RELAXATION IN TRANSIT: Creating Wellness Spaces in Vancouver International Airport

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Relaxation in Transit: 
Creating Wellness Spaces in Vancouver International Airport 
by 
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We accept this project as conforming 
to the required standard 

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Executive Summary

This Professional Report explores the planning of wellness spaces in places of transit, particularly airports. The purpose of this report is to examine the benefits of dedicated wellness spaces in airports and determine if there is a demand for a passenger wellness space at Vancouver International Airport (YVR). The research draws attention to airports and stress, indicating that around 50 percent of travellers experience some degree of anxiety while travelling via air (Capafons et al., 1999). Supplementary data collection suggests that practicing yoga lowers stress levels and anxiety, along with reducing blood pressure, strengthening the immune system, and relaxing the body. By marrying these topics (air travel stress and yoga), the topic of the provision of wellness spaces in airports is explored. Research from airports that have implemented wellness spaces, in both the United States and Europe, shows an ample amount of praise and success for providing these spaces as an amenity to travellers. Case study data from a survey at YVR reveals that about 50 percent of people would be willing to use a dedicated wellness space in the terminal(s) at YVR. A focus group with YVR employees showed high levels of excitement, and provided logistics and further considerations for the implementation of such a space. Lastly, a terminal walk indicates that there are currently 10 locations available for a wellness space in the terminal(s) at YVR. The report draws from both qualitative and quantitative methods of data collection and analyses, including information from other world-class airports. This data provides evidence and supports the recommendation that YVR consider the provision of a complimentary wellness space in its terminal(s).
Preface

In April, 2014, I graduated from The University of Western Ontario, receiving The Gold Medal and obtaining a Bachelor of Arts in Geography (Hons.). Through my course of studies, I became interested in urban planning and the development of healthy communities and spaces. I am currently attending the School of Community and Regional Planning, at the University of British Columbia, to obtain my Master of Arts in Planning.

Moving to Vancouver, British Columbia, in the summer of 2014 was anxiety provoking for me, to say the least. I am a nervous flyer at the best of times, and was leaving my family behind to study for two years in Vancouver. In the past year, I have engaged in the practice of yoga to support my personal wellbeing and have found that through this activity, I can find a place of solitude, peace and gratitude during stressful times, and bring a sense of calmness to both my body and mind.

As a result of my undergraduate studies, my anxiety with air travel, and other personal stressors, I have deepened my interest in the creation of healthy environments to support personal wellbeing. In particular, I have thought on many occasions that the provision of a space for people to relax, stretch, meditate or practice yoga before a flight, would be a welcome relief for travelers. This is where my research began.
Acknowledgements

The following report could not have been made possible without the support and guidance from my academic supervisor, Dr. Leonora Angeles (Nora). Nora supported my ideas, and guided me from the moment of project proposal, during research and data collection, and through to the preparation and completion of the report. Thank you.

This research also could not have been made possible without my placement supervisor, Kevin Hong, from Vancouver Airport Authority. Kevin supported and enhanced my ideas for exploring the possibility of a wellness space at Vancouver International Airport (YVR). Kevin permitted me to conduct surveys in the airport, host a focus group with employees, and conduct a terminal walk with key stakeholders. The success and depth of this project could not have been achieved without Kevin’s open mindedness and trust in my sense of creativity and initiative around my ideas. Thank you.

A major thank you to my parents and sisters who have supported me during my time in Vancouver. My family has always made themselves available to be a sounding board or to bring clarity to my work with my final project. The success of this report was constantly fueled by the encouragement from my family members. Thank you for always reminding me of the importance of persevering through hard times, especially academic ones!

To my close friends in Vancouver and Toronto, thank you for supporting me from both near and far. Also, thank you to the students at the School of Community and Regional Planning (SCARP) for your inspiration and support. You have taught me so much about the field of planning, and about myself and others. A big thank you to the SCARP students who very willingly translated my survey (Jen R., Jessica J., Carolina C., Gurtej T., and Fausto I.). Another very big thank you to Emme L. for assisting me with preparing for my focus group session at YVR.

Enormous thanks to the staff of YVR who attended my focus group session and were a part of the terminal walk. In addition, I am grateful to the individuals who took time to participate in my survey at YVR. A special thank you to the staff on social media at San Francisco International Airport, Dallas Fort Worth International Airport, and both Chicago O’Hare and Midway Airports, for providing me with detailed information about the wellness spaces within these airports.

Finally, I would like to thank my yoga teachers, Emily Millen and Aili Storen, for making me want to come to the mat daily, practice yoga, and gain a sense of personal wellness. Thanks for teaching me what yoga is about and providing a pathway of inspiration for this project.

Thank you to all who believed in my ideas and in making this project possible.
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CHAPTER 1:

Why Wellness Spaces in Airports?

Figure 1: Copenhagen Airport check-in lines
Approximately half of the population who travel by air experience some degree of travel-related anxiety, or apprehension to flying. Within this population, ten percent of people are so afraid of flying, that they avoid it at all costs (McIntosh et al. 1998). The air travel experience starts the moment an individual begins their trip to the airport, and the peak of anxiety most often occurs at security check points. Beyond its typical function of processing travellers, the airport is a vehicle for tourism and consumerism. There is opportunity for airports to consider providing ‘wellness spaces’ for their customers to relax and de-stress before and/or after their flight. These ‘wellness spaces’ can serve as dedicated areas for relaxing, stretching, meditating or practicing yoga and other such activities that support personal wellness. This report explores the planning-related issues and implications for creating such wellness spaces in airports.

1.0 Introduction

The methodology for the following report was based on an extensive literature review and case study data. This report responds to the following questions:

- Where has there been success in creating wellness spaces in airports around the world?
- To what extent are passengers of Vancouver International Airport (YVR) interested in using a dedicated wellness space in the terminal(s)?
- What are the logistics and considerations for creating a wellness space at YVR?
The related literature review involves the collection and analysis of both qualitative and quantitative data, focusing predominantly on: airports and stress; the benefits of relaxation techniques including yoga; and the provision of wellness spaces within airports worldwide. All other topics, such as other relaxation practices though relevant, are beyond the context of this study. The literature was summarized and organized into themes in order to gain understanding of relaxation spaces in transit. Similarly, a qualitative review of existing wellness spaces in airports was conducted to identify factors and logistics that contribute to successful implementation of these spaces.

The case study was conducted at YVR and included three components: a survey with airport passengers; a focus group with airport employees; and a terminal walk with key airport stakeholders. Business modelling and costing, along with any implementation strategies are beyond the scope of this research.

Chart 1: Research Method, Purpose and Outcome

<table>
<thead>
<tr>
<th>Method</th>
<th>Purpose</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey</td>
<td>Determine if travellers desire a dedicated wellness space at YVR.</td>
<td>Quantitative data outlining the number of people desiring this space, and where this space is preferred.</td>
</tr>
<tr>
<td>Focus Group</td>
<td>Determine requirements and recommendations for the space from employees and travellers of YVR themselves.</td>
<td>An understanding of opportunities and further considerations for a passenger wellness space at YVR.</td>
</tr>
<tr>
<td>Terminal Walk</td>
<td>Observe the terminal for available and optimal real estate for a wellness space.</td>
<td>A map outlining potential locations, rated on a three point scale: optimal; less optimal; and non-optimal.</td>
</tr>
</tbody>
</table>
1.2 Limitations

There are some limitations to the literature review. Firstly, given the newness of the concept of wellness spaces in airports, there is no scientific research available on this topic at the time of this report. However, in order to address this topic, only two centrally specific topics were researched: airports and customer stress; and the health benefits of yoga. Next, the research was collated to develop a logical conclusion. Although some information related to airport wellness space development and implementation was obtained from staff at various airports in the United States and Europe, detailed and formal data is limited. The studios are relatively new and there has been limited tracking of the number of users and/or the demographics of individuals who use these spaces. The exception to this is data collected by the Dallas Fort Worth International Airport where users log in to use the space, and have the opportunity to provide feedback and rate the space on a five-point scale. Details of this data can be found under Section 2.4 (p.30). Social media outlets such as Facebook, Instagram, Twitter and Yelp provide an informal opportunity for user feedback.

There are various limitations to the YVR case study research. Firstly, the survey was conducted in pre-security areas, and as a result many people may have been in a hurry to either catch a flight, or leave the airport post-flight. There may have been a higher willingness to participate if the survey was conducted in post-security areas. In addition, longer qualitative surveys could have proven helpful to understand which types of people would be more likely to use a dedicated wellness space, and to understand which factors either draw or deter people from using such a space. The survey was limited to four questions due to a presumption that the majority of people travelling through airports are in a rush. This resulted in a lack of personal and contextual questions and subsequent responses. A lack of funding and time limited the number of survey responses collected to 300. Furthermore, without funding, a trial or pilot program could not be tested. This may have been a beneficial experiment to understand how the wellness space could play out in the context of YVR.
1.3 Report Structure

Chapter Two (Context) of this report begins by outlining the existing literature on this topic. This includes research on airports and stress, and the health benefits of yoga. A detailed breakdown of the existing airports which provide a wellness space as an amenity to their passengers is also included.

The details of each airport space are outlined, with accompanying pictures to provide a visual representation of the space. Chapter Three (Findings) explains the data collection, findings and supplementary analysis. The findings from both the literature review and case study are used to support the recommendations in Chapter Four (Recommendations and Conclusions).

Figure 4: Passengers waiting in London Heathrow International Airport
CHAPTER 2:

Airports, Stress, and the Benefits of Yoga

Figure 5: Security lines at Denver International Airport
2.0 Context

The following section uses relevant literature to address the topics of airports and stress, and the health benefits of yoga. Furthermore, this section considers how these topics can be interrelated. Lastly, this section explores the provision of wellness spaces (specifically yoga rooms) in airports worldwide.

2.1 Airports and Stress

There is some degree of unpredictability associated with airports, which can make this environment very stressful for many individuals. Uncertainties associated with airports include: check-in wait times; security checkpoint lines; flight delays or cancellations; and baggage claim wait times. Beyond the unpredictability of many lines and wait times, there are other common factors that affect individuals’ stress levels in relation to air travel. Some situations that increase anxiety in travellers include: arriving at the airport; seeing the sign ‘departures’; checking-in; hearing the boarding call; standing up to board; seeing the plane; and getting on the plane (Capafóns et al., 1999). Furthermore, travellers may worry about getting to their next destination on time, especially when they have meetings scheduled. In addition, many worry about their baggage making it to their final destination (Le Bel, 2005).
Following the attacks on the World Trade Centre, the Pentagon, and the crashing of the United Flight 93 into a field in Pennsylvania on September 11, 2001 (9/11) many lives were changed. Additional to the physical and emotional distress experienced worldwide, many airport security measures increased (Lyon, 2006). For example, in 2002, the Canada Air Transport Security Authority (CATSA) was formed. This is a Canadian Crown corporation responsible for the security screening in 89 designated airports in Canada. Prior to the 9/11 attacks, the airlines were responsible for screening, as per Transport Canada. For the year after the 9/11 attacks and before the CATSA formation, the Government of Canada was responsible for airport security screening (Lyon, 2006). Other additional security measures that were implemented in Canada in response to the 9/11 attacks include: Advanced Passenger Information (API) and Passenger Name Record (PNR) (Lyon, 2006). API provides detailed information to border police about the traveler, such as: name; age; gender; nationality address; and destination address. PNR contains the itinerary of a passenger or a group of passengers travelling together (Lyon, 2006).

Lastly, joint Canada-U.S. agreements, as of 2004, allow for the expediting of travel of “approved, low-risk travellers”. Examples of these include CANPASS Air which is the Canada-U.S. synchronized, iris-scan-dependent, NEXUS Air scheme. (Lyon, 2006) The increased security is intended to serve the purpose of preventing further terrorist attacks.

There have been some negative implications from the increased security measures in airports, including racial profiling. Racial profiling existed prior to 9/11, however it generally included people of African Canadian descent (Bahdi, 2003). After 9/11, it became common that Muslims, Arabs, and other people of colour be racially profiled. Although racial profiling is not considered to be acceptable practice, it occurs (Bahdi, 2003). Although there is no literature reflecting this, it is
presumed that people who experience racial profiling may experience an increased level of anxiety or stress while travelling. Visible minorities who may have felt comfortable flying before, may now feel apprehension towards this form of travel due to the stereotypical behavior of racial profiling.

Studies have found that between 45 and 50 percent of the population suffers anything from a slight discomfort or hesitation of flying, to a very intense fear. Furthermore, 10 percent of the population will avoid flying due to having such a significant fear or anxiety associated with flying (Capafons et al., 1999). This phenomenon is known as Fear of Flying (FOF), or aviophobia. A study conducted by Sicker in 2010 found that passengers stress levels begin to rise when they leave to the airport, which marks the start of their journey. The peak of the passenger’s stress is when they go through the security process. Bricker (2005) speculates that the more people have a FOF, the more likely they are to experience anxious reactions to unpredicted situations such as a flight delay or a longer than expected wait time.

A study conducted in 1998 compared the source of air travel anxiety and the coping mechanisms used (McIntosh et al., 1998). The study surveyed 238 people, and flight delays were most frequently rated as a source of anxiety, with over 50 percent of travellers reporting anxiety in relation to flight delays. The most common mechanism to reduce anxiety associated with air travel was a “distraction” which included using alcohol, relaxation techniques, or cigarettes. A small percentage, five percent, reported
taking prescribed or non-prescribed medication to reduce flight related anxiety (McIntosh et al. 1998).

Other studies have found that in order to combat the anxieties associated with air travel, travellers use particular services offered by the airport as a vehicle to reduce levels of stress. Various services provided by the airport can bring people peace of mind including, but not limited to: shopping, eating, drinking, going to a prestige lounge, getting a massage, or having shoes shined (Adey, 2004). Beyond the services offered by airports, it is clear that there is opportunity for airports and airline companies to intervene and mitigate the anxieties associated with travelling and provide an optimal experience for their customers.

1.2 The Health Benefits of Yoga

The benefits of being physically active are well known. Physical activity improves the overall physical health and functioning of the body, while also improving mental health (Canadian Physical Activity Guidelines, 2012). There are many types of activities that constitute being physically active, and they range from walking, stretching, practicing yoga, to participating in vigorous sports. The literature review focuses on the physical and mental benefits of yoga and movement of the body in relation to stress and anxiety. A focus on the benefits of exercising, yoga and meditation in relation to adverse health conditions, or certain age groups, is beyond the context of this study.

In Canada, it is recommended that each adult participate in at least 150 minutes of moderate to vigorous physical activity per week. This is the recommended amount in order to increase fitness, reduce chronic disease, reduce the risks of being overweight and obese, and other health concerns. However, these guidelines also amplify the importance of exercise to improve mental health (Canadian Physical Activity Guidelines, 2012).
According to the Centers for Disease Control and Prevention, moderate physical activity is activity that is done at an intensity which is three to six times higher than resting. Vigorous physical activity is done at an intensity which is six or more times higher than resting. Practicing yoga falls under the moderate physical activity category, and can provide many benefits to the individual practicing (Centres for Disease Control and Prevention, 2015).

“Yoga is an ancient discipline designed to bring balance and health to the physical, mental, emotional, and spiritual dimensions of the individual” (Ross and Thomas, 2010 pg. 1). Yoga originated in India and during the late 19th and early 20th Centuries yoga gurus brought yoga to the western world (White, 2012). By the 1980’s yoga became a popular form of physical activity in western culture, and since then has become mainstream and largely commodified (White, 2012). In India, yoga has religious associations, including meditation and spirituality at its core (White, 2012). The ancient practice of yoga is grounded in eight limbs: yama (virtues or universal morality and ethics), niyama (personal observances or ethics), asana (physical postures or poses), pranayama (working with our breath), pratyahara (control of the senses), dharana (immovable concentration), dyana (meditation of the divine), and samadhi (absolute bliss). This is represented in Figure 10.

![The 8 limbs of yoga](image)
The multifaceted aspects of yoga are the roots whereby yoga becomes a physical, spiritual, mental, and emotional practice. A study comparing the benefits of exercise and yoga found that yoga can be equally as effective, and in some cases more effective at improving a variety of health-related outcomes and measures. Some of these measures included balance, fatigue, stress, anxiety, mood, pain, social functioning and cholesterol. The multidimensionality of yoga includes many aspects of exercise as represented in Figure 1. These include the physical practice (asana), breathing (pranayama), concentration (dharana), personal observation (niyama) and meditation (dyana). Researchers have found positive results regarding the benefits of yoga in lowering stress responses in the body (Ross & Thomas, 2010).

A number of worldwide studies have found that yoga has a positive impact on lowering stress levels. The majority of studies have been conducted in the United States and in India. In particular, there is an immediate effect on both the sympathetic nervous system (SNS), which activates the ‘fight or flight’ response, and the hypothalamic-pituitary-adrenal (HPA), which is the central stress response system. Both the SNS and the HPA are areas of the brain that have long been studied in relation to stress and anxiety. In addition, yoga has been shown to decrease heart rate (Selvamurthy et al. 1998, Damodaran et al. 2002, and McCaffrey et al., 2005). The practice of yoga also decreases cortisol levels, which is a chemical response to stress (West, 2004 and Michalsen, 2005). Furthermore, there are also plausible impacts on blood glucose found from practicing yoga. Blood glucose is a source of energy for the body, and therefore positive impacts can increase overall energy levels, focus, and concentration (Khatri et al., 2007 and Gokal & Shillito, 2007). Yoga also lowers norepinephrine levels, which is related to blood pressure, and lowers epinephrine (adrenaline) levels (Selvamurthy et al., 1998). Practicing yoga may lead to positive physical and
mental health impacts for the body. Moreover, studies have found that yoga actually reverses the adverse and negative impacts of stress on the body, and the immune system by increasing levels of immunoglobulin A12 (an antibody) and natural killer cells, which provide an adaptive immune response to viruses and infection (Stuck et al., 2003 and Rao et al., 2008).

As of 2016, over 36.7 million people practiced yoga in the United States alone (Yoga Journal, 2016). This number increased from 20.4 million in 2012. Worldwide, over 250 million people practice yoga, including more than 100 million people practicing yoga in India (The Toronto Star, 2013). The Yoga in America Study, conducted in 2016, also found that over 80 million Americans said they were likely to try yoga this upcoming year. In the western world, yoga has been commodified, and the Yoga in America Study from 2016 found that people who practice yoga spend approximately $16.8 billion on classes, yoga clothing, equipment, and accessories (Yoga Journal, 2016). A study found that in 2015, about 44 percent of people who practice yoga in the United States make over $75,000 per year (Statistics Brain, 2015).

Although there are clear benefits to practicing yoga, there are critics of this commodification of yoga in the western world. The argument leads to questions such as: what is yoga?; what is the nature of yoga?; and who has the right to manage the expression of yoga? This debate has been taken as far as court cases, as seen in the United States between the Bikram Yoga College of India and a yoga franchise in San Francisco (Fish, 2006). It is important to note the varying views on this topic. Despite the criticism, the multi-billion-dollar industry of yoga is continuously attracting more individuals, and the numbers are growing at a quick rate.

Figure 12: lululemon athletica’s yearly SeaWheeze yoga session in Vancouver, British Columbia
As noted in the research on airports and traveller stress, travelling via airport is associated with many uncertainties resulting in traveller worry, discomfort, and anxiety. Research on yoga, indicates that practicing yoga has been proven to lower stress, decrease heart rate, increase energy, reduce blood pressure and decrease anxiety. In addition, there are many physical, ‘feel-good’ results of stretching or practicing yoga before sitting on an airplane. For example, stretching out the body helps to decompress the spine and elongate the neck (Tekur et al., 2008). Furthermore, antibodies and natural killer cells increase after yoga, as an added benefit to the traveller. It is therefore apparent and logical, that it would benefit the traveller to be provided with an opportunity to engage in yoga or other wellness related activities (eg. stretching, meditating, relaxing) either pre or post-flight.

To ensure an optimal experience of travellers, consideration should be given for the provision of a dedicated wellness space in airports. Currently there are no existing airport wellness spaces in Canada. However, airports in the United States and Europe have successfully provided these spaces to their passengers. It is important to note that airports in India do not have dedicated yoga spaces. However, many airports in India have dedicated meditation rooms. For purposes of this study, information was collected only on dedicated yoga rooms. The inclusion of other wellness and meditative spaces such as churches, meditation rooms, and fitness centers, are beyond the context of this study. The details of each airport wellness space are outlined below, along with some informal feedback. The research was gathered online, and through direct contact with airport staff. However, it is important to note that some airports do not formally collect data, and therefore were unable to provide detailed information. For example, only Dallas Fort Worth formally tracks the number of users of their yoga spaces.
United States

The United States has 165 international airports flying to hundreds of destinations worldwide. As of this writing, only six airports have strategically located yoga spaces in their airport terminals, including:

San Francisco International Airport

<table>
<thead>
<tr>
<th>San Francisco, California</th>
<th>San Francisco International Airport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>“Space devoted to relaxation, self-reflection and practicing yoga”. Noted to be the first airport to provide a yoga studio to passengers. There are two studios available at this airport.</td>
</tr>
<tr>
<td>Cost</td>
<td>No cost</td>
</tr>
<tr>
<td>Size</td>
<td>14x30 feet and 15x15 feet</td>
</tr>
<tr>
<td>Hours of Operation</td>
<td>24 hours</td>
</tr>
<tr>
<td>Location</td>
<td>After security</td>
</tr>
<tr>
<td>Date Opened</td>
<td>January 2012, and January 2014</td>
</tr>
<tr>
<td>Number of Users</td>
<td>Not formally tracked</td>
</tr>
<tr>
<td>Feedback</td>
<td>Not formally collected</td>
</tr>
<tr>
<td>Other Information</td>
<td>Fully equipped (all supplies provided, yoga mats, bolsters, blocks, straps, and cleaning supplies). Full length mirrors. Calming earth tones on the walls and ceiling. Wood floors.</td>
</tr>
</tbody>
</table>

San Francisco International Airport is located in the state of California, which is in the coastal south west of the United States. San Francisco International Airport is the seventh busiest airport in North America (Hopper, 2015).

San Francisco International Airport generates an average of 4.2 million passengers per month, and over 50 million annually (San Francisco International Airport, 2015).

*number of passengers enplaned and de-planed. This means the number of people entering and leaving the same aircraft are counted.
Below are some reviews from online feedback for the provision of a yoga studio in the San Francisco International Airport. Reviews, from Yelp, on the San Francisco International Airport yoga spaces are mentioned below. People are generally surprised and pleased with the yoga space, commemorating the space for providing an opportunity for stretching and relaxing. People are also happy that the room is fully equipped and free. Comments reflect that individuals who have used the space desire it elsewhere, including other airports and their places of work.

“What a fantastic idea! We arrived at the airport pretty early for our flight. […] I was so excited to happen upon the yoga room! It is well-equipped with mats and blocks, and there are sanitizing wipes you can use to clean the items before and after use. The only thing I wished they had was some kind of music playing softly in the background to help drown out some of the airport noise that inevitably bleeds in.” – Lisa (Yelp)

“Despite the hippie/yuppiness of the concept, I wish they had one of these at every airport. And at my office. Well done, SFO” – Sam (Yelp)

“This is definitely worth a visit if you have a layover or time to spare at SFO. […] It was empty before my redeye […] so I went in for a little relaxation and stretching before my flight. The room was dimly lit, which I appreciated for relaxation, and had a wall of mirrors on one side.” – Sallie (Yelp)

“This room serves it's purpose extremely well. It is a calm space, dedicated to stretching out before being crammed like a sardine on a plane. […] Every airport needs these.” – Josh (Yelp)
Chicago O’Hare International Airport

<table>
<thead>
<tr>
<th>Description</th>
<th>“Passengers looking for an oasis at O’Hare International Airport need only go as far as our Yoga Room[...] the perfect place to escape the everyday hustle and bustle of the airport.”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>No cost</td>
</tr>
<tr>
<td>Size</td>
<td>15x16 feet</td>
</tr>
<tr>
<td>Hours of Operation</td>
<td>6 am - 10 pm</td>
</tr>
<tr>
<td>Location</td>
<td>After security</td>
</tr>
<tr>
<td>Date Opened</td>
<td>December 2013</td>
</tr>
<tr>
<td>Number of Users</td>
<td>Not formally tracked</td>
</tr>
<tr>
<td>Feedback</td>
<td>Not formally collected</td>
</tr>
<tr>
<td>Other Information</td>
<td>Fully equipped. Features sustainable bamboo wood floor, floor to ceiling mirrors on one wall, a window on the other, and an area to place personal articles and garments. A wall-mounted video monitor displays yoga exercise techniques and imagery of nature while the audio plays soothing sounds. Wall-mounted video monitor outside of room to display flight information for arrivals and departures in the domestic terminals.</td>
</tr>
</tbody>
</table>

Chicago O’Hare International Airport is located in Chicago, Illinois, which is in the Midwest of the United States. Chicago O’Hare is the third busiest airport in North America (Hopper, 2015). Chicago O’Hare International Airport has an average of 6.4 million passengers per month, according to 2015 statistics. Annually, in 2015, the airport had over 77 million travellers pass through its’ airport (Chicago Department of Aviation, 2015).*

*number of passengers enplaned and de-planed.
Chicago Midway International Airport

<table>
<thead>
<tr>
<th>Chicago, Illinois</th>
<th>Chicago Midway International Airport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>“Passengers looking for an oasis at Midway International Airport need only go as far as our Yoga Room [...] the perfect place to escape the everyday hustle and bustle of the airport.”</td>
</tr>
<tr>
<td>Cost</td>
<td>No cost</td>
</tr>
<tr>
<td>Size</td>
<td>12x24 feet</td>
</tr>
<tr>
<td>Hours of Operation</td>
<td>6 am - 10 pm</td>
</tr>
<tr>
<td>Location</td>
<td>After security</td>
</tr>
<tr>
<td>Date Opened</td>
<td>September 2014</td>
</tr>
<tr>
<td>Number of Users</td>
<td>Not formally tracked</td>
</tr>
<tr>
<td>Feedback</td>
<td>Not formally collected</td>
</tr>
<tr>
<td>Other Information</td>
<td>Fully equipped. Soft earth tones on the wall, sustainable bamboo wood floor, floor to ceiling mirrors on one wall and an area to place personal articles and garments. A wall-mounted video monitor displays yoga exercise techniques, imagery of nature and audio of soothing sounds.</td>
</tr>
</tbody>
</table>

Similar to Chicago O’Hare International Airport, Chicago Midway International Airport is located in Illinois. The two airports are operated by the Chicago Department of Aviation. In 2015, Chicago Midway generated an average of 1.8 million passengers per month and over 22 million over the course of the year (Chicago Department of Aviation, 2015).*

A search on the social media outlet Instagram turns up many results of individuals practicing in the Chicago Midway International Airport yoga room. Some examples can be seen below. Again, people praise the airport for the provision of this amenity and are happy to ‘kill time’ and make a ‘quick stop’ in the yoga room.

*number of passengers enplaned and de-planed.
RELAXATION IN TRANSIT: Creating Wellness Spaces in Vancouver International Airport

kiera_feldman
Chicago Midway International Airport

❤️ 30 likes
kiera_feldman #thebigfeld demonstrates proper technique in the yoga room that exists
harzmen YFSSSR!!!

kimberlybacso
Chicago Midway International Airport

❤️ 52 likes
kimberlybacso #Yoga in the airport is so delicious, I almost wished for a longer layover! #travel #vacation #yogalife #stretch #layover #chicago #fitfam

slphillips89

❤️ 30 likes
slphillips89 Made a quick stop in Chicago Midway's "yoga room"....it's now my new favorite airport. #mdw #midwayairport #yogaaddict #yogaevrydamnday

lynnschulte

❤️ 11 likes
lynnschulte #namaste Killing time in the #MDW airport and I stumbled upon the yoga room! Felt great!
Burlington International Airport

<table>
<thead>
<tr>
<th>Burlington, Vermont</th>
<th>Burlington International Airport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>“Stretch out and relax before or between flights and enjoy a calm, quiet space. For your convenience there is a family bathroom with a shower located across from the Observation Tower.”</td>
</tr>
<tr>
<td>Cost</td>
<td>No cost</td>
</tr>
<tr>
<td>Size</td>
<td>15x20 feet</td>
</tr>
<tr>
<td>Hours of Operation</td>
<td>24 Hours</td>
</tr>
<tr>
<td>Location</td>
<td>After security</td>
</tr>
<tr>
<td>Date Opened</td>
<td>January 2013</td>
</tr>
<tr>
<td>Number of Users</td>
<td>Not formally tracked</td>
</tr>
<tr>
<td>Feedback</td>
<td>Not formally collected</td>
</tr>
<tr>
<td>Other Information</td>
<td>Showers Provided. Local yoga studio Evolution Physical Therapy + Yoga, provides this space, and all supplies for travellers. It is provided for travellers to enjoy relaxing, meditating, practicing yoga or decompressing. It has soft green tones and wood flooring.</td>
</tr>
</tbody>
</table>

Burlington International Airport is located in Vermont, which is in the northeast of the United States, close to the Canadian border. In 2012, Burlington International Airport generated an average of 52,000 passengers per month. Annually, there were 623,604 passengers who boarded at Burlington International Airport (Burlington International Airport, 2012).*

*most recent statistics available. This data is for passengers enplaned only. Other airport statistics are for passengers who have both enplaned and de-planed.
Sioux Falls Regional Airport

<table>
<thead>
<tr>
<th>Sioux Falls, South Dakota</th>
<th>Sioux Falls Regional Airport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Not Available</td>
</tr>
<tr>
<td>Cost</td>
<td>No cost</td>
</tr>
<tr>
<td>Size</td>
<td>Not Available</td>
</tr>
<tr>
<td>Hours of Operation</td>
<td>Not Available</td>
</tr>
<tr>
<td>Location</td>
<td>After security</td>
</tr>
<tr>
<td>Date Opened</td>
<td>June 2015</td>
</tr>
<tr>
<td>Number of Users</td>
<td>Not formally tracked</td>
</tr>
<tr>
<td>Feedback</td>
<td>Not formally collected</td>
</tr>
<tr>
<td>Other Information</td>
<td>A local fitness company opened a yoga studio in the airport. It is equipped with a handful of yoga mats and an educational chart showing yoga poses. The space also uses an Oriental design influenced divider mimicking capiz shells.</td>
</tr>
</tbody>
</table>

Sioux Falls Regional Airport is located in South Dakota, on the western edge of the Midwest in the United States. According to the United States Department of Transportation, Sioux Falls Regional Airport had 979,000 passengers through the airport in 2015.* Monthly statistics are not available for this airport (United States Department of Transportation, 2015).

*number of passengers enplaned and de-planed.
Dallas Fort Worth International Airport

<table>
<thead>
<tr>
<th>Dallas, Texas</th>
<th>Dallas Fort Worth International Airport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>“Take a minute to relax and stretch between flights at the DFW Airport yoga studio.” <em>There are two studios at this airport.</em></td>
</tr>
<tr>
<td>Cost</td>
<td>No cost</td>
</tr>
<tr>
<td>Size</td>
<td>280 sq. ft. and 242 sq. ft.</td>
</tr>
<tr>
<td>Hours of Operation</td>
<td>24 Hours</td>
</tr>
<tr>
<td>Location</td>
<td>After security</td>
</tr>
<tr>
<td>Date Opened</td>
<td>April 2012 and July 2015</td>
</tr>
<tr>
<td>Number of Users</td>
<td>500 users tracked on iPad sign in over a period of three months, from one of the two yoga studio locations.</td>
</tr>
<tr>
<td>Feedback</td>
<td>The iPad from the Terminal E studio allows for customers to leave a rating (Very Low, Low, Average, High, Very High).</td>
</tr>
<tr>
<td>Other Information</td>
<td>Fully equipped. Airport branded yoga mats. View of the airfield with large windows. Semi-enclosed space. Greenery and potted plants. Soft cushioned flooring on top of the airport flooring. Storage for luggage. TV monitor with yoga sequencing and silhouettes of people practicing yoga on the wall. Showers available at various locations in the airport.</td>
</tr>
</tbody>
</table>

Dallas Fort Worth International Airport is located in Texas, which is in the southern central region of the United States. Dallas Fort Worth International Airport is the fourth busiest airport in North America. In 2015, the Dallas Fort Worth International Airport saw an average of 5.4 passengers, and annually the airport saw 64.1 million passengers (Dallas Fort Worth International Airport, 2015).*

*number of passengers enplaned and de-planed.
Dallas Fort Worth International Airport uses an iPad to track the use of one of their wellness spaces. Within three months of opening, there were over 500 logged users at only one of their two locations. The spaces are highly frequented. Dallas Fort Worth International Airport formally collects feedback on these spaces, but were unable to share the data. However, there is a widespread amount of positive feedback online, along with an ample amount of praise for the provision of this amenity. Examples of feedback on the Dallas Fort Worth Yoga Spaces can be found below.

“So glad I found this little area! Got to relax on a yoga mat in a very quiet spot of DFW- perfect for those long layovers. Stretch it out and relax instead of being cramped on your butt between flights! I’d like it even more if the lights were a tad dim and if there were cleaning materials for the mats. Not bad for free though!” – Cecy (Yelp)

“What a cool idea. I was the only one.” – Judi (Yelp)

“This is actually one of the quietest spots in the airport. [...] I wasn’t really dressed appropriately for yoga, but I sat down for a few seated postures. After about fifteen minutes of this I finished off with a few rounds of Nadi Shodhana and sat in meditation. I felt surprisingly refreshed.” – Brian (Yoga Dork)

“After sitting on a plane and emerging with stiffness and aches of pains this is a place where I can decompress and take care of “ME” in between flights.” – Michelle (PizzainMotion)

“Umm make that 2 yoga spots in @dfwairport! Yogini in heaven! I spent another hour here... I had 9.5 hours to burn, happy to have done it on the mat instead of the bar” – Melissac483 (Instagram)

“@DENAirport Can we please get a yoga area? If not... Namaste in Dallas @ dfwairport” – Britney (Twitter)
Europe

The continent of Europe has 427 International Airports in 50 of its countries. Of these 427 airports, only three have dedicated yoga spaces: London Gatwick Airport, Frankfurt Airport, and Helsinki-Vantaa Airport. There is no available data on the number of yoga practitioners in Europe as a whole, however, as of 2014 there were an estimated 330,000 to 400,000 people practicing yoga in the United Kingdom alone (Yoga Magazine, 2014).

London Gatwick Airport

<table>
<thead>
<tr>
<th>Crawley, England</th>
<th>London Gatwick Airport</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>“Floga is pre-flight yoga, a 20-minute video class at Gatwick designed to limber you up before you spend hours in a cramped seat in the sky.”</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>No cost</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>Not Available</td>
</tr>
<tr>
<td><strong>Hours of Operation</strong></td>
<td>24 Hours</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>After security</td>
</tr>
<tr>
<td><strong>Date Opened</strong></td>
<td>October 2015</td>
</tr>
<tr>
<td><strong>Number of Users</strong></td>
<td>Not formally tracked</td>
</tr>
<tr>
<td><strong>Feedback</strong></td>
<td>Not formally collected</td>
</tr>
<tr>
<td><strong>Other Information</strong></td>
<td>Fully equipped. Wood flooring and paneling, light coloured walls, soft lighting. 20-minute video class shown on a loop.</td>
</tr>
</tbody>
</table>

London Gatwick Airport is located in London, England. It is the second largest airport in the United Kingdom. In 2015, there was an average of 3.3 million passengers monthly, and over the course of 2015 over 40.4 million passengers flew through Gatwick Airport (Gatwick Airport, 2015).*

*number of passengers enplaned and de-planed.
Frankfurt Airport

<table>
<thead>
<tr>
<th>Description</th>
<th>“Sun Salutations in the Terminals: Frankfurt Airport Opens Free Yoga Rooms for Passengers. Yoga fans can now practice at Frankfurt Airport in peace and comfort” There are two studios available at this airport.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>No cost</td>
</tr>
<tr>
<td>Size</td>
<td>Not Available</td>
</tr>
<tr>
<td>Hours of Operation</td>
<td>24 Hours</td>
</tr>
<tr>
<td>Location</td>
<td>After security</td>
</tr>
<tr>
<td>Date Opened</td>
<td>2016</td>
</tr>
<tr>
<td>Number of Users</td>
<td>Not formally tracked</td>
</tr>
<tr>
<td>Feedback</td>
<td>Not formally collected</td>
</tr>
<tr>
<td>Other Information</td>
<td>Fully equipped. mats, blocks, cushions, pads and floor-to-ceiling mirrors, in a dimly lit room. Televisions and posters outline yoga poses to practice. Soft music is playing. There is also a giant Buddha portrait enhance the calming atmosphere.</td>
</tr>
</tbody>
</table>

Frankfurt Airport is located in Frankfurt, Germany. Approximately three million people practice yoga in Germany as of 2014 (Yoga Vidya, 2014). Frankfurt Airport had an average of 5.1 million passengers per month. In 2015, Frankfurt Airport has over 61 million annual passengers (Frankfurt Airport, 2015).*

*number of passengers enplaned and de-planed.
### Helsinki-Vantaa Airport

<table>
<thead>
<tr>
<th>Helsinki, Finland</th>
<th>Helsinki-Vantaa Airport</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>“In the newly opened “Kainuu” (everyman’s lounge) space you can salute the sun and bust out a few stretches while watching planes land and take off on the runways.”</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>No cost</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Hours of Operation</strong></td>
<td>24 Hours</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>After security</td>
</tr>
<tr>
<td><strong>Date Opened</strong></td>
<td>2014</td>
</tr>
<tr>
<td><strong>Number of Users</strong></td>
<td>Not formally tracked</td>
</tr>
<tr>
<td><strong>Feedback</strong></td>
<td>Not formally collected</td>
</tr>
<tr>
<td><strong>Other Information</strong></td>
<td>Fully equipped. Located in an airy space for exercise and relaxation, which makes use of elements from Finnish nature. The soft, dark green carpets create an effect of a mossy forest floor. The space includes wooden and smooth natural stone floors. Also included are quirky lounge seats covered with traditional woven rugs. A full window on one side, and instructions for various exercises, along with the occasional pop-up class.</td>
</tr>
</tbody>
</table>

Helsinki-Vantaa Airport is located in the south of Finland, close to the coastal city of Helsinki. Helsinki-Vantaa Airport had an average of 1.4 million passengers in 2015. Over the course of the year, the airport saw more than 16.4 million passengers travel through the airport (Helsinki-Vantaa Airport, 2015).

*number of passengers enplaned and de-planed.
Travellers worldwide are willing to do yoga in non-dedicated airport spaces, and it is assumed that many more people would practice yoga, stretch, meditate or relax before their flight if they were provided with the space to do so. A quick Instagram search (using the search ‘#airportyoga’) turns up over 5,500 results of people practicing yoga in airports. Examples of some of the results can be found below, two of which are at Vancouver International Airport. Some of these photos and videos are in the airport yoga rooms, while others are on airport seating, alongside airport windows, in gate holding areas, and in airport hallways. Providing travellers with a dedicated wellness space along with the necessary equipment (yoga mats, and cleaning or sanitary supplies) to meditate, relax, stretch or practice yoga creates a welcoming and comfortable atmosphere. The dedicated space would represent that wellness activities are encouraged, thus removing any judgment from people passing by, or judgment on oneself.
CHAPTER 3:

Wellness Spaces in Vancouver International Airport

Figure 30: Vancouver International Airport Customs
3.0 Findings

The following section provides the context for the research conducted at YVR and provides a detailed explanation of the results.

3.1 YVR as a Case Study

YVR welcomed over 20 million passengers in 2015 (Vancouver International Airport, 2016). In 2016, YVR was voted as the best airport in North America by Skytrax World Airport Awards for an unprecedented seventh consecutive year. This is the first time that an airport has achieved this ranking for seven years in a row. Over 13 million customers worldwide voted on this award, which includes dimensions around the airports “check-in to security and border clearance processes, comfort, efficiency, signage, transportation availability, passenger amenities and friendliness.” (Vancouver International Airport, 2016b). In 2014, the results from a Bloomberg survey showed that YVR was ranked as the ‘least frustrating’ airport to travel through in North America. The survey was completed by over 3,000 frequent flyers. The survey focused on three main categories: travel times, check-in and security; gate area, seating and restrooms; and restaurants, shopping and terminal layouts (Bloomberg, 2014). The airport continually outperforms other North American airports, however, it is lacking wellness space, which other airports currently provide.

As previously noted, travelling can be a very stressful and hectic experience for many people. Travellers may find it difficult to feel relaxed in an airport due to various uncertainties including: flight delays or cancellations; security checkpoints; and unpredictable wait times in lines. Activities available in airports, for passengers waiting for their flight, are limited. As a result, passengers find themselves passing time by waiting within a busy gate, eating or drinking at a restaurant or bar, or perhaps shopping. None of these activities contribute to personal wellness. With this in mind, a dedicated wellness space provides an excellent alternative to current available airport activities. A wellness space offers a welcomed ‘time-out’ for passengers awaiting a flight. Various activities can be offered in the wellness space: yoga; pilates; stretching; relaxing; and
meditating. There are many benefits to taking a ‘time-out’ at an airport. For example, yoga calms the mind, keeping nervous, stressed passengers as mellow as possible before they hurry to catch their flight. Yoga also allows for the opportunity to stretch the body before sitting for long periods of time in uncomfortable airplane seats.

3.1 YVR Objective

The primary objective of this case study is to use a survey to determine whether there is a demand from passengers at YVR for a passenger wellness space. To follow up with this data, a focus group comprised of YVR employees met to discuss potential opportunities and other possible considerations for such a space. A terminal walk was also conducted to observe and consider potential locations for the wellness space.

Survey Research Question

The survey data collected responds to the following question: Are travellers interested in a dedicated yoga or relaxation space at YVR, and would it be preferred before or after security? Respondents are also being asked what type of activities they typically engage in for relaxation at YVR. The following hypotheses have been tested:

1. There is a demand for a dedicated yoga or relaxation space at YVR.
2. Respondents will be more likely to desire a yoga or relaxation space after security at YVR.

The initial survey refers to the space as a ‘dedicated relaxation/yoga space’, however, through further discussion the term was broadened to a ‘wellness space’ which may include activities such as relaxing, meditating, stretching or practicing yoga, and other such personal wellness activities.
Survey Questions and Structure

The survey was administered in November 2015 using an iPad, and was available in five languages: English, French, Punjabi, Portuguese and Chinese. The surveys and consent form are attached in Appendix A. The survey resulted in 300 responses from passengers travelling through YVR. Of these, 299 were completed in English and one survey was completed in French. Due to the short length and simple questions provided, it is assumed that some people who responded to the survey may have been able to answer in the other available languages, however, chose to complete the survey in English.

The survey produced 300 responses from YVR passengers, as shown in Figure 2 below. Of the 300 surveyed, 141 people said they would use a dedicated wellness space at YVR if it was available. On the other hand, 146 people said they would not use this space. A total of 13 people indicated that they might use the wellness space if it were available. However, through conversation with many of the survey respondents, it was evident that although they themselves may not use the space, 67 people indicated that they knew someone who would benefit from, and who would likely use the space.

Would you be willing to use a dedicated relaxation/yoga space at YVR?

Graph 1: Results from survey question three
Survey participants also preferred the idea of a wellness space after security. As shown in Figure 3 below, a total of 198 respondents selected ‘after security’ as their preference for location. The main reason behind this is that most people felt they could not relax until they cleared security which often has unpredictable wait times in lines. However, 22 participants who wanted a wellness space in the airport would be willing to have it either before or after security. Contrary to this, 88 people said that neither option was preferred. Some of these 88 respondents were individuals who selected “no” to the question: “Would you use a dedicated relaxation/yoga space at YVR?”.

* Participants could select as many responses as they wanted.
Participants were also asked how they currently relax at YVR. The results are represented graphically in Figure 4 below. The majority of people choose to relax by using their tablets, phones and computers. Eating and drinking, or reading and writing were also popular responses. Many also continue to do work, which in some cases may not be the most relaxing activity. A small proportion of individuals sleep or watch television (TV) (either on the televisions in the airport or on personal electronic devices). A few respondents selected the ‘other’ option and provided an explanation of how they relax at YVR. Three people stated that they do not relax at YVR at all. Other responses included: going to a lounge; people watching; viewing art work; listening to music (which may fall under the category of using a phone or tablet); meditating, exercising; and shopping.

* Participants could select as many responses as they wanted.
3.3 Focus Group

On January 19, 2016, YVR hosted a focus group meeting led by Carleigh Oude-Reimerink (Masters Student in Urban Planning at UBC), in order to explore wellness spaces for passengers in airports. The attendees were selected because they are employees of YVR, and also travel through YVR. The meeting attendees included YVR employees from various departments including, but not limited to:

- Health and Safety
- Engineering
- Commercial Retail Services
- Finance and Auditing

The focus group meeting was divided into two components: Part A – Benefits of the Current YVR Employee Wellness Program, with a Specific Focus on Yoga, and Part B – Imagining Possibilities for a Passenger Wellness Space at YVR. The results of each component of the focus group meeting are outlined.

Part A – Benefits of the Current YVR Employee Wellness Program, with a Specific Focus on Yoga

A discussion was held around the current Employee Wellness Program, with a specific focus on the benefits of the yoga program. Some of the noted benefits brought forward through discussion included:

- Yoga is an activity that is relaxing, meditative, lowers stress, and takes the employee away from the office over lunch.
- Participants feel an overall increase in health and fitness, benefit from a welcoming community hub, and enjoy yoga as a social activity.
- Convenience was emphasized; the yoga program is far enough away from the employee’s desk but is convenient enough to attend, even for employees from satellite offices.
- Quality of the yoga instructor was also stressed, as the instructor adapts classes to the individual needs of the employees, provides adjustments when necessary, and welcomes participants of all levels.
Part B – Imagining Possibilities for a Passenger Wellness Space at YVR.

After being guided through a brief individual visioning opportunity, the participants were paired and shared their dream-like vision for a wellness space for passengers. These ideas were then shared with the larger group, and were clustered into three categories: Environment, Logistics, and Further Considerations.

The following provides a summary of ideas for creation of a wellness space for passengers at YVR.

Environment:
- The space should be a ‘wellness space’ to be used for yoga, stretching, meditation, relaxing, and should not be too structured.
- The space must be welcoming and there should be consideration for partially frosted glass or blinds.
- The space should reflect and give a sense that it is located in Vancouver. The space should maintain a ‘west coast’ theme: environmentally friendly, bamboo/wood, greenery and plants.
- The space should be painted with soft colours and should include a view of the airfield or mountains.
- The lighting should be bright, with an option to dim for savasana (restorative and resting pose).
- Calming and creative art work should be posted.
- Gym-like flooring (soft and moveable, similar to that found in a primary grade classroom), should be considered.
- The space must be quiet. Airport announcements should not be played in the room, but rather shown on a screen.
- Calming music and aromas (scent diffuser) should be present.

Logistics:
- The space should be located after security.
- The space should be away from the central hustle and bustle of the airport, but in a convenient spot that will generate enough participation.
- There should be a washroom, a shower, sinks within a close distance, and filtered water should be provided.
- This space should be available to all.
users of the terminal, at no cost.

• The space should be about 30 square feet but does not necessarily have to be square. The space also does not have to be permanent and could be a portable space that can be moved as necessary.

• The space should be ‘fully equipped’. Fully equipped means that yoga mats should be provided, with the potential to also provide other supplies including blocks, bolsters, and straps. However, the group discussed that most people would not engage in a high-intensity practice, so some of these items would not be required.

• A visual diagram showing ‘yes’ and ‘no’ for what is allowed in the space should be posted.

• A screen should show flight times, gate numbers, and delays. There should also be a clock in the space.

• In order to encourage an ‘all level approach’, a TV should be in the space, showing a yoga video on loop. A poster showing some yoga poses would also be helpful.

• Sanitary wipes or other appropriate cleaning supplies should be provided to ensure the yoga mats and supplies remain clean.

• Other options include locating the space near other wellness and relaxation services such as a massage booth, or a smoothie bar.

Further Considerations:

• The location of the wellness space requires a great deal of thought in order to ensure that it is not too far away from the departure gates, but is not located near too much foot traffic.

• There is a potential for a loss of supplies. Options to avoid this include a rental system, either using a vending machine, or though a “Green Coat” volunteer (a recognized volunteer at YVR). The volunteer could also ensure that the space is not being misused.

• Cubbies should also be provided for storage of luggage. These cubbies should be in sight of the user of the wellness space.

This focus group meeting was an effective method for brainstorming potential ideas for a YVR passenger wellness space. Larger scale logistics were considered along with some smaller and more detailed items. The workshop was a starting point to highlight other key departments which would need to be consulted, in order to collaborate on next steps.
3.4 Terminal Walk

On February 9, 2016, employees from YVR hosted Carleigh Oude-Reimerink in an after security terminal walk. The purpose of this exercise was to observe potential locations for either a ‘pop-up’ wellness space, or a more permanent wellness space. The team observing these spaces included: Manager Health & Safety, Manager Commercial Services and Manager Airport Terminal Projects. The walk was informative and provided insight on some potential opportunities and further considerations for the creation of a passenger wellness space at YVR. The walkabout was conducted with the understanding that this, at the moment, is just an idea, and the wellness space has the potential to be either permanent (in a closed off space), or it can be non-permanent (using stand up dividers and plants for privacy).

Following the terminal walk, ten potential locations were identified. A map illustrating these spaces, along with a ranking, can be found on the following page (Map 1: Potential Wellness Space Locations Map p.46). Each location was provided one of three overall location ratings: Optimal Location (colour coded – green); Less Optimal Location (colour coded – orange); or Non-Optimal Location (colour coded – red). Seven locations were identified as optimal locations (green), while one location was identified as less optimal (orange) and two locations were identified as non-optimal locations (red). Various factors were considered to provide the rankings for each of the locations: distance to facilities; availability of the space; accessibility of the space; impact on the surrounding areas; and amount of construction needed. The details of each space can be found on Chart 2: Potential Wellness Space Locations Summary (pages 47-50).

As part of the terminal walk it was discussed with Manager Airport Terminal Projects that there are additional considerations to selecting a space. Important further considerations include:

• coverage of sprinklers;
• way finding sightlines and signage;
• door clearance; camera sightlines;
• charging stations; and
• visibility of TVs which must remain in current locations.
It is important to note that these locations are only recommended locations and the spaces outlined may become occupied quickly. There are many key stakeholders and departments at YVR who need to be consulted before any decisions could be made. However, it is imperative and noteworthy to acknowledge that these open spaces could provide an improved traveller experience at YVR.

Figure 32: Aquarium, Creek and Artwork in the International Departures Terminal at YVR
Map 1: Potential Wellness Space Locations Map

Map adapted from: Vancouver International Airport
# Chart 2: Potential Wellness Space Locations Summary

<table>
<thead>
<tr>
<th>#</th>
<th>Location</th>
<th>Near Facilities</th>
<th>Availability</th>
<th>Accessibility</th>
<th>Impact on Surrounding Areas</th>
<th>Construction Needed</th>
<th>Notes</th>
<th>Photo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Domestic B Pier</td>
<td>Yes.</td>
<td>Available, until further notice.</td>
<td>Very accessible.</td>
<td>Minimal impact - less seating.</td>
<td>None necessary. Provide dividers or a sectioned off room.</td>
<td>Requires shifting of extra seating. There is a lot of space. Lots of natural light.</td>
<td><img src="image1.jpg" alt="Photo" /></td>
</tr>
<tr>
<td>2</td>
<td>Domestic B</td>
<td>Somewhat.</td>
<td>Available for approx. 1 year.</td>
<td>Very accessible.</td>
<td>No impact.</td>
<td>Little to none. Enclosed room is there.</td>
<td>This space may not be available for long. A lot of natural light. This is a good option to trial out a wellness space (since the room already exists).</td>
<td><img src="image2.jpg" alt="Photo" /></td>
</tr>
<tr>
<td>#</td>
<td>Location</td>
<td>Near Facilities</td>
<td>Availability</td>
<td>Accessibility</td>
<td>Construction Needed</td>
<td>Notes</td>
<td></td>
<td></td>
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<td>----</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Domestic A Pier</td>
<td>Available, until further notice.</td>
<td>Very accessible.</td>
<td>Medium impact.</td>
<td>None.</td>
<td>Provide screening or dividers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Domestic A</td>
<td>Available, until further notice.</td>
<td>Accessible.</td>
<td>Medium impact.</td>
<td>None.</td>
<td>Provide screening or dividers.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Impact on Surrounding Areas**

- Medium A: Little to none. Right now this is an open area that people may use to walk by. Walkway would become more narrow.
- Domestic A Pier: This area is typically busy when seats in the concourse are full. People are sometimes found sitting here. May be a better space for more seating.

**Accessibility**

- Medium A: Not very accessible. Located beyond a public access point and is sometimes used as a walkway.
- Domestic A Pier: Very accessible.
<table>
<thead>
<tr>
<th>#</th>
<th>Location</th>
<th>Near Facilities</th>
<th>Availability</th>
<th>Accessibility</th>
<th>Impact on Surrounding Areas</th>
<th>Construction Needed</th>
<th>Notes</th>
<th>Photo</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>International D Gates</td>
<td>No.</td>
<td>Available, until further notice.</td>
<td>Accessible.</td>
<td>None.</td>
<td>A lot of construction would be needed. The current unused café would need to be gutted. However this space is not being used otherwise.</td>
<td>Located in a transitional zone, so there are no facilities nearby. However there is a lot of natural light.</td>
<td><img src="image_url" alt="Photo" /></td>
</tr>
<tr>
<td>7</td>
<td>International D</td>
<td>Yes.</td>
<td>Available, until further notice.</td>
<td>Accessible.</td>
<td>Minimal. Currently this is part of a walkway. However the walkway is quite large and this space could easily be occupied</td>
<td>None. Apply paint. Provide screening or dividers.</td>
<td>Lots of light. Would need to consider what the door is used for. There is a door on the other side that may go to the same location.</td>
<td><img src="image_url" alt="Photo" /></td>
</tr>
<tr>
<td>8</td>
<td>International D / Trans-border E</td>
<td>Yes.</td>
<td>Available, until further notice.</td>
<td>Accessible.</td>
<td>Currently used as a soft seating area. Could keep some chairs for relaxing, along with providing an enclosed relaxation space.</td>
<td>None. Provide screening or dividers.</td>
<td>The TV screens would have to stay and would need to be used for displaying flight times. This could be helpful for travellers using the space.</td>
<td><img src="image_url" alt="Photo" /></td>
</tr>
<tr>
<td>#</td>
<td>Location</td>
<td>Near Facilities</td>
<td>Availability</td>
<td>Accessibility</td>
<td>Impact on Surrounding Areas</td>
<td>Construction Needed</td>
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<tr>
<td>9</td>
<td>International D</td>
<td>Yes.</td>
<td>Available, until further notice.</td>
<td>Accessible.</td>
<td>Minimal. Right now this space is open, may have overflow from passenger check in.</td>
<td>None. Provide screening or dividers.</td>
<td>Close to a waste disposal site. Must consider the access to this. Could be unpleasant at times. Lots of natural light.</td>
<td><img src="image1.png" alt="Photo" /></td>
</tr>
<tr>
<td>10</td>
<td>International D</td>
<td>Yes.</td>
<td>Available, until further notice.</td>
<td>Accessible. However, at the end of terminal. Meaning it would be quiet, but some may not want to go all the way here.</td>
<td>Minimal. A lot of open space.</td>
<td>None. Provide screening or dividers.</td>
<td>A lot of natural light, some great artwork that could be used for barriers, along with other dividers. Space may not be available if new gate is created.</td>
<td><img src="image2.png" alt="Photo" /></td>
</tr>
</tbody>
</table>
CHAPTER 4:

Recommendations and Conclusions

Figure 33: First Nations Artwork in the US Arrivals Terminal at YVR
The following section outlines best practice recommendations. It also includes a summary for the recommended logistics of a wellness space at YVR. The section goes further to highlight guidelines for use of the wellness space, and outlines further considerations and opportunities.

### 4.1 Re-imagining YVR

**Best Practice Recommendations for the Wellness Space**

After extensive research on this topic including a literature review, review of best practice research, a survey conducted at YVR, implementation of a focus group at YVR, and engagement in a YVR terminal walk, it is recommended that YVR consider providing a dedicated wellness space in the terminal(s). In doing so, YVR would be the first airport in Canada to provide a wellness space, allowing for yoga, relaxation, stretching and/or unwinding for its passengers. Research shows that the peak of traveller stress occurs at the security check-point, and therefore it is recommended that the space be offered after security, permitting travellers to decompress.

The purpose of providing the wellness spaces in airports around the world has been an attempt to optimize the types of activities travellers can participate in while at the airport. The airports studied in the best practice research (San Francisco International Airport, Chicago O'Hare International Airport, Chicago Midway Airport, Burlington International Airport, Sioux Falls International Airport, Dallas Fort Worth International Airport, London Gatwick Airport, Frankfurt Airport, and Helsinki-Vantaa Airport), each implemented their wellness spaces with the intention of providing additional services to their customers. None of the above mentioned airports used a test pilot or a survey to determine the demand, and rather as real estate became available within the airport, decision makers implemented these wellness spaces. It is recommended that YVR do the same, given that there is an evident demand for a wellness space at YVR, as presented by the survey results. It is recommended that with the provision of this space, YVR track the users and collect feedback on the use of the space, in order to ensure evidence for the viability of such a space.
Through collaboration with various departments at YVR it is anticipated that further opportunities will arise as consideration is given to the creation of this space. For example, confirming the length of availability of a space will be a key factor, as well as securing finances to ensure viability of the space. In order to address some of these further considerations and opportunities, it is recommended that key staff at YVR use the information generated from this report, including Map 1: Potential Wellness Space Locations Map and Table 2: Potential Wellness Space Location Summary to guide decision making for the selection of appropriate location(s).

**Recommended Logistics**
- Consult with key stakeholders in order to make final decisions on the space.
- Provide a ‘wellness space’ to be used for stretching, meditating, relaxing, or yoga and other wellness activities.
- Provide the space as a complimentary and free amenity to all travellers.

**Recommended Location and Orientation**
- Locate the space after security.
- Provide way finding to the space (on maps, directional arrows, signage).
- Create a name and a recognizable symbol for the space.
- Locate the space away from the central hustle and bustle of the airport, but in a convenient spot that attracts users of the space.
- Orient the space in a close distance to a washroom and a shower.
- Cluster the wellness space with other wellness and relaxation services, such as massage booths or healthy food options.
Recommended Interior Design

- Develop the space to be enclosed (either fully or semi).
- Provide a view of the airfield or mountains, if possible.
- Use greenery, plants, and soft colours to decorate and enhance the space, giving it a ‘west coast’ feel.
- Arrange storage space for personal items.
- Ensure adjustable lights.
- Provide quiet sounds and/or light music.
- Display calming and creative artwork.
- Provide a display of current flight times, status, and gate number.
- Ensure there is a clock in the space.

Recommended Guidelines for the Use of the Space

- Remove shoes upon entering.
- Do not eat or drink in the space (other than water).
- Silence phones and all electronic devices.
- Maintain the quiet environment.
- Keep the doorway clear.
- Use the complimentary disinfecting wipes to clean mats once you are done.

Further Considerations and Opportunities

There are many opportunities that arise from the provision of the wellness space. YVR prides itself on being innovative, and providing a complimentary wellness space could reinforce their reputation as The Best Airport in North America. As stated previously, YVR would be the first airport in Canada to provide this type of space to its customers. YVR has themed terminals, and it would be a great opportunity to build off of the existing themes and incorporate them into the wellness space. For example, the Sea Wing could use blue and green hues on the wall, or amplify music or sounds that are representative of water.

YVR should also consider a possible
strategic partnership or connection with an athletic apparel store (for example, Vancouver based active lifestyle brands such as lululemon athletica, or Tonic Lifestyle Apparel). These companies use a health and wellness lens for their brand, and could benefit from selling athletic apparel at YVR, while also providing a space for passengers to relax in a wellness space.

As seen in some of the best practice research, other airports have partnered with local yoga studios or fitness centres to implement an airport yoga studio space. YVR has an opportunity to do so as well, by either partnering with local yoga mecca’s in Vancouver (for example, Semperviva Yoga or YYoga) or large fitness companies (for example, Goodlife Fitness or Anytime Fitness). The newly launched YVR app also provides the opportunity to advertise the wellness space, and could showcase information about the space as well as provide way finding. In order to maximize the use of the space, it should be complimentary, conveniently located, and highly recognizable using both signage and advertisements.
4.2 Conclusions

Recognizing that travelling can be taxing on individuals, the development of a wellness space for yoga, stretching, relaxation and/or meditation offers an opportunity for passengers awaiting a flight, to unwind. Literature reviewed on airports and stress indicates that there is a heightened level of stress at the security checkpoint area of an airport. Research shows that the practice of yoga can decrease stress, lower anxiety, improve blood pressure, and strengthen the immune system. It is therefore logical that a dedicated wellness space at the airport, allowing for wellness activities such as yoga to occur, would be a healthy addition to the airport terminals at YVR. The results from a traveller survey from 300 individuals at the Vancouver International Airport indicate that nearly 50 percent of travellers would find a wellness space to be a welcomed added amenity to their experience at YVR. In addition, through a focus group comprised of employees from YVR, a terminal walk with managers of various departments at YVR, and a review of best practice of other international airports, a vision for a dedicated wellness space at YVR has been developed. Results from this case study would indicate that there is demand for a wellness space at YVR, and a willingness to develop this space to add to the experience of the travellers flying out of, and arriving at YVR. Responding positively to the results of this case study would make YVR the first airport in Canada to provide a wellness space offering travellers the opportunity to relax, stretch, engage in yoga activities, meditate and unwind both prior to and after travelling.


List of Figures

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<td>Flickr: Wesley Fryer</td>
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<td>Dallas Fort Worth International Airport</td>
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<td>35</td>
<td>Seattle Times</td>
</tr>
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</table>
Final Survey – English

The following short survey about relaxation at Vancouver International Airport (YVR) is being conducted as part of Carleigh Oude-Reimerink’s Masters research at The University of British Columbia’s School of Community and Regional Planning. This research is being conducted with the Vancouver Airport Authority. You do not need to answer questions that you do not want to, and you can withdraw at any time.

1. Do you agree to participate in this survey?
   Yes
   No

2. How do you relax while you are at YVR?
   I read or write
   I watch TV
   I sleep
   I continue to do work
   I eat or drink
   I use my tablet/phone/computer
   Other (please specify)

3. Would you use a dedicated relaxation/yoga space at YVR?
   Yes
   No
   Comments

4. Would you be willing to use a dedicated relaxation/yoga space before security or after security? (please check all that apply)
   Before security
   After security
   None
   Comments
Final Survey – French

Le court sondage qui suit à propos de la détente à l'aéroport international de Vancouver (YVR) est menée pour la recherche de la maitrise en urbanisme de Carleigh Oude-Reimerink à l'Université de la Colombie-Britannique. Cette recherche est menée avec l'Autorité aéroportuaire de Vancouver. Vous ne devez pas répondre à des questions, si vous ne vouliez pas, et vous pouvez retirer de ce sondage n’importe quand.

1. Êtes-vous d'accord pour participer à cette enquête?
   Oui
   Non

2. Comment vous détendez-vous pendant que vous êtes à l'aéroport de Vancouver?
   Je lis ou écris
   je regarde la télé
   je dors
   Je continue à faire des travaux
   Je mangeais ou buvais
   Je l'utilise ma tablette / téléphonée / ordinateur
   Autre (veuillez préciser)

3. Voudriez-vous utiliser une espace de détente / yoga dédié à YVR?
   Oui
   Non
   Commentaires

4. Seriez-vous prêt à utiliser une espace de détente dédiée au yoga avant la sécurité ou après la sécurité? (s'il vous plaît cocher toutes les cases)
   Avant la sécurité
   Après la sécurité
   Aucun
   Commentaires
Final Survey – Portuguese

A pesquisa abaixo sobre relaxamento no Aeroporto Internacional de Vancouver (YVR) está sendo conduzida como parte da pesquisa de mestrado de Carleigh Oude-Reimerink's para a Escola de Planejamento Comunitário e Regional da Universidade de British Columbia (School of Community and Regional Planning - UBC). Esta pesquisa está sendo conduzida com a Administração do Aeroporto de Vancouver (Vancouver Airport Authority). This research is being conducted with the Vancouver Airport Authority. Você tem o direito de não responder a quaisquer perguntas que não se sentir confortável, como também pode desistir a qualquer momento.

1. Você concorda em participar desta pesquisa?
   Sim
   Não

2. Como você relaxa enquanto você está no YVR?
   Eu leio ou escrevo
   Eu assistir TV
   Eu durmo
   Eu continuo a trabalhar
   Eu como ou bebo
   Eu uso meu celular/tablet/computador
   Outro (favor especificar)

3. Você usaria um espaço dedicado para relaxamento/yoga no YVR?
   Sim
   Não
   Comentários

4. Você usaria um espaço dedicado para relaxamento/yoga antes da linha de inspeção de segurança (Raixo-X) ou depois? (marque todas as alternativas que se aplicam)
   Antes da linha de inspeção de segurança
   Depois da linha de inspeção de segurança
   Nenhum
   Comentários
Final Survey – Chinese

以下的问卷调查是关于温哥华国际机场（YVR）的放松、休息空间。这项调查是Carleigh Oude-Reimerink 在不列颠哥伦比亚大学（UBC）的社区和区域规划学院毕业论文的一部分。这项研究是和温哥华机场管理局共同完成的。您不需要回答您不愿意回答的问题，您也可以随时退出这个问卷调查。

1. 您是否同意参加这项问卷调查？
   是
   否

2. 您在YVR机场如何进行放松、休息？
   读书或写作
   看电视
   睡觉
   继续工作
   用餐或饮料
   使用平板/手机/电脑
   其他（请说明）

3. 如果在YVR机场有一个放松、休闲或做瑜伽的场所，您会使用吗？
   是
   否
   您的建议

4. 如果在YVR机场有一个放松、休闲或做瑜伽的场所，您更希望是在安检前还是安检后？
   （请选择所有符合的选项）
   安检前
   安检后
   不需要
   您的建议
The following short survey about relaxation at Vancouver International Airport (YVR) is being conducted as part of Carleigh Oude-Reimerink’s Masters research at The University of British Columbia’s School of Community and Regional Planning. This research is being conducted with the Vancouver Airport Authority. You do not need to answer questions that you do not want to, and you can withdraw at any time.

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<thead>
<tr>
<th>English</th>
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<td>ਜੀ ਉਸਦੀ ਇਕ ਮਤਦੇਖਣ ਦੀਖ ਇਕ ਈਲੈਕਟ ਲੈਂ ਲਾਈ ਸਿਕਸੀ ਸਿੱਖਨ ਦੇ?</td>
</tr>
<tr>
<td>Yes</td>
<td>ਹਾਂ</td>
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<tr>
<td>No</td>
<td>ਨਹੀਂ</td>
</tr>
<tr>
<td>How do you relax while you are at YVR?</td>
<td>ਉਸਦੀ ਹੈਤੂਕ ਷ੇਕਸਪੀਏਟ ਕਿੱਥਾ ਖਾਸ ਹਰਮਾਧੀਮ ਬਿੱਚ ਵਲਾਲਾਂ ਵਹਿਮੁਸ ਵਨਹੇ ਦੇ?</td>
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<td>Activity</td>
<td>Hindi Description</td>
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</tr>
<tr>
<td>I read or write</td>
<td>पढ़ वे लिख वे</td>
</tr>
<tr>
<td>I watch TV</td>
<td>टी वी देख वे</td>
</tr>
<tr>
<td>I sleep</td>
<td>में वे</td>
</tr>
<tr>
<td>I continue to do work</td>
<td>वंभ वड़वे</td>
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<tr>
<td>I eat or drink</td>
<td>का भी वे</td>
</tr>
<tr>
<td>I use my tablet/phone/computer</td>
<td>मैं आपना टैबलेट , फोन , कंप्यूटर वापस (वर्ता) जां</td>
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**Would you use a dedicated relaxation/yoga space at YVR?**

<table>
<thead>
<tr>
<th>Option</th>
<th>Hindi Description</th>
</tr>
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<tbody>
<tr>
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<td>गा</td>
</tr>
<tr>
<td>No</td>
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**Comments**

**Would you be willing to use a dedicated relaxation/yoga space before security or after security? (please check all that apply)**

<table>
<thead>
<tr>
<th>Option</th>
<th>Hindi Description</th>
</tr>
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<tr>
<td>Yes</td>
<td>बी उमीं भाम भवमभंजनिव / मेंगा नगा तैलवृद्ध रेखखपेतट दे दवडेतो ?</td>
</tr>
<tr>
<td>No</td>
<td>नहीं</td>
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**Comments**

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**RELAXATION IN TRANSIT: Creating Wellness Spaces in Vancouver International Airport**
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<th>? बिंदु बचवे मगरे मती छुटे निमात् लाई</th>
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<tbody>
<tr>
<td>Before security</td>
<td>मुदाधिभ दें बर्लां</td>
</tr>
<tr>
<td>After security</td>
<td>मुदाधिभ दें घानत</td>
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<tr>
<td>None</td>
<td>वेदी ठवी</td>
</tr>
<tr>
<td>Comments</td>
<td>टैपटही</td>
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</table>
Hi, do you have time to participate in a short survey? My name is Carleigh Oude-Reimerink and I am conducting a short survey about relaxation at the Vancouver International Airport. I’m conducting this as part of my Masters research with Leonora Angeles at The University of British Columbia’s School of Community and Regional Planning. This research is being conducted with the Vancouver Airport Authority. You do not need to answer questions that you do not want to, and you can withdraw at any time. All of your responses will be kept confidential.

Consent Questions:
- Do you have any questions or would like any additional details?
- Do you agree to participate in this study knowing that you can withdraw at any point with no consequences to you?

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the UBC Office of Research Ethics at 604-822-8598 or if long distance e-mail RSIL@ors.ubc.ca or call toll free 1-877-822-8598.