to start that could eventually spill over to decrease in absenteeism if done rightfully, with previously mentioned that increased activity level may result in decrease in absenteeism rate (Shepard, 1999).

*The elements presented previously in the literature review as a theoretical concept of a healthy workplace; committed leadership and work culture have been supported by this research. Furthermore, exercise during work enables employees to be more efficient in their work afterwards by coping better with the rest of the day according to the qualitative approach. Hence, it implies that it can build up resilience to stress episodes as suggested in the literature. What emerged as an additional feature and not addressed in the literature is that exercising in the workplace, where employees go together in a group enhances the internal morale and creates more interpersonal relationship between co-workers. In such demanding work environment, support and motivation between staff seems also to contribute to stress-coping, with employees in respective preschools reporting high levels of job satisfaction and less perceived levels of stress. Furthermore, preschool managers have many opportunities in their hands to promote an active lifestyle although facing many organisational barriers. If the manager is committed there are ways in which he can become successful in creating more healthy work environment and in the meantime enhancing employees' wellbeing.*



# 6 Conclusion

## 6.1 Research Aim and Objectives

Occupational stress is clearly a salient component within the preschool profession, as it was both pointed out in the literature and supported by this research. The occupational stress described in this paper is not only caused by unavoidable stressors that are consequential in early childhood settings but also due to lack of recruited manpower and high absenteeism rate among preschool employees. Subsequently, many preschools face challenges in dealing with time effectively. Quality is the measured output in preschools, and levels of quality are thought to correlate to children's development. This paper has shown that Icelandic policy makers and the municipalities that operate the preschools do not consider preschool employees' wellbeing as a variable that influences the quality of preschools. Long-term exposure to occupational stress can affect individuals' wellbeing, and health and wellbeing can directly influence how individuals perform on the job. Thus, employees' wellbeing should be given more attention by authorities.

The body of literature reveals the benefits and preventative measures exercise can have on reducing and preventing stress episodes while improving job performance. As one way to cope with high levels of stress, this study aimed at exploring in what ways managers in preschools can promote active lifestyle by encouraging employees to exercise during hours of work, since the work place is found to be an ideal place for promoting healthy behaviour changes. According to majority of preschool managers in Iceland, scarce resources inhibit their ability to integrate employees' exercise into the preschool routine. The most commonly mentioned barriers were: lack of manpower, time-management and employees' absenteeism, all relating to limited budget that has decreased in the continuation of the financial crisis in 2008.

However, according to the survey conducted in this research, there are a few preschools in Iceland that provide their employees with time to engage in exercise during working hours. Managers and employees from two of these preschools were interviewed for this research. There were two factors both preschools seemed to have for effectively managing to implement exercise; committed leadership and a work culture that promotes healthy and active lifestyle. Employees in the respective preschools collaborate in making this work because of their awareness of the benefits it gives them in forms of more efficiency in the second half of the day, which also enhances work performance. Furthermore, drawing from the interviews, an arrangement like this can enhance internal moral and bring more joy into the workplace. Both preschools in question have tight group dimensions and of the opportunity to go out together and exercise has brought employees closer together as a group. This experience is different from the traditional coffee breaks and builds more interpersonal connections between co-workers.

This research revealed the opportunities managers have to implement exercise routines despite limited resources. They can motivate employees to become more active while supervising the children and be good role models at the same time. Both the online survey and the interviews elaborated on the potential benefits available from exercising together with the children.

## 6.2 Practical implications and future research

When interpreting the findings of this research there are some implications that need to be discussed. Considering occupational stress being the basis of this paper, simply implementing an exercise routine without enough thought and preparation can actually make the implementation become only an additional stressor. Furthermore, preschools vary in size and structure, what works in a small sized preschool might be more challenging to implement in larger preschools. Preschool B, which has effectively integrated and sustained employee exercise for two years, is small sized and transforming into having young children; this transition means that they have many children that are asleep for a decent amount of time during the midday, thus giving employees more flexibility to exercise. Preschool A is medium sized with children at all ages, however, due to how recently they integrated exercise into their routine, the long-term success is yet to be determined.

### 6.2.1 Research Limitations

My interpretative stance and personal experience in the preschool setting puts limitations on generalizing these findings. Furthermore, the context is strict to the Icelandic preschool system and could therefore not apply in other countries. Both preschools in this case study are situated in the same municipality in the capital area. While the municipalities operate the preschools, it would have been a stronger case to cover preschools that are not situated in the same municipality and even stronger if one would be situated in the rural side of the country.

Furthermore, the online survey showed that the managers who filled it out misunderstood the objectives of the survey and answered ‘incorrectly’. The answers in the survey were still useful, however, this needs to be addressed for the reader to account for this factor while interpreting the results.

### 6.2.2 Recommendations for Future Research

In this paper, several risk factors that can influence preschool employees’ wellbeing are pointed out. However, this paper cannot conclude that preschool employees’ wellbeing is already depraved because no measurements were done in that regard. This study only confirms what has been pointed out in the literature; that this occupational group needs to gain more attention. Moreover, the research has predominantly focused on qualified preschool teachers, but future literature needs to address the entire preschool workforce. Of even greater need is a study of the correlations between preschool employees’ wellbeing and preschool quality with

performance measurements. Additionally, for this particular research topic, it would be beneficial to study a preschool throughout the entire implementation of a health promotion initiative and closely study the variables that determine whether the promotion becomes successful or not over a longer period of time. This would help the manager build a better understanding about the capacity for implementation

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# Appendix A

## **Preschool manager:**

### **Background information:**

Age

Education

How long have you worked as a preschool manager?

### **Information about the preschool**

How many work in the preschool?

How many are qualified preschool teachers? Any other university level education?

How many children stay in the preschool and in what age range?

What is the most common number of hours the children stay per day?

### **Heading to the subject; exercising during working hours**

When did your preschool start offering time to exercise for the employees?

#### *About the organising:*

How often and for how long does the employee have to exercise?

At what time of the day is it available for them?

Does it affect their normal breaks during the day?

What kind of exercise are the employees engaging in?

How many employees' participate in exercise during work?

What influenced your decision towards scheduling time for employees to exercise during work?

What do you consider to be potential benefits for offering opportunity for employees to exercise during working hours?

How did the integration to the preschool schedule go?

What do you consider to be the barriers for preschool managers to offer time during work for the employees to exercise and why?

Would you consider the preschools culture to promote being active?

How do you experience you employees view towards having the opportunity to exercise during working hours?

Have you seen any changes in your staff after you started to offer this to them?

Would you recommend to other preschool managers to offer opportunity for employees to exercise during work?

**Additional questions sent to the managers by email:**

How can employees' wellbeing affect the quality of preschools?

Do you consider authorities to consider preschool employees wellbeing as a variable when preschool quality is measured?

What factors does a manager need to consider to assure that a health promotion becomes sustainable?

Do you feel that managers need to participate in health promotion activities in the work place? If so, why?

**Employees:**

**Background information**

Age

Education

Family situation

Do you exercise during leisure time?

If yes, how often and for how long each time?

During work, how often do you engage in a physical activity?

In what intensity do you exercise during work?

What is your general view towards exercising during work?

What do you believe to be the benefits of exercising during working hours?

Would you consider the preschools culture to promote being active?

Have you experienced changes in yourself (work vice) after you started exercising during work?

# Appendix B

## Exercise during work hours

It is becoming more prevalent that originations have started to offer flexibility for their employees' to exercise during work hours. The purpose of this survey is to examine how common it is amongst preschools in Iceland to offer that flexibility. The exercise in question about is not referring to traditional work-related movement while supervising the children unless planned employee exercises have been implemented into the daily schedule.

This survey is part of my research I am working for my Master's thesis in Management of Business and Economics at the University of Lund in Sweden.

If the preschool manager is absent the participation of the assistant manager is sufficient. Take note that only one participation is requested from each preschool. It should not take longer than a couple of minutes to participate in the survey that will be open until the Friday May 6<sup>th</sup> 2015.

Thank you in advance

\* Required

**1. This survey is filled out by: \***

- Manager
- Assistant Manager

**2. Where in Iceland is your preschool located? \***

- Capital Area
- South West Iceland
- South Iceland
- East Iceland
- North Iceland
- West Iceland

**3. Does your preschool have exercise opportunities during work hours outside normal coffee breaks?\***

If you choose NO skip ahead to question 8

- Yes
- No

**4. How often a week is each employee offered to exercise?**

If no option suits please write in "other" what or how often it is.

- Once a week
- Twice a week

- Three times a week
- Four times a week
- Five times a week
- Other:

**5. For how long has the employee each time to exercise?**

If the time is not constant please answer in average

Hours. Min

Sec

:  :

**6. What kind of exercise does your employees engage in during work hours?**

Pick all options that is relevant.

- Walking
- Jogging/Running
- Swimming
- Biking
- Group exercise in a gym
- Weight lifting
- Other:

**7. Why is it important to implement exercise during work hours?**

After this question skip ahead to question 10.

**8. Have you considered the possibility of implementing exercise during work hours?**

This question is only for those who answered NO to question 3

- Yes
- No

**9. Do you think it is likely that you will in the future offer capacity for employees to exercise during work hours?**

This question is only for them who answered NO to question 3

- Yes
- No

**10. What do you perceive to be the main obstacles for the preschool manager when it comes to promoting exercrise for employees during working hours?**

Question for all who answered question 3

## Appendix C

Participant number	10. What do you assess to be the main obstacles for the preschool manager when it comes to freedom of exercise for workers during working hours?
1	Not enough people
2	In the preschool are children that needs to be taken care of. If employees go from that there is nobody there to take care of them.
3	Too high standards about daily planning and shortage is financials to give people a change to exercise. Needs funding from the teacher alliance
4	Too little time and different interest about exercise during work hours.
5	Too few employees to do the jobs
6	Finding the time and staff
7	Employees that work with children move a lot during work hours but that would be a thought to implement maybe a walk after lunch with people that interact less directly with the children
8	Shortage in staff because of sick days and time shortage
9	While the personnel schedule is the way it is where all time is cramped up I don't see this happening. I would much like to implement it but I am not ready to increase the stress on the school to make it happen. Here is the whole day scheduled and no time undefined.
10	Need employees instead of them that go out of the departments to exercise
11	Time management and amount of employees
12	I see it as employees should get enough exercise during work hour like in gym, outdoors, dancing and during play hour
13	Not enough employees to do the job when others are out during exercise during work hours
14	Lunch and planning around that. Could use some extra time in the resting time.
15	Too little time
16	You always need an employee instead of one that goes away.
17	Amount of children, employee's absence and stress over the working day.
18	Employees are very bound to their daily chores
19	Employees need to be around in the workplace.
20	Time management and finance
21	A lot of work stress and shortage of employees
22	Movement is a part of the work in a preschool but not planned just for the staff, if that would be then I cannot see it can fit into the daily work in the preschool
23	Planning and/or shortage of employees
24	Children's presence give you less flexibility to have organized exercise during work hours
25	Staffing
26	The work environment does not allow it.
27	Not enough time, I don't even have enough people to plan out coffee times
28	Tight schedule all day.
29	In this case I ask: Who is there to take over the employees work during exercise
30	Not enough people
31	We are only staffed for the amount of children that are here at each time so it is not possible safety wise to take that number down. On the other hand it would be nice to go out with co-workers on walks during work hours.

32	Not enough people to replace each other.
33	Employees of preschool move a lot during work hours, both outside and inside
34	Time shortage is number 1 2 and 3. To secure exercise during work hours (would be nice) some provisions are needed in collective agreements. Another option would be to shorten the work week so people were more able time wise to exercise
35	Employees absence
36	Not enough employees and absence
37	Time management and interests
38	I have discussed this during meetings and sadly it hard to start it. There is enough trouble planning out the preparation times because of absent employees. More staff is needed, there is no way doing it otherwise.
39	You have to be around as a preschool teacher with packed department from 08:00 to 16:00 so there is not much flexibility to leave. It is maybe the staff on department were the children are under certain age were they sleep. It would be interesting to allow my staff to have the opportunity to go out and exercise. Go to the gym or jog, massage and relaxation maybe once a week during work hours were the stress is high on preschool teachers.
40	The municipality needs to make room for more employees, there are many children and certain employees don't have the interest
41	The municipality has to plan staffing for it to happen. There are too many children and staffs interest
42	Who is supposed to work in the mean time? For it to work more staff is needed to cover that absence. We don't put the children inside of cabinets while staff goes out for a run. There is enough stress to plan out peoples coffee breaks because while the department are under staffed. The main workflow of preschool needs to change for this to work.
43	Work stress
44	No Answer
45	Time shortage, also shortage of people to cover while a worker goes away.
46	Increased stress on employees. The children won't wait for them to be serviced. If one is missing from a department the others need to run faster to compensate. I think this is a good idea and would be nice to be able to implement this.
47	Employee shortage
48	I don't see this happening during work hours
49	Sick days
50	Time shortage
51	No Answer
52	Funding is needed to hire replacement workers for the employee is exercising
53	Continual under staffing and time shortage
54	Time shortage
55	Too few people manly because of sick days
56	I said "yes" in question number 9 because it is very important but until now we have not thought about it for real but now is an awakening that hopefully delivers ideas for room to exercise during work hours.
57	Too few people
58	No room for it in work environment. Preschool managers don't have the power for decisions, that lays with the municipality what room we have in staffing.
59	Too few people
60	Continuously under staffing and time shortage

61	Too few employees therefore no room for it in spite of good will.
62	I believe that I don't have the authority to offer people to do that in the working hour. I think the municipality would have to comply. I think it can be manageable to offer it and it would be positive for everyone.
63	Number of children per employee
64	Not enough employees to distribute the work load
65	When we are not fully staffed.
66	Too few employees. Employees goes on walks and all-around movement but with the children.
67	Work time for every employee has a tight schedule so it needs flexibility. It is a thought to offer something after work. Get everyone to do yoga, zumba or walks.
68	Too few people.
69	Finding the time.
70	Children are here and need attention and care all the time that they stay in the preschool. It is not expected in the staffing the time for exercise.
71	We have children here all day and often there is much employee absence. If we are short staffed preparation often falls of the daily schedule and that is the essence for the job. If you cannot prepare the work ahead you don't have much room to allow exercise during work hours.
72	Too few people.
73	It is not possible to loose people off the worksite for longer times than traditional breaks and preparation times because often we are short staffed because of sick days and doctors' appointments.
74	It is the employees them self who don't want to move with the children, there are probably many reasons like there is no shower.
75	No time, absence, scheduling.
76	It is sometimes a lot to schedule around so people can have their coffee times, then what if we let them exercise.
77	Too little time, packed schedule, stress because of absence and sick days
78	As much as I would like it that employees were able to exercise during work hours I cannot see it working in a preschool. In preschool we cannot set the work on hold, somebody has to come instead of person that is not there. If I had a lot (too much) people I would consider it.
79	There is unfortunately no room to do exercises unless during coffee breaks, funding is needed to replace people that exercise during work hours
80	Funding is needed to add replacement staff when the employees are out exercising
81	There is nobody that replaces you
82	More staff is needed to cover the time in my opinion. If everybody get 30-60 min for exercise more employees are needed. On the other hand I bought a 5 children stroller and the staff can use that for exercise that has been used. Our municipality offered a certain amount of money to encourage people to exercise in addition to free scheduled classes in gyms. Free health check every year and water bottles etc. Never know that worktime exercise is the next step.
83	It can come down at the quality of work with the children if not additional staff comes as replacement for employees.
84	No room for it in personnel scheduling
85	There is not enough time and personnel scheduling
86	There is no room for it in the personnel scheduling

87	We are with the children all day and are struggling to work out coffee breaks. We feel bad how the coffee breaks can tear apart the work that we do with the children. In the other hand can the staff get a lot of exercise by being active during our outdoor classes, you can get a few kilometres in walking by only doing that.
88	I think that preschool staff move a lot every day in the form of fore example walking because we have outdoor play, outdoor classes , field trips and much play everyday
89	Most likely is it a time shortage, not enough people and employee absence. I have offered walks during work development meetings that most said yeas about. But it would be nice to have planned out exercise, I have tried and offered to extend the coffee breaks the interest was not enough.
90	Preschool workers have the right for 40 min a day in coffee breaks and are free to use that time. Unfortunately is the daily schedule in that way when the school is open from 8 – 16 there is not much extra time because every minute is planned with the children and often I am missing a few people. It is not easy but it would be nice to implement.
91	Number of employees
92	Too few people and margins are tight to leave the children for body and spiritual nourishment
93	Too few employees to insure safety for the children while the employees are going out for exercise
94	Movement is always a choice with the children. It is tough enough to schedule coffee and preparation times in the daily schedule already.
95	Time shortage
96	Time shortage
97	When coffee time are before and after lunch there is not much available time
98	Needs employees and time
99	Teachers need to be around.
100	It is possible if you have enough people
101	<b>No Answer</b>
102	It would be a good influence on a lot of people to be able to exercise in work hours but I don't know how to fit it into the daily schedule. There are a few that move around a lot during work related tasks. Most go exercise in gyms after work. If it would be implemented in the work time the municipality needs to be involved.
103	Preschool staff have to have the children under supervision at all times therefor cannot be doing exercises during worktime. It would risk the safety of the children to offer employees some planned exercise in the worktime. On the other hand do the staff move a lot during daily tasks but that is on the children's terms
104	Children in preschool needs to be under supervision all of the time that they are in preschool. If the employees are exercising in their own terms then it would risk the children's safety.
105	Tight daily schedule
106	There is enough room for employees to move with the children
107	Too much scheduling and inflexibility
108	Attitude, lack of solution search
109	Main obstacle is shortage of employees. We have tried to move all together with the children. Go on walks and do exercises. We have offered massage for employees during work hours.
110	The flexibility is next to nothing to offer the staff to exercise during worktime, people schedule is fully booked and often we are short in staffing so people cannot just jump



	away. There is a lot of movement implemented in the daily tasks so the people are on the move though it is not planned out. This has not been brought up for discussion here but most people do some exercises outside of work like gym, biking exercise in other way, some use coffee breaks to go for a walk.
111	No Answer
112	Shortage of people, It is difficult to find the time in the tight personnel schedule. It would come down on the work that we do with the children unless adding people.
113	Personnel, that needs to be enough employees to be with the children.
114	It is hard to fit in replacement workers so people can exercise during work hours.
115	Employee shortage every day. A lot of stress
116	Stress and limited flexibility. All employees move around in this job but it would of course be positive to fit that in that employees could exercise systematically
117	Too few employees vs the numbers of children
118	We choose to put no time into it rather use our time in work with the children. Many employees are biking and walking to work.
119	Too few employees and facilities
120	Time management and hard to schedule work while exercise is supposed to be.
121	People are responsible for their own health and life in my opinion. Preschool workers have the room to be able to exercise during their prep time do they choose to work on formal preparation outside of the work hours.
122	We are working with children whom most attend for eight hours. Replacement is not available so that employees can exercise during working hours. How am I supposed to cope with that? I don't find it to be employers' job to ensure that people exercise during work. People can do it before or after work. The most common barriers: We have to fulfil the requirements that follow running preschools, have the child/employee ratio in place. Of course employees can exercise during their traditional coffee breaks and some employees do that very often.
123	Time, number of employees and in some way the facility.
124	It is hard enough to solve coffee times and meetings that are on work hours. More employees is necessary so exercise is possible on work hours.
125	Funding is needed to pay replacement workers while the employee is exercising
126	To replace those workers that are doing exercise.
127	Replacement is always needed in for the employee that goes away and room within the preschool is small to nothing.
128	People shortage and funding
129	No Answer
130	Too much absence of employees because for example sick days. We need the time with the children and in the work that we do with them. It is possible to check out the possibility of doing it during their rest times like other preschools are doing but they are a part of employees coffee times.