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## Exploring Occupation as a Determinant of Health and its Contribution to Understanding Health Inequities

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Graduate Program in Health and Rehabilitation Sciences  
A thesis submitted in partial fulfillment of the requirements for the degree in Master of Science  
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EXPLORING OCCUPATION AS A DETERMINANT OF HEALTH AND ITS  
CONTRIBUTION TO UNDERSTANDING HEALTH INEQUITIES

(Thesis format: Monograph)

By: Amy Patel

Graduate Program in Health and Rehabilitation Sciences

A thesis submitted in partial fulfillment  
of the requirements for the degree of  
Master of Science

The School of Graduate and Postdoctoral Studies  
Western University  
London, Ontario, Canada

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## Abstract

Within health literature, occupation is understood as employment whereas in occupational science the concept of occupation encompasses all the things that people want or need to do. The objective of this pragmatic-oriented, qualitative study was to elicit the perspectives of occupational scientists on occupation as a determinant of health or concept that shapes health and well-being and secondly, to identify questions from an occupational lens to address health inequities in health assessments and interventions. Purposive sampling was used to recruit occupational science experts and data were collected through focus groups. Eight occupational scientists participated. A thematic analysis of data was conducted and a visual concept map was constructed to identify relationships between themes. Findings were organized into two central themes: (a) differentiating occupation; concepts that define occupation outside of just employment, and (b) connecting occupation to health; concepts that are health promoting, jeopardizing, or depriving. Occupational questions were offered for use alongside health assessments, particularly the Health Equity Impact Assessment (HEIA). A holistic and non-structural occupational perspective may broaden the interdisciplinary knowledge needed to understand complex and hidden sources of health inequities.

**Keywords:** *occupation, determinants of health, health inequities, Health Equity Impact Assessment, health assessment, occupational science, public health, health intervention, program planning*

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## List of Abbreviations

CAOT-Canadian Association of Occupational Therapy

CDC-Centre for Disease Control and Prevention

CPHA-Canadian Public Health Association

HEIA-Health Equity Impact Assessment

HRQOL-Health-Related Quality of Life

IRPP-Research on Public Policy

MOHLTC-Ontario Ministry of Health and Long-Term Care

PHAC-Public Health Agency Canada

WHO-World Health Organization

## Chapter 1 – Introduction

### 1.1 Background Information

This chapter describes current health inequities linked to social and economic determinants such as employment, income, access to health services, and social networks. The problem of health inequities is highlighted using the example of the Canadian immigrant population and their experiences related to barriers in managing their health in Canada. The barriers that they face during resettlement in Canada include lack of meaningful employment, low income, language barriers, occupational alienation, and occupational imbalance. This example provides a backdrop for the thesis. The objectives for this study are provided and a chapter by chapter outline for this thesis is also presented.

#### 1.1.1 the problem.

A major concern within public health in Canada is tackling health inequities that commonly arise from social and economic factors (Public Health Agency of Canada [PHAC], 2008). Health inequities are defined by the PHAC (2008) as:

Differences in health status experienced by various individuals or groups in society. These can be the result of genetic and biological factors, choices made or by chance, but often they are because of unequal access to key factors that influence health like income, education, employment, and social supports (p. 35).

Socio-economic factors such as employment, income, environment, social networks, and access to services have a strong influence on the health outcomes of the Canadian immigrant population (World Health Organization [WHO], 2003). According to Statistics Canada (2012), immigrants make up over 17 percent of Canada's population and from 2011 to 2012, 262 332 new immigrants came into the country. Despite this increase of new immigrants, they represent a marginalized group facing deteriorating health after resettlement (Chen, Smith, & Mustard, 2010). Chen et al. (2010) referred to this phenomenon as the "healthy immigrant effect" in which immigrants are healthy when

they first arrive, but compared to native-born Canadians, they lose this health advantage over time. Many theories have speculated on this phenomenon; however according to Chen et al. (2010), there are several determinants that can affect physical and mental health. With respect to income, in 2005 there was a 21 percent gap between the earned yearly salaries of Canadian immigrants who work full time and what they should have earned compared to their Canadian-born counterparts (Canadian Broadcasting Corporation [CBC], 2011). Low income affects the health of immigrants, as below-average income earners are three times less likely to fill prescriptions and 60 percent less able to afford needed treatments than above average income earners (Mikkonen & Raphael, 2010). A Canadian study reported that although immigrant women view health similar to women born in Canada, an inequity in access to health resources exists (Stewart, 2003). Immigrants face barriers to health care services including physical inaccessibility, cultural insensitivity from providers, language barriers, and the increased cost of non-insured health services (Kirmayer, Galbaud du Fort, Young, Weinfeld, & Lasry, 1996).

Moreover, aside from disparities in accessing health services and resources, lower economic status populations such as Canadian immigrants are experiencing physical and economic inaccessibility to sufficient and nutritious food; known as food insecurity (Health Canada, 2007). Health Canada (2007) also reported that the food insecurity between the lowest and highest income levels was 48 percent versus 1.3 percent, with higher economic status groups consuming more nutritious foods than lower economic status groups. Food security is a concern for the immigrant population as they experience low salary jobs upon immigration (CBC, 2011). Research has also shown that one in ten households with children experience food insecurity. Health Canada (2007) demonstrated evidence supporting a negative association between education and food insecurity. When children go to school unnourished, their memory, problem-solving skills, concentration, and behaviour are negatively impacted (Breakfast for Learning, 2013).

Beyond food insecurity, Canadian immigrants also experience other inequities related to health. For instance, Canadian immigrants fall into a lower economic status as they are not able to find meaningful employment in their respective fields even with higher

education and experience from their native countries (Taylor, 2012). Taylor (2012) also found that employers are concerned with the recognition of foreign degrees and institutions, lack of “Canadian experience,” and fitting into the culture. Stadnyk, Townsend, & Wilcock (2010) referred to this as “occupational alienation”, where a population is restricted from experiencing meaningful and enriching occupations. According to Stadnyk et al. (2010), immigrants further experience “occupational marginalization” by having a lack of choices. A restriction in meaningful and health promoting occupations puts immigrants at a health disadvantage.

Adjusting to new roles after resettlement can also have an adverse affect on immigrants’ health. This population must meet financial responsibilities; however, the family may earn less than they did prior to resettling and must consider child care arrangements (Suto, 2008). These new roles may limit parents, more often women, from going back to school in order to standardize credentials (Suto, 2008). Immigrants begin to lose sight of meaningful occupations and activities while being pushed into low paying manual labour. These findings are consistent with Stadnyk et al.’s term “occupational imbalance”, when some people have too much to do while others have very little to do (2010). Thus, they may not be able to engage in a range of fulfilling activities that promote well-being (Stadnyk et al., 2010). Well-being can be defined as the presence of positive emotions, e.g., happiness; the absence of negative emotions, e.g., depression; and life satisfaction (Center for Disease Control [CDC], n.d.). Subsequently, these challenges can lead to a deterioration of health and distress caused by a sense of isolation and lack of social supports (Stewart, 2003).

The immigrant population is just one of the many Canadian populations that experience health disadvantages (PHAC, 2008). Often it is more than one determinant associated with these health inequities (Mikkonen & Raphael, 2010). While employment and income are key determinants in addressing health, taking into account and evaluating other occupational related concepts, such as marginalization, imbalance, and alienation, may help to close the gap in health equity among vulnerable populations. The next section explores some of the current efforts to reduce health inequities in Canada.

### **1.1.2 current solutions.**

Some priority strategies in reducing the health equity gap in Canada include strengthening communities with programs that promote community participation and leadership, inter-sectoral action, and building a knowledge infrastructure (PHAC, 2008). According to the PHAC (2008), there are programs in Canada already in place to tackle health inequities. One program is the Toronto's Mobile Health Unit, created in 1981, for immigrant women who cannot afford to skip work to access health services (Immigrant Women's Health Centre, 2014). The Toronto's Mobile Health Unit program gives new immigrants the opportunity to receive primary care at no cost from culturally-sensitive health care providers (Immigrant Women's Health Centre, 2014). Another program, Breakfast for Learning (2013), provides funding and nutrition education to 3000 community-based student nutrition programs across the country to ensure children do not attend school hungry. Breakfast for Learning (2013) reported an improvement in school performance, behaviour, and concentration among some students. This program targets vulnerable populations, such as immigrants with low economic status that find it difficult to access nutritious food (Health Canada, 2007). Furthermore, some provinces have introduced their own strategies to address poverty (PHAC, 2008). For example, Quebec's Family Policy comprises of an integrated child allowance, improved maternity and parental leave, more benefits for self-employed women, and subsidized early childhood education and child care services (Institute for Research on Public Policy [IRPP], 2004). These centres offer low-cost care and there is no cost for parents on social assistance (IRPP, 2004). The policies and services in Quebec are one example of how Canadian immigrants are supported in balancing different roles and responsibilities while resettling in a new country (Suto, 2008).

According to the PHAC (2008), another priority area for reducing health inequities is inter-sectoral action in which all levels of government, the private sector, and international organizations work together on policies and interventions. The PHAC reported that efforts have been made to support communities, population-specific approaches to address multiple determinants, and tools for cross-departmental policy reviews (2008). Moreover, a strong knowledge base is also a current strategy to better

understand and reduce health inequities. Current knowledge provides a foundation for collecting further research on specific sub-populations with inferior health outcomes, understanding how determinants create health inequities, and applying effective interventions (PHAC, 2008). Understanding the sources and determinants of health inequities within specific at risk populations, such as the immigrant populations, can help public health professionals target interventions towards the root of health problems (PHAC, 2008).

In addition to building on the knowledge infrastructure to support health equity, there is a need to determine the effectiveness of current and future interventions. Thus, there is a need to use effective reporting systems and tools (PHAC, 2008). The PHAC (2008) also found that further research on evaluating the role of health determinants on health inequities can benefit assessment tools in accurately evaluating and supporting more effective health programs within communities. The next section explores how this research can help explore the role of occupation as a determinant of health in processes to reduce health inequities in Canada.

### **1.1.3 possibilities for change.**

Mikkonen and Raphael (2010) defined the determinants of health as “factors that affect a person’s state of health” (p. 8) and can be classified into: socio-economical factors, biological and genetic factors, individual behaviour, physical environment, and health services (WHO, 2013a). Mikkonen and Raphael (2010) also stated that some socio-economic determinants that affect immigrant populations include: occupation, income, education, social network, family and community support, and language. Although the field of public health aims to examine the determinants of health to help reduce health inequities (PHAC, 2008), it is not apparent that a holistic perspective of occupation is included when examining health inequities. A “holistic occupational perspective” is referred to in this thesis as the perspective that occupation encompasses all the things people participate or cannot participate in throughout their day (e.g., work, leisure, self-care, and sleep) that may contribute to health and well-being from a negative or positive standpoint (Wilcock, 1998a; Wilcock, 2010).



Within the field of occupational science, experts have elaborated on the relationship between occupation and health and well-being. For example, the restriction from meaningful occupations can have negative health implications (Wilcock, 2010; Stadnyk et al., 2010). However, based on a review of the literature by the researcher (Chapter 2), there is no consensus in defining occupation as a determinant of health. Within the health literature, occupation outside employment/work, including meaningful participation, choice, and balance, has not been explicitly apparent as part of the evaluation process in health tools or applied to health inequities (WHO, 2013a; MOHLTC, 2013). Ways to explore the realm of socio and economic factors are important for identifying the source of health problems and the complexity of how health inequities transpire within communities and the daily lives of the constituents of communities (PHAC, 2008). This gap in knowledge of the holistic perspective of occupation is important to public health issues as Wilcock (2010) emphasized that participation in daily occupation contributes to health and well-being both negatively and positively depending on the circumstances (Wilcock, 2010).

Therefore, health assessment tools may benefit by taking into consideration all factors of occupation that contribute to the health of individuals within communities such as meaningful participation in occupations, access to choices, and opportunities for occupational balance. Moreover, exploring the “occupational injustices”, the outcomes of policies that distribute power to restrict certain populations or individuals in engaging in occupations such as marginalization and alienation (Townsend & Nilsson, 2010), among vulnerable populations in a health assessment process may reveal the source of health inequities that may otherwise go unnoticed. The Ontario Ministry of Health and Long-Term Care (MOHLTC)’s Health Equity Impact Assessment (HEIA) is a current promising tool that is being used within the public health domain to analyze health inequities within interventions by considering all the determinants of health (2013). However, upon the researcher’s closer exploration of the MOHLTC’s HEIA, there were some areas where occupational concepts may help to enhance the understanding of health inequities. The HEIA is further explored in Chapter 2 of this thesis.

This thesis examines how knowledge from occupational science may advance the evaluation of health equity. The objectives of this study are presented in the following section.

## **1.2 Study Objectives**

This research thesis project has two objectives. Firstly, at the outset of this study, the initial goal was to elicit the perspectives of experts from the field of occupational science and from the field of public health. However, due to limitations in the recruitment process, discussed in section 3.6.1, this study only elicited the perspectives from occupational science experts to define occupation as a determinant of health or a concept that shapes health and well-being. The original goal was based on the view that different organizations and fields may define occupation and the relationship to health differently. Secondly, this study aimed to identify questions to consider when evaluating health interventions with respect to health inequities from an occupational lens, alongside the HEIA. The HEIA allows health professionals to evaluate health interventions for health inequities affecting vulnerable populations by reviewing all determinants of health (MOHLTC, 2013). Although the evaluation of occupation as a health determinant has been done from a workplace/employment and individual functioning perspective, occupation has been overlooked from a holistic perspective. Brainstorming questions from a holistic occupational perspective may enhance the efficacy of the HEIA in evaluating health programs and policies for health inequities. The next section outlines this thesis by chapters.

## **1.3 Thesis Outline**

Following the introductory chapter, Chapter 2 provides a review of the literature on how occupation plays a role in health and health equity. A simplified scoping review method, used to conduct the literature review, is outlined step by step in this chapter. This review begins with an overview of the current definitions of health, well-being, occupations, and health inequities. This overview allowed the researcher to look at the current definitions of occupation and how they are linked to health and health equity, and note any gaps in understanding presented in current literature. Measurement and evaluation tools for

occupation as a determinant of health were also explored to better understand how occupation is currently evaluated with respect to health and well-being. The MOHLTC's HEIA, used to evaluate health interventions to reduce health inequities, was examined in detail (2013). The MOHLTC's HEIA (2013) was chosen as it is an emerging tool in public health and considers all determinants of health when approaching health inequities. Occupation as a determinant of health was examined within the HEIA to identify if links exist to potentially enhance the tool. Chapter 3 reports the study design used for this thesis research. This chapter describes the study design including the paradigmatic positioning, the researcher's role and pre-understandings, ethics, methodology and methods, study recruitment and sampling methods, study limitations and challenges, the data collection process, the data analysis process, and the quality criteria for research. Next, the findings from the study are presented in Chapter 4. Findings are organized into two central themes that define occupation by differentiating occupation from just employment and connecting occupation to health. Occupational questions to reduce health inequities alongside the HEIA are also presented in three themes: health promoting, jeopardizing, and depriving. Finally, Chapter 5 consists of a discussion of the study findings, implications for future research and education, and concludes this thesis.

## Chapter 2 – Literature Review

### 2.1 Introduction

This chapter introduces the possible connections between occupational science principles and public health practices with respect to health inequities. Firstly, the chapter outlines the literature review process using a simplified Arksey and O'Malley's (2005) framework. The literature review examined both grey literature and peer-reviewed literature. Results from the synthesis of the literature overviews the various definitions of occupation and begins to explicate the link of occupation as a construct to health, well-being, and health equity/inequities. Secondly, the literature review explores ways that occupation is measured or evaluated from different disciplines including occupational science, occupational therapy, and public health. In particular, the Ministry of Health and Long-Term Care (MOHLTC)'s Health Equity Impact Assessment (HEIA) and its way of evaluating the impact of occupation on health are examined (2013). This emerging tool was selected for its current role in the public health sector in reducing health inequities and for its consideration of all determinants of health (MOHLTC, 2013). The HEIA was examined in detail from an occupational science perspective to understand how occupation is included in assessing health interventions to reduce health inequities. This chapter identifies the gaps in literature and in the HEIA with respect to the use of occupation and its link to evaluating or contributing to health outcomes and health inequities. The conclusion of this chapter outlines the research steps that are needed to advance the understanding of the concept of occupation as a determinant of health and to identify ways to expand the evaluation of the health inequities within the HEIA from a holistic occupational perspective.

### 2.2 Literature Review Methodology

A scoping review “aims to map rapidly the key concepts underpinning a research area and the main sources and types of evidence available” (Mays, Roberts, & Popay, 2001, p. 194). This literature review was conducted to examine and synthesize what is known about the definition of occupation and its link to health and well-being. In researching occupation as a determinant of health, different methods of measuring/evaluating

occupation were also considered. A simplified version of Arksey and O'Malley's (2005) framework was adapted to guide the literature review. The purpose of using a scoping review methodology for this literature review was to identify any gaps in knowledge of occupation that may contribute to the field of public health in reducing health inequities with respect to program and policy development. Both grey literature and peer-reviewed literature were searched. The following steps were taken in this scoping review using: (1) identifying the research questions, (2) searching for relevant articles in grey literature and peer-reviewed literature, (3) study recording and sorting based on relevancy of literature, and (4) extracting data and summarizing results. Step 2 and 3 were conducted alongside step 4. Arksey and O'Malley's framework was simplified in step 4 as the data extracted on key occupation and health concepts from relevant literature was not conducted systematically (2005). Data was summarized in a narrative style rather than presenting specific types of data. This method of data extraction allowed the researcher to focus primarily on important results as they applied to understanding the concepts of occupation and its relation to health. Moreover, a hand-search of literature was also conducted to support the summary and find specific literature, for example, on the HEIA. Lastly, the results from the literature review were used to identify what is known about the link between occupation and health inequities and ways to advance the knowledge of occupation as a determinant of health for use in the assessment of health equity.

### **2.2.1 step 1: identifying the research questions.**

The questions for this scoping review were: What is the definition of occupation as a determinant of health? How is occupation linked to health, well-being, and health equity/inequities? How is occupation being measured or evaluated? This review aimed to explore how different fields or organizations define occupation and how occupation as a concept is viewed within the literature as contributing to health at the individual or population level. These questions were identified to understand the realm of the knowledge base on occupation as a determinant of health and as a construct that contributes to health, well-being, and/or health equity/inequities. This knowledge is needed to inform and enhance the use of occupation as it contributes to health in the evaluation of health equity, including the HEIA.

### **2.2.2 step 2: searching for relevant articles.**

A search was conducted for grey literature using the Google Advance Search engine. The grey literature search included any government or organizational websites and documents open to the public. Searching began with the use of the terms “occupation” and “health” in the “all of these words” section and became more specific as the search was carried through. More specific terms included “how to measure occupation”. Some of the terms such as “determinant of health” were inputted in the “this exact phrase” section of keywords for better results. A list of these search terms, including relevant websites, is included in Table 6, Appendix A. Although browsing through up to the first 25 websites or documents listed was intended, judgment was used to stop browsing and move on to the next search term if 5-7 websites were consistently irrelevant or repetitive from the results of other searched terms. In addition, a hand-search was done through Google for organizational websites and government/ministry websites in Canada were browsed for documents specific to health equity tools and the HEIA.

The database CINAHL was used for peer-reviewed literature in consultation with a research resource librarian at Western University. Other databases were deemed to be irrelevant for researching this topic. Searching included the term “measuring occupation” and additional keywords that were inputted into each search were searched using the “AND” function to allow articles with either keyword or both keywords to come up. In addition, articles were hand-searched or cross-referenced. A full list of search terms and relevant article titles through a scan of the abstract can be found in Table 7, Appendix A.

### **2.2.3 step 3: study recording and relevancy sorting.**

All websites/documents or articles from the grey literature and peer-reviewed literature were screened for relevancy to the study objectives at the time of the primary search. The selection assessment criteria used to identify relevant documents included: (a) some indication of the definition of occupation, occupation as a determinant of health/concept contributing to health and well-being, and/or how occupation is measured or evaluated; (b) in English; however documents were not restricted by country of origin or year of publication.

Websites and documents extracted from the grey literature search were scanned for relevancy at the time of the search and only relevant articles were recorded on an Excel spreadsheet. To be of relevance to the review, ranked 1, grey literature required the definition of occupation, occupation as a determinant of health/concept contributing to health and well-being, and/or how occupation is measured or evaluated. A brief note or direct text on what the relevant websites/documents entailed was also recorded. Certain documents, that were hand-searched in Google are also included, for example documents on specific tools. This information can be found in Table 6, Appendix A.

Articles extracted from the peer-reviewed literature were scanned for relevancy at the time of the search and only relevant articles were recorded on an Excel spreadsheet. Similar to the grey literature search, to be of relevance, articles required a definition of occupation, occupation as a determinant of health/concept contributing to health and well-being and/or included a description or approach on measuring/evaluating occupation in the abstract. The articles were ranked 1 if they were relevant to occupation as a determinant of health or 2 if they discussed how occupation was measured or evaluated. Data recorded included the title, author, type of study, and a brief note or direct text taken from the article on what the article included. This information can be found in Table 7, Appendix A.

As shown in Table 6, Appendix A, 28 relevant websites/documents were found through the grey literature search. Websites/documents were selected as relevant based on the relevancy selection criteria and two documents were moved to peer-reviewed literature, Table 7, Appendix A. Also shown in Table 7, Appendix A, the peer-reviewed literature search, including hand-searches, yielded 80 articles (including the two articles moved from grey literature) that met the selection assessment criteria of relevancy.

#### **2.2.4 step 4: data extraction and summarizing results.**

The types of data extracted from literature included the URL or title of article, author, type of study (qualitative, quantitative, mixed methods, or commentary) and ranking as previously outlined in Step 3. All data were extracted and summarized in an Excel spreadsheet as shown in Table 6 and Table 7, Appendix A. The grey literature and peer-

reviewed literature were further scanned and some notes or direct text from the website, document, or article were recorded for the general idea. After the literature was thoroughly read after ranking, the researcher began to summarize the results by extracting three common themes: (a) the definition of occupation, (b) how occupation is linked to health, well-being, and health inequities, and (c) how occupation is being measured or evaluated. A qualitative thematic approach to synthesizing information was used on these three content areas. This approach was used to examine what, if any, connection is evident in the literature between occupational principles and the public health issues related to health inequities. Lastly, the emerging HEIA was examined to evaluate if the use of occupation as a holistic concept was considered within the tool as a factor that plays a role in health equity.

### **2.3 Results of Literature Review Methodology**

This section summarizes the results from the literature review. The use of both grey literature and peer-reviewed literature supported the development of a synthesis of the many ways that occupation as a determinant of health and well-being is defined and evaluated. The results from the scoping review also enabled examination of the areas of consensus in occupational concepts, the potential gaps in the literature, and the potential of occupational concepts informing the understanding and the reduction of health inequities.

Twenty-eight grey literature websites/documents were identified as relevant by inclusion of either the definition of occupation, occupation as a determinant of health/concept contributing to health and well-being, and/or how occupation is measured or evaluated. Out of the 80 relevant peer-reviewed articles, shown in Table 7, Appendix A, 48 articles were ranked 1 as they referred to occupation as a determinant of health or a concept contributing to health, and 32 were ranked 2 as they also discussed some means of measuring or evaluating occupation. The following superscripted numbers correspond to reference numbers in Table 7, Appendix A. Fifty-one of the peer-reviewed literature articles were qualitative<sup>(1, 6, 8, 12-15, 19-33, 35, 36, 38, 40, 42, 46-48, 50, 52-58, 61, 63, 69-80)</sup>, 21 were quantitative<sup>(2-5, 7, 10, 11, 16, 17, 34, 37, 39, 41, 43-45, 49, 65-68)</sup>, 6 were mixed<sup>(9, 18, 58, 60, 62, 64)</sup>, and 1 was



a commentary <sup>(51)</sup>.

For the scope of this master's thesis, although the presented relevant literature in Table 6 and 7 in Appendix A were reviewed, only some of the references were summarized in the following sections. The literature summary consisted of websites, documents, and articles from authors dominant in the field and/or where findings were explicit and in-depth or more recent compared to other relevant literature of the same topic. In accordance with Arksey & O'Malley (2005), the literature used for the narrative synthesis was coherent with the research questions. Additional relevant references were hand-searched or cross-referenced to support this summary as indicated in Table 6 and 7, Appendix A. Twenty-three websites, documents, and articles were referenced in the summary of this scoping review, indicated with an asterisk (\*) beside the relevancy rating column in Table 6 <sup>(1, 3, 9, 25-28)</sup> and Table 7 <sup>(7, 16, 28, 31, 69-80)</sup>, Appendix A.

### **2.3.1 definitions of health, well-being, occupation, and health inequities.**

Consistent with the scoping review objectives, the relevant grey literature and peer-reviewed literature were examined to explore if and how the literature defines the concept of occupation as a determinant of health and well-being. This section explores the many definitions of occupation and uncovers the link that occupational scientists posit between occupation and health and on how occupational injustices (the outcomes of policies that distribute power to restrict certain populations or individuals in engaging in occupations) lead to health inequities (Townsend & Nilsson, 2010).

The definition of health varies and is a concept that has a different meaning to different people. For example, WHO defined health as "...a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (2013). On the other hand, The Ottawa Charter (WHO, 1986) explained that,

Health is created and lived by people in the setting of their everyday life, where they learn, work, play, and love. Health is created by caring for oneself and others, by being able to take decisions and have control over one's life circumstances, and by ensuring that the society that one lives in creates conditions that allow the attainment of health by all its members (p.2).

Moreover, the concept of well-being differs from health as well-being is defined as an internal construct which is an individual's perception of their circumstance (Orem, 1985). Orem also found that health is recognized as a combination of one's physical, mental, emotional, spiritual and social characteristics. While health and well-being can have many definitions, both are shaped by multiple factors including occupation (Wilcock, 2001).

For years occupational scientists such as Dr. Ann Wilcock (1998a, 1998b, 2001, & 2010) and Dr. Clare Hocking (2010) have added to the occupational science literature by connecting health and well-being to the concept of occupation. In occupational therapy, the Canadian Association of Occupational Therapists (CAOT) also defined occupation as "everything that people do during the course of everyday life" (2013). However, occupation is more so recognized and evaluated as employment or paid work by most people in society (WHO, 2013a). The CAOT (2013) has a broader view and defined occupation relevant to who we are and the concept encompasses our daily tasks and includes not only work, but leisure, self-care, and sleep. Occupational scientists believe that occupation is a means to health and well-being (Wilcock, 2010). Although playing a large part of our daily lives, occupation as a determinant of health is not clearly defined in current literature as indicated in the review of literature in this chapter.

Wilcock (2001) explained that the influence of occupation on health goes back in history with the use of the Regimen Sanitatis; a regime of health providing example methods used over many centuries to prevent and cure illnesses when people could not rely on modern medicine. The six rules of health in the Regimen Sanitatis included (a) air and environment, (b) motion and rest, (c) food and drink, (d) sleep and waking, (e) evacuation and repletion (including sex), and (f) affections of the soul (Wilcock, 2001). Wilcock (2001) related these historic categories to occupation respectively: (a) occupation, the environment, and ecology, (b) balance of physical, mental, social, and restorative occupations, (c) food and drink according to occupational requirements, (d) doing, being, becoming, and sleep, (e) personal activities of daily living, and (f) meaning, satisfaction, and purpose through occupation. Furthermore, Wilcock (1998b) explained that occupational needs are tied to health to keep healthy through the interaction with the

environment and what people do. Not only do humans engage in occupations, but they differ from person to person because of their unique interests which hold different meanings and purposes to them (Wilcock, 1998b).

Evidence on the effect of occupation on health consistently demonstrated that the lack of occupation increases stress and physiological changes, and decreases health (Lokk, Arnetz, & Theorell, 1993). Pugliesi (1995) established that control and difficulty of work improve health and well-being. To add to the negative impact of the lack of occupation on health, occupational injustices and health inequities also increase stress and poor health (Wilcock, 1998a). The WHO defined health inequities as “differences in health status or in the distribution of health determinants between different population groups” (2013). The concern for the Canadian population with health inequities lies with the social and economical factors such as inaccessibility to health care services and jobs, high costs, and insensitivity to cultures (PHAC, 2008). According to PHAC (2008), some of the areas for priority in reducing the health equity gap in Canada include strengthening communities with programs that promote community participation, and a knowledge infrastructure including further research on how determinants of health interact to create health inequities. If all aspects of the determinants of health are uncovered, it may help public health in Canada reduce health inequities and provide effective health programs.

More specific to occupation as a determinant of health inequities, Stadnyk et al. (2010) used an occupational framework to outline four types of injustices that lead to health inequities for marginalized populations. Firstly, Stadnyk et al. (2010) referred to occupational alienation as restricting a population from engaging in meaningful and enriching occupation. For example, an immigrant population may not be able to engage in meaningful work due to unrecognized international education or credentials (George & Chaze, 2009). When workers cannot find meaningful work, they lose work confidence, self worth, and unpracticed skills over time (Shaw, 2012). Secondly, Stadnyk et al. (2010) explained occupational marginalization as restricting a population by a lack of choice. Lack of occupational choices can lead the overqualified population into undesired work that may be unstructured, less safe, of lower pay, and have fewer health benefits (Derose, Escarce, & Lurie, 2007; Shaw, 2012). Thirdly, Stadnyk et al. (2010) defined

occupational imbalance as when some people have too much to do compared to others, thereby not being able to experience a range of occupations that promote health. Lastly, “occupational deprivation” is social exclusion by restricting a population from occupation participation in diverse contexts, such as care facilities (Stadnyk et al., 2010). According to Stadnyk et al. (2010), certain health programs focus on types of occupations that may not be meaningful for participants therefore contributing negatively to health. All four of these injustices have shown to lead to boredom, burnout, depression, sleep disturbances, substance abuse, and eventually poor health and disorders (Wilcock, 1998a).

Occupational factors such as those influenced by policies and societal values can shape health outcomes (Wilcock, 1998a). Further to this, Wilcock (1998a) suggested that by using the underlying occupational principles and equitable opportunities, communities have the opportunity to flourish and experience satisfaction, meaning, stability, belonging, and can contribute in a socially-valued manner. However, in order to sustain health equity, Wilcock indicated that society must consider the reasons for occupational differences among different communities and promote choice in occupations that allow meaning, purpose, and good health and well-being (1998a).

To conclude, depending on the author or literature source, occupation was defined in various ways. In general, occupation is considered from an employment and paid work standpoint (WHO, 2013a). On the other hand, occupational therapists examined occupation individually as a means to function in daily tasks after an intervention for injury or illness (CAOT, 2013). Finally, occupational scientists such as Hocking (2010) and Stadnyk et al. (2010) explored occupation at a population level and how participation or lack of participation in occupations can contribute to health and well-being, both negatively and positively. Occupational scientists have also mapped out the consequences of occupation to health when there is a lack of meaning, balance, or choice (Wilcock, 1998a). While there is research on the importance of occupation on the health and well-being of communities and society in the occupational science literature, there is a need for a more comprehensive understanding of how occupation is defined or understood as a health determinant. Moreover, there is a gap in how occupation as a determinant of health can be applied to health inequities within communities and how a holistic occupational

perspective can contribute knowledge to other disciplines in reducing health issues. Another way to explore the definition of occupation as a determinant of health is by reviewing how occupation is being measured or evaluated. The following section examines how occupation is being measured or evaluated through the use of health tools.

### **2.3.2 evaluation of occupation as a determinant of health.**

From the peer-reviewed articles and grey literature websites/documents (marked with an asterisk in Table 6 and 7, Appendix A), this section summarizes how occupation is being measured or evaluated in terms of health from different disciplines including public health and occupational therapy. For the purpose of this literature review, the measurement of occupation refers to outcome measures that are quantifiable such as income and the evaluation of occupation refers to qualitative information such as health-related quality of life (HRQOL). More specifically, the HEIA is further discussed in detail to consider how occupational science concepts can aid in the evaluation of occupation to reduce health inequities.

Currently there are many different tools used to evaluate occupation such as those used to measure employment statistics and workplace health, and occupational therapy tools that assess the function of individual ability (WHO, 2013b; CAOT 2013; CDC, 2013; MOHLTC, 2013; Pan et al, 2011). There is also some literature from occupational science that explores the health and well-being of populations through their participation in occupations (Hocking, 2010). These tools either measure or evaluate aspects of occupation from a workplace, individual, or population perspective. Some of these tools are identified and described in this section.

#### Workplace perspective

Occupation as a determinant of health is defined and measured/evaluated in terms of workplace health such as health care insurance coverage, income, social class, and physical workplace environment (CDC, 2013). There are many assessment tools for evaluating a safe workplace environment and benefits, for example, the CDC's Workplace Health Assessment Data Matrix. Although these types of assessment tools play a role in ensuring a hazard-free work environment with fair access to health care

benefits, they do not consider the view of occupation outside paid work. According to literature, health organizations presently do not evaluate occupation in terms of the daily occupations or routines that people take part in or how occupations are organized to sustain health and well-being.

### Individualized perspective

Individualized tools that occupational therapists use such as the Model of Human Occupation (MOHO) are designed to focus on participation, interests, and motor skills and abilities (Pan et al., 2011) Another example is the International Classification of Functioning, Disability and Health (ICF); a classification of health and health-related domains such as the body, individual, and societal perspectives (Haglund & Fältman, 2012; WHO, 2013b). Haglund and Fältman (2012) also found that tools used by occupational therapists aim to help the recovery process of individual patients from an illness or injury with respect to being able to physically perform tasks as they did prior to their condition. To evaluate the effectiveness of health interventions, Roach (2006) suggested that it is important to examine health outcomes, for example, the improvement in the state of health of the person. Evaluating health outcomes included self-report measures such as subjective HRQOL questionnaires or objective measures such as cholesterol levels post-treatment (Roach, 2006).

Although these evaluations are important to the health of the individual, these tools do not consider the ability to participate in meaningful occupations or contribution to society after the patient's condition or determine how occupation contributes to well-being. The measurement or evaluation of occupation outside of the workplace and income or the assessment of individual performance is not well understood in literature (CDC, 2013). When measuring/evaluating health outcomes, it is important to examine all aspects of the health determinants (Gore & Kothari, 2012). For example, occupation can be considered from an equitable and justice standpoint (Stadnyk et al., 2010).

### Population Perspective

In terms of evaluating health inequities, health programs can be assessed using the

different determinants of health that influence vulnerable populations (MOHLTC, 2013). The MOHLTC (2013) also found that the evaluation of health equity can help policy and decision-makers develop ways to close the equity gap and help communities grow economically and contribute productively to society. Although health programs are designed to reach diverse communities and effectively provide education and support, there still may be inequities present for certain groups. To detect whether populations are free from health inequities caused by occupational injustices, it may benefit public health professionals to evaluate occupational related access to resources and services.

In the literature reviewed, the evaluation of occupation as it contributes to health and well-being was often not comprehensively considered with respect to evaluating health inequities (WHO, 2013a; MOHLTC, 2013). For instance, more effort is needed to develop ways to evaluate what people do, or whether people or communities are able to do what they want to do or what is meaningful to them after an intervention or with a particular health status. Although insights on evaluating health outcomes and eliminating health inequities from an occupational lens have been conceptualized, they have yet to be put into practice (Wilcock, 2010).

Dr. Clare Hocking (2010), a leading occupational scholar, is one of the only authors who has researched and developed an occupational analysis process that can be used to evaluate public health issues, for example, obesity. According to Hocking (2010), health issues arise from participation or lack of participation in occupations and that these issues can be addressed by changing occupations or lifestyles or changing environments that support healthier occupations. Public health issues can be approached by analyzing the things people do and the factors that influence people's participation in these occupations such as their physical environment, occupational injustices, or socio-economic status. Moreover, Hocking's occupational analysis explored how occupations play a role in health risk, who is affected, why people participate in what they do and factors that influence occupations, what sectors are implicated in the solution, and how the occupation affects sustainable use of land and resources (2010).

Evaluating occupation may be of value to society in that it provides insights for policy-

makers on the importance of occupation in preventing disability, marginalization, alienation, or imbalances that lead to poor health or health inequities among groups in society (Hocking, 2010). Hocking (2010) considered analyzing current public health issues and possible interventions from a holistic occupational perspective. In current literature, there are no other tools in public health that focus on assessing current health interventions or plans for new initiatives that address health inequities from a holistic occupational perspective. There is a need to review programs, for example, immigrant employment services or fitness programs targeted for people with an illness, to assess and eliminate occupational injustices such as marginalization or alienation. Aside from the current efforts in public health to help vulnerable populations find employment or promote activities, Hocking (2010) found that it would be beneficial to the health and well-being of populations to inquire into access and participation in meaningful and balanced occupations. It is also important to consider the patterns of occupations or disruptions in occupational routines within communities, such as immigrant populations, to determine how this may affect their health and well-being (Hocking, 2008).

To summarize this review, organizations, such as the WHO (2013b) and the CAOT (2013), linked occupation and health as it encompasses employment including health benefits and physical work environment or individual physical ability with respect to recovery from injuries. However, the concept of occupation could be considered further in terms of daily meaningful occupations and choices that promote health and well-being. If one of the aims within public health in Canada is to develop and improve health interventions (PHAC, 2008), occupational scientists like Hocking (2010) posited that by approaching health inequities at the population level through occupation as a health determinant, we can contribute to prevention of poor health and well-being. Health assessment tools may benefit by considering what people are doing to sustain and contribute positively to communities and society and evaluating occupational injustices such as imbalances and marginalization (lack of choice). Unfortunately, this literature review did not yield any health tools in public health that explicitly consider the holistic perspective of occupation with respect to health and well-being. However, the HEIA is an emerging tool that is being used within the public health domain to analyze health inequities and to improve health interventions (MOHLTC, 2013). The following section



examines the HEIA in further depth as it takes into consideration all determinants of health including occupation in addressing health inequities.

### **2.3.2.1      *Health equity and the HEIA.***

In recent years, more effort has been focused on the social determinants of health to address health and health inequities in Canada (Canadian Public Health Association [CPHA], 2013). The WHO (2008) defines social determinants of health as

The poor health of the poor, the social gradient in health within countries, and the marked health inequities between countries are caused by the unequal distribution of power, income, goods, and services, globally and nationally, the consequent unfairness in the immediate, visible circumstances of people's lives – their access to health care, schools, and education, their conditions of work and leisure, their homes, communities, towns, or cities – and their chances of leading a flourishing life. Together, the structural determinants and conditions of daily life constitute the social determinants of health and are responsible for a major part of health inequities between and within countries (p. 1).

The HEIA was created by the Ontario MOHLTC to assist the integration of health equity considerations into new interventions, plans, or policies (2013). The assessment stems from the Health Impact Assessment (HIA) and focuses specifically on health equity. Health Equity is defined by the MOHLTC (2013) as “reducing systemic barriers to equitable access to high quality health care for all.” The MOHLTC (2013) further explained that health inequities or disparities are avoidable and unfair differences in health outcomes related to social marginalization. Therefore the HEIA is designed to help decision-makers analyze all factors that influence health inequities and to minimize them.

The HEIA supports access and the needs of diverse communities and similar tools are currently being used in many countries (MOHLTC, 2013). For example, in New Zealand, the Ministry of Health uses the Whanau Ora Health Impact Assessment in order to improve health outcomes and reduce health inequalities as well as to aid policy-makers to make informed decisions (Ministry of Health, 2007). Another example is the Health in All Policy (HiAP), created by the Ministry of Social Affairs and Health of Finland, that

also aims to improve population health and health equity through decision making (2013). In Ontario, the MOHLTC's HEIA is intended to be applied to the early stages of a program; however, it can also be applied retrospectively to review restructuring, expanding, or closing of programs (2013). The main goals of the MOHLTC's HEIA are to: (a) identify positive or negative health impacts of a program or policy on marginalized groups, (b) develop recommendations to reduce negative impacts and maximize positive impacts, (c) promote equity for all programs and organizations, (d) support equity-based improvements in programs, and (e) raise awareness about health equity for change in organizations. To carry out these objectives, the MOHLTC's HEIA uses a five step process: (1) scoping vulnerable populations, (2) impact assessment, (3) mitigation strategy, (4) monitoring, and (5) dissemination.

The HEIA is a current tool within public health to help organizations to consider all populations and all the determinants of health in order to identify and reduce negative impacts and health inequities within their programs and policies (MOHLTC, 2013). As this tool is flexible and takes into account many health determinants, it would be an excellent tool with which to incorporate occupational insights to help further reduce health inequities. The MOHLTC's HEIA has many potential benefits for health programs such that it may reduce costly and preventable illnesses by assessing health inequities, allows access and response to long-term needs of diverse communities, and can be conducted in a short timeframe (2013). However, there exists a gap within the tool from a holistic occupational perspective, discussed in the following section.

#### 2.3.2.1.1 *HEIA with an occupational perspective.*

Occupation is defined in various ways as found in this review of the grey literature and peer-reviewed literature. However, a holistic perspective of occupation may benefit public health in tackling health inequities. Some of these occupational concepts, such as participation in meaningful activities, and choice and balance in occupations, have been linked to health by occupational scientists (Wilcock, 2010; Hocking, 2010). As occupational injustices, e.g., lack of choice in occupations leads to a decline in health, it is important to recognize occupation as a health determinant when analyzing the sources of public health issues and thus, developing better health interventions (Hocking, 2010).

The HEIA is an internationally recognized tool in public health and aims to take into consideration all determinants of health (MOHLTC, 2013). It is a promising model to evaluate programs and policies for health inequities for vulnerable populations. Although the HEIA includes aspects of occupation such as the more structural social determinants of health such as employment and personal health practices (WHO, 2013a), it is also important to address some of the “non-structural” determinants of health-related to occupation. The non-structural occupational determinants include the value or meaning of the action or activities rather than solely on the types or classifications of occupations such as employment or leisure. For example, the MOHLTC’s HEIA guidelines do not explicitly consider meaningful occupations, balancing various occupations, or choices of occupations beyond personal health practices, e.g., smoking (2013). The MOHLTC’s HEIA also does not explicitly consider how occupations play a role in promoting health and well-being and how they contribute to community growth (2013). For example, if a marginalized immigrant population has no choice but to engage in risky labour-intensive work, the nature of the health programs may need to focus on access to safer, equitable, and meaningful employment. The MOHLTC’s HEIA could also outline the importance of equitable access to balanced, meaningful participation in activities. Furthermore, occupational science literature suggests that understanding how occupations are constructed or contained need to be examined (Wilcock, 1998a). Correspondingly, the MOHLTC (2013) suggested that there are social reasons for health inequities that lead to occupational inequities; what people can do or cannot do. Health assessment tools may further be developed to support an analysis of how occupations shape health inequities such as depriving populations in participation of meaningful occupations (Stadnyk et al, 2010).

There may be areas within the HEIA that can be improved by bridging knowledge of occupation with health and health equity. This knowledge may support the evaluation of occupation as a non-structural determinant of health. The concept of occupation may help decision-makers in the development of programs and policies that consider meaningful and balanced occupation as a focal point. By mapping out questions for consideration using a holistic occupational perspective alongside the HEIA, public health professionals may better assess health inequities and in turn, develop interventions that may have

otherwise been neglected.

## **2.4 Conclusion**

There are many different definitions of occupation that exist in the literature and many ways that occupation has been measured or evaluated from a health standpoint (WHO, 2013b; CAOT 2013; CDC, 2013; MOHLTC, 2013; Pan et al, 2011). However, there is no consensus in defining occupation as a determinant of health nor as a concept that contributes to health and well-being. What we currently know is that occupational scientists such as Wilcock (1998a, 1998b, 2001, & 2010) and Stadnyk et al. (2010) have made a link between occupation and health and well-being that helps to understand occupation as a holistic concept. Although the literature demonstrates how occupational concepts shape health and well-being, how occupation is evaluated in health tools does not always consider the holistic occupational perspective such as the contribution of meaningful, daily participation in activities, balance, or choice. Thus, there is a gap in bridging knowledge of occupation with health inequities to support the evaluation of occupation as a determinant of health or as a concept that contributes to health and well-being. Using a holistic and non-structural occupational perspective alongside the HEIA may help to better assess health interventions and to prevent health inequities that may have otherwise been overlooked. This research study is a start to explicate further how occupational scientists view occupation as a determinant of health or a concept that shapes health and to understand the occupationally-based sources of health inequities. The following study aimed to explore questions that may evolve the HEIA in preventing health inequities by the use of an occupational science lens. In the next chapter, the study design used for this research is described.

## Chapter 3 – Study Design

### 3.1 Introduction

This chapter outlines the research design including the methodology and methods used to examine occupation as a determinant of health and its use in the evaluation of health equity. The paradigmatic positioning (pragmatism) of the research; the researcher's experiences and pre-understandings; and the ethical approval for this study are presented. The study methods, recruitment and sampling strategies including challenges, data collection and management processes, and data analysis including credibility strategies are also described.

### 3.2 Paradigmatic Positioning: Pragmatism

The theoretical perspective underscoring the approach to this study was pragmatism. Pragmatism was developed by Charles Sanders Peirce, William James, and John Dewey and places importance on the practical consequences of the action and the understanding of real-world phenomena (Creswell, 2011). A pragmatic approach is also supported for use within the health and rehabilitation sciences domain for addressing complex problems in society that require practical solutions (DeForge & Shaw, 2012). Thus pragmatism aligned with this study as the construct of occupation as a determinant of health was intended to be explicated by experts and explored for its utility in the practice of health equity assessment. The pragmatic paradigm parallels with the study objectives: to define occupation as a determinant of health or a concept that shapes health and well-being and to identify questions from an occupational lens that can contribute to complex public health issues: health inequities.

### 3.3 Researcher's Role

I am a Master of Science student in Health and Rehabilitation Sciences in the field of occupational science. I received my Bachelor of Science from the University of Waterloo in Honours Science and Business with a specialization in biology. My research interests lie in the field of public health, specifically in health program planning and development for vulnerable populations.

My experience working with vulnerable populations within a community health program piqued my interests in the matter of health inequities. During my master's program, I also worked as a Research Assistant on a project for best hiring practices for persons with disabilities. This opportunity taught me about the research process involved in developing solutions to a societal issue. My curriculum vitae can be found following the Appendices.

Data were drawn from experts in occupational science; my own beliefs were not incorporated in the results. My data analysis was simply interpreted from experts from each focus group with minimal integration of my own views, where possible. Member reflections with participants further confirmed this process. The following section outlines how I came about my thesis topic and my pre-understandings.

### **3.3.1 topic selection and pre-understandings.**

I was interviewed by my supervisor at the beginning of the research process to identify the reasons for selecting my research topic. My beliefs on this topic and my personal experiences were also explored. Consistent with the pragmatic approach taken for this study, I interpreted the ideas from only the participants of this study to understand the issue: health inequities and solutions to health inequities (Creswell, 2011). The presupposition interview helped me to frame my own beliefs and become aware of them when interpreting the findings.

I grew up seeing many people in my life engage in undesired occupations due to systematic and structural barriers after migrating to Canada. They were constantly trying to find balance in their daily occupations while fulfilling financial responsibilities. These occupational injustices were negatively reflected in their health and well-being in many ways. Health inequity was always an issue that appealed to me and I began to explore the issue in-depth with a research paper that I wrote for my graduate occupational science class. The paper explored immigrant populations and the health inequities and health consequences they experienced while resettling in Canada.

After exploring several determinants of health including occupation and how they contribute to health and wellbeing, I began to look at how health inequities were being evaluated. I was pointed in the direction of Ontario's current public health tool, Health

Equity Impact Assessment, by my advisory committee member. Following a thorough review of the tool using my background knowledge in occupational science, I noticed that there were some missing pieces in how occupation as a determinant of health was being evaluated. If health inequities were approached from a holistic occupational perspective, I believed that this lens may help in reducing the source of some of these health inequities that vulnerable populations experience. At this juncture, I began to put together a research topic and objectives for my thesis study.

I believe that there is a knowledge gap with how health inequities are evaluated in terms of determinants of health. Specifically, there is a lack of consensus on defining occupation as a determinant of health. After reviewing grey literature and peer-reviewed literature, I saw a repetition of organizations and evaluation tools from different fields defining occupation differently. The HEIA, like many other evaluation tools, looked at occupation from the standpoint of how employment affects health, for example, the physical work environment. However, I began to believe that if stakeholders or organizations evaluated a holistic perspective of occupation, that is, in terms of access to participate in meaningful occupations, choices in occupations, and/or occupational balance (having enough to do); there may be ways to enhance the understanding of the sources of some of these health inequities that may be implicit.

Furthermore, I believe the gap between the study of occupation and health inequities may be resolved by incorporating the holistic definition of occupation as a determinant of health and applying it to public health practices. If a holistic occupational perspective was included in assessment tools or evaluations, for example the HEIA for health interventions, it may enhance the process to reduce health inequities.

It is important to declare my pre-understandings that might have influenced my interpretations of the study findings. Some key points of my beliefs around health inequities and occupation as a determinant of health include:

- I believe that daily occupations can influence your health and well-being
- I believe there is a lack of understanding and consensus in defining and evaluating occupation as a determinant of health

- I believe that occupation as a determinant of health can be a source of health inequities beyond just employment
- I believe that health equity assessments can benefit from looking at different determinants of health and a holistic view of occupation

### **3.4 Ethics**

This study received ethical approval by Western University's Research Ethics Board in July, 2013. All revisions regarding this study were submitted and approved through this Research Ethics Board as well. The ethic approval notices can be found in Appendix H.

### **3.5 Methodology and Methods**

This qualitative study followed an inductive approach to answer (Bryman & Burgess, 1994; Strauss & Corbin, 1998): 'How can the concept of occupation as a determinant of health help in the processes to reduce health inequities?' A qualitative methodology was used to explore health inequities and to understand a source of health inequities, that is, occupation as of determinant of health. Moreover, an inductive approach was used to gain diverse insights from occupational experts to identify questions using an occupational lens that may potentially strengthen health assessments. These methods were aligned with the study objectives to elicit the perspectives of occupational science experts: (1) to define occupation as a determinant of health or a concept that shapes health and well-being, and (2) to identify questions to consider when evaluating health programs with respect to health inequities from an occupational lens, alongside the HEIA. Moreover, the pragmatic orientation of this study explored the understanding of real-world phenomena, health inequities, and the practical consequences of the occupation concept (Creswell, 2011). Originally, this study aimed to elicit the perspectives of experts from two different disciplines, occupational science and public health. However, due to recruitment difficulties (further explained in section 3.6.1), only perspectives from occupational scientists were obtained.

The methods used for collecting qualitative data included semi-structured interview focus groups with a small group of participants (Delbecq, Van de Ven, & Gustafson, 1975;



Harvey & Homes, 2012; Tuffrey-Wijne, Bernal, Butler, Hollins, & Curfs, 2007; Krueger & Casey, 2000). The use of focus groups is effective to gain a comprehensive understanding of the phenomenon through a manageable discussion in which experts can build on each other's ideas (Krueger & Casey, 2000). The following steps of each interview focus group included (1) the use of semi-structured questions to initiate round-robin sharing and recording of ideas, (2) structured discussion of the brainstormed ideas, and (3) grouping ideas into themes (Delbecq et al., 1975; Harvey & Homes, 2012; Tuffrey-Wijne et al., 2007). This structure was originally influenced by the nominal group technique; however it was adjusted to fit the objectives of the study. Nominal group technique includes a step where ideas are rated by importance; however the objectives of this study were not to rank the importance of occupational themes and concepts, but rather to identify those themes and concepts that contribute to health (Delbecq et al., 1975; Harvey & Homes, 2012; Tuffrey-Wijne et al., 2007). All stages of this study were reviewed by a research supervisor and advisory committee member to optimize credibility. The study site, recruitment, sampling, data collection, and data analysis are detailed in the next sections.

### **3.6 Study Site, Recruitment, and Sampling**

This qualitative study was conducted using online and in-person interview focus groups at a Canadian university. The study aimed to elicit the perspectives of experts in the field of occupational science and public health, recruited from a Canadian university and from online public health webinars and forums. The inclusion criteria for sampling participants included: (a) individuals who studied or contributed to the knowledge base through conceptual articles, research, or teaching in occupational science and/or public health, and (b) individuals who spoke English. Potential participants included faculty in occupational science or therapy and/or public health, PhD candidates or graduates in the occupational science field or public health, Master of Public Health graduates, post-doctoral fellows, experienced occupational therapists, public health professionals, and visiting scholars with experience in occupational science or public health.

This group of participants was purposively sampled as they have an expertise in occupation and/or public health and can bring informed insights about approaching health

inequities from an occupational lens (Patton, 2002). The recruitment of participants with an affiliation to a particular Canadian university was conducted because it is an English-speaking institute and offers occupational science and public health fields. In addition, the research team is well-connected to the university, therefore making sampling accessible. This study, however, did not limit participants to those that only work/study/are affiliated with this particular Canadian university.

Exclusion criteria for participants of this study were: (a) individuals who were currently in a master's program, and/or (b) individuals who didn't speak English. Current master's students were excluded to allow for more experienced participants in their respective fields. Also to allow for communication with the research team, non-English speaking participants were excluded.

A purposeful sample of participants was asked to participate in the study via email, brief presentations, and forum posts (Patton, 2002). The recruitment email can be found in Appendix C and the letter of information that was attached in emails can be found in Appendix D. Patton (2002) explained that purposive sampling is a non-random sampling technique in which the researcher samples from participants with specific characteristics. The sample was primarily recruited by obtaining an email list of faculty, post-doctorates, current senior and alumni PhD students, and visiting faculty through the university registrar's office. Potential participants recommended by the research team were also invited to participate via email. Secondly, the advisory committee member took part in the recruitment process by presenting the opportunity for public health experts to participate in this study at team meetings with affiliated health organizations. Moreover, recruitment through an online webinar hosted by Community Health Networking-Works! (ChNet!, 2014), a knowledge exchange tool supporting dialogue and translation to support the development of evidence informed policies, programs, and services, was arranged by the researcher to recruit public health experts. Lastly, after a meeting with a knowledge translation specialist in public health (H.M., personal communications, November 8, 2013), the research team was advised to make wording changes to the recruitment advertisement. After recommended revisions of the recruitment advertisement to specifically target public health professionals and approval from

Western University's Research Ethics Board, the researcher posted in National Collaborating Centre for Social Determinants of Health's online forum, as suggested by the knowledge translation specialist. The revised advertisement was also posted on an online university course site, accessible to the faculty and students of a public health program. The revised version of the recruitment advertisement can be found in Appendix C.

A total of eight participants in the occupational science field were included in the study. The study did not result in any participants specifically in the field of public health, details in section 3.6.1. Three small focus group interviews (Delbecq et al., 1975; Harvey & Homes, 2012; Tuffrey-Wijne et al., 2007; Krueger & Casey, 2000) were used to collect data. Once a purposive sample size of 3-8 experts agreed to participate, a date was confirmed (Patton, 2002). Due to date conflicts for participants, three separate focus groups were conducted for the occupational science participants, splitting the groups to 2-4 participants each. A sample size of 6-10 participants supports the collection of in-depth data from a small number of participants with diverse opinions within a focus group (Krueger & Casey, 2000). The following section outlines the limitations and challenges with recruitment of study participants.

### **3.6.1 limitations and challenges.**

Although the study's objectives were to elicit the perspectives of both occupational science experts and public health professionals, the recruitment of public health professionals resulted in zero participants. Many recruitment strategies were used to target this field as outlined in section 3.6 including forum postings, emails, and recommendations of affiliated organizations by an advisory committee member. After several attempts, a knowledge translation specialist in the field of public health was consulted (H.M., personal communications, November 8, 2013). Revisions were made to the language of the recruitment advertisement to clarify occupational science concepts to outside disciplines, as shown in Appendix C. The lack of response from the public health field may have been due to misunderstandings of the research study and the use of unrecognized occupational science concepts. Moreover, the other limitation was that the

participants recruited for this study were bounded by a Western world viewpoint of occupation and health inequities as all participants were from one area of Canada.

### **3.7 Data Collection**

Participants were emailed a full package of study details including the HEIA workbook. A link to this workbook and a copy of the HEIA template can be found in Appendix F. The study consisted of interview focus groups following in-depth, semi-structured questions that were conducted in-person and online for approximately two hours each at a Canadian university's research laboratory. A video conference call using an online platform, Blackboard Collaborate, was set up for those participants who could not be physically present during the focus group.

Written consent, including consent to video and audio record the session was obtained from each participant at the beginning of each focus group. These recordings were used for data analysis purposes; in order to go back on conversations and ensure information was not overlooked. The recordings also allowed for accurate transcription of the voices of participants. Participants also completed a demographic form for the purpose of describing the sample population. This data collection demographics form is included in Appendix E.

The list of semi-structured questions used for the focus groups is provided in Table 1 of this section. The first part of the focus group centered on defining occupation as a determinant of health and how it shapes health and well-being. Firstly, each participant took turns sharing their ideas on occupation while the researcher's assistant mapped the ideas out on the slide presentation for everyone to see. Secondly, ideas were discussed and grouped into themes. Mapping out themes helped to develop an understanding of the central factors in defining occupation as a determinant of health.

The second part of the focus group began with presenting the HEIA and a public health example case scenario taken from the HEIA workbook, included in Appendix G. The focus was on the HEIA and how occupation as a determinant of health could prevent health inequities in program planning and development. Participants were asked to brainstorm potential questions from an occupational lens that may reduce health

inequities. The second part of the focus group was conducted in the same format as the first part: ideas were shared with the group then discussed to generate key questions as they were mapped out and projected for everyone to see.

Table 1

*Data Collection Tool: Semi-structured Questions to Guide Data Collection in Focus Groups*

<b>Part 1: Exploring and defining occupation as a determinant health</b>
1. What is your current understanding of occupation as a concept? Prompts: activities, types of work, the things people do every day?
2. What are the factors that you feel contribute to the concept of occupation as a health determinant? Prompts: provide or give examples.
3. How would you explain occupation as a determinant of health to someone?
4. How does occupation (what people can do or cannot do or what people are expected do or need to do) support or hinder health and well-being?
<b>Part 2: Exploring opportunities and questions for reducing health inequities</b> <i>[Overview of Health Equity Impact Assessment provided]</i>
1. What is your current understanding of health inequities? Prompts: what are they, how do they occur, and do you address them in your current work?
2. What are some of the things that contribute to health inequities that may be linked with participation or lack of participation in occupations? Prompts: provide or give examples.
3. How can health interventions/programs benefit by looking at a holistic understanding of occupation as a determinant of health?
4. What are the types of questions that may be used to explore health inequities from an occupational perspective?

### 3.7.1 data management.

The audio recordings of the focus groups including the data collected from the slide presentation were stored on a secure password-protected site, Blackboard Collaborate. The back-up video recordings were stored in a locked file cabinet at a Canadian university. All hard copies of consent forms and data collection forms were also locked in separate file cabinets. The transcripts made from recordings were uploaded to a secured

site and each participant was assigned a pseudonym number to protect identifiable information.

### **3.8 Data Analysis**

Data analysis followed Guest and MacQueen's inductive, thematic qualitative approach; where by data collected from experts were used to formulate patterns and themes in factors of occupation as a determinant of health (2012). Secondly, the questions for consideration from an occupational lens to help reduce health inequities may demonstrate how a thorough understanding of occupation can help advance the public health field in improving health interventions, alongside the HEIA.

The data analysis process started with reviewing all of the transcripts from the focus groups and coding each line. The researcher assessed what the participants were trying to tell her about occupation and health and/or health inequities. The participants' tones and focus group culture was also noted. These codes and preliminary themes and subthemes, were then entered into an Excel spreadsheet. The supervisor independently followed the same steps and the preliminary themes and subthemes were compared to ensure no data was overlooked.

Additionally, a concept map was constructed as a method of organizing the preliminary themes and subthemes from Excel, found in Appendix B. Trochim and Kane (2005) described concept mapping as suitable for addressing problems in health care. The concept map allowed the researcher to visualize the connections and complexity between occupation and health and to select and structure the key themes and subthemes of codes.

The researcher and supervisor organized the final subthemes into two central themes: (a) differentiating occupation, and (b) connecting occupation to health. Differentiating occupation represents the concepts that participants expressed to define occupation outside of employment. The second theme, connecting occupation to health, outlines the occupational subthemes that can contribute to health from a negative or positive standpoint. The second part of the analysis resulted in a list of occupational questions organized into three themes, health promoting, jeopardizing, and depriving. These

questions may be considered to reduce hidden sources of health inequities using an occupation lens alongside the HEIA.

### **3.8.1 quality criteria: credibility, sincerity, and coherence.**

This qualitative research study was conducted with credibility, sincerity, and coherence. The credibility of the study was demonstrated through thick description, crystallization, multivocality, and member reflexivity. Sincerity was demonstrated by self-reflexivity and lastly, meaningful coherence was attempted by interconnecting the research design, data collection methods, and data analysis process and by achieving the research objectives (Tracy, 2010).

Credibility refers to the trustworthiness of research findings (Tracy, 2010). This study demonstrated credibility with thick description and concrete detail through assessing tacit knowledge, described as “largely unarticulated, contextual understanding that is often manifested in nods, silences, humour and naughty nuances” (Altheide & Johnson, 1994, p. 494). The researcher wrote careful notes on who was talking, what was said during, and the tone during focus groups. Tracy (2010) claimed that transcripts that detail the focus group culture and tone of participants demonstrate rigor. To ensure further credibility, the data analysis process was discussed and results were concluded with the research supervisor and the advisory committee member. Crystallization refers to the practice of using multiple researchers to open up more in-depth understanding of the issue (Ellingson, 2008). Insights from the research supervisor and advisory committee member supported multiple perspectives as they have a comprehensive background in occupational science and public health, respectively. Moreover, according to Tracy (2010), multivocality demonstrates and includes the use of multiple voices in the results and analysis. The study findings provided the voices of participants through quotes and examples that demonstrated their own understanding of occupational concepts. Lastly, member reflections seek input from participants on the research findings (Lindlor & Taylor, 2002). Member reflection displays credibility as it ensures the researcher’s interpretations are correct (Tracy, 2010). Participants in this study were followed up with results of the analysis regarding occupation as a determinant of health across the three

focus groups. Participants were emailed and invited to reply back with feedback or comment on the results.

Furthermore, sincerity can be achieved through self reflexivity and honesty about the researcher's biases and goals (Tracy, 2010). Sincerity in this research was achieved through an interview conducted by the research supervisor with the researcher. This interview was summarized in section 3.3.1, detailing the researcher's reasons for pursuing this study topic and her beliefs on the gap in knowledge contributing to health inequities and possible solutions using occupation as a determinant of health. The researcher also declared her pre-understandings regarding this research topic that may potentially influence this study. Furthermore, the research demonstrated sincerity through honesty in describing the challenges of recruiting public health professionals. Section 3.6.1 outlines recruitment shortcomings with the use of occupational science related language.

Finally, coherence was achieved by interconnecting the literature review with the research focus, achieving stated study objectives, and using methods that partnered well with the study paradigm (Tracy, 2010). The literature review evaluated grey literature and peer-reviewed literature regarding occupation and its relationship to health and well-being and how it is currently being measured or evaluated. The literature review also outlined the public health issue of health inequities, explored health outcome tools, and identified any knowledge gaps in the evaluation process of health inequities. The review covered the scope of the research focus: occupation as a determinant of health or a concept that shapes health and well-being and the evaluation of occupation with respect to health and health inequities. Furthermore, the research objectives were met by interviewing occupational science experts through the use of open-ended, semi-structured interview questions during focus groups, included in Table 1, Section 3.7. The findings of the study attended to the declared research objectives, achieving coherence (Tracy, 2010). In addition, the pragmatic positioning in this study supported the research processes that were used to address a complex problem in society, that of comprehensively evaluating health inequities through a practical solution (DeForge & Shaw, 2012). Pragmatism aligns with the study objectives as well as the focus group methods which enabled



eliciting the perspectives of experts on defining occupation as a determinant of health or a concept that shapes health and well-being and identifying questions to consider when evaluating health programs with respect to health inequities from an occupational lens, alongside the HEIA. Overall, the study design and results prove to be credible, sincere, and coherent.

### **3.9 Conclusion**

This research was conducted using a qualitative inquiry with a pragmatic orientation as reflected in the researcher's role. The study's objectives were to elicit the perspectives of occupational science experts on defining occupation as determinant of health or a concept that shapes health and well-being and to identify questions to consider when evaluating health programs with respect to health inequities from an occupational lens, alongside the HEIA. The use of in-depth, semi-structured interview focus groups allowed for a comprehensive understanding of concepts through an interactive discussion (Krueger & Casey, 2000). All approvals for this study were made through Western University's Research Ethics Board. The recruitment of a purposive sample included emails, forum postings, and presentations with the help of the research team. Unfortunately, the recruitment strategies did not result in any participants from the field of public health. However, the data collected from occupational science experts was comprehensive. The focus groups were video recorded and transcribed using a numeric system to ensure confidentiality. Data analysis followed an inductive, thematic approach and coding of transcripts was conducted both by the researcher and supervisor. Finally, data methods, findings, and analysis of this study demonstrate credibility, sincerity, and coherence. The following chapter presents the findings from the data analysis process.

## Chapter 4 – Findings

### 4.1 Introduction

This chapter presents the sample demographics and findings from a thematic analysis. The findings were organized into two parts. First, the occupational themes are described by subthemes that contribute to defining occupation outside of employment or explore contributions to health and health equity from a positive or a negative standpoint. A concept map, found in Appendix B, was initially created to organize occupational factors and their relationship to health and health inequities. Table 2 presents an overarching table with the two central themes related to Part 1. The second part of the findings consists of occupational questions categorized by themes that may help in reducing health inequities alongside the HEIA. Tables 3, 4, and 5 outline the occupational questions by three central themes discussed in Part 2 of this chapter. Direct quotes are included to support themes presented. Words in double quotation marks and italicized block quotes indicate phrases taken directly from focus group interviews. The findings are summarized at the end of this chapter.

### 4.2 Sample Demographics

Focus groups were comprised of eight participants from Canada. Participants had 4 to over 30 years of experience in their respective field of occupational therapy and/or occupational science. In addition, six participants had obtained a PhD. Some of these experts had experience as professors and/or researchers. For the purpose of protecting their identity, each participant is referred to by their assigned pseudonym, “P” followed by a number.

### 4.3 PART 1: How Occupational Factors Shape Health and Health Inequities

The first object of this study was to define occupation as a determinant of health and well-being. Findings were organized into two central themes to define occupation as a determinant of health and well-being: (a) differentiating occupation, and (b) connecting occupation and health. The theme, differentiating occupation, was divided into three subthemes: (a) everything that you do, (b) subjective view on meaning, and (c) temporal situation. These three subthemes reflect participants’ definition of occupation. The

second central theme, connecting occupation and health, was divided into three themes of subthemes: health promoting, health jeopardizing, and health depriving. The central theme, connecting occupation and health, yielded eight subthemes of occupational concepts that support or hinder health and well-being or contribute to health inequities. Table 2 overviews the themes and subthemes.

Table 2

*Summary of Findings: Themes and Subthemes of Occupational Factors*

<b><u>HOW OCCUPATIONAL FACTORS SHAPE HEALTH AND HEALTH INEQUITIES</u></b>
<p><b>4.3.1 Differentiating Occupation</b></p> <p>4.3.1.1 Everything that you do</p> <p>4.3.1.2 Subjective view on meaningful occupations</p> <p>4.3.1.3 Temporal situation</p>
<p><b>4.3.2 Connecting Occupation and Health</b></p> <p><b><u>Health Promoting:</u></b></p> <p>4.3.2.1 Self identity and occupational fit</p> <p>4.3.2.2 Sense of belonging</p> <p><b><u>Health Jeopardizing:</u></b></p> <p>4.3.2.3 Negative social and historic influences</p> <p>4.3.2.4 Managing health: need, want, or expected to do</p> <p>4.3.2.5 Occupational imbalance</p> <p><b><u>Health Depriving:</u></b></p> <p>4.3.2.6 Occupational marginalization and choice</p> <p>4.3.2.7 Occupational alienation and loss</p> <p>4.3.2.8 Barriers to gaining awareness and access</p>

#### **4.3.1 differentiating occupation.**

Participants shared their definition of occupation. The central theme, differentiating occupation, was defined as the different ways of explaining what occupation means

which may not be explicitly reflected in health literature. Participants emphasized that occupation encompasses everything that you do and is more than just employment or productive work. Secondly, participants also explained that how meaningful occupations are viewed is subjective and occupations can be viewed differently from person to person or group to group. Lastly, participants believed that an individual's engagement in an occupation may depend on their "temporal situation"; the time or place that they are in during the course of their life. The central theme, differentiating occupation, was categorized into three subthemes: (a) everything that you do, (b) subjective view on meaningful occupations, and (c) temporal situation.

#### **4.3.1.1**      *everything that you do.*

When participants were asked to define occupation, they explained that occupation is not just employment or productive work and that it encompasses everything that an individual does throughout their day. Participants explained, "occupation comes down to doing the things that occupy our time" (P5). Participants expressed that occupation can be anything that an individual participates in and finds meaningful. One participant, P5, shared examples such as eating, talking to someone, putting on clothes in the morning, and playing the clarinet. P8 further elaborated on this point by emphasizing that occupation isn't just employment or work:

*...it can vary from occupations that are paid for that, you know, is socially appropriate in terms of what society thinks, to go to work 9-5 and work certain jobs; have a schedule to a more spiritual occupation like yoga and religion; all the way to sort of occupations that are not being as socially appropriate like drug use and prostitution.*

Using an occupational therapist perspective, P1 categorized the different occupations into self-care, productivity, and leisure. In the second focus group, occupation was described as an "onion" with many layers in a way that different occupations can be grouped. P4 explained that occupation isn't a single entity. While participants agreed that occupations include any daily task, they also believed that each occupation serves a different meaning or purpose to an individual.

#### 4.3.1.2 *subjective view on meaningful occupations.*

All of the participants thought that meaning contributed to their understanding of occupation. Participants also explained that meaning is subjective and that occupation can be viewed differently from person to person or group to group. P2 defined occupation by stating, “I would say it’s all those things that we do to occupy our time in which we find meaning that we chose to do or require to do.” However, P1 acknowledged that some may argue that there is no consensus on what is considered an occupation and that there are debates on whether sleep is an occupation. What an occupation means and how it is perceived is different for everyone. P1 expressed this point by providing a personal example:

*Some people actually think exercising is enjoyable. I think they are crazy but they do [laughs]. And so for them that occupation is very different than it is for me. And that may be leisure and pleasure for them and for me it is absolute only in pursuit of managing my health.*

Certain occupations, although proven to positively influence health, may not be meaningful or enjoyable to an individual. P3 explained that meaningful is subjective because you can have an illness or health complication, but still find meaning in life in what you do:

*...being able to engage in some occupation or aspect of an occupation that brings meaning and value to your life is what determines your health because we’ve all seen people who are in an abysmal health situation, but still feel that they are fortunate or feel that they have a meaningful life.*

Equally, participants mentioned occupations that are negatively perceived by society or individuals, such as drug addictions, can also be meaningful to some individuals. Although there is evidence indicating the negative health consequences of certain occupations, some people still find meaning and value in them. However, participants in the second focus group agreed that there is a social label as to what occupations are good versus bad, for example, kids exercising this many minutes a day is good for health. According to participants, the meaning or value of an occupation varies. P3 also

emphasized that it is important to integrate an occupational perspective in viewing healthy occupations within educational programs. Participants also stated that the occupations that individuals participate in are influenced by the time and place that they may be in during the course of their life.

#### **4.3.1.3      *temporal situation.***

When an individual is faced with options to participate in occupations they often assess the situation they are currently in before making a decision. Participants believed that choosing to engage in an occupation depends on the individual's temporal situation or the time or place in their life course. Participants elaborated that individuals change their engagement in occupations when they are responding to a need, for example, recovering from a health risk, but when the need isn't present they may not feel an incentive. P2 illustrated how the occupation of managing health is dependent on her situation or life transition:

*At this point in my life, [I haven't] had any kind of negative consequence. But now that I am starting to mentally prepare for like child birth, my sedentary lifestyle is starting to become a concern to me because...I don't think [laughs] physically I'll be able to do that in the state of health I am in now. Like my state of health now is fine for the things I am currently doing which is mostly sitting at a computer...I'm starting now to do some sort of pre-natal yoga which I ...never would've considered yoga if I wasn't in this current state.*

P2 also explained that there are certain interventions that restrict engagement in other meaningful occupations. Therefore, the place or life transition that you are in influences occupational choices that fit your current needs. An example P2 shared was an intervention that helps with arthritis pain, but prevents the possibility of having children. Thus, if a woman in this position is at a point in her life where she wants to have kids, she would have to choose an alternative intervention. The second central theme explores the link between occupation and health and how occupations can be health promoting, jeopardizing, or depriving.

### 4.3.2 connecting occupation and health.

This central theme, connecting occupation and health, was characterized as how occupation shapes or influences health and well-being. During focus groups, participants were asked to link occupation to health. P3 explained the the many ways that occupation can be linked to health:

*Occupation can affect you sort of from the physiological to the psychological to the social level. What you do can affect your physiology at a very basic level, but what you do can also affect your sense of being connected to other people which I think is an important aspect of health. And what you do can affect how you see yourself which is another aspect of health. So I guess a part of it is the idea that there are multiple layers at which there's a connection between occupation and health. And I think also the fact that it's both ways, right? Occupation can promote health, but it can also detract from health.*

The central theme, connecting occupation and health, was categorized into three themes (a) health promoting (b) health jeopardizing, and (c) health depriving. Firstly, health promoting subthemes included those occupations that positively shape health and well-being. Subthemes included: (a) self identity and occupational fit, and (b) sense of belonging. Secondly, health jeopardizing subthemes consisted of occupations or influences that are risky in terms of health and well-being. Health jeopardizing subthemes included: (a) negative social and historic influences, (b) managing health: need, want, or expect to do, and (c) occupational imbalance. Thirdly, participants shared examples of health depriving occupations and categorized them into the subthemes: (a) occupational marginalization and choice, (b) occupational alienation and loss, and (c) barriers to gaining awareness and access.

#### **Health Promoting**

The health promoting theme was characterized as engagement in occupations that contribute to an individual or population's health and well-being from a positive standpoint. This theme aimed to connect occupation to health from a positive lens. During focus groups, participants stated that meaningful occupations contribute to an

individual's "self identity". "Occupational fit" was another term that participants used to describe how an occupation fits into an individual or a population's life and gives them a sense of accomplishment. The second subtheme, "sense of belonging", was a reason for why individuals or a population of people participate in occupations: feeling a part of a community. Thus, the theme, health promoting, was divided into the subthemes: (a) self identity and occupational fit, and (b) sense of belonging.

#### **4.3.2.1** *self identity and occupational fit.*

Some meaningful occupations fit in the sense that they are coherent with the individual's needs and capacities. These occupations promote health and well-being through structure, skill development, confidence, and happiness. Participants believed that these meaningful occupations contribute to an individual's self identity. P4 explained her view on meaningful occupations and how it is not just something that brings passion, but something that brings structure and purpose to life:

*...people always talk about meaning and assume that it's something that is meaningful in terms of something that we love to do; this is what we want to do. That's what drives us, that passion. I think there's also that other side to that meaning that is what provides some structure and order to our lives. So I think there are a lot of occupations that we do for a variety of reasons that we don't necessarily feel passionate about or love to do, but we do them because it provides that structure and that overall meaning to life.*

Participants shared that engaging in meaningful occupations gives an individual competence and develops their skills which contributes to their identity. P7 stated, "it is also important to find occupations you can physically/cognitively do to build your sense of purpose and identity." Participants also believed that the ability and competence to do something provides confidence and positively contributes to health and well-being. P7 emphasized,

*I think a key theme contributing to the concept of occupation is just getting confidence; confidence in what you're doing, no matter what that occupation is*



*and that can really tie into your sense of who you are as a person and how it influences your health.*

P2 explained that if an individual doesn't feel capable of doing an occupation or confident enough to fulfill the requirements of an occupation, it can be stress-inducing. P3 explained that their [niece] loves to play on the computer. Using an occupational perspective, P3 felt for the reasons she is on the computer, it is very healthy for her. The occupation makes her feel confident, helps her develop a sense of who she is, and helps her connect to people.

P2 elaborated by stating that capability is subjective and just because someone may pass a standardized assessment, it doesn't always translate to how confident they feel about participating in an occupation or to how fit the occupation is for them. Participants believed that participation in meaningful occupations promotes health in ways that build resilience and happiness. P8 explained, "that [happiness] is ultimately what health is to me. It's happiness and purpose; it's not necessarily that your blood pressure is, you know, 121 over 80." P1 also shared that for persons with disabilities, completing a task may be too exhausting and time-consuming compared to persons without disability. The next subtheme explains how participants felt that meaningful occupations can also promote health and well-being by a sense of belonging.

#### **4.3.2.2**      *sense of belonging.*

One way occupation is linked with health is when occupations give an individual a sense of belonging to a community. According to participants, engaging in occupations can be influenced by social groups or supports. Participants identified that certain occupations are tied to an individual's cultural group. An example to illustrate this point was Aboriginals and their engagement in traditional and spiritual occupations, for example, hunting foods. Participants suggested that participating in cultural occupations provided a sense of belonging and promoted health and well-being. P7 added that "That [occupation] may bring a better sense of personal accomplishments; value; things that are considered...an adaptive or positive occupation by members of society." Participants stated that if a family that has a history or generational trend of participating in particular

healthful occupation, for example a sport, then the individual is likely to also engage in that sport. The next section explores the occupations that are health jeopardizing including those influenced by generational trends and social supports.

### **Health Jeopardizing**

The health jeopardizing theme was characterized as occupations or influences that may put individuals or populations at a health risk. Participants explained how social and historic influences can play a role in the types of risky occupations that an individual may participate in, e.g., gang activities or lead to health inequities, e.g., poverty. The things that people need, want, or expected to do to manage health can also be health jeopardizing such as the stress associated with the expectations of being a part of a group. Lastly, an occupational imbalance: having too much to do or too little to do, can also lead to negative health outcomes. Thus the health jeopardizing theme was categorized into three subthemes: (a) negative social and historic influences, (b) managing health: need, want, expected to do, and (c) occupational imbalance.

#### **4.3.2.3      *negative social and historic influences.***

In contrast to feeling a sense of community, participants shared that social or historic occupational trends among populations also can lead to jeopardizing health outcomes. P2 strongly emphasized that health inequities don't always come from nowhere:

*For homelessness, you can see that perhaps not necessarily something bad could happen that leads to that [being homeless], but there are still inter-generational consequences to that. So even their kids could end up homeless. Somehow on the social totem pole; somewhere their chances of climbing to the top are lower.*

P1 added to P2's viewpoint:

*One of my [colleagues], you know, she had a massive stroke and she became disabled and on disability pension living well below the poverty line when she had two young children. And the father departed and so these children were raised in*

*poverty; wouldn't get educated. And so it wasn't disability that was inherited, but the poverty piece.*

P5 also shared that if families are poor and grow up in low economic status communities, individuals sometimes engage in occupations influenced by their social network. An example P5 illustrated was growing up in inner city [Montreal] and being exposed to unhealthy occupations such as the use of drugs associated with a particular gang. This scenario can lead to unhealthy outcomes.

Additionally, P1 explained that social stigma also discourages people from participating in occupations in their own way or to the best of their ability. P1 shared a story about a girl who had severe cerebral palsy and could not feed herself with a spoon and a fork. Although, she could eat quite neatly by putting her mouth down to the plate and picking up food, everyone would try to get her to use utensils and she faced many stares from others while eating. Unfortunately, alternative methods of participating in occupations or unfamiliar occupations bring social shame or stigma. The following subtheme explores how the time and place in an individual's life course also influences their choices in engaging in occupations.

#### **4.3.2.4      *managing health: need, want, or expected to do.***

Occupations can be things that are needed, wanted, or expected of an individual. Although they are done to ultimately to manage overall health, they can put the individual at a health risk in the process. Participants explored participating in occupations as something that was needed or wanted. One example P2 shared was about immigrants that need to participate in occupations that they don't want to participate in, but have to for reasons such as financially supporting their family:

*Some people have to go to English learning classes to collect their social assistance. So they don't want to be there. It's just an extra thing they have to do in their day that stresses them out, that doesn't lead to anything, but they're just doing it so that that they can get their cheque at the end of the month.*

Participants explained that required occupations may contribute to maintaining their health or may be stressful and have negative health implications. Moreover, participants emphasized that sometimes individuals cannot participate in the healthful occupations that they would like to. An example that P2 shared was the use of power tilt wheelchairs and managing pressure sores. A study found that most people weren't using the power tilt although it is important to their health. The lack of power tilt use was because they felt awkward being in public and fully reclined in their wheelchair or because it restricted their participation in other meaningful occupation, for example, playing chess. Not having the freedom to participate in occupations that you want to can often have negative health implications. A second example P1 illustrated was about a church organist who started to develop Dupuytren's Contracture in his fingers. This impeded his ability to play the keyboard, a meaningful occupation for him. Although the occupation that an individual finds emotionally and spiritually important can have harmful health implications, no longer being able to participate in that occupation also has negative health outcomes. Further discussion during one focus group led to a mutual understanding among participants that some meaningful, desired occupations can also influence harmful health outcomes. An example that P1 provided was: "sports is very meaningful for some people, but get a lot of sport induced arthritis." The topic of the impact of being restricted from meaningful occupations or occupational choices is further explored in sections 4.3.2.6 and 4.3.2.7.

During the first focus group, participants explained that besides needing or wanting to participate in an occupation, there was a grey area of being expected to participate in an occupation. Participants associated this tension of feeling that they were expected to do things and not necessarily wanting to do them, but doing them anyways. This type of participation in occupations such as work, culture, or gender role expectations can cause stress. P2 expressed being torn between whether or not to take part in unwanted tasks that are not necessarily mandatory. P1 followed up with a career-related example:

*There are a lot [of things that] as professors that we don't have to do or that we necessarily want to do, but we end up doing it because...it could be linked to that broader goal of keeping this school functioning.*

An individual's career may be a reason why they think they are expected to participate in occupations, for example, professors coming in for a student event or working Saturdays. Participants justified their decisions by stating that their career is important and that their professions contribute to their overall health in positive ways. However, participants also acknowledged that participating in these expected tasks may be stress-inducing and may not be good for their health in the moment. Participants also expressed that being a part of a culture or social group leads to participating in occupations that others may expect of them. For example, P2 stated that if someone is working at a job and speaks a particular language and a new employee speaks the same language, but doesn't understand English, they are expected to be an interpreter for the new employee. It becomes an extra responsibility for that employee. P2 further explained that certain expectations also fall on the shoulders of different genders: "males potentially having to deal with more aggressive clients or having to do particular tasks." Expectations can cause a person stress and may not be good for the individual in the long run. The next theme explores how having too many roles or too little to do can lead to negative health consequences.

#### **4.3.2.5      *occupational imbalance.***

Occupational imbalance is defined by Stadnyk et al. (2010) as having too little to do or too much to do. Occupational imbalance can also lead to jeopardizing health outcomes. P8 explained how this concept hinders health:

*...lack of occupational balance that I think comes in everybody's life when they have numerous roles that they need to balance and whether it's being a mom, being a student, being a worker...being a wife, being a partner - whatever it ends up being; there are many roles and when that becomes out of balance, that can definitely hinder health and well-being.*

P2 illustrated occupational imbalance with the example of immigrants that cannot pursue meaningful, paid employment without Canadian experience. Immigrants are told to volunteer; however, they don't have the time to volunteer when they have many overwhelming roles upon resettling including financial responsibilities. The occupational

imbalance of having too many roles gives immigrants no choice but to engage in meaningless or non-preferred occupations. Participants also expressed that the feeling of satisfaction with how many occupations you engage in is subjective. P7 added, “many do not engage in many occupations, but they are okay with a low level of participation in occupation.” The next theme explores participants’ views on health depriving subthemes including occupational marginalization, occupational alienation, and barriers to gaining awareness and access to policies, resources, and services.

### **Health Depriving**

The health depriving theme was characterized as denying individuals or populations from participating in occupations and can lead to health inequities. Townsend and Nilsson (2010) defined occupational injustice as “an outcome of social policies and other forms of governance that structure how power is exerted to restrict a population in everyday occupations of populations and individuals” (p. 58). The occupational marginalization and choice subtheme uncovers participants’ view on restricting a population of people from having choices in occupations with respect to their socio-economic, legal, and health statuses. Secondly, in the occupational alienation and loss subtheme participants shared their views on restricting a population of people in engaging in meaningful occupations and the loss of occupations. Lastly, the barriers to gaining awareness and access subtheme refers to barriers and the burden of gaining access to policies, services, and resources that restrict vulnerable populations from participation in meaningful occupations that can contribute to health inequities. Thus, the health depriving theme was divided into three subthemes: (a) occupational marginalization and choice, (b) occupational alienation and loss, and (c) barriers to gaining awareness and access

#### **4.3.2.6 *occupational marginalization and choice.***

Occupational marginalization occurs when a population of people is restricted in the choices they have and cannot participate in certain occupations (Stadnyk et al., 2010). Restricting a population from occupational choices leads to negative health implications or deprives populations from maintaining their health and well-being. P1 explained “generally, having choice in occupations is for the larger purpose which I think is very

important in whether I think it is healthful or health depriving or health jeopardizing.” The distribution of rights to engage in occupations by health, socio-economic, and legal statuses influences health inequities in terms of the choices individuals or populations have to participate.

Participants explained that when exploring an illness or health status, such as obesity; it may seem like the choice of the individual not to exercise. However, it is important to look at the power lens of the opportunities available to the person that restricts them from participating in occupations or makes them more vulnerable to health inequities. P2 shared,

*If we look at it like a macro scale, it may look like individual choice. But then, when you start bringing in all those contextual factors, you start to realize this wasn't really a choice for them. They really didn't have a choice.*

Moreover, participants explained that an individual's health status, for example, being on the Ontario Disability Support Program, financial aid for people with disabilities to pay for living expenses (Ontario Ministry of Community and Social Services, 2014), can restrict the choice to pursue meaningful, gainful employment. If recipients are gainfully employed, they lose their benefits. Participants referred to these kinds of eligibility criteria as structural barriers to choice. P1 further explained that physical accessibility to and in a building also contributes to health inequities as it deprives individuals or groups, for example persons with disabilities, from participating in occupations. Participants emphasized simple things like removal of snow to the entrance or access to physical and audio aids. Participants also stated that consideration for the time that a service or program is available and the languages that it is provided in are important for equity of access to all populations. P1 shared an incident in one of the bi-elections about a year and a half ago where the polling station got bumped from an accessible school gymnasium to the downstairs basement without elevator access:

*There was actually video television footage of a fellow having to leave his wheelchair at the top of the stairs and he had paraplegia. And he had to bump*

*down the stairs to get to the polling station. Now, you know, talk about basic physical accessibility and policy accessibility.*

Secondly, participants in this study also discussed socio-economic status as being a health depriving factor. P5 expressed, “your socio-economic status is linked a lot to the occupations that you do in terms of the work that you do and how much you get compensated for that.” If an individual from a low socio-economic status doesn’t have the money to pursue an education, they mostly likely won’t have many choices of preferable paid work and health benefits. The cost of participating in the occupations that promote health and well-being limits this population. P1 shared that certain sports are more expensive than others due to equipment, limiting the choices kids have to participate in them. Furthermore, P1 discussed lack of choices in nutritious foods in lower socio-economic communities leading to health inequities: “the lower your SES [socio-economic status] the harder it is for you to access the foods you should be accessing for health or for planning your child’s development.” P1 further explained, “if lower socio-economic communities chose to go to a food bank, usually there are no fresh fruits and vegetables, just processed foods with high salt.” Participants explained that environmental factors such as weather and climate also affect the availability and price of resources such as food in certain areas. Thus, a population of people in low socio-economic status may not be able to afford foods that promote health. P5 shared a scenario about a population living near steel mills:

*I’ve seen an article about this where the actual life span of the people who live on that side of [a large city in Ontario with a population of over 400,000] are much lower than the people who live on the side of [the city] that doesn’t have the factories or the pollution from the factory blowing their way. So sometimes health inequities just have to do with the healthiness of the environment that you happen to be living in. So if you live closer to a mill, then the chances that you are going to have cancer are increased.*

Participants also demonstrated that the lack of access to services may be dependent on the geographic location. To take part in physical activity as an example, some areas have



local access to gyms, sports programs, and safe parks. This may not be the case for populations living in low socio-economic areas or living on first nation reservations with fewer resources. Additionally, participants also believed that lack of access to suitable transportation plays a factor in health and well-being when accessing resources from distant locations:

*I'm thinking seniors who have trouble with mobility; so the barriers of getting out into the community lead to social isolation which leads to decreased health because they're not being able to get into the community and do those things that contribute to their health (P3).*

Thirdly, according to participants, the distribution of the opportunities to engage in services and programs is also restricted by legal status. P2 shared that Convention refugees can enroll in English classes for free, but the asylum seekers cannot enroll. If a non-English speaking individual cannot enroll in an English language learning course in Canada, then they cannot obtain certain jobs or engage in certain occupations. Additionally, participants emphasized that immigrants have the foreign education and experience to perform in their desired careers, however they do not have the same opportunities in Canada as they did before resettling. Due to the tedious processes of gaining Canadian credentials or Canadian experience, many immigrants have no choice but to participate in meaningless, low-paying jobs to financially support their families. Occupational marginalization occurs when certain populations depending on their health, socio-economic, and legal statuses are deprived of choices in occupations leading to negative health outcomes and health inequities. The next subtheme describes how the Aboriginal population, similar to the immigrant population, has also experienced loss and alienation through restrictions that limit engagement in meaningful occupations.

#### **4.3.2.7      *occupational alienation and loss.***

Stadnyk et al. (2010) referred to occupational alienation as restricting a population of people from meaningful occupations. P3 believed that occupation and health were linked in a sense that if you restrict people from occupations that are meaningful to them, there may be major health implications at an individual and collective level. When participants

were asked to further elaborate on occupational factors that contribute to health, P1 explained:

*The meaning of a particular occupation...influences health...for example...we don't do it so much now; people used to be punished for having to do mindless, repetitive tasks...breaking rocks...move this rock from that side of the courtyard to that side and then move it back again...and there was absolutely no purpose.*

P2 related this explanation of mindless, repetitive tasks back to the Holocaust.

Participants associated meaningless occupations to demoting health and poor health outcomes.

P1 also discussed the health inequities among vulnerable populations caused by the loss of meaningful occupations. Participants shared an example of the Aboriginal population particularly the American Native tribes in the United States that experienced astronomical rates of diabetes for years. P3 explained, “occupational injustice becomes embodied as diabetes.” Exploring an occupational perspective, these tribes lived along the river and the river was essential for farming; the Hoover dam was built and the water went away. They lost the occupations of farming and making food the way they had for centuries. The government gave them processed food and their rates of diabetes shot up. P3 explained, “that [loss of occupation] was more of the cause of the high rates of diabetes than any type of biological determinant.” Occupational alienation or the loss of meaningful occupations has been disguised as a source of health inequity. The next theme explores how the barriers of access and awareness to policies, resources, and services can also lead to health inequities.

#### **4.3.2.8      *barriers to gaining awareness and access.***

The subtheme, barriers to gaining awareness and access, underscores the health depriving theme that often is unnoticed or not easily understood in terms of the influence of occupation and health. Barriers such as the lack of awareness of resources can deprive a population or individual from health promoting occupations. For instance, participants shared that awareness of the resources available, how to access resources, or knowing what occupations promote your health is important. P4 stated, “I think access to

knowledge, even creating knowledge, that participating in occupations can be healthy.”

Moreover, the burden of the process of gaining and monitoring access to policies, resources, and services lead to many health inequities and consequences. P4 stated, “the political environment that you are living in can have a significant impact on your health.”

P2 explained that rights aren't equally protected for populations or communities. The francophone population had fought for their rights for a French school board, but other linguistic groups don't have official language status. However, although the francophone population has these rights, they are not always monitored or protected. There is an act that provincial services should be made accessible in both French and English.

Unfortunately, when people go to a government office and request a service in French, they are sometimes denied or that service is unavailable. They then have to go through a process of complaining to a commission's officer when the services should have been provided in the first place. P1 added that there's a burden along with the monitoring or complaint process. Usually this burden falls on the marginalized group. P1 elaborated by explaining that a person with a disability spent two years pursuing access to a level staff entrance at a fitness centre. When a fitness centre opened a new branch without an accessible entrance, their friend who also had a disability was also refused permission to use the level staff entrance for access. They then had to start a second complaint process to gain access for the same ruling. Thus, the monitoring of rights as well as the burden of gaining access is stressful to the vulnerable population.

The findings from Part 1 provided insights into how participants define occupation which may not be explicit in health literature. Participants also connected occupation to health by providing examples of how occupations can be health promoting, jeopardizing, or depriving. Part 2 explores the occupational questions that participants thought may help the processes to reduce health inequities alongside the HEIA in evaluating health interventions.

#### **4.4 PART 2: Occupational Questions for the HEIA**

Part of the objective of this study was to identify questions using an occupational lens that could potentially enhance the HEIA in tackling health inequities. This knowledge

may then be used to guide additional areas of focus within health interventions. All questions from the three focus groups were reviewed and categorized into three themes: (a) health promoting, (b) health jeopardizing, and (c) health depriving. Table 3, 4, and 5 overview the occupational questions by these three themes. Participants stated that these questions cater to either a vulnerable population or an individual perspective to explicate health inequities.

In accordance with the HEIA, these questions can be used by public health professionals in either planning for a new intervention or restructuring an existing intervention. As the Canadian immigrant population represents a marginalized group facing deteriorating health after resettlement (Chen et al., 2010), it may also help to consider an intervention for a group of immigrants to maintain an aspect of their health after resettlement. The following questions may guide public health professionals such as program planners to assess the nature of how participation or lack of participation in occupations can promote health, reduce health jeopardizing factors, and/or eliminate deprivation.

#### **4.4.1 health promoting.**

The theme, health promoting, encompassed the questions that represent some of the occupational concepts that explore the health and well-being of an individual or population from a positive standpoint. Some of these questions uncover occupational concepts such as the meaning behind participating or engaging in occupations. Participants also shared that the types of occupation that an individual or group participates in or finds fit with their needs and capacities can contribute to their health in terms of confidence and competence. Participants explored questions pertaining to self identity, confidence, skill development, and a sense of belonging that promote good health. A diverse perspective on the value of occupations among different populations, such as the immigrant population, could benefit interventions in reducing health inequities. Some of these questions, presented in Table 3, may complement health assessment tools in the development of or enhance current health interventions to support the participation in occupations by targeted populations or individuals.

Table 3

*Health Promoting Occupational Questions for the HEIA*

<b>Health Promoting Occupational Questions for the HEIA</b>
<ol style="list-style-type: none"> <li>1. Is the intervention meaningful/valuable to the population or individual?</li> <li>2. Is the occupation/intervention culturally, traditionally, and/or historically applicable to the population or individual?</li> <li>3. How much time does the population or individual spend on managing their health?</li> <li>4. There is a focus on the medical model, e.g., illnesses and more hospitals; however, is there a focus on engagement in occupations? (occupations can be addressed)</li> <li>5. What are the population or individual's needs or goals after this intervention?; Are these goals attainable with this intervention?</li> <li>6. Ability vs. confidence to do a task: Does the population or individual feel confident in doing the things they need to do?</li> <li>7. Does the occupation or intervention support development in skills and competence?</li> <li>8. Complex occupations can be good and/or bad for health: What is a population or individual doing that is leading to poor or good health?</li> <li>9. What health outcomes are being measured after an intervention?; Is quality of life considered?</li> <li>10. How is what a population or individual does linked to their identity?; Is that a part of who they want to be or identify?</li> <li>11. Does the occupation or intervention make the population or individual feel a sense of belonging/community?</li> <li>12. How is the population or individual supported in engaging in occupations?; Is their social environment healthy?</li> </ol>

**4.4.2 health jeopardizing.**

The theme, health jeopardizing, categorized the questions that aimed to reduce some of the risky occupations or occupational concepts that can negatively shape health and well-

being of an individual or population. Some of these questions uncover occupational concepts such as occupational imbalance, the burden of expectations, and negative social and historic influences. A diverse perspective on health risks in occupations may offer enhancements to interventions in reducing health inequities among vulnerable populations such as Canadian immigrants. Some of these questions in Table 4 may guide the development of additional knowledge that may compliment the aim of health interventions in reducing or preventing negative health outcomes or inequities.

Table 4

*Health Jeopardizing Occupational Questions for the HEIA*

<b>Health Jeopardizing Occupational Questions for the HEIA</b>
<ol style="list-style-type: none"> <li>1. Are the current occupations of the population or individual compatible with their priorities?</li> <li>2. What is it that the population or individual wants to do, but cannot do?; What do they have to do or expected to do, but don't want to do?</li> <li>3. Is the population or individual satisfied with their engagement in occupations?; Do they feel occupationally balanced?</li> <li>4. How do certain roles in society put a burden on the expectations of a population or individual?</li> <li>5. What do occupational trends mean for health, e.g., using the computer, part time vs. full time work?</li> <li>6. What are the cycles of genetics or history of a population that is contributing to health inequities or occupational inequities?; How can these inequities be reduced?</li> </ol>

#### **4.4.3 health depriving.**

The theme, health depriving, categorized the questions that aimed to explore occupational concepts that restrict or deny a population or individual from participating in occupations. Occupational injustices are defined by Townsend & Nilsson (2010) as the outcomes of policies that distribute power to restrict certain populations or individuals from engaging in occupations. Participants mapped out questions that revolved around occupational

marginalization and lack of choice in occupations, occupational alienation/loss, and barriers to gaining awareness and access to policies, resources, and services.

Occupational injustices have major negative health implications on populations and individuals such as the Canadian immigrant population. These questions in Table 5 were suggested by participants to help uncover and reduce any occupational injustices that contribute to health inequities within health interventions.

Table 5

*Health Depriving Occupational Questions for the HEIA*

<b>Health Depriving Occupational Questions for the HEIA</b>
<ol style="list-style-type: none"> <li>1. Are rights and access to occupations being protected, monitored, and enforced?</li> <li>2. What are the occupations that a population or individual has lost/had to give up?</li> <li>3. Does the intervention explore different choices depending on the individual's situation/life course or comorbidities (conflicting interventions for different illnesses)?</li> <li>4. Does the intervention explore the diversity of how certain populations do things?</li> <li>5. How does a population or individual's health or the health inequity affect ability to engage in occupations?</li> <li>6. What are the policies that restrict certain populations from participating in occupations?; Is their physical and political environment affecting their health?</li> <li>7. Is physical accessibility (i.e. costs, language, availability etc.) associated with the occupation or intervention limiting participation?</li> <li>8. How is the access to occupations distributed?; What is the burden of process to gain rights, access, or credentials for populations?</li> </ol>

The questions presented in Part 2 of findings aimed to explore health inequities from an occupational lens alongside the HEIA. Participants believed that some of these health promoting, jeopardizing, and depriving questions may uncover some of the sources of health inequities that may be hidden within health programs.

## 4.5 Conclusion

In Part 1 of the findings, occupation as a concept that supports or hinders health and/or health equity was demonstrated through two central themes: (a) differentiating occupation, and (b) connecting occupation and health. The first central theme, differentiating occupation, was divided into three subthemes. The second central theme, connecting occupation and health, was categorized into three themes: (a) health promoting, (b) health jeopardizing, and (c) health depriving. Eight subthemes resulted in from these three themes within the second central theme. Participants elaborated on specific scenarios and examples. The findings from Part 1 have provided an elaboration of the viewpoints of occupation outside of just employment and on the connections between occupation and health. In Part 2 of the findings, participants brainstormed 26 questions using an occupational lens that may help to reduce health inequities alongside the HEIA. These questions were also grouped by three central themes: (a) health promoting, (b) health jeopardizing, and (c) health depriving. These occupational questions can be used to uncover some of the negative health implications and hidden sources of health inequities that may be currently overlooked. Chapter 5 discusses the implications of the study findings and concludes this thesis.



## Chapter 5 – Discussion and Conclusion

### 5.1 Introduction

In this final chapter, the key findings and the implications of this research study are presented. The discussion overviews the challenges in defining a holistic and non-structural perspective of occupation as a concept that shapes health and well-being. How the evaluation of occupation as a determinant of health, using the questions from this study, can aid health assessment tools in reducing health inequities is also explored. A case scenario, children with a migrant background, is used to explore the potential utility of the occupational questions in health equity evaluation and program planning. Suggestions for further research on this topic and education in health programs and disciplines are also recommended. Finally, this thesis concludes with a summary of what is known about how occupation can contribute to the processes to improve health outcomes and reduce health inequities.

### 5.2 Holistic Perspective of Occupation and Health

This research study explored ways that occupation as a determinant of health or a concept that shapes health and well-being is defined in the literature and by experts in occupational science. In literature and society, occupation is more so recognized and/or understood as employment or productive work (WHO, 2013a). A holistic perspective of occupation is posited in the literature and linked occupation to health and well-being; however there is no consensus on defining occupation as a determinant of health (WHO, 2013a; Wilcock, 2010; CAOT, 2013, PHAC, 2008). Similar to literature, study participants agreed that there is no consensus on defining occupation as a determinant of health. Thus, some of the hidden components of occupation may be difficult to measure or evaluate. According to WHO (2013a), the social determinants of health are concrete and structural in terms of employment, income, education etc. However, findings from this study suggest that a holistic and non-structural perspective of occupation as a health determinant may help in developing a shared understanding of how occupation is linked to health outcomes and inequities. A “holistic” perspective is that occupation encompasses all the things people participate or cannot participate in throughout their day

that may contribute to health and well-being from a negative or positive standpoint (Wilcock, 2010). Moreover, a “non-structural” perspective focuses on the value or meaning of the action or activities rather than solely on the types or classifications of occupations such as employment or leisure.

From the study findings, the three differentiating factors outlined in Table 2, are not explicit in health literature or when evaluating occupation as a determinant of health: (a) everything that you do, (b) subjective view on meaningful occupations, and (c) temporal situation. Firstly, the subtheme, everything that you do, is similar to occupational science literature (Wilcock, 2010; Hocking, 2010) and suggests examining occupation outside of employment or productive work. For example, participants underscored that participation in daily occupations such as self-care and leisure can also shape health and well-being. Thus, the findings from this study parallel Hocking (2010) in that she explained that patterns of participation or lack of participation in occupations by groups of people may be inadvertently contributing to health consequences. Secondly, participants in this study emphasized that the meaning and purpose that occupations hold are subjective to people and groups. These views are consistent with Dr. Ann Wilcock’s (2010) perspective, a prominent scholar in occupational science from Australia, who explained that participation in meaningful occupations promote health in ways that contribute to skill development, confidence, and happiness. This differentiating factor, about the broad nature of occupation, may be a step towards exploring and addressing health situations from an enabling perspective; that is, the activities that people engage in that contributes to their health. Lastly, participants emphasized the temporal aspect of occupation in which participation in occupations changes over the course of a person’s life. Depending on the circumstances, participation in an occupation that may have been feasible before may not be feasible in the present time. According to study participants, the situational aspect of occupation is important to consider when recommending health interventions for a particular person or group. For example, the use of a certain health intervention to target an illness such as arthritis may affect the priority or time in women’s life course to have children. What an individual or a population can or cannot do at certain times across the life course may be detrimental to or impact health outcomes, thus needs to be considered as a part of the health equity evaluation process.

When viewing these differentiating factors as part of the process of defining occupation as a determinant of health, there exists a tension among the findings in this study in viewing occupation from an individual versus a population standpoint. The three differentiating factors, suggesting all of the things that people participate throughout their day that hold different meaning at a point in their life course, were shared by participants at the individual level. However, at the population level, occupation can be viewed in accordance with Hocking (2010) through the patterns of participation or lack of participation in meaningful occupations for groups of people under a certain circumstance. The individual versus population perspective of viewing occupation provides an important aspect to understanding occupation as determinant of health. Although the some of the subthemes in this study initially focused on the individualistic view of occupation, findings around connecting occupation and health moved towards the evolution of population-based views of occupation such as the subtheme occupational marginalization. The views of Wilcock (2010) and Hocking (2010) began this evolution of differentiating factors of occupation towards a population level, however it is important to consider that the individual perspective from these findings can support the evaluation of individual issues, but also inform the common patterns of occupations that may lead to positive or negative health outcomes of those persons that are part of a social group.

The three differentiating factors (everything that you do, subjective view on meaningful occupations, and temporal situation) may also contribute to defining occupation as a non-structural determinant of health that focuses on the value or meaning of the action or activities. Thus, occupation can be considered as the processes or catalysts that underscore what or how people 'do' across the many social determinants of health by the WHO. For example, the occupation of preparing meals can be thought of as food security (PHAC, 2008). When populations migrate to a new country, they may not have access to the same foods or tools to prepare food in a meaningful way. The lack of participation in a meaningful occupation such as preparing food can contribute to negative health outcomes (Stadnyk et al., 2010). Exploring the meaning of things people do or don't do, may help uncover some of the underlying sources of health outcomes through participation in daily occupations. The study findings of differentiating factors from eight

occupational science experts and the literature reviewed were used to define occupation as a determinant of health. Both sources were used as the researcher reflected on both as part of this study and wanted to posit a definition that could evolve within the literature. The following provisional definition of occupation as a determinant of health is posited to guide the remainder of the discussion. Occupation as a determinant of health is *a complex construct that encompasses everything that groups of people participate in, given their temporal situation (a time/place in their life course), which shapes their health and well-being with respect to the meaning that the occupation may hold*. The next section discusses how this provisional definition of occupation can shape health and well-being from a negative or positive standpoint.

### **5.3 Contribution to Public Health: Health Inequities from an Occupational Perspective**

In the literature review conducted by the researcher, the evaluation of occupation as it contributes to health and well-being is often not comprehensively considered when evaluating health inequities (WHO, 2013b, MOHLTC, 2013). The study researcher believes that more effort is needed to develop ways to evaluate what individuals or populations do or whether they are able to participate in meaningful occupations after an intervention or program has been developed. According to Hocking (2010), health inequities among groups occur from the participation or lack of participation in occupations. These issues can be addressed by changing occupations or lifestyles or changing environments that support healthier occupations (Hocking, 2010). The health promoting factors as well as health jeopardizing and depriving factors from this study (Table 2) demonstrated the connection of participation or lack of participation in occupations to health from a positive and negative standpoint. Although, some of these factors were presented by participants from an individual standpoint, they can help identify the patterns of occupations within a social group experiencing health inequities.

The theme health promoting from study findings included factors that link occupation to health from a positive standpoint. For instance, in this study, participants viewed that occupations can contribute to a person's self identity or identity that is a part of the group in which they belong. If people are engaging in occupations that are fitting, occupations

can provide happiness, confidence, and competence; thus, positively shaping health and well-being. Another health promoting factor from this study was that occupations can provide a sense of belonging and community. Wilcock (2010) also found that occupations are positively linked with a sense of belonging and self identity. These factors may add to the knowledge of how participation in activities or occupations promote and manage positive health and well-being outcomes. For example, parenting programs can focus on the diversity of parenting skills from various cultural groups to support a sense of belonging and positive health outcomes such as confidence.

On the other hand, the study findings outlined health jeopardizing factors as those that may pose as a health risk in terms of participation in occupations. The social or historic occupational trends of a group may influence participation in risky occupations for people. Consideration of the negative social or historic occupational influences on a group may also support the ways that public health professionals uncover some of the sources of health inequities. For example, generations of poverty within a group may influence youth that are a part of that group to engage in criminal activity. Participants also suggested that there exists a tension in conducting or performing occupations, for instance the tensions between occupations that a person or group wants to do, needs to do, or is expected to do. For example, a professor may be expected to participate in a student event on a Saturday. Although their professions contribute to their overall health in positive ways, participating in these expected tasks may be stress-inducing. This perspective adds to the way occupation as a determinant of health is considered by examining the obligations or expectations that may cause stress and put a burden on particular groups leading to health inequities. Sometimes these sources of health inequities are not always explicitly presented or understood as a health determinant. Moreover, findings concur with Stadnyk et al.'s (2010) term occupational imbalance: having too much or too little to do may cause certain groups to feel overwhelmed and at risk for negative health outcomes. For example, South Asian mothers with school children who have resettled to new countries may have to juggle multiple new roles at home and at work which can be stressful, especially if they are not confident in these roles (Suto, 2008). The health jeopardizing factors presented in this study offer insights into the way that participation or influences in risky occupations by groups can be

explored in the evaluation of health equity.

Furthermore, the factors that restrict or limit occupations were labelled as health depriving. These are congruent with more recent elaborations in the occupational science literature (Stadnyk et al., 2010). For instance Stadnyk et al. elaborated on occupational marginalization as an outcome or consequence that occurs when the choice to participate is restricted and in turn can lead to negative health implications and health inequities among vulnerable populations, for example, new immigrants who don't have many choices in employment after resettlement due to unrecognized credentials (Suto, 2008). These findings are similar to Hocking's (2010) focus in her occupational analysis in that Hocking indicated the negative health implications of children from low socio-economic backgrounds who lack choice in physical activities. Participants also suggested that there is a need to examine the political and physical barriers that lead to a lack of participation and subsequent health impacts. Accounting for marginalization of participation may be of value to society in that it provides insights for policy-makers to consider opportunities for choice within health policies and in the delivery of resources; for example, access to affordable community programs in low socio-economic areas may help to eliminate health inequities before they occur.

The occupational alienation or loss of meaningful occupations was another health depriving factor that can lead to health inequities among groups. The health depriving factors in this study are also consistent with the emphasis in Wilcock (2010) and Hocking's (2010) work that suggested the need to consider what limits groups from doing meaningful things that otherwise may promote health. Loss of meaningful occupations can occur through health-related illnesses or the lack of availability of resources to participate. One example that a study participant mentioned was the loss of traditional occupations after resettlement for the American Native tribes in the United States who lost their occupation of farming and making food, leading to a prevalence of diabetes after a changing to a high sodium diet. The concept of occupational alienation may be a starting point for considering the meaningful occupations that people can no longer do. The health depriving factors in this study may be a focus in health equity assessments that can guide health programs to eliminate barriers and develop choices for

groups to participate in meaningful activities or to generate experiences that support new meanings to evolve through new occupations.

Holistic insights from this study may also inform ways to evaluate occupation concepts that are connected with health beyond employment and workplace health within the public health domain. The provisional definition of occupation as a determinant of health is one starting point. Occupation as a determinant of health was posited as *a complex construct that encompasses everything that groups of people participate in, given their temporal situation (a time/place in their life course), which shapes their health and well-being with respect to the meaning that the occupation may hold*. This understanding from a holistic occupational perspective may be used to evaluate the non-structural or hidden sources, of health inequities such as processes that restrict participation or the loss of meaningful occupations. This research study also aimed to provide questions using a holistic occupational perspective to uncover health inequities, found in Chapter 4, Table 3, 4, and 5. These questions were offered as potentially complementary to current health assessment tools such as the HEIA. They may also be useful as a guide to help public health professionals assess the nature of how participation in meaningful occupations can promote health, reduce health jeopardizing factors, and potentially prevent deprivation and negative health outcomes.

Moreover, these occupational questions parallel Hocking's (2010) occupational analysis, used to evaluate public health issues by analyzing the patterns of things populations do and the factors that influence participation in these occupations such as their physical environment, occupational injustices, or socio-economic status. These questions may also help to illuminate possible threats to health, e.g., alienation, and promote health through participation in occupations which may not be explicit in health assessment tools. These occupational questions are also consistent with the HEIA's objectives to develop new programs as well as to improve existing programs by taking action on inequities among community populations. However, some of these questions may also be used at an individual level to uncover the context in which individuals within a community or group facing inequities participate in patterns of occupations and lifestyles, for example, the lack of meal preparation skills due to the loss of traditional food preparation after

resettlement and the reliance on unhealthy, fast food.

The next section applies some of these questions from Table 3, 4, and 5 to a health inequity experienced by populations who have resettled to Canada, specifically with school children. It is also important to note that these questions have not been examined in any specific cases such as a group experiencing health inequities, thus the utility of the questions remains unexplored and untested in research. However, the following case scenario was offered to help demonstrate how these questions may be applied to a public health topic and compliment health assessment tools to potentially reduce this problem.

### **5.3.1 case scenario: health of Canadian immigrants**

One of the objectives of this study was to identify questions using an occupational lens that could potentially enhance the HEIA in tackling health inequities. This case scenario is used to help conceptualized some of the questions presented in Table 3, 4, and 5. One of the goals of public health in Canada is to reduce health inequities among populations, such as immigrants, who may be vulnerable to health inequities (PHAC, 2011).

According to Chen et al. (2010), the immigrant population in Canada faces deteriorating health after resettlement. However, there are several determinants of health that can affect the decline in health among immigrant populations (Chen et al., 2010). One example of deteriorating health among Canadian immigrants is a high rate of diabetes (PHAC, 2011). According to an Ontario study, after controlling for age, immigration, education, income and time since arrival, immigrants from South Asia, Latin America, the Caribbean, and sub-Saharan Africa have an increased risk of diabetes compared to immigrants from Western Europe and North America (Nwasuruba, Khan, & Egede, 2007). In addition to genetic factors, immigrants tend to have lower incomes and poorer access to health services and resources, such as recreational programs, than the general Canadian population (Creatore, 2010). According to PHAC (2011), one of the health promotion strategies to decrease the diabetes in immigrant populations is increasing the time for physical activity in school curriculums.

In Chapter 4, 26 questions were outlined that may be used to uncover the link between occupation and health from the perspective of eight occupational science experts.



Occupational questions by themes: (a) health promoting, (b) health jeopardizing, and (c) health depriving were posited by participants. Some of these new questions from a holistic and non-structural occupational perspective may help to reduce health inequities. Given that these questions are untested from a utility or research perspective, they are applied to a case scenario to provide some insights into how they may be used to promote an understanding of the positive, such as health promoting, and negative, such as health jeopardizing and depriving, aspects of health relating to occupation. In this hypothetical case, the focus is on a diabetes intervention, school physical activity programs, aimed towards children with a migrant background:

#### Health Promoting:

The health promoting questions, extracted from Chapter 4, Table 3, aimed to explore some of the occupational concepts that positively shape the health and well-being of groups of people. The participants suggested that the meaning behind participating in daily occupations contributes to one's health and well-being. The health promoting question "Is the intervention meaningful/valuable to the population?" may be of relevance to uncover if the types of school physical activity programs are meaningful to children at risk for diabetes. This question suggests that meaningful occupations may promote their engagement or if not meaningful, may constrain participation. Participants also suggested the health promoting question "Is the occupation/intervention culturally, traditionally, or historically applicable to the population?" The physical activity programs that aim to prevent diabetes may need to consider how different groups of children with a migrant background may do things to maintain their health culturally or traditionally. According to Beiser (2005), part of the reason that health worsens after migration is the abandonment of health behaviours and adaptation to bad habits such as eating junk food and smoking. A diverse perspective on the value of meaningful occupations in managing health among children who have a migrant background could benefit interventions in reducing health inequities. Often the engagement in meaningful occupations gives a sense of belonging and confidence (Wilcock, 2010). Public health professionals may also consider the questions "Does the population feel confident in doing the things they need to do?" and "How is the population supported in engaging in occupations?" The children

targeted for this intervention should feel competent and supported in participating in these activities. It is important to assess any inequities among the children's support network. Overall, these questions may uncover new information from a holistic and non-structural occupational perspective to offer ways that intervention, school physical activity programs, can become more consistent with the needs of vulnerable populations to prevent diabetes.

#### Health Jeopardizing:

The health jeopardizing questions, extracted from Chapter 4, Table 4, aimed to reduce some of the risky occupations or occupational concepts that may negatively shape health and well-being of populations. Children with a migrant background may feel overwhelmed by an increase in physical activity as an intervention. The questions "Is the population satisfied with their engagement in occupations?" and "Do they feel occupationally balanced?" are important when assessing the negative health implications associated with having too much or too little in school. Moreover, the following question explores the patterns of occupation that are expected by society: "How do certain roles in society put a burden on the expectations of a population or individual?" This expectation of physical activity for children within the school system may not be meaningful and create stress for children who may not be familiar with the types of physical activity offered. There also may be tension from what their families expect them to do versus what the school or peers expect them to do. Moreover, it may also be beneficial to consider or assess social and historic influences that are impacting the prevalence of diabetes among populations that have resettled in Canada. Using the question "What are the cycles of genetics or history of a population that is contributing to health inequities or occupational inequities?" may help to reveal some of the patterns of occupation over time and to understand the current issues children face that may place them at risk for diabetes in new places where they have resettled. For instance, a geographic location with limited outdoor play space for children may be contributing to negative health outcomes due to a lack of physical activity for children who normally run or ride a bicycle. A diverse perspective on health risks in occupations may influence effective health interventions for a specific population, for example, diabetes among immigrant children populations.

### Health Depriving:

The following health depriving questions, extracted from Chapter 4, Table 5, aimed to explore occupational influences that restrict or deny a population or individual from participating in occupations. The study findings concur with Stadnyk et al. (2010) and Hocking (2010) that occupational alienation, occupational marginalization, and barriers to gaining awareness and access to policies, resources, and services contribute to health inequities and negative health outcomes. When increasing school physical activity among children, an occupational perspective may consider “What are the occupations that a population had to give up?” These lost meaningful occupations such as a change in diet after resettlement may be contributing to risk factors associated with diabetes. The health depriving question “What are the policies that restrict certain populations from participating in occupations?” may uncover some of the political barriers that children with migrant backgrounds face on a daily basis. Access to policies or resources due to their legal status or geographic location may be restricting them in engaging in certain desired occupations and contributing to why they are more susceptible to diabetes. School physical activity programs can also integrate some of the occupations that this population may not be able to engage in due to limited access to resources. The question “Is physical accessibility associated with the occupation or intervention limiting participation?” takes into consideration the cost, language, and availability that also may be restricting further participation for this population. Immigrants are often faced with other health deteriorating determinants such as low income (PHAC, 2008). The school physical activity programs may need to integrate activities that are meaningful to children, but may not be able to participate in otherwise. For example, participating in a sport like hockey might be too expensive for children from lower socio-economic statuses. Assessing these occupationally depriving factors may uncover occupational injustices that contribute to health inequities manifested within health interventions.

Overall, occupation outside employment, including meaningful participation, choice, and balance, has not been explicitly evaluated in a complimentary way in current health assessment tools or applied to health inequities in public health (WHO, 2013a; MOHLTC, 2013). Hocking (2010) began to uncover some of the patterns of occupations

linked to health inequities; however, findings from this study aid in bridging the knowledge gap of the holistic and non-structural perspective of occupation to health assessment tools. This occupational perspective is important to further assess the sources of health inequities as occupation consists of the meaning and value of all daily tasks including employment, leisure, and self-care. The questions from this study may inform ways to understand the health issues at a population level. However, sometimes individuals can be asked about their occupations and what they do within their social groups that contributes to their lifestyle or adaptations underscored by patterns of occupations. The next section provides study implications for further research.

#### **5.4 Implications for Future Research**

This research was conducted from the perspective of experts from the field of occupational science. This study was the first time that occupational scientists were asked to explain their views on occupation as a determinant of health and is a start to defining and promoting a holistic and non-structural occupational perspective. However, the study took place at a Canadian university and all eight participants had a Western world perspective. An understanding of occupation as a determinant of health beyond a Western viewpoint may be beneficial. According to Whiteford and Hocking (2012), occupational science literature is limited to the Western world viewpoint and may limit the expansion of the discipline if it is not coherent with other world views. The challenge is the perception of occupational science and therapy within Canada being individualistic as the focus of the field has been traditionally about individual meaning (CAOT, 2013; Hocking, 2010). However, public health explores the health of populations and thus, the occupational science discipline within Canada may need to further define occupation as a determinant of health to address the patterns of occupations of groups of people. Further qualitative research using focus groups on occupation as a determinant of health and addressing health inequities from the perspective of occupational science experts outside of Canada can develop the provisional definition of occupation presented in this study.

Furthermore, this research topic on occupation as a determinant of health may evolve by considering the viewpoints of public health professionals. The recruitment of public health professionals for this study was challenging. After consulting a knowledge

translation specialist (H.M., personal communications, November 8, 2013) it was speculated that public health professionals may have misunderstood the occupational science concepts presented in the study recruitment descriptions. For example, the concept of occupation as a determinant of health may have been perceived as a study on evaluating employment environments. Moreover, after attending the CPHA's Public Health conference in Toronto in May 2014, the researcher of this study became aware that occupation outside of employment may not be as explicit within the public health field. However, much focus at this conference was around the determinants of health and health equity. These limitations further support the association of occupation being perceived as only employment to disciplines outside of occupational science/therapy. Further research on how different disciplines view occupation as a health determinant can be beneficial in targeting the complex sources of public health issues.

Moreover, the findings from this study may be the beginning of further research in applying occupational questions alongside the HEIA in Canada. A qualitative research study to test the application of these occupational questions by public health professionals on addressing health inequities may demonstrate the importance of holistic and non-structural occupational science concepts. The application of the questions may be of value in enhancing current ways of understanding occupational needs related to health and well-being for different populations and situations. An example of a current public issue within Hocking's (2010) occupational analysis is the declining participation in physical activity by children leading to negative health implications. A holistic and non-structural occupational perspective from the questions from this research study may aid in addressing the hidden factors as to why health inequities lead to a decline in physical activity among children. One reason may be the sedentary lifestyle of children and that there is not a physically active demand or value during this stage of their life course, especially with the use of modern technology (Hocking, 2010). The occupational questions presented in this study may also uncover the occupational injustices that children from a low socio-economic community may face in terms of access to resources and costs of participating in meaningful physical activities. Furthermore, a qualitative research with focus groups of public health professionals using different health interventions aimed at health inequities may also provide ways to use these occupational

questions alongside the different health assessment tools in public health. The next section discusses implications for education of occupational science principles.

### **5.5 Implications for Education**

The study findings concur with literature in health and occupational science that there exists a knowledge gap in defining and measuring/evaluating occupation with respect to health and well-being. There is a need to promote the holistic and non-structural perspective of occupation as a determinant of health within the field of occupational science, other disciplines, public health units, health organizations, and educational institutions. Occupation encompasses all the things that groups of people do throughout their day respective to their temporal situation and these occupations hold meaning that shape their health and well-being. Sharing this knowledge is of importance because occupation as a determinant of health is related to many other social determinants of health and may benefit other disciplines on how they assess health outcomes.

Findings from this study also included a link between occupation and health from a negative and positive standpoint. Health-related disciplines and educational health programs, for example, public health, occupational science, and occupational therapy may find it useful to consider introducing how non-structural components of occupation can be health promoting, jeopardizing, and depriving. Moreover, participants demonstrated how patterns of participation in or challenges to participation in occupations may contribute to or shape health equity or inequities through occupational questions. These occupational questions included factors, such as a sense of belonging, occupational imbalance, and occupational marginalization that may add to the knowledge of how to explore occupationally oriented health issues within the education of other health professions.

Transferring knowledge by occupational scientists on the holistic and non-structural understanding of occupation as a determinant of health is important for multidisciplinary. The field of occupational science can further take a leadership role and facilitate education within other health disciplines at conferences, in journal articles, and by partnering with other disciplines for research. If occupational science experts can

share this knowledge with other disciplines, it may promote working with other professions and disciplines and applying occupational concepts in the area of health inequities and health promotion. This occupational perspective when exploring and resolving public health issues may help to uncover some of the sources of health issues or inequities that may go unrecognized. Moreover, different perspectives from multiple disciplines may also support and broaden the approaches to assessing and understanding the breadth of possible factors that limit participation in health promoting occupations.

## **5.6 Conclusion**

The study objectives aimed to define occupation as a determinant of health or a concept that shapes health and well-being and how questions from an occupational lens can contribute to reducing health inequities within health interventions, alongside the HEIA. The qualitative study used a focus group method and pragmatic orientation. The major study finding from a thematic analysis was that the understanding of occupation as a determinant of health is diverse and complex. Based on the limited perspective of eight occupational science experts from a Western viewpoint, occupation can be viewed as *a complex construct that encompasses everything that groups of people participate in, given their temporal situation (a time/place in their life course), which shapes their health and well-being with respect to the meaning that the occupation may hold*. This holistic perspective of occupation as a determinant of health explores occupations beyond just employment. Moreover, the non-structural perspective views occupation as the meaning and value behind participation in daily occupations that shape health and well-being. The definition of occupation just being employment or classifications of occupations may evolve through research that integrates different contexts from occupational science as well as different disciplines from around the world. The evolution of occupation as a determinant of health can be promoted through the field of occupational science to inform health organizations and professionals to understand the non-structural or not as apparent sources of health outcomes.

Occupation can be health promoting, jeopardizing, or depriving which can aid in understanding the underlying sources of health outcomes and inequities. The HEIA, as well as other health assessment tools, may be enhanced through a focus on the non-

structural factors of occupation such as a sense of belonging. The occupational questions from this study may compliment health assessment tools, particularly the HEIA. The findings from this study have identified ways that occupational science may contribute to understanding the patterns or disruptions of occupation that can contribute to or inadvertently lead to health inequities for populations. However, further examination of the utility of the questions is needed to demonstrate their value in helping to extend knowledge to inform and build on strategies to reduce health inequities within health interventions.

To conclude, this research study adds to the small knowledge base available on applying occupational science knowledge to address world or population health issues. After conducting a literature review, there seems to be very little research done on using a holistic perspective of occupation as a health determinant to address health inequities. This study was the first time that occupational science experts were asked to express their view on occupation as a determinant of health and this research may be a step towards defining and promoting a holistic and non-structural occupational perspective on health. Further research on understanding how occupational concepts and questions may be applied to public health issues and integration of this knowledge into the education system may inform health professionals on approaching the root of occupation-based health inequities, otherwise overlooked.



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## Appendices

### Appendix A: Literature Review Tables

Table 6

*Grey Literature (Google)*

<u>Keyword</u>	<u>Website</u>	<u>Relevancy</u>	<u>Notes</u> (text may be taken directly from document)
1. <b>How to measure health determinants</b>	<a href="http://www.who.int/social_determinants/themes/measurementandvidence/en/index.html">http://www.who.int/social_determinants/themes/measurementandvidence/en/index.html</a>  *www.who.int	1*	Publication on determinants of health : <a href="http://www.who.int/social_determinants/resources/mekn_final_report_102007.pdf">http://www.who.int/social_determinants/resources/mekn_final_report_102007.pdf</a> <a href="http://www.who.int/social_determinants/knowledge_networks/add_documents/mekn_final_guide_112007.pdf">http://www.who.int/social_determinants/knowledge_networks/add_documents/mekn_final_guide_112007.pdf</a>  <a href="http://www.who.int/social_determinants/resources/articles/emconet_who_report.pdf">http://www.who.int/social_determinants/resources/articles/emconet_who_report.pdf</a>
2. <b>How to measure health determinants</b>	<a href="http://www.minnesotamedicine.com/Default.aspx?tabid=2826">http://www.minnesotamedicine.com/Default.aspx?tabid=2826</a>	1	How to measure determinants of health; talks about measuring health leading to <a href="http://www.stateoftheusa.org/content/from-hundreds-of-health-indicators">http://www.stateoftheusa.org/content/from-hundreds-of-health-indicators</a> (Different measures of health outcomes and behaviours).
3. <b>How to measure health determinants</b>	<a href="http://www.phac-aspc.gc.ca/ph-sp/resources-research/subject_determinants-eng.php">http://www.phac-aspc.gc.ca/ph-sp/resources-research/subject_determinants-eng.php</a>  <a href="http://www.phac-aspc.gc.ca/cphorsphc-respcacsp/2008/fr-rc/index-eng.php">http://www.phac-aspc.gc.ca/cphorsphc-respcacsp/2008/fr-rc/index-eng.php</a>	1*	Government website on different determinants
4. <b>Assessment tool, exact phase: determinants of health</b>	<a href="http://www.who.int/social_determinants/tools/en/">http://www.who.int/social_determinants/tools/en/</a>	1	Link to <a href="http://www.who.int/kobe_centre/measuring/urbanheart/en/index.html">http://www.who.int/kobe_centre/measuring/urbanheart/en/index.html</a> an assessment tool for health inequities.
5. <b>Assessment tool, exact phase: determinants of health</b>	<a href="http://www.ncchpp.ca/docs/Equity_Tools_NC_CDH-NCCHPP.pdf">http://www.ncchpp.ca/docs/Equity_Tools_NC_CDH-NCCHPP.pdf</a>	1	Health Impact Assessment “[A] combination of procedures, methods and tools by which a policy, program or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population” (European Centre for Health Policy, 1999, p.4).

6. <b>Assessment tool, exact phase: determinants of health</b>	<a href="http://www.google.ca/url?sa=t&amp;rct=j&amp;q=&amp;esc=s&amp;source=web&amp;cd=3&amp;ved=0CEIQFjAC&amp;url=http%3A%2F%2Fwww.champlainlin.on.ca%2FWorkArea%2Flinkit.aspx%3FLinkIdIdentifier%3Did%26ItemID%3D6378&amp;ei=H9orUdWHIZS42gWcxIB4&amp;usg=AFQjCNHWWUIxFv2gK1Uz0-vBhJyRI3HQLg&amp;sig2=27CIYjb3hXZNN7vFPz4XPA&amp;bvm=bv.42768644,d.b2I">http://www.google.ca/url?sa=t&amp;rct=j&amp;q=&amp;esc=s&amp;source=web&amp;cd=3&amp;ved=0CEIQFjAC&amp;url=http%3A%2F%2Fwww.champlainlin.on.ca%2FWorkArea%2Flinkit.aspx%3FLinkIdIdentifier%3Did%26ItemID%3D6378&amp;ei=H9orUdWHIZS42gWcxIB4&amp;usg=AFQjCNHWWUIxFv2gK1Uz0-vBhJyRI3HQLg&amp;sig2=27CIYjb3hXZNN7vFPz4XPA&amp;bvm=bv.42768644,d.b2I</a>	1	<p>“Addressing disparities in health service delivery and planning requires a solid understanding of key barriers to equitable access to high quality care and of the specific needs of health-disadvantaged populations; and this requires an array of effective and practical planning tools.”</p> <p>Occupation with respect to employment but also uses other terms to examine occupation through other determinants of health.</p>
7. <b>Assessment tool, exact phase: determinants of health</b>	<a href="http://catalogue.iugm.qc.ca/GEIDEFile/healthimpact.PDF?Archive=192469191064&amp;File=healthimpact_PDF">http://catalogue.iugm.qc.ca/GEIDEFile/healthimpact.PDF?Archive=192469191064&amp;File=healthimpact_PDF</a>	1	<p>“The term impact, then, refers in the health field to the immediate effect of a health program, process, or policy, while the term outcome refers to the distant or ultimate effect.” This document outlines the health assessment of determinants of health but refers to occupation as employment.</p>
8. <b>Assessment tool, exact phase: determinants of health</b>	<a href="http://www.phac-aspc.gc.ca/ph-sp/pdf/template_tool-eng.pdf">http://www.phac-aspc.gc.ca/ph-sp/pdf/template_tool-eng.pdf</a>	1	<p>Short document: “The working tool outlines the procedures and processes required to implement a population health approach and provides guideposts that help to assess preparedness and capacity to implement population health initiatives.”</p>
9. <b>Hand-search: Workplace Health Assessment Data Matrix</b>	<a href="http://www.cdc.gov/workplacehealthpromotion/assessment/index.html">http://www.cdc.gov/workplacehealthpromotion/assessment/index.html</a> <a href="http://www.cdc.gov/workplacehealthpromotion/pdfs/AssessmentDataMatrix.pdf">http://www.cdc.gov/workplacehealthpromotion/pdfs/AssessmentDataMatrix.pdf</a>	1*	<p>How to measure occupational health and workplace hazards</p>
10. <b>Health assessment tool, occupation</b>	<a href="http://www.uic.edu/depts/moho/assess/mohost.html">http://www.uic.edu/depts/moho/assess/mohost.html</a>	1	<p><a href="http://www.uic.edu/depts/moho/images/assessments/MOHOST%20v2.0%20USA%20Multiple%20summaries.pdf">http://www.uic.edu/depts/moho/images/assessments/MOHOST%20v2.0%20USA%20Multiple%20summaries.pdf</a>  <a href="http://www.uic.edu/depts/moho/images/assessments/MOHOST%20v2.0%20USA%20Rating%20form.pdf">http://www.uic.edu/depts/moho/images/assessments/MOHOST%20v2.0%20USA%20Rating%20form.pdf</a></p> <p>“The MOHOST is an assessment that addresses the majority of MOHO concepts (volition, habituation, skills, and environment), allowing the therapist to gain an overview of the client's occupational functioning. Developed in Britain by practitioners, the MOHOST seeks to objectify the information a therapist gathers while screening for occupational therapy services. The MOHOST uses a variety of data collection methods and is flexible enough to be used in a variety of intervention settings. Finally, the MOHOST uses language that enables therapist to communicate findings clearly with clients, their families, and other professionals”</p>
11. <b>Health assessment tool, occupation</b>	<a href="http://www.healio.com/health-professions/journals/OTJR/%7BD11FEB7D-82EB-498F-8EDF-B616DE8AC3D4%7D/Mental-Health-Payment-by-Results-Clusters-and-the-Model-">http://www.healio.com/health-professions/journals/OTJR/%7BD11FEB7D-82EB-498F-8EDF-B616DE8AC3D4%7D/Mental-Health-Payment-by-Results-Clusters-and-the-Model-</a>	1	<p>Article about the MOHO tool</p>

	of-Human-Occupation-Screening-Tool?full=1		
<b>12. Health assessment tool, occupation</b>	<a href="http://www.cot.co.uk/mental-health/ot-assessment-mental-health">http://www.cot.co.uk/mental-health/ot-assessment-mental-health</a>	1	The Model of Human Occupation (MOHO) assessment tools e.g. Model of Human Occupation Screening Tool (MOHOST), The Canadian Occupational Performance Measure (COPM), and the Assessment of Motor and Process Skills (AMPS)
<b>13. Health assessment tool, occupation</b>	<a href="http://mh4ot.com/2012/05/16/model-of-human-occupation-screening-tool-mohost/">http://mh4ot.com/2012/05/16/model-of-human-occupation-screening-tool-mohost/</a>	1	<a href="http://mh4ot.files.wordpress.com/2012/05/mohost-v2-0-uk-data-sheet-multiple-observation.pdf">http://mh4ot.files.wordpress.com/2012/05/mohost-v2-0-uk-data-sheet-multiple-observation.pdf</a>
<b>14. Occupational health evaluation</b>	<a href="http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?section=text&amp;id=12561">http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?section=text&amp;id=12561</a>	1	Different types of tests and evaluation for employment : “to prevent illness, injury and disability arising out of, or aggravated by, conditions of work.”
<b>15. Occupational health evaluation</b>	<a href="http://www.hc-sc.gc.ca/ewh-semt/occup-travail/index-eng.php">http://www.hc-sc.gc.ca/ewh-semt/occup-travail/index-eng.php</a>	1	Fitness to work regulations and test and links to occupational health laws i.e. noise exposure <a href="http://www.hc-sc.gc.ca/ewh-semt/occup-travail/work-travail/index-eng.php">http://www.hc-sc.gc.ca/ewh-semt/occup-travail/work-travail/index-eng.php</a>
<b>16. Occupational health evaluation</b>	<a href="http://www.psc.gov.yk.ca/pdf/gam_3_20.pdf">http://www.psc.gov.yk.ca/pdf/gam_3_20.pdf</a>	1	“An occupational health evaluation is used to:(a)establish that job candidates are able to meet the health requirements of a designated position prior to appointment; and (b)establish that employees in designated positions are able to continue working without detriment to their health or safety or that of others.”
<b>17. Measuring occupation</b>	<a href="https://www.caot.ca/copm/index.htm">https://www.caot.ca/copm/index.htm</a>	1	“The Canadian Occupational Performance Measure (COPM) is an individualized, client-centred measure designed for use by occupational therapists to detect change in a client's self-perception of occupational performance over time. It is designed to be used as an outcome measure. The COPM is designed for use with clients with a variety of disabilities and across all developmental stages.”
<b>18. Measuring occupation</b>	<a href="http://www.ssoar.info/ssoar/bitstream/handle/document/32591/ssoar-2011-hoffmeyer-zlotnik_et_al-Measuring_occupation_and_labour_status.pdf?sequence=1">http://www.ssoar.info/ssoar/bitstream/handle/document/32591/ssoar-2011-hoffmeyer-zlotnik_et_al-Measuring_occupation_and_labour_status.pdf?sequence=1</a>	1	Document measuring occupation as employment and categorizing it; also defining occupation as a social status determinant: uses prestige scales.
<b>19. Measuring occupation</b>	<a href="http://www.macses.ucsf.edu/research/socialenv/viron/occupation.php">http://www.macses.ucsf.edu/research/socialenv/viron/occupation.php</a>	1	“Measuring occupational status: prestige, social class, and education. Occupational status is hypothesized to be related to health because it positions individuals within the social structure, which defines access to resources and constraints that can have implications for health and mortality Occupational status is hypothesized to be related to health because it positions individuals within the social structure, which defines access to resources and constraints that can have implications for health and mortality”

<b>20. Measuring occupation</b>	<a href="http://www.csss.washington.edu/Papers/wp8.pdf">http://www.csss.washington.edu/Papers/wp8.pdf</a>	1	“We are led to conclude that what people do for a living does matter for their health, above and beyond the effects of educational attainment, and that to assess the nature and magnitude of the effects of what people do for a living on their health we should measure the characteristics and requirements of their jobs, not of their occupations”
<b>21. Occupational, Determinant of Health</b>	<a href="http://phprimer.afmc.ca/Part1-TheoryThinkingAboutHealth/Chapter2DeterminantsOfHealthAndHealthInequities/DeterminantsofHealth">http://phprimer.afmc.ca/Part1-TheoryThinkingAboutHealth/Chapter2DeterminantsOfHealthAndHealthInequities/DeterminantsofHealth</a>	1	Occupational health injuries and work conditions
<b>22. Measure occupational participation</b>	<a href="http://osot.ubc.ca/research/resources-tools/">http://osot.ubc.ca/research/resources-tools/</a>	1	Different assessment tools within occupational therapy
<b>23. Measure occupational participation</b>	<a href="http://ajot.aotapress.net/content/56/6/640.full.pdf+html">http://ajot.aotapress.net/content/56/6/640.full.pdf+html</a>	1	“Currently, there is increasing interest and work in the measurement of participation. At a general population level, time-use surveys have been implemented in many countries to gather specific information about how people spend their time.”
<b>24. Measure occupational participation</b>	<a href="http://www.healio.com/health-professions/journals/otjr/%7B69cea719-f18e-4d10-be1f-fb1c2c1e6695%7D/the-occupational-self-assessment-stability-and-the-ability-to-detect-change-over-time">http://www.healio.com/health-professions/journals/otjr/%7B69cea719-f18e-4d10-be1f-fb1c2c1e6695%7D/the-occupational-self-assessment-stability-and-the-ability-to-detect-change-over-time</a>	1	“The Occupational Self Assessment (OSA) was designed to guide collaborative treatment planning and measure client-reported change to document therapy outcomes. This study examined the stability of the OSA and its ability to detect changes in reported Competence and Values.”
<b>25. Measure occupational participation</b>	<a href="http://www.who.int/classifications/icf/en/">http://www.who.int/classifications/icf/en/</a>	1*	“The International Classification of Functioning, Disability and Health, known more commonly as ICF, is a classification of health and health-related domains. These domains are classified from body, individual and societal perspectives by means of two lists: a list of body functions and structure, and a list of domains of activity and participation. Since an individual’s functioning and disability occurs in a context, the ICF also includes a list of environmental factors.”
<b>26. Hand-search: HEIA</b>	<a href="http://www.health.gov.on.ca/en/pro/programs/heia/">http://www.health.gov.on.ca/en/pro/programs/heia/</a>	1*	Health Equity Impact Assessment
<b>27. Hand-search: Whanau Ora Health Impact Assessment</b>	<a href="http://www.health.govt.nz/our-work/health-impact-assessment/whanau-ora-health-impact-assessment">http://www.health.govt.nz/our-work/health-impact-assessment/whanau-ora-health-impact-assessment</a>	1*	Health equity tool used in New Zealand, Ministry of Health
<b>28. Hand-search: Health in All Policy</b>	<a href="http://www.hiap2013.com/">http://www.hiap2013.com/</a>	1*	Health equity tool used in Finland

1-Discusses the definition of occupation, occupation as a determinant of health/concept contributing to health, and/or how occupation is measured or evaluated

\*- Referenced in the literature review

Table 7

*Peer-reviewed Literature (CINHAL)*

<u>Keywords</u>	<u>Title</u>	<u>Author, Year</u>	<u>Type of Study</u>	<u>Relevancy</u>	<u>Summary text taken directly from Articles</u>
<b>1. Taken from Grey Literature search</b>	Occupation, health and well-being	Mary Law, Sandy Steinwener, Leanne Leclair, 1998	Qualitative	1	Relationship between health and well-being and occupation using 22 studies as review. It was concluded that occupation does affect one's health (non-disabled population).
<b>Measuring Occupation</b>	No Results				
<b>2. Occupation AND Assessment tool</b>	Psychometric characteristics of the Child Occupational Self Assessment (COSA), Part One: An initial examination of psychometric properties	Jessica Keller, Ana Kafkes, Gary Kielhofner, 2005	Quantitative	2	Self-assessment is an appropriate way to support client-centered practice and self-determination. This study is the first in a series of two studies that examined the psychometric properties of the Child Occupational Self Assessment (COSA), a self-report tool based on the Model of Human Occupation. The COSA comprises 24 statements, which the child rates in terms of personal competence and importance. The Rasch Rating Scale Model was used to evaluate the measurement properties of the Competence and Values scales that result from these self-ratings. Analysis indicated that the items worked well together to constitute measures of occupational competence and values.
<b>3. Occupation AND Assessment tool</b>	Psychometric characteristics of the Child Occupational Self-Assessment (COSA), Part Two: Refining the psychometric properties	Jessica Keller, Gary Kielhofner, 2005	Quantitative	2	Second part of the above study-redefining some aspects of the scale.
<b>4. Occupation AND Assessment tool</b>	The Participation in Childhood Occupations Questionnaire ( PICO-Q ): A Pilot Study	Tami Bar-Shalita, Aviva Yochman, Tanya Shapiro-Rihtman, Jean-Jacques Vatine Shula Parush, 2009	Quantitative-Pilot Study	2	This paper describes the process of construction and development of the Participation in Childhood Occupations Questionnaire (PICO-Q) and the establishment of its primary psychometric properties. The 22-item instrument measures the level, enjoyment, and frequency of performance for children's participation in daily occupations in a variety of environments. The questionnaire was completed by the mothers of 41 children between the ages of 6 and 10 years (with and without sensory modulation disorder).

5. <b>Occupation AND Assessment tool</b>	Activity Card Sort: A factorial Analysis	Dalia Sachs, Naomi Josman, 2003	Quantitative	2	Activity Card Sort (ACS) as a unique assessment tool for measuring adult human occupation and level of activity. Factor analysis was used to determine whether the picture items of the ACS empirically cluster into four categories of human occupations (instrumental activities, low-demand leisure activities, high-demand leisure activities, and social activities), as well as to compare young and elderly people's classifications of activities on the ACS instrument.
6. <b>Occupation AND Assessment tool</b>	The Use of a Ward-Based Art Group to Assess the Occupational Participation	Rachel Mitchell, Joanna Neish, 2007	Qualitative	2	The MOHOST is a rating scale based on the theoretical principles of the Model of Human Occupation. It is intended to be a screening tool that describes a client's 'general occupational participation regardless of symptoms or diagnosis or treatment setting' (Parkinson 2002, p15). As it is a tool that facilitates the measurement of clients' occupational participation, it enables the therapist to measure the outcome of intervention (Parkinson 2002).
<b>Occupation AND Determinant of Health</b>	Irrelevant results				
7. <b>Occupational Therapy Assessment</b>	Activity and Participation – self-assessment according to the International Classification of Functioning: a study in mental health	Lena Haglund, Susanne Fältman, 2012	Quantitative- Cross-sectional Study	2*	The aim of this exploratory study was to discover if a fifth qualifier in the domain of Activity and Participation in the International Classification of Functioning, Disability and Health (ICF) could highlight the experience of satisfaction and enjoyment in the everyday life of people with severe mental illness. It also investigated the correlation between the assessment made by an occupational therapist and nursing staff based on performance, and the assessment made by the clients themselves. Method: Twenty-nine clients with schizophrenia or other forms of psychosis participated, using a self-assessment.
8. <b>Occupational Therapy Assessment</b>	An Approach to Assessment of and Intervention for Adults With Sensory Processing Disorders	Teresa A May-Benson, Moya Kinnealey, 2012	Qualitative	2	Therapists should examine the following when evaluating participation skills in adults with SPDs: Work skills, including finding and keeping employment, successfully completing work responsibilities, and managing work-related social interactions. Leisure (and play) skills, which are important for both sensory self-regulation and social connectedness. Concerns include identifying what physical, social, and leisure activities the client engages in as well as examining the frequency of participation and whether the leisure activities are solitary or with others.

<b>9. Occupational Therapy Assessment</b>	The Test–Retest Reliability and Predictive Validity of a Battery of Newly Developed Occupational Performance Assessments	Moses Ikiugu, 2012	Mixed	2	An example of the subjective, experiential perspective of occupational performance assessment is the Canadian Occupational Performance Measure (COPM). According to Law et al., this instrument is one of many assessments such as the Occupational Performance History Interview (OPHI II), Occupational Circumstances Interview and Rating Scale (OCAIRS), and others which are based on the assumption that: (a) the client knows best his/her occupational performance needs and the therapist needs to trust him/her to lead the way toward meaningful functioning; and (b) the client’s perspective is the one that matters above all else. The objective performance perspective on the other hand is grounded on the notion that occupational performance is observable and must be demonstrated by the client and measured precisely by the therapist. This view is exemplified in the AOTA (2008) Practice Framework which groups occupations into categories of observable phenomena: activities of daily living (ADLs), instrumental activities of daily living (IADLs), education, work, play, leisure, and social participation. This article takes about the reliability, but does not present the different tools.
<b>10. Occupational Therapy Assessment</b>	Reliability and structural validity of an assessment of occupational value	Aaron M Eakman, Mona Eklund, 2011	Quantitative	2	Factor analysis - TheOVal-pd is a 26-item Likert-like questionnaire designed to assess the construct of occupational value as framed within the Value and Meaning in Occupations model (ValMO). The Value and Meaning in Occupations (ValMO) model (3) has guided the development of the assessment of occupational value employed in the present study. This model defines occupation as people’s everyday doings and was conceived, in part, to address the relative absence of theoretical structures sensitive to aspects of value and meaning in existing models of occupation. The ValMO model was informed by contemporary models of occupation and propositions related to meaning in the occupational therapy and occupational science literature. The ValMO model departs from these models by offering a tentative structure for the description of experience, value, and meaning derived through participation.
<b>11. Occupational Therapy Assessment</b>	Problematic Activities of Daily Life are Weakly Associated With Clinical Characteristics in COPD	Janneke Annegarn, Kenneth Meijer, Valeria Lima Passos, Katharina Stute, Jozé Wiechert, Hans H.	Quantitative-retrospective study	2	Problematic activities of daily life (ADLs) can be the main reason to refer patients with chronic obstructive pulmonary disease (COPD) for pulmonary rehabilitation. Used OT interviews and a Canadian Occupational Performance Measure chronic obstructive pulmonary disease (COPD) for pulmonary rehabilitation.

		C. M. Savelberg, Annemie M W J Schols, Emiel F. M. Wouters, Martijn A. Spruit, 2012			
<b>12. Occupational Therapy Assessment</b>	Psychometric evaluation of an assessment of awareness using two different Rasch models	Anders Kottorp, Ingela Petersson, 2011	Qualitative	2	The aim of this study was to evaluate the psychometric properties of the Assessment of Awareness of Disability (AAD), applied to a sample of clients with a variety of diagnoses, using two different Rasch models. Clients with different types of functional limitations and/or diagnoses often experience limitations in performing activities of daily living (ADL) tasks. These limitations can result in restrictions on clients' participation in community life and society. Occupational therapy often offers interventions aimed at developing, restoring, or maintaining the ability to perform ADL tasks and to increase the number of opportunities to participate in the community.
<b>13. Occupational Therapy Assessment</b>	Assessments Used in Occupational Therapy practise: An Exploratory Study	Mohammed Naser Alotaibi, Kathlyn Reed, Mohammed Shaban Nadar, 2009	Qualitative-Survey Design	2	The aim of this study was to explore the assessments used in different occupational therapy practice areas and to identify the reasons for using the assessments. Findings of the present study indicate that most of the assessments used in occupational therapy clinics target body structure and function --should be more occupationally focused.
<b>14. Occupational Therapy Assessment</b>	A new life with aphasia: everyday activities and social support	Birgitta Sjöqvist Nätterlund, 2010	Qualitative	2	Limiting activities due to disability have consequences on health.
<b>15. Occupational Therapy Assessment</b>	Identifying occupational performance issues with older adult therapists' perspectives	Barry Trentham, Lynda Dunai, 2009	Qualitative	1	Focusing on occupations that have meaning to them.
<b>16. Occupational Therapy Assessment</b>	Examining the validity of the Model of Human Occupation Screening Tool: using classical test theory and item response theory	Ay-Woan Pan, Chia-Wei Fan, Lynn Chung, Tsyr-Jang Chen, Gary Kielhofner, Ming-YiWu, Yun-Ling Chen, 2011	Quantitative	2*	MOHOST measures validity in volition, pattern of occupation, communication and interaction skills, process skills, motor skills and the environment.
<b>17. Occupational Therapy Assessment</b>	Convergent Validity of Three Occupational Self-	Christie Johnson Stuber, David L.,	Quantitative	2	This study examined the convergent validity of three assessments: The Canadian Occupational Performance



	Assessment	Nelson, 2010			Measure (COPM), the Occupational Self Assessment (OSA), and the Melville–Nelson Self-Identified Goals Assessment (SIGA). All three assessments are designed to elicit client self assessments of occupational performance, but each assessment involves a unique protocol.
<b>18. Occupational Therapy Assessment</b>	The value and meaning of an instrumental occupation performed in a clinical setting	Ulla Bigelius, Mona Eklund, Lena-Karin Erlandsson, 2010	Mixed	1	The aim was to investigate how patients in a clinical setting, combining acute stroke care and rehabilitation, perceived the value and meaning attached to a commonly used instrumental occupation, namely “Brewing coffee and making an open face cheese sandwich with sliced vegetable.”
<b>19. Occupational Therapy Assessment</b>	The Canadian Occupational Performance Measure: A tool for Recovery based practise	Bonnie Kirsh, Lynn Cockburn, 2009	Qualitative	2	The Canadian Occupational Performance Measure is designed to foster partnership between clients and practitioners and it encourages identification of occupationally-focused issues and goals. This instrument promotes an agenda of participation, resumption of life roles, and inclusion in environments of choice. They identified 88 articles on the COPM, and concluded that the literature points to its effectiveness as an evaluation for clients with a wide variety of impairments and conditions.
<b>20. Occupational Therapy Assessment</b>	Impact on Participation and Autonomy (IPA): Psychometric evaluation of the Persian version to use for persons with stroke	Mandana Fallahpour, Hans Jonsson, Mohammad Taghi Joghataei, Anders, Kottorp, 2011	Qualitative- Cross-sectional Study	2	The aim of this study was to evaluate the psychometric properties of the Persian version of the Impact on Participation and Autonomy questionnaire (IPA-P) to use for persons with stroke. A total of 102 persons diagnosed with first-ever stroke participated in this cross-sectional study. The psychometric properties were evaluated using a Rasch rating scale model. The results showed that IPA-P could not measure perceived participation as one one-dimensional construct according to the criteria, but supported two different but related constructs.
<b>21. Occupational Therapy Assessment</b>	Can the Client Do the Job? Factors to Consider When Administering FCEs	Vicki Kaskutas, Kelly Chapman-Day, 2012	Qualitative	2	Functional Capacity Evaluation (FCE)= (a) screening body functions and structures, (b) measuring positional tolerances, (c) classifying work demand and ability to work, (d) determining validity of effort, (e) practicing within the scope of practice, and (f) utilizing clinical reasoning skills.
<b>Health Assessment AND occupation</b>	No Results				
<b>Occupational Evaluation</b>	Irrelevant results				

<b>22. Health AND Occupation</b>	Making a Difference: A Premise of Occupation and Health	Estelle B. Breines, 1988	Qualitative	1	Active occupation as a tool for health has a broad evolutionary and developmental perspective- key concept.
<b>23. Health AND Occupation</b>	Health and the Human Spirit for Occupation	Elizabeth J. Yerxa, 1998	Qualitative	1	Occupations are organized into patterns or the "elemental routines that occupy people" (Beisser, 1989, p. 166). These activities of daily living (ADL) are categorized by our culture as play, work, rest, leisure, creative pursuits, and other ADL that enable us to adapt to environmental demands. Humans can influence the state of their own health, provided that they are given the opportunity to develop the skills to do so. The human spirit for occupation, developed through eons of time in evolution, unfolding through development, and actualized through daily learning, needs to be nurtured to contribute to the health, quality of life, and survival of persons and society.
<b>24. Health AND Occupation</b>	On health, ability and activity: Comments on some basic notions in the ICF	Lennart Nordenfelt, 2006	Qualitative-Philosophical Action Theory	2	The purpose of this article is to highlight and at the same time criticize the holistic view of health expressed in the "International Classification of Functioning, Disability and Health (ICF)". Particular attention will be paid to the idea suggested in the ICF that not only the ability to perform a specified action but also its actual performance is included in the person's health.
<b>25. Health AND Occupation</b>	Meaning in Life for People with Schizophrenia: Does it Include occupation?	Mona Eklund, Annie Hermansso, Carita Hakasson, 2012	Qualitative	1	Qualitative content analysis revealed five categories about sources of meaning in their lives: social contacts, engagement in occupations, experiencing health, precious memories, and positive feelings. The categories also appeared to influence each other; engagement in occupations and perceiving health mutually reinforced each other, as did perceiving health and positive feelings. An everyday life that functions well was important for the informants' feelings of meaning in life. This included the daily occupations that gave structure and routines.
<b>26. Health AND Occupation</b>	Happiness: A Review of Evidence Relevant to Occupational Science	Katie Robinson, Norelee Kennedy, Dominic Harmon, 2012	Qualitative	1	The reviewed studies have demonstrated that health, especially mental health, is important for human happiness and adverse health changes appear to significantly affect happiness. Productive occupations including work and volunteering, personal goals, faith in supernatural order and relationships, especially quality of relatedness, are also significant factors in human happiness.
<b>27. Health AND Occupation</b>	Injured Professional	Christine Guptill,	Qualitative-	1	Participants described flow as detrimental to their health, and

	Musicians and The complex Relationship Between Occupation and Health	2012	Research & Discussion		used strategies to disrupt flow in order to continue in their chosen occupation. This choice can be seen as unhealthy, particularly in cases where the musician has been advised to decrease or stop playing for health reasons. However, occupational science theories favour individual choice in occupations. Wright (2004) described that within occupational science “flow can be viewed as a phenomenon that can help us to understand how occupation may help people attain the highest level of wellbeing”(p. 73).
<b>28. Health AND Occupation</b>	Occupation for Health: Re-activating the Regimen Sanitatis	Ann Wilcock, 2001	Qualitative	1*	Six rules of health: occupation, the environment and ecology, balance of physical, mental, social and restorative occupations, food and drink ,according to occupational requirements doing, being, becoming, and sleep personal activities of daily living meaning, satisfaction, and purpose through occupation.
<b>29. Health AND Occupation</b>	Occupational Balance: What Tips the Scales for new students	Annie Turner 2007	Qualitative-Lit Review	1	The students’ views of what prevented their own achievement of occupational balance revealed some important insights for the teaching of students about the relationship between health and occupation. Time and money were constraints.
<b>30. Health AND Occupation</b>	Occupation and Health: a Review of selected literature	Jennifer Creek, Andres Hughes, 2008	Qualitative	1	This paper defines the relationship between health and occupation with various examples of literature. It maps out factors of health and occupation.
<b>31. Health AND Occupation</b>	Occupation for Health	Ann Wilcock, 1998b	Qualitative-Lecture	1*	Health and wellbeing result from being in tune with our 'occupational' nature. For health and wellbeing to be experienced by individuals and communities, engagement in occupation needs to have meaning and be balanced between capacities, provide optimal opportunity for desired growth in individuals or groups, and be flexible enough to develop and change according to context and choice. Such engagement, if it is in accord with sociocultural values and the natural world, will enable individuals, families and communities to flourish.
<b>32. Health AND Occupation</b>	Health through Occupation: Beyond the Evidence	Lesley Wilson, Ann Wilcock, 2005	Qualitative	1	This presentation explores ways of knowing beyond science and their contribution to the base of human knowledge about health through occupation. Old knowledge, quotations, songs and lyrics, media knowledge and public domain knowledge are used to explore this wider level of understanding.

<b>33. Occupation AND Participation AND Health</b>	The challenge of occupation: Describing the things people do	Clare Hocking, 2009	Qualitative	1	The relationship between health and wellbeing. How occupations have meaning to different people.  Ann Wilcock - the connection between health and occupation. Clare Hocking is the author is also an expert in the field.
<b>34. Measuring Participation or Outcome Assessment AND Health</b>	Measuring Participation as Defined by the International Classification of Functioning, Disability and Health: An Evaluation of Existing Measures	Linda Resnik, Matthew A. Plow, 2009	Quantitative	2	How to measure participation, the different measures and categories available to measure participation; 5 were found to be most relevant.
<b>Intervention Evaluation AND Occupation</b>	No Results				
<b>35. Program Evaluation AND Occupation</b>	Outcome Analysis of Work-Hardening Programs	Phyllis M. King, 1993	Qualitative	2	A work hardening program's effectiveness depends on how closely its performance conforms with expectations. Outcome expectations are drawn from statements describing measurable goals or from an explicit conceptual model of the program drafted by persons either internally or externally (Fuhrer, 1987). An example of such a goal would be to return clients to the job they held at the time of diagnosis. This article includes the criteria for a successful intervention and measuring the success rate of returning to work after an intervention.
<b>36. Program Evaluation AND Occupation</b>	Practical Contribution of Occupational Science to the Art of Successful Ageing: How to Sculpt a Meaningful life in Older Adulthood	Mike Carlson, Florence Clark, Brian Young, 1998	Qualitative	1	Controllable lifestyle factors play a role in health and satisfaction into adulthood.
<b>37. Program Evaluation AND Occupation</b>	Psychosocial Programming in Ireland Based on the Model of Human Occupation: A Program Evaluation Study	Niall Turner, Caroline Lydon, 2008	Quantitative	2	Those with mental illness lack participation that gives purpose to life. MOHO is used to evaluate and develop programs: positive impact on client's wellness.
<b>38. Intervention Assessment</b>	How much behaviour change should we expect from health promotion	Chris Fife-Shaw, Charles Abraham, 2007	Qualitative	2	To evaluate whether an intervention is effective on behavior. The use of condoms and its important to health and to measure if there is a change in behaviour after intervention

	campaigns targeting cognitions? An approach to pre-intervention assessment				and education.
	<b>Occupational Analysis</b>	Irrelevant results			
<b>39. Occupation AND Quality of Life</b>	Measuring Participation: The Patient-Reported Outcomes Measurement Information System Experience	Rita K. Bode, Elizabeth A. Hahn, Robert Devellis, David Cella, 2010	Quantitative	2	To describe the lessons learned in the initial development of Patient-Reported Outcomes Measurement Information System social function item banks. Design: Development and testing of 2 item pools within a general population to create item banks that measure ability to participate and satisfaction with participation in social activities.
<b>40. Occupation AND Quality of Life</b>	Issues in Participation Measurement in Research and Clinical Applications	Allen W. Heinemann, David Tulsky, Marcel Dijkers, Margaret Brown, Susan Magasi, Wayne Gordon, Holly Demark, 2010	Qualitative	1	We draw on presentations by researchers, clinicians, and consumers; a respondent panel; and small group discussions that included symposium faculty and participants. Breakout groups discussion questions focused on several key issues: What do we know about defining and measuring participation? What don't we know? What are the research barriers to defining and measuring participation? What are the research priorities to resolve these obstacles and develop better instruments? What are the major aspects of participation that should be measured? Etc.
<b>41. Occupation AND Quality of Life</b>	Daily Occupations and Well-Being in Women With Limited Cutaneous Systemic Sclerosis	Gunnel Sandqvist, Anita Åkesson, Mona Eklund, 2005	Quantitative	2	This study investigated occupational performance, well-being (operationalized as general life satisfaction, domain-specific life satisfaction, and self-rated health), and perceived symptoms in women with limited scleroderma and healthy controls. Loss of occupations, low satisfaction with leisure, perceived fatigue, shortness of breath, and pain indicated poorer well-being in women with scleroderma and need to be focused on in occupational therapy interventions.
<b>42. Occupation AND Quality of Life</b>	Understanding the Potential of Occupation: A Qualitative Exploration of Seniors' Perspectives on Activity	Deborah Laliberte Rudman, I Joanne Valiant Cook, Helene Polatajko, 1997	Qualitative	1	This article presents the results of a qualitative study that explored the characteristics and potential of occupation. Semi structured interviews with 12 seniors who live in the community were used to explore informants' perspectives on the importance and role of occupation in their lives by asking them about their activities.

<b>43. Occupation AND Quality of Life</b>	Meaning of Daily Activities and Subjective Quality of Life in People with Severe Mental Illness	Ginette Aubin <sup>1</sup> , Raymonde Hachey And Ce' Line Mercier, 1999	Quantitative	2	The study explored the relationship between the meaning of daily activities and the subjective quality of life of this group of people. In this study, the meaning of activities was defined by three elements, related to the Human Occupation Model: perceived competence, value and pleasure, measured by the Occupational Questionnaire. The Wisconsin Quality of Life-Client Questionnaire provided a global score for the subjective quality of life. A total of 45 people with severe and persistent mental illness, living in downtown Montreal, participated in a semi-structured interview. The results suggest that perceived competence in daily tasks and rest, and pleasure in work and rest activities are positively correlated with subjective quality of life.
<b>44. Occupation AND Quality of Life</b>	Satisfaction with Daily Occupations: A Tool for Client Evaluation in Mental Health Care	Mona Eklund, 2004	Quantitative	2	Research findings suggest that in order to clarify the relationship between occupation and health, occupation needs to be framed in several different ways. One facet of occupation is satisfaction with daily occupations, assessed using the Satisfaction with Daily Occupations (SDO) instrument. The purpose was to investigate some of the SDO's psychometric properties when applied on people with persistent mental illness. Discriminant validity against occupational value and quality of life was investigated, as was internal consistency and ability to discriminate between people with different types of daily occupation.
<b>45. Occupation AND Quality of Life</b>	Ratings of health and quality of life by young working people: Are there occupational or education-based differences?	M. Vaeza, K. Ekberg, L. Laflamme, 2004	Quantitative	2	Among young working adults, the manners in which health status and quality of life are perceived are not conditional on occupational and educational category
<b>46. Occupation AND Quality of Life</b>	Measuring participation of children with disabilities: Issues and Challenges	Wendy Coster, Mary Alunkal Khetani, 2007	Qualitative	2	Ambiguities in the current definition of participation in the International Classification of Functioning, Disability and Health (ICF) are examined along with their implications for developing valid measures for children and youth. Developers of new measures must address three key issues that will affect the ultimate meaning of participation data obtained from these instruments: uncertain criteria to distinguish activity from participation; lack of consensus on whether measures should address objective or subjective aspects of participation or both; and appropriate choice of respondent when children are the focus.
<b>47. Occupation AND Quality of Life</b>	A Proposed Model of	Kalhleen M.	Qualitative	1	The notion that certain lifestyle configurations might lend to

	Lifestyle Balance	Matuska, Charles H. Christiansen, 2008			better health, higher levels of life satisfaction and general well-being is readily endorsed. However, the concept has not been given significant attention in the social and behavioral sciences literature and, as a result, lacks empirical support, and an agreed upon definition.
<b>48. Occupation AND Quality of Life</b>	Immigration and its Impact on Daily Occupations: A Scoping Review	Kayla Marie Bennett1, Jennifer Marie Scornaiencki, Jennifer Brzozowski, Suzanne Denis, Lilian Magalhaes, 2012	Qualitative: A scoping review	1	Immigrants often adopt new and unfamiliar occupations in an attempt to adapt to their new culture. Occupations provide a means for participation in the host country and play a significant role in formulating a person's identity. This scoping review sought to identify the current knowledge on immigration and its impact on occupations.
<b>49. Occupation AND Quality of Life</b>	Levels of Complexity in Patterns of Daily Occupations: Relationship to Women's Well-Being	Lena-Karin Erlandsson, Mona Eklund, 2006	Quantitative	1	The study builds on a previous study of the everyday occupations of 100 women who worked at home and in the paid workforce. Their pattern of daily occupations was depicted using time-occupation graphs inspired by the time geography method, whereby the women's pattern of occupations were categorised and clustered according to complexity.
<b>50. Occupation AND Quality of Life</b>	Measuring the Subjective Appraisal of Participation with Life Satisfaction Measures: Bridging the Gap Between Participation and Quality of Life Measurement	Marcel W.M. Post, 2010	Qualitative - A literature Review	2	Measurement of participation needs a rating of both objective performance and subjective appraisals of the person involved. However, only few measures rate subjective participation. Based on the strong resemblance of the concepts of subjective participation and of domain-specific life satisfaction, it is hypothesized that life satisfaction measures may also be useful to rate subjective participation. The Life Satisfaction Questionnaire (LiSat-9) showed the best combination of efficiency, coverage, and psychometric evidence.
<b>51. Occupation AND Quality of Life</b>	Participation: Its Relationship to Occupation and Health	M. Carolyn Baum, 2003	Commentary	1	Importance of occupation to health
<b>52. Occupation AND Quality of Life</b>	Occupation as a Quality of Life Constituent: A Nursing Home Perspective	Sharon Green, Barbara Acheson Cooper, 2000	Qualitative	1	This study explored issues related to a group of vulnerable elderly people and the meaning of occupation as a quality of life factor for them.
<b>53. Occupation AND Quality of Life</b>	Outdoor Recreation as an Occupation to Improve Quality of Life for People	Katy Frances, 2006	Qualitative Report	1	This report reviews available evidence to illustrate that outdoor recreation can be used as a viable therapeutic medium for people with enduring mental health problems. It

	with Enduring Mental Health Problems				illustrates how outdoor recreation is in keeping with government mental health promotion strategies and that, if outdoor recreation is considered as an occupational role, it can facilitate positive self identity and enhance quality of life for people with enduring mental health problems.
<b>54. Human Occupation AND Assessment</b>	Issues in the Conceptualization and Measurement of Participation: An Overview	Marcel P. Dijkers, 2010	Qualitative	2	This article explores a number of the major issues related to the quantification of participation and makes suggestions for new directions, using the following orienting questions: What is the definition of participation? Where is the border between Participation and Activity? Is there more to participation than performance? What domains should be included in a participation measure? What are the appropriate metrics in quantifying participation? How do we define adequate participation? How should participation be operationalized? What is the proper measurement model for participation instruments? How should we collect data on participation? How do we evaluate the quality of a participation instrument?
<b>55. Occupation AND Quality of Life</b>	Applications of Response Shift Theory and Methods to Participation Measurement: A Brief History of a Young Field	Carolyn E. Schwartz, 2010	Qualitative	2	Measurement of participation in people with disability can pose psychometric and conceptual challenges. Ambiguous or paradoxical findings can occur because of differences among people or changes within people regarding internal standards, values, or conceptualization of participation.
<b>56. Occupation AND Quality of Life</b>	Issues Affecting the Selection of Participation Measurement in Outcomes Research and Clinical Trials	Gale G. Whiteneck, 2010	Qualitative	2	In an effort to address issues affecting the selection of a participation measure for a specific research purpose, this article (1) outlines the types and characteristics of participation measures, (2) enumerates various uses of participation measures in disability and rehabilitation research, (3) discusses appropriate matching of the type of participation measure with the research task, and (4) offers recommendations for future participation research.
<b>57. Occupation AND Quality of Life</b>	Measurement of Participation in Rehabilitation Research	Allen W. Heinemann, 2010	Qualitative	2	Purpose: to highlight the state of the art in the measurement of participation and discuss its utility as an outcome measure for persons with disabilities by examining the construct of participation and its measurement. Plenary presentations and group discussions were organized around 4 key issues: (1) conceptualization, (2) operationalization, (3) environmental influences, and (4) personal characteristics.
<b>58. Occupation AND Quality of Life</b>	Participation of disabled children: how should it be characterised and	H. Mcconachie, A. F. Colver, R. J. Forsyth, S. N.	Qualitative	2	The aim of the paper is to explore the issues involved in measuring children's participation.



	measured?	Jarvis, K. N. Parkinson, 2006				
<b>59. Occupation AND Quality of Life</b>	Time Use in Relation to Valued and Satisfying Occupations among People with Persistent Mental Illness: Exploring Occupational Balance	Mona Eklund, Lena-Karin Erlandsson, Christel Leufstadius, 2010	Mixed	1		This study investigated how temporal occupational patterns, operationalized as time use and daily rhythm, are related to occupational balance, in terms of the value and satisfaction that people with persistent mental illness derive from daily occupations.
<b>60. Occupation AND Quality of Life</b>	Outcomes of participation objective, participation subjective (POPS) measure following traumatic brain injury	Michael Curtin, Jennifer Jones, Graham A. Tyson, Virginia Mitsch, Margaret Alston, Lindy Mcallister, 2011	Mixed	2		To investigate the participation of adults living with traumatic brain injury in regional and rural NSW as measured by the Participation Objective Participation Subjective (POPS) measure
<b>61. Occupation AND Quality of Life</b>	Associations between women's subjective perceptions of daily occupations and life satisfaction, and the role of perceived control	Carita Ha^kansson, Cecilia Bjo^rkelund, Mona Eklund, 2011	Qualitative	1		More knowledge is needed about the role of perceived control in the associations between different perceptions of daily occupations and positive health outcomes. The aim was to explore the associations between different subjective perceptions of daily occupations, in terms of occupational balance, occupational meaning, occupational value and satisfaction with occupations, and life satisfaction, and the role of perceived control in those associations.
<b>62. Occupation AND Quality of Life</b>	The Relative Impact of Personality Traits, Meaningful Occupation and Occupational Value on Meaning in Life and Life Satisfaction	Aaron M. Eakman, Mona Eklund, 2012	Mixed	1		The present study explored how personality traits are related to meaningful occupation and occupational value (two complementary perspectives on occupational experience) and to well-being.
<b>63. Occupation AND Quality of Life</b>	Occupation Mediates Ecosystem Services with Human Well-Being	Mami Aoyama, Mark J. Hudson, Kara C. Hoover, 2012	Qualitative article	1		The authors of this paper argue that the concept of "occupation" is a crucial addition to understanding these connective relations. It is proposed that human wellbeing, human activity, and ecosystem services are mediated by, i.e., connected through the medium of, occupational performance.
<b>64. Occupation AND Quality of Life</b>	The measurement properties of the Model of Human Occupation Screening Tool and implications for practice	K. Forsyth, S. Parkinson, G. Kielhofner, J. Kramer, L. Summerfield	Mixed	2		The purpose of this study was to examine the reliability and validity of the Model of Human Occupation Screening Tool (MOHOST).

			Mann, E. Duncan, 2011			
<b>65. Occupation AND Quality of Life</b>	Measuring occupational balance: A theoretical exploration of two Approaches	Dana R. Anaby, Catherine L. Backman, Tal Jarus, 2010	Quantitative-Cross-sectional Study	2	To advance the theoretical discussion of occupational balance, its measurement and relationship to wellbeing.	
<b>66. Occupation AND Quality of Life</b>	Content Validity of the Relative Mastery Measurement Scale: A Measure of Occupational Adaptation	Lorrie A. George, Janette K. Schkade, Jimmy H. Ishee, 2004	Quantitative	2	As an indicator of Occupational Adaptation, the Relative Mastery Measurement Scale (RMMS) was developed and evaluated for content and construct validity. The RMMS assesses individuals' perceptions of their effectiveness, efficiency, and satisfaction regarding their responses to occupational challenges.	
<b>67. Occupation AND Quality of Life</b>	Occupational Engagement and Life Satisfaction in the Oldest-Old: The Umeå 85+ Study	Ingeborg Nilsson, Birgitta Bernspång, Anne G. Fisher, Yngve Gustafson, Britta Löfgren, 2007	Quantitative	2	This study was designed to evaluate whether the level of occupational engagement is related to life satisfaction among the oldest-old. The study was performed as part of a cross-sectional study of individuals 85 years and older in northern Sweden.	
<b>68. Occupation AND Quality of Life</b>	Female family carers for survivors of stroke: occupational loss and quality of life	Kathy Kniepmann, 2012	Quantitative Cross-sectional, Self-report Study	1	This study examined activity changes in female carers for working-age husbands with mild to moderate stroke. It explored whether carers who reduced or quit some of their valued activities had more burden and decreased health compared with other carers who continued their valued activities.	
<b>69. Taken from Grey Literature: "Occupational, Determinant of Health"</b>	An occupational perspective on Health	Ann Wilcock, 1998a and 2006	Qualitative	1*	Retrieved from: <a href="http://books.google.ca/books?id=voKCHG3xL70C&amp;pg=PA43&amp;lpg=PA43&amp;dq=occupation+%22determinant+of+health%22&amp;source=bl&amp;ots=2UFT3fgIHx&amp;sig=WprJJRtweBobSdO5UQhdKtVSiG8&amp;hl=en&amp;sa=X&amp;ei=ElktUYSPGoOo2gWnrIG4BA&amp;ved=0CE0Q6AEwAw#v=onepage&amp;q=occupation%20%22determinant%20of%20health%22&amp;f=false">http://books.google.ca/books?id=voKCHG3xL70C&amp;pg=PA43&amp;lpg=PA43&amp;dq=occupation+%22determinant+of+health%22&amp;source=bl&amp;ots=2UFT3fgIHx&amp;sig=WprJJRtweBobSdO5UQhdKtVSiG8&amp;hl=en&amp;sa=X&amp;ei=ElktUYSPGoOo2gWnrIG4BA&amp;ved=0CE0Q6AEwAw#v=onepage&amp;q=occupation%20%22determinant%20of%20health%22&amp;f=false</a>	
<b>70. Hand-searched/Cross-referenced</b>	A concept of self-care for the rehabilitation client	D.E. Orem, 1985	Qualitative	1*	Discusses the concept of self-care	
<b>71. Hand-searched/Cross-referenced</b>	Compromised careers: The occupational transition of immigration and resettlement	M. Suto, 2008	Qualitative	1*	Work is a significant occupational transition that occurs with immigration and resettlement. Problems finding work and regaining economic capital are multi-factorial, differentiated by gender and mediated by specific contexts. Surprisingly, past education and work experience are unreliable predictors of successful employment outcomes.	

72. <b>Hand-searched/Cross-referenced</b>	Measurement of health outcomes: Reliability, validity and responsiveness	Katherine Roach, 2006	Qualitative	2*	The effective use of outcome measures is an important aspect of clinical care. Deciding which outcomes are relevant to a particular type of client and then selecting appropriate measures of those outcomes requires an understanding of the clinical situation, as well as an understanding of the measurement properties of the outcome measures.
73. <b>Hand-searched/Cross-referenced</b>	Occupational Injustice	R. Stadnyk, E.A. Townsend, A. Wilcock, 2010	Qualitative	1*	The evolving theory of occupational justice links the concept to social justice and to concerns for a justice of difference: a justice that recognizes occupational rights to inclusive participation in everyday occupations for all persons in society ,regardless of age, ability, gender, social class, or other differences  From the article : Nilsson & Townsend. (2010). Occupational justice—bridging theory and practice. <i>Scandinavian Journal of Occupational Therapy</i> , 17, 57-63.
74. <b>Hand-searched/Cross-referenced</b>	Social determinants of health in Canada: are healthy living initiatives there yet?	D. Gore, A. Kotheri, 2012	Qualitative	1*	Preventative strategies that focus on addressing the social determinants of health to improve healthy eating and physical activity have become an important strategy in British Columbia and Ontario for combating chronic diseases.
75. <b>Hand-searched/Cross-referenced</b>	Are we ready to address the new expectations of work and workers in the transforming world of work	Lynn Shaw, 2012	Qualitative	1*	There are many influences that shape what workers can do, are expected to do, what they can expect from work and the types of work they can expect to do in the future. Some of these changes give rise to new meanings of work or what it means to productive within a society or community
76. <b>Hand-searched/Cross-referenced</b>	Gender differences in the psychological consequences of work	K. Pugliesi, 1995	Qualitative	1*	Differential exposure and vulnerability to social roles and role characteristics have been suggested as accounts for gender differences in well-being.
77. <b>Hand-searched/Cross-referenced</b>	Population health: An occupational rationale	Ann Wilcock, 2010	Qualitative	1*	Links occupational concepts to health.
78. <b>Hand-searched/Cross-referenced</b>	Physiological effects on patients following temporary closing of a geriatric day care	J. Lokk, B. Arnetz, T. Theorell, 1993	Qualitative	1*	The study shows that elderly have a functional physiological response and chronically sick patients react selectively with regard to the hormone response. Thus, the results indicate that the support during minor life events induced by the closure of the day care ward should be improved.

<b>79. Hand-searched/Cross-referenced</b>	Immigrants and health care sources of vulnerability.	K. P. Derose, J.J. Escarce, N. Lurie, 2007	Qualitative	1*	Immigrants have been identified as a vulnerable population, but there is heterogeneity in the degree to which they are vulnerable to inadequate health care. Here we examine the factors that affect immigrants' vulnerability, including socioeconomic background; immigration status; limited English proficiency; federal, state, and local policies on access to publicly funded health care; residential location; and stigma and marginalization.
<b>80. Hand-searched/Cross-referenced</b>	Application of occupational analysis to practice	Clare Hocking, 2010	Qualitative	2*	Looking at health inequities through an occupational lens.

1-Discusses occupation as a determinant of health/occupation as it contributes to health and well-being;

2-Discusses measuring/evaluating occupation

\*-Referenced in the literature review

**Appendix B: Concept Map**



*Figure 1. Concept Map: Occupational Factors that Shape Health and Health Equity*

## **Appendix C: Recruitment Advertisements**

### **Email Recruitment**

Subject: Invitation to Participate in Research Study

Dear Occupational Science Students/Graduates,

I am a M.Sc. Health and Rehabilitation student under the supervision of Dr. Lynn Shaw at Western University. As a part of my thesis research project, I am conducting a focus group to better understand occupation as a determinant of health and how occupation can contribute to processes to reduce health inequities. I would like to invite you to participate in this research study as a person who has contributed to the knowledge of occupational science or public health.

The purpose of this study is to elicit the knowledge of experts from the field of occupational science and public health about how occupation shapes health and well-being and how the concept of occupation can help reduce health inequities. The information gathered from this study may provide benefits to society including the future growth of the field of public health from an occupational lens. It may also add questions and factors for consideration to Ontario's current emerging Health Equity Impact Assessment tool used to reduce health inequities within health interventions.

There are no known or anticipated risks or discomforts associated with participating in this study. Participation in this study is voluntary and you may refuse to participate, refuse to answer any questions, or withdraw from the study at any time. Your decision will have no effect on your present or future academic status or employment. You will not be compensated for your participation in this research.

Attached to this email you will find a letter of information and an information workbook for the Health Equity Impact Assessment tool. If you would like to participate in this study, please email Amy Patel with a date that works best for you.

If you require further information or have any questions regarding this research study, you may also contact Amy Patel.

Best Regards,

Amy Patel, B.Sc.

Lynn Shaw, PhD, OT Reg (Ont)

## **Revised Forum Posting**

### **Invitation to Participate in Research Study**

I am a M.Sc. Health and Rehabilitation student under the supervision of Dr. Lynn Shaw at Western University. As a part of my research study, I am inviting public health professionals to participate in a focus group to better understand how what people do (e.g. occupations) and cannot do (e.g. social exclusion) can contribute to health inequities.

The purpose of this study is to understand how occupational science and public health experts view how everyday occupations and social exclusion impact health and how this knowledge can inform interventions aimed at reducing health inequities. So far occupational science experts have explained the need to consider meaning, purpose, choice, balance, awareness, access, injustices, and confidence. One example of how a broader understanding of occupation/social inclusion can enhance health interventions is to focus on providing opportunities to choose meaningful activities that promote one's health.

The information gathered from this study may provide benefits to society including the future growth of the field of public health from an occupational lens by suggesting ways to evaluate and reduce health inequities within health interventions.

If you would like to participate in this study or require further information, please email Amy Patel.

## Appendix D: Letter of Information and Consent Forms



*Version: 07/18/2013*

**Project Title:** How can the concept of occupation as a determinant of health contribute to processes to reduce health inequities?

### **Principal Investigator & Research Team:**

Lynn Shaw, PhD, OT Reg (Ont), Associate Professor, Western University; Dr. Anita Kothari, BSc, MHSc, PhD, Associate Professor, Western University; Amy Patel, BSc, MSc Student, Western University

## **Letter of Information**

### **1. Invitation to Participate**

You are being invited to participate in this research study because you are a member of the occupational science or public health community.

### **2. Purpose of the Letter**

The purpose of this letter is to provide you with information required for you to make an informed decision regarding participation in this research.

### **3. Purpose of this Study**

The purpose of this study is to look at occupation as a determinant of health and well-being and how it can contribute to reducing health inequities and to improving health interventions. The study will look at the concept from both occupational science and public health perspectives.

### **4. Inclusion Criteria**

Individuals who have studied or contributed to the knowledge in occupational science or public health will be included in this study. Potential participants include faculty in occupational science or therapy



and/or public health, PhD candidates or graduates in the occupational science field or public health, MPH graduates, post-doctorates, experienced occupational therapists, public health professionals and visiting scholars with experience in occupational science or public health. Participants who can speak English are eligible to participate.

## **5. Exclusion Criteria**

Individuals who are currently in a master's program will not be included in this study. Persons who do not speak English are not eligible to participate.

## **6. Study Procedures**

If you agree to participate, you will be asked to email the researcher, Amy Patel. She will coordinate the bookings for focus groups. It is anticipated that the entire task will take 2 hours over one session. This session will be videotaped. The task(s) will be conducted at [a Canadian university] or online through a video conference call on Blackboard Collaborate. There will be a total of approximately 6-10 participants per focus group. Participants will be emailed a summary of the analysis on occupation as a health determinant that includes perspectives of both occupational scientists and public health. Participants will be invited to give feedback on the summary by email. This will take approximately 10 minutes of the participant's time.

## **7. Possible Risks and Harms**

There are no known or anticipated risks or discomforts associated with participating in this study.

## **8. Possible Benefits**

You may not directly benefit from participating in this study, but information gathered may provide benefits to society as a whole which include growth of the public health field with respects to reducing health inequities and improving health interventions using occupational science concepts.

## **9. Compensation**

A parking pass for the parking lot will be provided to participants if required. You will not be compensated for your participation in this research.

## **10. Voluntary Participation**

Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no effect on your future academic status/employment.

## **11. Confidentiality**

All data collected will remain confidential and accessible only to the investigators of this study. If the results are published, your name will not be used. While we will do our best to protect your information there is no guarantee that we will be able to do so. Representatives of Western's Health Sciences Research Ethics Board may contact you or require access to your study-related records to monitor the conduct of the research.

## **12. Contacts for Further Information**

If you require any further information regarding this research project or your participation in the study, you may contact Dr. Lynn Shaw or Amy Patel.

## **13. Publication**

If the results of the study are published, your name will not be used. If you would like to receive a copy of any potential study results, please contact Amy Patel.

## **14. Consent**

Signing a written consent form attached at the focus group indicates your consent for this study.

*This letter is yours to keep for future reference.*

**Initial:** \_\_\_\_



### Consent Form

**Project Title:** How can the concept of occupation as a determinant of health contribute to processes to reduce health inequities?

**Study Investigators' Names:** Lynn Shaw, PhD, OT Reg (Ont), Associate Professor, Western University; Dr. Anita Kothari, BSc, MHSc, PhD, Associate Professor, Western University; Amy Patel, BSc, MSc Student, Western University

I have read the Letter of Information, have had the nature of the study explained to me and I agree to participate in the study. All questions have been answered to my satisfaction.

Participant's Name (please print): \_\_\_\_\_

Participant's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Person Obtaining Informed Consent (please print): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## Appendix E: Data Collection Demographics Form



### Data Collection Demographics Form

**Project Title:** How can the concept of occupation as a determinant of health contribute to processes to reduce health inequities?

**Study Investigators' Names:** Lynn Shaw, PhD, OT Reg (Ont), Associate Professor, Western University; Dr. Anita Kothari, BSc, MHSc, PhD, Associate Professor, Western University; Amy Patel, BSc, MSc Student, Western University

1. What is/are your field(s) of expertise and years of experience? Circle both if you are involved in both fields.

a) Public Health

i. Please specify area of expertise:

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ii. Please specify years of experience:

---

b) Occupational Science

iii. Please specify area of expertise:

---

iv. Please specify years of experience:

---

2. What degree(s) do you hold? Circle all that apply. If in progress, please specify.

a) BScOT or MScOT

b) PhD (please specify: \_\_\_\_\_)

c) MPH or equivalent

d) Other (please specify: \_\_\_\_\_)

3. What is your current employment or status? Circle all that apply.

- a) Graduate student
- b) Community-based health professional
- c) Hospital-based health professional
- d) Professor
- e) Researcher
- f) Other: \_\_\_\_\_

## Appendix F: Health Equity Impact Assessment (HEIA) Template

For a copy to the HEIA workbook, please visit:

[www.health.gov.on.ca/en/pro/programs/hea/docs/workbook.pdf](http://www.health.gov.on.ca/en/pro/programs/hea/docs/workbook.pdf)

# HEIA Health Equity Impact Assessment

HEIA is a flexible and practical assessment tool that can be used to identify and address potential unintended health impacts (positive or negative) of a policy, program, or initiative on specific population groups.

**NOTE:** The HEIA Template is designed to be used alongside the accompanying HEIA Workbook, which provides definitions, examples, and more detailed instructions to help you complete this template.

Date:

Organization:

Name and contact information for the individual or team that completed the HEIA:

Project Name:

Project Summary:

Objective for Completing the HEIA:

(e.g. to determine where to best invest resources in a new policy, program, or initiative?)

***NOTE: This section to be filled in after completing the following HEIA template.***

Conclusions:

(e.g. what decisions were made following completion of the HEIA tool?)

## HEIA Template

The numbered steps in this template correspond with sections in the HEIA Workbook. The workbook with step-by-step instructions is available at [www.ontario.ca/healthequity](http://www.ontario.ca/healthequity).

Step 1. SCOPING	Step 2. POTENTIAL IMPACTS	Step 3. MITIGATION	Step 4. MONITORING	Step 5. DISSEMINATION			
<p><b>a) Populations*</b> Using evidence, identify which populations may experience significant unintended health impacts (positive or negative) as a result of the planned policy, program or initiative.</p>	<p><b>b) Determinants of Health</b> Identify determinants and health inequities to be considered alongside the populations you identify.</p>	<p>Unintended Positive Impacts.</p>	<p>Unintended Negative Impacts.</p>	<p>More Information Needed.</p>	<p>Identify ways to reduce potential negative impacts and amplify the positive impacts.</p>	<p>Identify ways to measure success for each mitigation strategy identified.</p>	<p>Identify ways to share results and recommendations to address equity.</p>
Aboriginal peoples (e.g., First Nations, Inuit, Métis, etc.)							
Age-related groups (e.g., children, youth, seniors, etc.)							
Disability (e.g., physical, D/deaf, deafened or hard of hearing, visual, intellectual/developmental, learning, mental illness, addictions/substance use, etc.)							
Ethno-racial communities (e.g., racial/racialized or cultural minorities, immigrants and refugees, etc.)							
Francophone (including new immigrant francophones, deaf communities, etc.) LSQ/LSF, etc.)							
Homeless (including marginally or under-housed, etc.)							
Linguistic communities (e.g., uncomfortable using English or French, literacy affects communication, etc.)							
Low income (e.g., unemployed, underemployed, etc.)							
Religious/faith communities							
Rural/remote or inner-urban populations (e.g., geographic or social isolation, under-served areas, etc.)							
Sex/gender (e.g., male, female, women, men, trans, transsexual, transgendered, two-spirited, etc.)							
Sexual orientation, (e.g., lesbian, gay, bisexual, etc.)							
Other: please describe the population here.							

\* NOTE: The terminology listed here may or may not be preferred by members of the communities in question and there may be other populations you wish to add. Also consider intersecting populations (i.e. Aboriginal women).

### **Appendix G: Focus Group HEIA Case Scenario**

Imagine that a program is designed to increase access to pre-natal care for lower income women and is being rolled out in designated neighbourhoods with a facility that will be open from 10:00 AM to 6:00 PM.

- Population: Women, Low-Income Communities
- DOH: Child Development, Social Status/Employment
- Unintended Impact: Many people with a low income work more than one job or have a job that falls outside of traditional 9 to 5 hours
- Mitigation: Alter hours of service for this facility to ensure access
- Monitoring: Program evaluation, Participant feedback
- Dissemination: Share the information from Step 4 to relevant groups



## Ethics Appendix H: Ethics Approval Notices

### Ethics Approval for Research Study



Research Ethics

#### Use of Human Participants - Ethics Approval Notice

**Principal Investigator:** Dr. Lynn Shaw  
**File Number:** 103976  
**Review Level:** Delegated  
**Approved Local Adult Participants:** 20  
**Approved Local Minor Participants:** 0  
**Protocol Title:** How can the concept of occupation as a determinant of health contribute to processes to reduce health inequities?  
**Department & Institution:** Health Sciences\Occupational Therapy, Western University  
**Sponsor:**  
**Ethics Approval Date:** July 26, 2013 **Expiry Date:** August 31, 2014  
**Documents Reviewed & Approved & Documents Received for Information:**

Document Name	Comments	Version Date
Other	Data Collection Tool for Focus Groups	2013/06/19
Advertisement	Recruitment Email	2013/06/19
Letter of Information & Consent	Consent Form	2013/06/19
Other	Data Collection Demographics Form	2013/06/19
Western University Protocol		2013/06/19
Response to Board Recommendations	HEIA Workbook	2013/07/07
Letter of Information	Revision to LOI version 7/18/2013	2013/07/18
Response to Board Recommendations	Response to ethics for completion of revisions	2013/07/18

This is to notify you that The University of Western Ontario Research Ethics Board for Health Sciences Research Involving Human Subjects (HSREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the Health Canada/ICH Good Clinical Practice Practices: Consolidated Guidelines; and the applicable laws and regulations of Ontario has reviewed and granted approval to the above referenced revision(s) or amendment(s) on the approval date noted above. The membership of this REB also complies with the membership requirements for REB's as defined in Division 5 of the Food and Drug Regulations.

The ethics approval for this study shall remain valid until the expiry date noted above assuming timely and acceptable responses to the HSREB's periodic requests for surveillance and monitoring information. If you require an updated approval notice prior to that time you must request it using the University of Western Ontario Updated Approval Request Form.

Members of the HSREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the HSREB.

The Chair of the HSREB is Dr. Joseph Gilbert. The HSREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000940.

Signature \_\_\_\_\_

#### Ethics Officer to Contact for Further Information

<input type="checkbox"/> Erika Basile	<input type="checkbox"/> Grace Kelly	<input type="checkbox"/> Vikki Tran	<input type="checkbox"/> Shantel Walcott
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*This is an official document. Please retain the original in your files.*

## Approval for Advertisement Revision



Research Ethics

Use of Human Participants - Revision Ethics Approval Notice

Principal Investigator: Dr. Lynn Shaw  
 File Number: 103976  
 Review Level: Delegated  
 Protocol Title: How can the concept of occupation as a determinant of health contribute to processes to reduce health inequities?  
 Department & Institution: Health Sciences\Occupational Therapy, Western University  
 Sponsor:  
 Ethics Approval Date: December 18, 2013 Expiry Date: August 31, 2014  
 Documents Reviewed & Approved & Documents Received for Information:

Document Name	Comments	Version	Date
Advertisement	New ad for forum posting for recruitment of public health professionals		

This is to notify you that The University of Western Ontario Research Ethics Board for Health Sciences Research Involving Human Subjects (HSREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the Health Canada/ICH Good Clinical Practice Practices: Consolidated Guidelines; and the applicable laws and regulations of Ontario has reviewed and granted approval to the above referenced revision(s) or amendment(s) on the approval date noted above. The membership of this REB also complies with the membership requirements for REB's as defined in Division 5 of the Food and Drug Regulations.

The ethics approval for this study shall remain valid until the expiry date noted above assuming timely and acceptable responses to the HSREB's periodic requests for surveillance and monitoring information. If you require an updated approval notice prior to that time you must request it using the University of Western Ontario Updated Approval Request Form.

Members of the HSREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the HSREB.

The Chair of the HSREB is Dr. Joseph Gilbert. The HSREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000940.

\_\_\_\_\_  
 Signature

Ethics Officer to Contact for Further Information

Erika Basile	Grace Kelly	Mina Mekhail	Vikki Tran
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*This is an official document. Please retain the original in your files.*

## Curriculum Vitae

**Name:** Amy Patel

**Post-secondary Education and Degrees:** University of Waterloo  
Waterloo, Ontario, Canada  
2007-2011 B.Sc. (Hons.)

Western University  
London, Ontario, Canada  
2012-2014 M.Sc.

**Honours and Awards:** University of Waterloo Science Entrance Scholarship  
2007

University of Waterloo Dean's Honour List  
2011

Western University Ontario Graduate Scholarship  
2012-2014

**Related Work Experience:** Teaching Assistant  
Western University  
2013

Research Assistant  
Western University  
2013-2014

Research Coordinator, Evidence Summaries  
Region of Peel  
2014

**Presentations (Poster):** The Society for the Study of Occupation (SSO): USA Research  
Conference 2013

Health and Rehabilitation Sciences Student Forum 2014

Canadian Public Health Association's Public Health 2014