BUILDING HEALTHCARE NAVIGATION SKILLS THROUGH A HEALTH LITERACY PROGRAM FOR IMMIGRANTS IN RURAL BRITISH COLUMBIA

by

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Abstract

Background: Canada welcomes over 300,000 immigrants each year with plans to increase this to 500,000 immigrants by 2025. Newcomers to Canada will require health services to maintain their health and well-being. There is a scarcity of existing research on programs that address the barriers immigrants face when accessing health services in small urban and rural communities and what potential interventions may address those barriers. **Objectives:** A mixed-methods study was conducted in two phases. The purpose of Phase 1 was to discover the health information needs of immigrants living in small urban and rural communities in the southern interior of British Columbia and to develop a workshop to help address those needs. Phase 2 aimed to deliver and evaluate the impact of *The Staying Healthy Workshop Series,* a health literacy (HL) program to build knowledge in navigating and accessing health services. **Methods:** In Phase 1, through convenience sampling, service providers and immigrant clients were recruited to contribute to the development of a HL program by sharing what was important to them when it comes to healthcare. A qualitative descriptive approach was used to analyze data collected. In Phase 2, a pilot of the HL program was delivered and evaluated with 16 participants through an English-language class. The reach, effectiveness, adoption, implementation, and maintenance (RE-AIM) framework was used to design a mixed-methods evaluation of the program. **Results:** The program was promoted to clients of South Okanagan Immigrant and Community Services in British Columbia. Participants rated the modules of the series positively for understanding and satisfaction, with the mental health module being rated highest. Successful implementation of the program required organization-level support from facilitators and leadership. The early involvement of clients and service providers was an enabler for implementation. Scale-up and sustainability would be potential future opportunities to explore. **Conclusion:** Partnerships with

community organizations to deliver HL programs introducing Canadian healthcare to immigrants living in small urban and rural communities in BC is a valuable approach to enhancing access to health services, particularly for those learning English as a second language.

Lay Summary

This project involved developing and delivering a health literacy program for immigrants living in rural communities in the southern interior of British Columbia. The goal of the program was to build knowledge about the healthcare system to communicate, evaluate, and act on information to maintain health and well-being. After attending, participants said they gained new and refreshed skills to navigate the healthcare system and access health services in their community. The South Okanagan Immigrant and Community Services was a host and partner in this work. The health literacy program that was developed was added to their regular programs and services so that future immigrants to the community will have a chance to learn about healthcare as well.

Preface

The study was conducted as a requirement for completion of the Degree in Masters of Nursing. The University of British Columbia Research Ethics Board reviewed and approved this study (H19-03007).

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List of Abbreviations

BC: British Columbia

CALD: Culturally and linguistically diverse

CIHI: Canadian Institute for Health Information

CLB: Canadian Language Benchmark

ESL: English as a second language

ESOL: English for speakers of other languages

HL: Health literacy

IRCC: Immigration, Refugees, and Citizenship Canada

OECD: Organization for Economic Co-operation and Development

SOICS: South Okanagan Immigrant and Community Services

TOFHLA: Test of Functional Health Literacy in Adults

UBC: University of British Columbia

UBCO: University of British Columbia Okanagan

Glossary

Health literacy: The ability to access and use health information to make informed health

decisions and maintain basic health (Malloy-Weir et al., 2016; Murray et al., 2007;

Nutbeam, 1999)

Healthy immigrant effect: Immigrants—excluding refugees—generally arrive to their host

country with a health advantage (better self-reported general health status; fewer chronic

conditions, disabilities, and mental health concerns) over Canadian-born citizens

(Degelman & Herman, 2016)

Immigrant/newcomer: "A person who is, or who has ever been, a landed immigrant or permanent

resident" (Statistics Canada, 2016, para. 1)

Small urban and rural: The population living in towns and municipalities outside the commuting

zone of larger urban centres (i.e., outside the commuting zone of centres with a

population of 10,000 or more; Du Plessis et al., 2002, p. 1)

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Dedication

I dedicate this thesis to the first nurse researcher in my life – my mother. You instilled curiosity, humility, and a relentless pursuit of improvement in your children. As well as a passion for health and wellness through nutrition, self-care, and spirituality. Invaluable qualities that I cannot thank you enough for. Thank you, mama, God bless your heart and your patience for all of us through this life and the next.

To my baby girl, this is for you. Your ancestry is full of powerful and determined women, so remember that they are all there for you. You are stronger than you think you are. Breathe, have faith, and take action.

Chapter 1: Introduction

The overall aim of this research was to build health system knowledge and navigation skills among immigrants living in small urban and rural communities in British Columbia (BC) through the development and delivery of a health literacy (HL) program. The research took place over two phases: Phase 1 as the development phase to understand the needs of the participants and develop a program to help meet those needs and Phase 2, the delivery and evaluation of the program. Chapter 1 introduces the background and significance of this work. Chapter 2 covers the results of a literature review on relevant topics to the research. Chapters 3 and 4 present Phases 1 and 2 respectively, including methods, results, and a summary for each phase. Chapter 5 provides discussion, including strengths, limitations, and conclusions.

1.1   Background

Canada welcomes over 300,000 new immigrants each year (Immigration, Refugees and Citizenship Canada [IRCC], 2018a). People who migrate to a new country often experience negative impacts on their health. Degelman and Herman (2016) described the *healthy immigrant effect*, in which immigrants—excluding refugees—generally arrive to their host country with a health advantage (better self-reported general health status; fewer chronic conditions, disabilities, and mental health concerns) over Canadian-born citizens. This is due to Canada's immigration process, which streamlines healthier applicants and in which an application may be refused based on health conditions that may cause excessive demand on health or social services (IRCC, 2018b). Yet, this health advantage tends to decline over time. The stress of immigrating and settling in a new country, as well as a variety of cultural and socioeconomic barriers to accessing health services in the initial years of settlement, are contributing factors to this health decline and

result in an increased risk of developing acute and chronic illnesses among this population over time (Degelman & Herman, 2016; Mancuso, 2011; Shommu et al., 2016; Thomson et al., 2015).

1.1.1 Immigrants in Canada

This research project focused on immigrants and newcomers living in small urban and rural communities within the southern interior of BC. For Statistics Canada and official government purposes, *immigrant* refers to "a person who is, or who has ever been, a landed immigrant or permanent resident" (Statistics Canada, 2016, para. 1). The terms immigrants and newcomers were used interchangeably in this study. Immigrants admitted to Canada arrive through one of three categories of migration: economic, family class, or refugee (Ives et al., 2015). Economic migrants are the largest group—they represented 60.3% of total immigrants between 2011 and 2016 (Statistics Canada, 2017). This included skilled workers, live-in caregivers, and business immigrants who planned on becoming self-employed or launching a start-up in Canada. The family class, at 26.8%, represented those joining family already residing in Canada; and refugees, at 11.6%, were those unable to return to their country of origin due to persecution or a well-founded fear of persecution (Ives et al., 2015; Statistics Canada, 2017). It is also possible to reside in Canada as a refugee claimant (awaiting approval of a refugee claim); as a temporary foreign worker (hired to fill seasonal labour shortages); as a temporary resident, such as a postsecondary student; or as an undocumented migrant (with an expired visa). The immigration status held by an immigrant determines the government services and benefits they are eligible to receive (Ives et al., 2015).

Newcomers settle across all Canadian provinces and territories, in both urban and rural areas, and are often supported through IRCC's settlement program. This program "aims to support newcomers' settlement and integration, so that they may fully participate and contribute

in various aspects of Canadian life" (IRCC, 2017, Executive Summary, p. vi). Partner organizations across the country deliver co-ordinated settlement programs and community services, including both direct and indirect services that promote informed decision-making, language skills, and community building towards integrating newcomers into Canadian society to "realize the economic, social, and cultural benefits of immigration" (IRCC, 2022b, section 2.1). Expected results of the settlement program include having program leaders understand newcomers' needs, ensuring access to services and community resources, and facilitating the learning of official languages and acquisition of new skills for adapting to life in Canada (IRCC, 2022b, section 2.6).

Research shows the successful settlement of newcomers into their new communities is largely dependent on their language skills in either of Canada's official languages—English and French—which, in turn, affects their economic integration through employment and income opportunities (Derwing & Waugh, 2012). Not all new immigrants are fully fluent in English or French, which poses challenges in their navigation of health services. In practice, IRCC funds partner organizations across the country to provide settlement services, including language instruction.

Settlement program leaders and language instructors build trusting relationships with clients over time through language classes and hold a frontline role in understanding clients' needs and facilitating their access to services within the community. This includes navigating the health system and services, as newcomers strive to maintain their own and their families' health and well-being while learning to access appropriate health services in their new home.

1.1.2 Barriers to Accessing Health Services

Immigrants to Canada face many specific challenges when accessing health services. Literature reviews conducted on the experiences of immigrants accessing health services in Canada refer to common challenges such as language barriers, difficulty navigating a new health system, and cultural differences (Higginbottom et al., 2016; Kalich et al., 2016; Sethi, 2013). These reviews highlight some common challenges for immigrants who settle in small urban and rural areas, pointing to particular barriers to accessing care in those settings. These barriers include, for example, having to travel greater distances for specialty services and using emergency services more than one would in an urban centre.

Bernard (2008) reported that approximately 1 in 10 immigrants to Canada chose to settle in small urban or rural areas. Typically, this choice is for economic reasons but soon they realize there are barriers to accessing health services while living in a more rural area. The impacts of these compounding barriers can become increasingly important as more immigrants settle in rural communities, especially if there are more employment opportunities and more affordable housing in rural communities.

Given English and French are the official languages used to deliver public services in Canada, basic language proficiency is directly related to accessibility. As a newcomer develops English or French language proficiency skills, their ability to participate on a social, economic, cultural, political, and civic level increases (Derwing & Waugh, 2012). A scoping review done by Yeheskel and Rawal (2019) determined that "individuals with limited English proficiency face barriers to safe and high-quality health care" (p. 853). The authors identified four major themes in the literature around the impact of language proficiency on the patient experience: "(1) Communication, language barriers, and HL, (2) Relationships with healthcare professionals,

(3) Discrimination and intersection with other dimensions of identity, and (4) Cultural safety

[*sic*]" (Yeheskel & Rawal, 2019, p. 853).

In BC, a service exists for BC healthcare professionals and health authorities to access support to address language barriers. The Provincial Health Services Authority promotes language and interpreting services as a resource for BC healthcare professionals. The Spoken Language Interpreting Service offers telephone-based interpretation in 150 languages to regional health authorities and healthcare professionals across the province (Provincial Health Services Authority, n.d.). Language services are not always accessed by healthcare professionals, in part due to costs associated with the service, the extra time and co-ordination required to arrange for a call, and the lack of awareness that this service exists (Gabriel et al., 2016).

In a pilot study conducted with family physician participants in BC exploring the use of this interpretation service to address language barriers, participants reported that the service improved doctor–patient communication and was feasible and affordable (Gabriel et al., 2016). Participants in the study arranged for interpretation ahead of a patient visit and during the in-person encounter, an interpreter provided language support over speaker phone. Participants expressed a learning curve around using the service for the first time and that longer than usual appointment times may be required to account for the additional communication time needed for interpretation. One participant noted that patients were turned away if they had not arranged for an interpreter themselves and the physician was unaware of the language assistance needed to arrange for the interpreter service ahead of time. Despite these shortcomings, this study found overall positive results for those who used the telephone-based interpreters. For those who chose not to use the service, the qualitative analysis revealed that their underutilization of the service

was due to concerns around accuracy of interpretation, time costs, and potential technical difficulties.

1.1.3 Migration and Health Service Access

The United Nations' Sustainable Development Goals (United Nations, n.d.) provide indicators and targets for governments around the world to strive towards a more sustainable and vibrant future for humanity. Among the 17 goals, Goal 3 outlined a commitment to promoting good health and well-being for people of all ages worldwide (United Nations, n.d.). A person's access to health services is a key factor in maintaining and strengthening their health and well-being (Office of Disease Prevention and Health Promotion, 2020). One of the sustainable development goals adopted and reported on by Canada's data hub directly references the access to care. The goal stated, "Achieve universal health coverage, including financial risk protection, access to quality essential health-care services, and access to safe, effective, quality and affordable essential medicines and vaccines for all" (Government of Canada, 2021, section 3.8).

Accessing necessary health services often involves learning to navigate the local health system's service providers and resources. The search for healthcare professionals and resources can be a barrier for immigrants who arrive in a new country—with an unfamiliar health system—and must learn new norms, requirements, and languages at a time of already heightened stress and significant transition. Although the norms, expectations, and organization of health systems can become socially normalized over time, the unfamiliarity and complexity of systems can serve as a significant barrier to access. For example, waiting for lab results can be an anxiety-provoking experience for a new immigrant if they are not aware that there is no immediate follow-up if results are within normal limits (L. Ahmed, personal communication, October 24, 2018). Other norms come with a steep learning curve in which assistance may be

needed, like the need for a primary care provider to refer a patient to specialists and the challenge of being added to a wait list with no determined time to be called.

Newcomers' experiences are unique and can only be understood by healthcare professionals who listen to those experiences and learn from them. The system and those working within the system have an opportunity to learn to be more responsive and to act as guides in this process without assuming that each individual receiving care, regardless of their background, understands the norms and expectations of healthcare at a broader level. Immigration is a key driver of population growth in Canada, and therefore the health of immigrants, both new and long-term, matters when considering the health and well-being of Canadians.

The health of immigrants is an important element of overall population health and is related to the overall cost of the health system (McDonald & Kennedy, 2004). This growing population of immigrants navigating the Canadian health system without receiving clear direction may cause delays in their access to needed health services. These delays may lead to an increase in pain or impede screening and treatment, which can lead to economic consequences, such as absenteeism and reduced productivity (Barua et al., 2014). In the long-term, the exacerbation of conditions could increase pressure on an already stressed system, particularly in small urban and rural communities where access to services can often be more limited. The influx of immigrants every year increases the population to be served by a health region within its existing resources. If barriers are not addressed, immigrants will continue to experience the *healthy immigrant effect* and their health status will continue to decline over time, adding strain to an already constrained health system. The Canadian Medical Association (2010) reported that Canada's current health system struggles to meet demands for services. As the quality of service

delivery is improved, reorganized, and redesigned, keeping this population in mind when developing new population and public health programming will become increasingly important.

1.2   Health Literacy (HL)

Definitions for HL have evolved over time, and many remain available in the literature. HL is broadly described as the ability to access and use health information to make informed health decisions and maintain basic health (Malloy-Weir et al., 2016; Murray et al., 2007; Nutbeam, 1999). The specific definitions used by studies in the rapid review are explored in Chapter 2. "The term 'health literacy' was first coined in 1974, and is currently commonly defined as a person's ability to access, understand, evaluate, communicate, and use health information to make decisions for one's health" (Shum et al., 2016, p. 1). However, one review of HL identified over 250 different definitions and grouped them into categories of the most commonly used, modified versions of the most commonly used, and other definitions (Malloy-Weir et al., 2016). The top six most commonly used definitions of HL similarly included a person's skill level or ability as being a central concept; with variability in the types of skills, context, and time frames highlighted as important, along with how each would contribute to a person's HL (Malloy-Weir et al., 2016). In Malloy-Weir et al.'s (2016) research project, the Calgary Charter on Health Literacy Scale (Pleasant et al., 2018) was used to measure HL. In the scale, HL is defined as the "wide range of skills that improve the ability of people to act on information in order to live healthier lives. These skills include reading, writing, listening, speaking, numeracy, and critical analysis, as well as communication and interaction skills" (Pleasant et al., 2018, p. 2).

HL programs for new immigrants may enable access to the health system by supporting people to receive the care that matches their needs. HL and HL programs may lead to improved

health status through improving healthcare access. "Healthcare access can be defined as the ability to navigate health services and communicate effectively with healthcare providers" (Ghahari et al., 2020, p. 2). Navigation skills refer to the ability to find health information and services and can serve to enable access to needed health services (Murray et al., 2007). Education programs focused on HL topics for new immigrants may address the barriers to health access related to language, knowledge of available services, and how to navigate those services (Kalich et al., 2016; Martin et al., 2017). Specifically, a focus on improving official language skills can be a foundational objective towards improving HL and other health-related behaviours (Martinez et al., 2017). Building on this language foundation, increasing immigrants' knowledge in navigating the health system and expressing themselves and their needs may then further enable them to maintain their health and well-being with self-determination and independence.

1.3   Rationale and Significance of This Study

Immigrants continue to contribute exponentially to Canada's population and economic growth (Degelman & Herman, 2016). Recent federal initiatives promote the benefits of Canada's smaller communities to global citizens contemplating a move to Canada (Government of Canada, n.d.). Canada has a history of using immigration to fill economic gaps and, as the average age of rural residents rises and younger generations are migrating from rural to urban areas, this leaves Canada dependent on immigration to revive its rural communities (Government of Canada, n.d.). There will be a growing need for studies that consider the immigrant experience in rural communities and their barriers to maintaining health and well-being. Generally speaking, rural residents experience barriers to accessing health services, such as the need to travel greater distances to access specialized health services and a limited availability of primary healthcare professionals (Murphy et al., 2019). Compounding the challenges to accessing health services

already present in rural areas with immigrant-specific barriers to health service access leads to what Patel et al. (2019) refer to as the "double burden of rural migration in Canada" (p. 1). This emphasizes the need for co-ordinated efforts to orient newcomers to the nuances, intricacies, and complexities of the Canadian health system.

HL is an important area of focus for population and public health, as immigration contributes to a large portion of Canada's population growth. Degelman and Herman (2016) reported that in 2011, immigration accounted for up to 67% of Canada's ongoing population growth and is projected to account for 80% by 2031. Immigration, although decreased, continued throughout the COVID-19 pandemic (Government of Canada, 2021a). Statistics Canada reported that, between 2016 and 2021, 1.3 million new immigrants made Canada their home; at 23% of the total population, that is a larger share of the population than any other G7 country (Zimonjic, 2022). Statistics Canada's (2022) *Canada in 2041* report predicted over half of the total Canadian population will be immigrants and their Canadian-born children by 2041 (para. 2). Immigrant health and well-being will be a growing need that communities of all sizes will face and will need to work to address. There is further opportunity to examine how immigrants access health services over the long-term, such as after 10 or more years in Canada, and for some, what the aging experience is like for them. This is beyond the scope of this initial study.

Organizations that offer settlement services to assist immigrants typically hold federal or provincial funding contracts, as does the South Okanagan Immigrant and Community Services centre (SOICS); a not-for-profit organization that has a contract with IRCC to assist immigrants in navigating the settlement services available to them based on their immigration status. These types of organizations work on the frontlines with immigrants—both newly arrived and long-

term—to Canada, assisting them to understand Canadian systems. These organizations are well positioned to introduce immigrants to the health system.

1.4   Geographical and Population Considerations For This Study

This research project took place on the unceded, traditional, and ancestral territory of the Syilx Nation of the Okanagan People. There are four First Nations Communities in this small urban and rural area in the southern interior of BC. The region is also known as the Regional District of the Okanagan–Similkameen, as shown in Figure 1. It extends as far south as Osoyoos and as far north as Peachland. The population of this area is approximately 83,022, with an expected 36% growth by 2031 (Regional District of the Okanagan Similkameen, n.d.). Penticton is the largest of the small communities in this area, with a population of 33,761. Approximately 15% of the residents of this area identified themselves as immigrants in the 2016 census (Statistics Canada, 2017). In the Okanagan–Similkameen, there is a central waitlist process to be attached to a family doctor, and the region's largest area of Penticton has only two walk-in clinics. There are three tertiary hospitals and one community health centre with 24/7 emergency departments in Penticton, Oliver, Princeton, and Keremeos. Penticton Regional Hospital is a 140-bed regional hospital, the South Okanagan General Hospital in Oliver and Princeton General Hospital are small community hospitals, and the South Similkameen Health Centre in Keremeos is a community health centre. The closest critical care centre is in Kelowna, which, from the farthest point of Osoyoos, could be up to a 3-hr drive away. All acute and community care is overseen by the regional health authority and physician's offices are predominantly physician owned and operated.

Figure 1. *Map of Regional District of Okanagan-Similkameen*

Regional District Okanagan-Similkameen
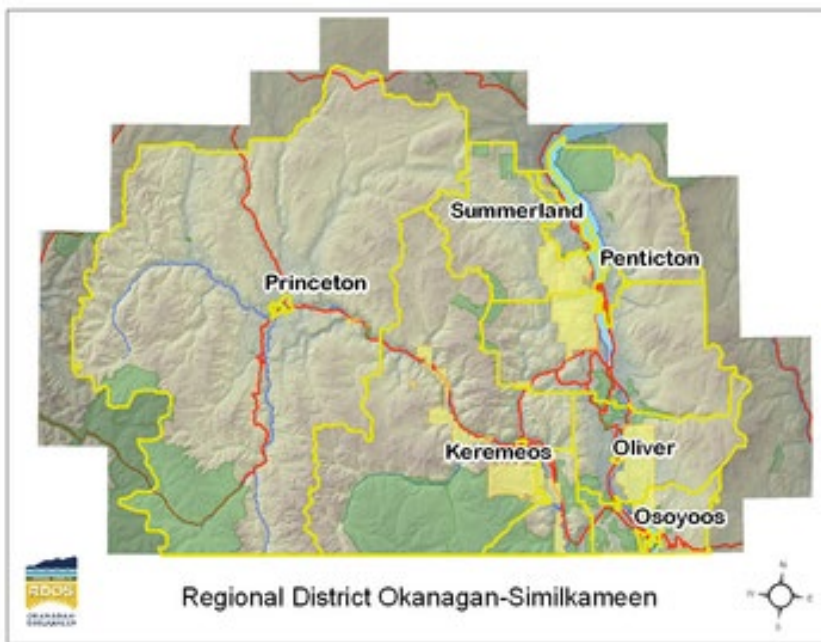
Note. Reproduced with permission from *Map & General Info*, n.d., the Regional District of Okanagan-Similkameen. (https://www.rdos.bc.ca/regional-government/map-general-info/). Copyright 2001–2020 by the Regional District of Okanagan-Similkameen.

This research project focused on immigrants and newcomers living in this region; specifically, clients of SOICS. SOICS holds a key leadership role in the region, in the community, and as a partner in this research project. The main SOICS office is located in Penticton, with a satellite office in Oliver. SOICS's culturally and linguistically diverse (CALD) client base is approximately 1,500 clients from over 80 countries. Among the 25 SOICS staff, there are people who immigrated to Canada from 12 countries of origin and speak 15 languages. The health of their clients and building relationships with local health organizations were identified as strategic priorities in the SOICS *2018–2023 Strategic Plan* (C. Fernandez, personal communication, October 17, 2019).

1.5   The Impact of COVID-19 on This Study

The COVID-19 pandemic affected several components of this research project. On March 11, 2020, the World Health Organization declared the coronavirus, COVID-19, a global pandemic (World Health Organization, n.d.). In line with BC public health orders, all in-person points of contact transitioned to remote or virtual platforms, such as telephone calls, emails, Zoom, or Skype. All in-person training, classes, and work transitioned to virtual communications. Countries around the world addressed this crisis in a variety of ways, including lockdowns and increased public health measures focused on infection prevention and control to reduce the rapid spread of the virus. This context is important to this study because the study began in January 2020, and therefore, the design and development of the study proposal occurred prior to the start of the pandemic. The SOICS team and I then needed to switch half-way through Phase 1, after the onset of the pandemic, to an entirely virtual structure for Phase 2 (delivery and evaluation). I describe this shift in more detail in Chapters 3 and 4.

1.6   Research Questions

The purpose of this study was to build knowledge of the health system within an immigrant population living in small urban and rural communities in the southern interior of BC. The research took place over two phases. Objectives for each phase were as follows:

- Phase 1: To discover the health information needs of the participants and to develop a workshop to help address those needs.

- Phase 2: To deliver and evaluate the impact of the *Staying Healthy Workshop Series*.

The evaluation was guided by a health promotion intervention evaluation framework called RE-AIM, which covers five key dimensions: reach, effectiveness, adoption,

implementation, and maintenance (Glasgow et al., 1999). The questions guiding the evaluation

of research followed these dimensions:

1. How effective was the *Staying Healthy Workshop Series*?

(a) Reach: What proportion of the target population participated in the series?

(b) Effectiveness: What was the effectiveness of the series in promoting HL?

(c) Adoption: How easily was the series delivered and adopted by staff and

participants?

(d) Implementation: What were the barriers and enablers to implementing the

series?

(e) Maintenance: How do we incorporate the intervention into the SOICS

programs and services so that it is delivered over the long term?

2. What content was most important to the participants?

In the next chapter, I describe how a literature review of comparable programs identified

similarities and gaps in current evidence to inform this research project.

Chapter 2: Literature Review

I studied the approach to introducing the health services of a host country to new immigrants through HL programs and education across the continuum of care. This chapter summarizes methods and results of a rapid review of the literature to inform the research study.

2.1   Objective of Literature Review

This rapid review aimed to answer the question: What evidence exists around the development and evaluation of HL programs for immigrants and refugees? Ganann et al. (2010) defined rapid review as "literature reviews that use methods to accelerate or streamline traditional systematic reviews" (p. 1). The authors explained that a rapid review approach is often used in place of a full systematic review when there are time and resource constraints, with the understanding that there may be implications on rigour, bias, and results. Although a rapid review approach is not an alternative to a full systematic review—comprehensive method to synthesize evidence—rapid reviews may be helpful to streamline the process and answer specific questions when there are limited staff and time to complete a full systematic review (Ganann et al., 2010). Ganann et al. (2010) examined rapid review papers for the methods used and found a consistent emphasis on the need for transparency of methods applied to rapid reviews, as this was variably reported in the literature. Given the shortened timeframe to complete a review of the literature, a rapid review was chosen for this study to accommodate this constraint, as well as the limited staff available to conduct this review which was just one graduate student, me. This chapter outlines the scope of the rapid literature review done for this study, the methodology used, including search strategy and selection criteria, and a summary table of results.

2.2 Methods

2.2.1 Search Strategy

A thorough search was conducted in Medline and CINAHL, using medical subject headings (MeSH) and CINAHL search terms. I searched the MeSH and CINAHL terms, combined with the Boolean operators "AND" and "OR" to retrieve related records, that is emigrants and immigrants+ OR refugees AND health literacy+ OR patient navigation. See Table 1 for details on the search terms. Delimiters were applied to include English-language articles published in the year 2000 to present and records with abstracts and full text available. Duplicates were removed before screening.

Table 1. *Database Search Strategy*

Subject	MeSH/search terms	Keywords
Population	immigrants	emigrants and immigrants+ OR refugees OR immigrants+ OR refugees+
Phenomenon	health literacy navigation	health literacy+ OR health literacy OR patient navigation

Note. Initial search completed May 2019. Updated search completed February 2021.

2.2.2 Criteria for Selecting Articles

Through this rapid review, I searched for studies that presented the design, development, delivery, and evaluation of HL programming and education for recent immigrant populations. I approached the phenomenon of HL in a broad way to gather any HL or patient-navigation programs related to immigrants learning about healthcare and health services generally in their host country. The use of the term immigrants encompassed people who independently migrated to a country as immigrants in either of the three categories specified in the introduction: economic, family class, or refugee status. The review included any studies with participants from

CALD groups with any duration of immigration in their host country, and with a particular emphasis on language learners. The search did not specify length of time in host country.

In terms of geography, I initially searched for studies by rurality and host country with very limited results. This aligned with a scoping review completed by Patel et al. (2019) that assessed "the state of knowledge on the health impacts of immigrant migration into rural communities in Canada" (p. 1). Patel et al. (2019) found a paucity of research connecting immigrant HL to rural and small urban settlement in Canada. With the awareness that research in rural areas is limited, search terms related to urban or rural settings were not included in this review to allow for maximum results. As a guide for comparative countries and geographies, I explored the eight peer countries listed by the Canadian Institute for Health Information (CIHI) and the 38 countries in the Organization for Economic Co-operation and Development (OECD). However, because the migration of people is not a unique phenomenon to Canada and with such a scarcity of research in rural contexts specifically, no exclusion criteria were based on geography.

I focused on studies that covered program or intervention development and evaluation related to HL concepts and general health service navigation for immigrants living in a new country. Authors of a systematic review published in the *International Nursing Review* found that few HL interventions for immigrants existed beyond a disease-specific focus (Fernández-Gutiérrez et al., 2019). With this in mind, I searched for studies that provided a general overview and broad introduction to the health system and health services for a more proactive and upstream approach. Specific inclusion and exclusion criteria are listed in Table 2.

Table 2. *Inclusion and Exclusion Criteria for Literature Search Results*

Inclusion	Exclusion
• Studies with immigrants, refugees, or any newcomer to a host country • Program/intervention development studies • Program/intervention evaluation studies • All countries/geographies (urban or rural) • Abstract and full-text availability • Articles written in English • All study design types: qualitative/quantitative/mixed	• Studies focused on facilitators or teachers only as participants • Studies with a disease-specific focus and target population group • Studies published prior to year 2000 • Conference proceedings, dissertations, or commentaries • Full text not available through University of British Columbia database

2.2.3   Screening and Analysis

A detailed explanation of the screening process and resulting numbers of records is outlined in the Prisma 2020 Flow Diagram (Page et al., 2021) in Figure 2. A total of 239 records were found in databases and other sources after delimiters were applied and duplicates removed. As a single reviewer, I screened all 239 record titles and abstracts against the inclusion and exclusion criteria to determine a subset of articles for full-text review. A total of 10 articles were identified as relevant for this review.

The search strategy evolved in three phases, following the PRISMA 2020 Flow Diagram as a guide (Page et al., 2021). I served as an independent investigator with the guidance of my supervisors to conduct this rapid review as part of my graduate studies research. First, I identified the databases to search, as well as subject headings and terms that fit within the scope and aims of this review. My search also included two articles identified by SOICS staff that were potentially relevant to the study. Then, I screened article titles and abstracts against the inclusion and exclusion criteria noted in the previous section. Next, I performed a full-text review of the screened-in articles to inform a rapid review of the literature.

Figure 2. *Prisma 2020 Flow Diagram*
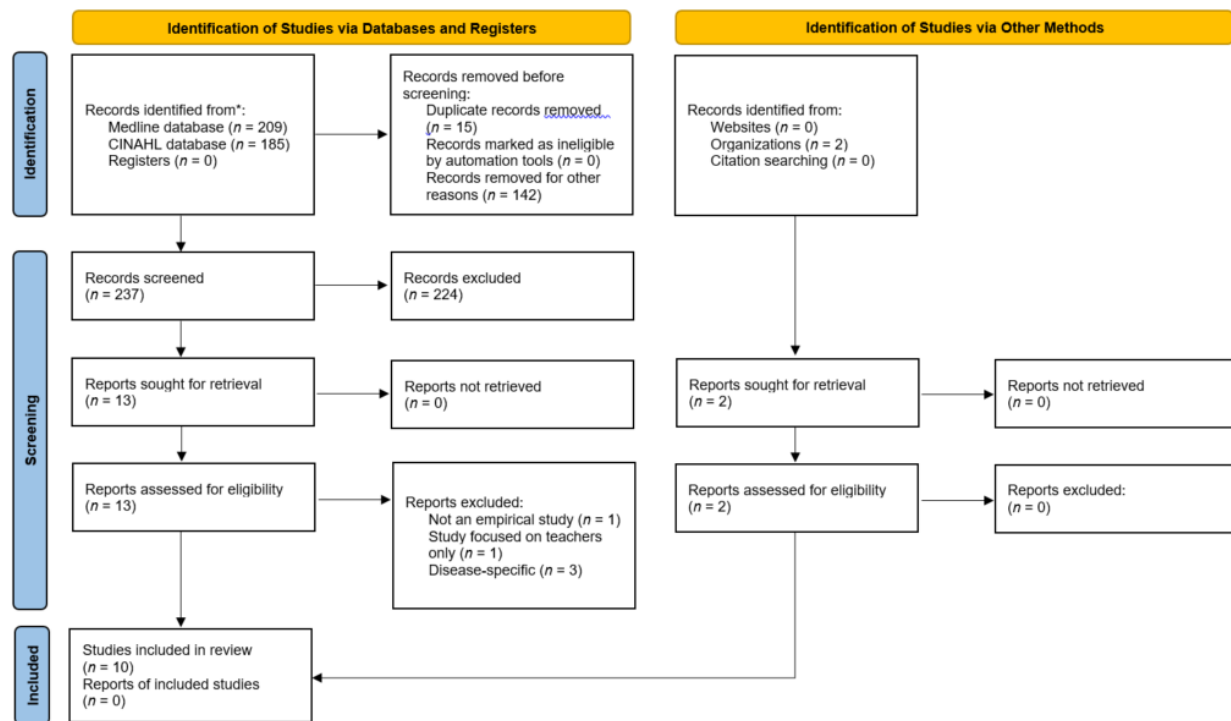
At this stage, a record was excluded if it was not an empirical study, such as a conference proceeding, dissertation, or commentary, or if full text was not available through the University of British Columbia online databases. I also excluded empirical studies that focused solely on the literacy of a specific disease process or health outcome, such as depression, HIV, diabetes, asthma, cancer, oral health, maternal health, and so forth. Although important lessons exist in these studies, their results are too specific for the overall goal of this thesis project. The SOICS clients and future participants of this research project are not connected specifically by one disease or condition, especially because they live in a rural community where the population is smaller than in urban settings where large groups may connect around one shared condition. Ruling out studies that were focused on one particular disease process narrowed the scope of this review for the purposes of this masters-level thesis. The results of this rapid review and identified gaps provide a foundation for my thesis study.

After initial screening based on the above criteria, I conducted a full-text review of 15 articles against the inclusion criteria. I prioritized studies set in all geographies, with a community-based context, along with those that involved participants with limited English proficiency and that involved some degree of program design, development, or evaluation. Five articles were excluded after full-text retrieval and review, for reasons such as being a disease-specific study or not being a study at all. The remaining 10 articles were included in this review.

2.3   Results

A brief overview of the articles is presented in Table 3. The 10 articles selected for this review included four quantitative studies (Fernández-Gutiérrez et al., 2019; Goldsmith et al., 2016; Soto Mas et al., 2015; Tsai et al., 2018), two qualitative studies (Nimmon, 2007; Soto Mas et al., 2013), and four mixed-methods studies (Ghahari et al., 2020; Mancuso, 2011; Martin et al., 2017; Prescott et al., 2018). Studies were conducted in five countries: Australia (Martin et al., 2017), Canada (Ghahari et al., 2020; Nimmon, 2007), the United States (Goldsmith et al., 2016; Mancuso, 2011; Prescott et al., 2018; Soto Mas et al., 2013, 2015), Taiwan (Tsai et al., 2018), and Spain (Fernández-Gutiérrez et al., 2019). Authors rarely stated explicitly whether their study setting was urban or rural, and most focused on describing the immigrant experience and/or demographics of the participant groups relative to the regional population as rationale for the study. Therefore, it was left to the reader to deduce whether the region was a large metropolis, urban, or rural community.

Table 3. *Overview of Search Results*

Variable	*n*
Country	
Australia	1
Canada	2
Spain	1
Taiwan	1
United States	5
Study design	
Qualitative	2
Quantitative	4
Mixed-methods	4

Note. N = 10.

  I extracted information from each study including the study title, authors, publication date, country where the study was conducted, purpose or objective, participants, setting, language, instruments, key findings, and limitations. I closely examined the studies for design, development, implementation, and evaluation of HL programming and education for immigrant populations. An abbreviated data extraction table is included in Table 4 with the author, title, objective, participants and results, and a full detailed version is included for reference (see Appendix A).

Table 4. *Abbreviated Data Extraction Table*

Author	Title	Objective	Participants	Results
Fernández-Gutiérrez et al. (2019) Spain	Effect of an mHealth intervention to improve health literacy in immigrant populations: A quasi-experimental study.	Evaluate the effectiveness of an mHealth intervention to improve the cognitive and social skills that enable migrants to access and use health services.	93 participants of 17 distinct nationalities. Adult, non-Spanish nationality, and include second and third generation born in Spain.	Significant improvement after the intervention. Inadequate HL decreased from 40% to 4%. Sufficient HL increased from 29% to 73%.
Ghahari et al. (2020) Canada	Development and pilot testing of a health education program to improve immigrants' access to Canadian health services.	To develop an evidence-based health education program to address barriers that immigrants may face in accessing health services in Canada; and to pilot test the program in a sample of immigrants.	Study 1: immigrant and healthcare professionals. Study 2: 20 immigrant participants in the formative evaluation. Study 3: 46 immigrant participants in the pilot study.	Study 1: individual, community, system-level barriers identified. Study 2: seven topics determined, plus training for facilitators. Study 3: Post-test scores significantly higher than pretest scores. Significance of each individual session reported.
Goldsmith et al. (2016) United States	A pilot workshop to help refugees navigate the U.S. pharmacy system.	To assess refugees' understanding of the U.S. pharmacy system and to develop and determine whether an educational workshop designed to introduce basic pharmacy concepts to refugees improved their understanding of the U.S. pharmacy system.	59 participants. Those participating in English for Speakers of Other Languages classes. Several cultures present, so the workshop was not tailored to one particular culture.	Significant improvement in identifying pharmacy locations, and where translators are available. Workshop did not increase likelihood or comfort of participants speaking to a pharmacist. Language is a big factor.
Mancuso (2011) United States	Overcoming health literacy barriers: A model for action.	To develop and implement culturally sensitive programs to overcome HL barriers for the local Indonesian refugee population.	Indonesian refugees and asylum seekers. Medication Safety Program: 30 participants Health Fair: 60 participants	Medication Safety Program: Participant evaluations were positive with average rating on Likert scale of 3.2. Health Fair: Written participant evaluations were excellent. Health professionals participating in the event reported feeling energized and positive about the experience.
Martin et al. (2017) Australia	A two-way street: Reciprocal teaching and learning in refugee health.	To improve HL of refugees, asylum seekers, and migrant populations to enable equitable access to healthcare and available resources. To reduce gaps in HL in CALD communities.	Primary participants: refugee, asylum seekers, and migrant backgrounds: 3000+ participants. Secondary participants: volunteer healthcare professionals who facilitate the sessions: 400 health professionals trained.	300+ education sessions delivered. 1. Participants felt more familiar with the Australian healthcare system. 2. Health professionals improved their cultural awareness. 3. Referral organizations saw value in providing HL education to their clients.

Author	Title	Objective	Participants	Results
Nimmon (2007) Canada	Within the eyes of the people: Using a photonovel as a consciousness-raising health literacy tool with ESL-speaking immigrant women.	Examines if the process of creating and using a participatory photonovel can empower immigrant ESL-speaking women and also act as a tool to educate these women about a specific health topic.	5 women, aged 35–80, ESL-speaking immigrants, who attend the Inter-Cultural Association of Victoria women's group to learn about various settlement issues.	Participatory photonovels can be an effective HL tool for immigrant ESL-speaking women. Themes of impact: healthy eating; sense of community and relationship building; representation and feelings of importance; shifts in mindsets and consciousness.
Prescott et al. (2018) United States	Development of a medication health literacy program for refugees.	To develop a community-based educational workshop to improve medication HL in refugees.	282 refugees from 33 countries; in United States for less than 2 years. Participants drawn from ESL classes and local settlement agency's education classes.	Average correct response rate 78% on pre- and postassessment questions. Lowest score on questions re: preventative medications. Liked use of visual aids, general medication information (34%), and asking questions (10%). Learned that interpreters or translated labels are available, and so forth. Participants suggested additional topics for future sessions.
Soto Mas et al. (2015) United States	The health literacy and ESL study: A community-based intervention for Spanish-speaking adults.	To evaluate the feasibility of using ESL instruction as a medium for improving HL among Hispanic immigrants.	Piloted with 12 ESL students. Primary language, Spanish. Finalized and implemented in a 6-week course with 84 ESL students.	High degree of satisfaction with the curriculum, with quotes/comments that indicated concrete learning. Group discussions indicated that the combination of ESL and HL contributed to a perceived positive learning experience among participants.
Soto Mas et al. (2013) United States	Integrating health literacy and ESL: An interdisciplinary curriculum for Hispanic immigrants.	To test the feasibility of using conventional ESL instruction for improving HL among Spanish-speaking adults.	Total of 155 Spanish-speaking Hispanic ESL participants.	Results showed significantly higher increase in the Test of Function Health Literacy in Adults in English. Posttest score in the intervention group ($p = .01$), and noticeable differences in HL levels between groups.
Tsai et al. (2018) Taiwan	Impact of a problem-based learning health literacy program on immigrant women's health literacy, health empowerment, navigation efficacy, and healthcare utilization.	Evaluating the effectiveness of a problem-based HL program aimed to improve HL, health empowerment, navigation efficacy, and healthcare utilization among immigrant women in Taiwan.	Southeast Asian women that immigrated to Taiwan as a result of marriage to a Taiwanese man (transnational marriage category). 70 in intervention group and 153 in comparison group. Average age 36 years, majority 80% Vietnamese.	Women who received a HL intervention program experienced improvement in health service utilization and access to healthcare. No significant improvement to HL, health empowerment, and navigation efficacy.

Note. CALD = culturally and linguistically diverse; ESL = English as a second language; HL = health literacy.

2.3.1   Qualitative Approaches

Authors of the two qualitative studies used semistructured discussions and participatory photonovel approaches in their studies. Soto Mas et al. (2013) conducted a qualitative study with 155 Spanish-speaking Hispanic English as a second language (ESL) participants to evaluate the feasibility of using ESL instruction as a medium to improve HL. They collected, analyzed, and coded qualitative data for themes related to the satisfaction of the ESL learners with the course through a semistructured discussion after the program and found overall positive feedback on the course. Nimmon (2007) examined whether the process of using a participatory photonovel approach could empower five immigrant ESL-speaking women, and identified themes through analyzing data collected from interviews, focus groups, field notes, and photographs. Themes emerged around building community, feelings of importance, and shifts in consciousness. Both studies involved collaborative processes with multiple partners for developing program content that paid close attention to the intersection between HL and ESL learners and instruction.

2.3.2   Mixed-Methods Approaches

The mixed-methods studies employed a variety of approaches, and several interventions were described in each study. All mixed-methods studies ($n = 4$) shared a similar overarching purpose, which was to improve HL to enable health service access, and all began the process of developing content by identifying health needs, gaps, or barriers to address through the program developed (Ghahari et al., 2020; Mancuso, 2011; Martin et al., 2017; Prescott et al., 2018). The majority of the studies detailed a qualitative approach to the consultation of the intended participants to explore their specific needs ahead of content development (Ghahari et al., 2020; Mancuso, 2011; Prescott et al., 2018). In the outlying study, researchers discussed the

participants' needs with the community organization leaders who requested the program for their clients (Martin et al., 2017).

Authors used a pre- and poststudy assessment designed by the research team to assess knowledge change specific to the content being taught (Ghahari et al., 2020; Prescott et al., 2018). Results showed a knowledge gain overall with correct response rates reported or postscores showing higher than the pretest. Postassessments that included open-ended questions to capture the participants' experiences reported positive results and high participant satisfaction with the program (Ghahari et al., 2020; Mancuso, 2011; Prescott et al., 2018). Capturing the participants' experiences in their own words and having participants suggest topics for future workshops allowed organizers to gain further depth of understanding of the impacts of their content as well as to identify potential opportunities. Further sessions were requested about family health, types of cancers, nutrition, overdose, in-depth teaching on over the counter medications, and directions to healthcare facilities (Ghahari et al., 2020; Prescott et al., 2018).

2.3.3 Quantitative Approaches

All four quantitative studies included a component of pretest and posttest quasi-experimental design with a set of statistical analyses to evaluate the results. Goldsmith et al. (2016) aimed to assess participants' understanding of the U.S. pharmacy system and compared pre- and posttest survey responses. They then used a Fisher's exact test to compare the association of the numbers of correct responses before and after the workshop, and a Mann-Whitney U analysis for Likert-scale responses. Results showed a significant improvement in identifying pharmacy locations, understanding the identification needed, refilling prescriptions, and requesting translators. However, workshops did not significantly increase the participants' comfort level in seeking out and speaking to a pharmacist.

Soto Mas et al. (2015) tested the feasibility of using conventional ESL instruction for improving HL in an immigrant population with a pre- and posttest assessment with analyses that included an independent samples *t* test, chi-square test, and linear regression. The main finding in this study indicated that ESL is a promising venue for improving HL for Spanish-speaking adults, with a significantly higher increase in the posttest scores of the intervention group.

Fernández-Gutiérrez et al. (2019) evaluated the effectiveness of a mobile health app built for non-English speakers to improve skills that enable health service access by increasing users' knowledge and tackling language barriers. The app included health information in six different languages. This was the only digital intervention found in this rapid review. To test efficacy, the Wilcoxon signed rank test was applied to the paired, dependent samples, and the Mann-Whitney U test was used for the independent samples. There were statistically significant improvements found after the intervention; participants with inadequate HL decreased from 40% to 4% and the percentage of participants with sufficient HL increased from 29% to 73%.

Tsai et al. (2018) aimed to evaluate the effectiveness of a problem-based HL program through a quasi-experimental design using pre- and postsurveys. Problem-based learning "is an education model characterized by involvement in small group self-directed learning, facilitated by faculty tutors using structured problems" (Tsai et al., 2018, p. 341). The authors described that by working through "real-life" problem solving, participants developed decision-making and critical-thinking skills they could apply in future scenarios. *T*-tests were used to compare the differences in HL at baseline, pre- and postintervention. The average HL levels increased from baseline to 6 months postintervention, however, problem-based learning did not have a statistically significant effect on HL.

The studies conducted using a quantitative approach selected the statistical analysis depending on the objectives and type of data collected in each study. A pre- and posttest were common themes, however, the specific tools used for measurement in the quantitative studies differed.

2.3.4   Participant Considerations

Participants in all studies ($N = 10$) were immigrants with different stories and backgrounds, representing a variety of countries of origin and languages spoken. For each study, researchers considered the circumstances in which a person or family's migration occurred, whether they were refugees and asylum seekers with past traumas to consider (Fernández-Gutiérrez et al., 2019; Mancuso, 2011; Prescott et al., 2018), or whether they had migrated due to transnational marriage, and what their support systems looked like (Tsai et al., 2018). Where identified, participants' time spent in their host country ranged from those who had arrived within the last 2 years to those who were second- and third-generation immigrants (Fernández-Gutiérrez et al., 2019; Nimmon, 2007; Prescott et al., 2018).

2.3.5   Language

All 10 studies accounted for languages that participants were fluent in. Through ESL classes or various community programs, authors considered proficiency in the language of health service delivery as a barrier or an enabler in the design, implementation, and evaluation of their interventions. In some studies, ESL teachers were recruited to incorporate the HL intervention into preexisting language curriculum and classes (Ghahari et al., 2020; Goldsmith et al, 2016; Martin et al., 2017; Soto Mas et al., 2013, 2015). In other studies, healthcare professionals and/or health sciences students were recruited and trained to deliver the content to the specific group on a specific topic based on needs (Goldsmith et al., 2016; Mancuso, 2011; Nimmon, 2007; Prescott

et al., 2018). Four studies completed their intervention fully in an official language of the host country with no use of formal interpreters or translated materials, such as English (Ghahari et al., 2020; Goldsmith et al., 2016; Nimmon, 2007) and Traditional Chinese (Tsai et al., 2018). Each study approached language slightly differently. For example, I looked across the four mixed-methods studies for specific ways they addressed language. In one U.S. study, materials were translated into the participants' first language and paid interpreters were available during each class (Prescott et al., 2018). In the Australian study, the research team used support from a free interpretation service (Martin et al., 2017). And in two Canadian studies, the sessions were completed in English without the use of interpreters or translated materials (Ghahari et al., 2020; Nimmon, 2007). All the mixed-methods studies identified limitations around language barriers during the workshops, whether interpreters or translated materials were used or not. Interpreters did not make an overall difference in the U.S. study (Prescott et al., 2018), and the Australian study (Martin et al., 2017) did not include any specific outcomes on this front. However, a free interpretation service may contribute to the sustainability of programming (Martin et al., 2017).

2.3.6   Knowledge of the System

Most studies referred to a gap in participants' knowledge as a barrier to the effective use of health services in their host country. HL and HL programs were identified as an effective approach to bridging this gap (Mancuso, 2011; Martin et al., 2017; Nimmon, 2007; Prescott et al., 2018). By facilitating access to health information and emphasizing the importance of building relationships with local healthcare professionals (Mancuso, 2011; Nimmon, 2007; Prescott et al., 2018), the barriers to knowledge can be addressed to encourage participants' critical evaluation of health information and informed decision-making. Authors did not appear to separate the participants' learning experiences from the content being presented or

acknowledge that what is being learned and the needs of the learner are just as important as how the learning takes place. One research team went as far as considering sociocultural approaches to literacy and communication, whereby the context of learning is embedded in social interactions and in which different types of literacy are used for different learning objectives (Soto Mas et al., 2015). For example, digital literacies are increasingly used in healthcare, such as the mobile health apps studied by Fernández-Gutiérrez et al. (2019). Another research team dissected HL further into fundamental, scientific, civic, and cultural literacies to explore the concept of medication safety from multiple dimensions of literacy relative to being an active citizen in the community (Mancuso, 2011). In all studies, participants gained knowledge, and programs were generally received positively with varying degrees of knowledge gained that was specific to the local context or concept being taught.

2.4   Health Literacy as a Concept

Authors discussed and defined HL in a variety of ways, drawing from a variety of scholarly sources. Mancuso (2011) cited two sources—De Alba et al. (2005) and Misra et al. (2006)—and described HL as "a complex phenomenon that involves the health culture, awareness of service availability, and using services that are available to non-citizen populations" (p. 62). Soto Mas et al. (2015) and Mancuso (2011) used Selden et al.'s (2000) definition of HL: "the degree to which individuals can obtain, process, and understand the basic health information and services they need to make appropriate health decisions" (pp. v–vi). Martin et al. (2017) referenced the World Health Organization's (2009) definition, "health literacy encompasses the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health" (p. 1).

Some authors delved further into HL and distinguished subsets of literacies that contribute to the improved overall skill development towards understanding, evaluating, and applying health information. Mancuso (2011) included multiple layers of literacies: fundamental literacy, which is the ability to read, write, and interpret numbers; scientific literacy, which is the ability to understand science and technology; civic literacy, which is the knowledge needed to become active in laws, legislature, and knowing how to access media; and cultural literacy, which is the ability to integrate beliefs, values, and culture with health-related information. Fernández-Gutiérrez et al. (2019) and Nimmon (2007) both drew from the dimensions described by Nutbeam (1999, 2000) referring to the importance of moving past the traditional definition of HL, which focuses on the ability of a person to understand, evaluate, communicate and use health information and into the functional, interactive, and critical health literacies. Nimmon (2007) went further by using the World Health Organization's (1998) approach to critical HL, defined as "the ability to analyze information critically, increase awareness, and participate actively to use information to exert greater control over one's life, which allows for greater autonomy and personal empowerment" (Nimmon, 2007, p. 338). Overall, although no one consistent definition was used throughout the literature, all articles used definitions that referenced the ability to gain, understand, critique, and use health information for the betterment of one's own health and well-being.

HL was approached across the studies as both a driver and an outcome for health. Some authors approached HL as a concept in terms of a goal and outcome, and others discussed HL as a contributing factor and rationale for interconnected topics such as health services access and making informed health-related decisions. As an interrelated concept, HL was linked to accessing and using information, self-efficacy, and health empowerment (Ghahari et al., 2020;

Martin et al., 2017; Nimmon, 2007). Poor HL was understood as being associated with poorer health outcomes, difficulties accessing health information, and challenges using health services to maintain basic health and well-being (Mancuso, 2011; Nimmon, 2007; Prescott et al., 2018). All authors shared similar values and believed that health education and HL programs were an effective strategy to build the abilities that lead to greater HL, and thereby improved health access and health outcomes in immigrant populations. Using this foundation, they proceeded to design, develop, and evaluate their interventions accordingly.

2.5   Program Development

Programs typically started with a literature review to explore the evidence that already existed. For example, Mancuso's (2011) research team used a literature synthesis to build a step-by-step model for HL program development to overcome HL barriers. This model was used to direct the draft curriculum and evaluation for a medication safety program and health fair. Prior to developing content for their respective programs, research teams undertook a consultative phase, through open forums with multiple partners (Prescott et al., 2018; Soto Mas et al., 2013, 2015) or interviews and focus groups (Ghahari et al., 2020; Martin et al., 2017; Nimmon, 2007). From there, a needs assessment or learner profile was completed to further refine the scope of the program or workshop to be delivered. One point to note was that these programs were either requested by the participant group themselves or by the staff at a local community or health organization (Mancuso, 2011; Martin et al., 2017) or the research team approached the specific groups to participate (Ghahari et al., 2020; Goldsmith et al., 2016; Nimmon, 2007; Prescott et al., 2018; Soto Mas et al., 2013, 2015). Where the research team took the initiative, the program was integrated into a preestablished group, like a women's group or ESL class that met regularly.

Whereas when the community organization took the lead, they typically put a general call out to the members of the group for attendees and registrants.

Session structures varied in frequency and duration. The sessions in each workshop ranged from 60 min to 2.5 hr and were either one-time sessions or multiple sessions held on a weekly basis. Participants per session ranged from 5 to 15 on average, with larger groups hosting up to 60 to 75 attendees. Program facilitators were either instructors who were already teaching or involved in the community group, or healthcare professionals or students invited to facilitate. In the latter, a training session was typically provided to ensure that facilitators were adequately prepared and familiar with the participants, setting, and content ahead of time.

Programs involving aims to improve HL had multiple benefits when cocreated by participants and facilitators. When approached holistically, cocreation can positively affect the target community or group, as well as adding to healthcare professionals' knowledge and understanding in working with CALD and interpreters (Mancuso, 2011; Martin et al., 2017; Prescott et al., 2018). This was described well in Nimmon's (2007) article:

> Based on Freire's educational philosophy that promotes critical consciousness and empowerment, having participants create the words and images to form a health-specific photonovel challenges a more traditional educational approach where the learner is a receiver and not a creator of information. (p. 338)

Overall, authors described working with diverse populations as an ongoing learning journey, and contributions towards HL programs for immigrants built trusting relationships that addressed barriers that exist for immigrants accessing health services whereby immigrants were active participants and cocreators of the experience with their local healthcare professionals.

2.6   Program Evaluation

Each author described their program evaluation in varying degrees of detail. Martin et al. (2017) reported no specific instruments, only the number of sessions delivered annually and the total number of participants and volunteer healthcare professionals trained to facilitate. The general outcome referred to both participants and volunteer facilitators gaining valuable HL skills. The majority of the remaining studies reported an evaluation after the program completion, and several reported a pre- and postintervention assessment via a structured questionnaire, survey, interview, or focus group. Results from each study depended on the research design and the measures being evaluated. For example, pre- and posttest scores were used to measure knowledge gain or a validated tool to report on HL improvements (Fernández-Gutiérrez et al., 2019; Ghahari et al., 2020; Goldsmith et al., 2016; Prescott et al., 2018; Soto Mas et al., 2015), while a qualitative study reported on themes of the impact of the program (Nimmon, 2007).

The literature varied around interpretation or translation of evaluation materials. Where there was one language (Mancuso, 2011) or known languages represented in the participant group (Prescott et al., 2018; Soto Mas et al., 2013), interpreters or translated materials were provided to support participants. The results from studies that used interpreters or translated materials varied, where interpreters may have unknowingly influenced the results or the participants could not read in their spoken language so written translated materials were inaccessible. In other studies where the program and all evaluations were conducted in English (Ghahari et al., 2020; Nimmon, 2007), one study reported language as a limitation for participation and the other did not report a language limitation. However, in the latter study (Nimmon, 2007), a photonovel approach was used with less of an emphasis on knowledge gain

and more about experiences and understanding. Goldsmith et al. (2016) showed positive evaluation results on knowledge gain, however, language remained a barrier and the workshops did not improve participant confidence in speaking to a healthcare professional.

Three studies employed a specific HL measurement tool: Ghahari et al. (2020) used the Health Education Impact Questionnaire's Program Evaluation Scale to measure participant satisfaction; Fernández-Gutiérrez et al. (2019) used the European Health Literacy Survey Questionnaire; and Soto Mas et al. (2015) used the Test of Functional Health Literacy in Adults. Others developed a survey tool unique to their specific workshop (Ghahari et al., 2020; Goldsmith et al., 2016; Martin et al., 2017; Prescott et al., 2018) or used a combination of tools. One article evaluated the impact of the HL program on healthcare utilization and found a positive outcome with a significant reduction in emergency department visits and hospitalizations in the intervention group and a reduction in delays seeking care due to communication barriers (Tsai et al., 2018). The depth and breadth of ways to evaluate HL programs appears to depend on the components of the programs themselves and the objectives of the researchers studying the intervention.

2.7   Gaps in the Literature

Through this rapid review, I identified several gaps in the literature related to this research study. First, I found a gap between urban and rural-based studies or a lack of explicit description of setting to denote where the study took place. The majority of the studies (Nimmon, 2007; Prescott et al., 2018; Soto Mas et al., 2013) were conducted in urban settings with generally larger populations that tend to see larger immigrant diasporas. Two articles specifically mentioned rural areas in different ways, one more explicitly than the other. Soto Mas et al. (2015) partnered with ESL instructors to conduct their study, and in their demographics

table, they shared the region in which each ESL program was held. Nine of the instructors involved in their study (6.3%) were based in "rural or mixed" areas. Martin et al. (2017) did not explicitly mention any rural areas. They conducted their study in Victoria, Australia, but did not indicate specific rural areas in this region. They only concluded that planning was underway to reach other rural and regional communities within the state, implying that some rural communities were included in the initial study.

Second, the authors measured and evaluated their studies differently, which posed a challenge for designing an evaluation approach that would be comparable to other related studies. The level of detail in these studies ranged from being as little as reporting the number of sessions and participants involved, to being as extensive as reporting full statistical analyses. Generally speaking, to track utilization and behaviour change over time would require a longitudinal study with a wider data collection period. Attrition was stated as a limitation for several studies where participants withdrew or did not complete the study. Additionally, this extent of measurement would benefit from a level of technical data science expertise as well.

Third, there was a lack of agreement across the reviewed studies around the terminology used to describe and define HL as a concept. In general, this inconsistency of terms could lead to gaps when searching literature to inform future research and interventions that address barriers. Various streams of literacies included functional, interactive, critical, basic, scientific, civic, and cultural. The value in distinguishing the various levels of HL described is unclear. For the studies exploring barriers, the definitions of HL showed more similarities and were more consistently used but they varied to a greater extent for the intervention studies.

Additionally, authors described immigrant populations in various ways. Labels for these populations included immigrants, refugees, asylum seekers (the three most commonly used),

CALD, ethnocultural communities, superdiversity, and multiethnic populations. Another approach found was to reference individuals from a specific group, such as Asian Americans, Iraqi, Somali, Hazara, Indonesian, or to categorize people by language-specific groups, such as Spanish-speaking Hispanic community, French-speakers, or language learners. The process for settling in a new country showed some variation as well, however not as much in terms of descriptors used: acculturation, resettlement, settlement, immigration, migration, and outreach.

Finally, multiple interventions were referenced in several articles, where one intervention was a prerequisite for the intervention that followed. This made it difficult to know whether one section of the study could be replicated independently of the other steps. The extensiveness of the research undertaken could be a barrier for not-for-profit community organizations to evaluate their programs with very limited resources. This complicates implementation and replicability, as most community organizations do not have the resources or capacity to undertake large, multiphase projects and healthcare professionals would need to dedicate much time to the development of such programs in their own local contexts. Either way, HL concepts may be universal, but how they are taught becomes context-specific with less transferability due to either being tailored to a certain CALD group, topic, or location.

2.8   Limitations of the Rapid Review

Methodological approaches vary in the literature in terms of the terminology used to describe a rapid review, the length of time taken to conduct the review, and steps taken to accelerate the overall approach (Ganann et al., 2010). These methods have implications on the rigour, bias, and results of the rapid review (Ganann et al., 2010). To accelerate this review, I searched only two databases. As well, I limited the criteria to select and screen the articles to narrow the scope of the rapid review due to time and resource constraints. For example,

immigration is not a Canada-specific phenomenon, so broadening beyond English-language articles may strengthen the overall result by inviting global sources of evidence. Because this study only had one primary investigator, the completion of a comprehensive review using further databases and wider criteria would have required more time and staff. A future systematic review should be conducted to take into account all studies related to HL programs and immigrants, including the grey literature. An additional reviewer would strengthen the overall rigour and reduce the risk of bias of this rapid review.

2.9   Chapter 2 Rapid Review Summary

In summary, I conducted a literature search and review to identify the evidence that exists around the development and evaluation of HL programs for immigrants and refugees. Ten studies, using a mix of study designs and based in five different countries, were included in the review. All studies focused on improving HL of immigrant and refugee populations to address barriers to accessing health services and increase health service access. Programs were developed and delivered to various groups, some with interpreters and translated materials and some without. Several studies embedded the HL curriculum into a preestablished ESL program with success. Evaluation strategies included interviews, focus groups, group discussions, written and verbal descriptive evaluation questions, and pre- and postintervention surveys.

There was no one way recommended to approach evaluation. Similarly, the studies did not present a consistent definition for HL. Participants in the studies represented a variety of backgrounds and experiences that led to their migration and being thoughtful and intentional about involving them in the cocreation of program materials contributed to its overall success. This suggests that beginning with consultations involving the participants themselves has a two-fold benefit to improving language proficiency as well as informing the program content. Given

the paucity of research in rural areas, programs geared towards smaller, heterogeneous participants are more likely to be adaptable in a rural setting. Partnering with local ESL classes provided a connection and established, trusting relationship in which to build health connections. A pre- and postsurvey would provide a baseline prior to a HL program being delivered and measure change after the intervention.

This rapid review indicated an opportunity exists to explore embedding HL into ESL and community-based programming that is familiar to immigrant populations living in an area. An additional contribution to the literature would be to explore how adaptable this approach would have to be when set in a rural and small urban community with limited resources. The research questions presented in Chapter 1 support a study being conducted in a rural environment to contribute to the literature. Chapters 3 and 4 describe the study in greater detail, including the development, implementation, and evaluation of a HL program with immigrants living in a small urban and rural area.

Chapter 3: Program Development (Manuscript 1)

In this chapter, I describe the first phase of the research study. Phase 1 focused on the development of a HL program geared to meet the needs of clients of the SOICS living in the Okanagan–Similkameen. I provide background for this phase, as well as its methods, results, and discussion. This is the first of two phases described in this thesis; the second phase, evaluation of the intervention, is described in the next chapter.

3.1   Phase 1 Program Development Background

Immigrant populations are likely to arrive in Canada with a health advantage over their Canadian-born counterparts (Degelman & Herman, 2016). The stress of immigrating and settling in a new country, as well as barriers to accessing health services in the first few years of settlement, are contributing factors to a decline in health status and an increased risk of developing acute and chronic illnesses (Degelman & Herman, 2016; Shommu et al., 2016; Thomson et al., 2015). Several scoping reviews of immigrants' experiences when accessing health services referred to common challenges including language barriers, difficulty navigating a new health system, and cultural differences (Higginbottom et al., 2016; Kalich et al., 2016; Sethi, 2013). Attention to immigrant health and access to health services is important because immigrants are a more prominent contributor to Canada's population growth than the births of citizens within Canada (Degelman & Herman, 2016).

Immigrants who settle in rural Canadian communities face added challenges when accessing health services, such as (a) limited availability of primary care providers; (b) greater distances to healthcare facilities; and (c) use of multiple electronic medical record systems, which limits the transfer of health information and continuity of care from one care facility to another (Murphy et al., 2019). The challenges of rural health service access, compounded with

immigrant-specific barriers to healthcare like language and cultural differences, leads to what

Patel et al. (2019) referred to as the "double burden of rural migration to Canada" (p. 1). Patel et

al. (2019) conducted a scoping review of knowledge related to the health impacts of migration to

rural Canadian communities and found "a significant gap in knowledge on how rural life impacts

immigrant health" (p. 12). This finding highlights an important gap and emphasizes the need for

a co-ordinated effort to orient newcomers settling in small urban and rural communities to the

nuances, intricacies, and complexities of the Canadian healthcare system. Ghahari (2019) and

Martinez et al. (2017) showed that providing resources and demonstrating how to access care

addressed the gap in knowledge of available services, as well as the skills and confidence

required to navigate those services. Health education interventions focused on HL are valuable

tools that enable immigrants to more effectively navigate the healthcare system in their host

country (Kalich et al., 2016; Tsai et al., 2018).

  In my literature review, I found that researchers focused on designing and developing

programs to enrich and improve immigrant health. Research teams undertook a consultative

phase, either through open forums with multiple partners (Prescott et al., 2018; Soto Mas et al.,

2013, 2015) or interviews and focus groups (Ghahari et al., 2020; Martin et al., 2017; Nimmon,

2007). From there, a needs assessment or learner profile was completed to further refine the

scope of the program or workshop to be delivered. The newly developed program was either

integrated into a preestablished group, like a women's group or ESL class that met regularly

(Ghahari et al., 2020; Nimmon, 2007; Soto Mas et al., 2013), or a general call for participants

was sent out by the project team or organization partner (Prescott et al., 2018; Tsai et al., 2018).

Sessions ranged from 60 min to 2.5 hr, with 5 to 15 participants on average. Program facilitators

were instructors who were either already teaching or working with the community group (Soto

Mas et al., 2013, 2015), or they were healthcare professionals or students invited to facilitate (Ghahari et al., 2020; Mancuso, 2011; Nimmon, 2007; Prescott et al., 2018). In the latter group, a training session was typically provided to ensure that facilitators were adequately prepared and familiar with the participants, setting, and content ahead of time.

Programs that aimed to improve HL had multiple benefits when cocreated by participants and facilitators. When approached holistically, considering both the learners and the facilitators, the programs positively affected the target community or group and added to healthcare professionals' knowledge and understanding of working with CALD groups and interpreters (Mancuso, 2011; Martin et al., 2017; Prescott et al., 2018). Multiple studies identified that including immigrants as active participants and cocreators of their learning experience along with their local healthcare professionals was a strength of their study (Ghahari et al., 2020; Mancuso, 2011; Nimmon, 2007; Prescott et al., 2018).

3.2   Methods

Phase 1 methods are described below as part of a larger mixed-methods study. I conducted a mixed-methods study design to develop and evaluate a health education intervention focused on building HL skills within an immigrant community living in small urban and rural settings. Similar to study approaches outlined in the literature review, the program development phase was often informed by a qualitative approach. Phase 1 aligned with a sequential exploratory QUAL-quan approach, in which qualitative data was the main data collected in the initial stage of the research and secondary quantitative data were developed in relation to the qualitative results (dos Santos et al., 2017). Phase 1 also included an environmental scan of existing programs and services being offered in similar small urban and rural centres that may exist outside of the research literature. Then, through the collection of qualitative service

provider interviews and client focus groups, I aimed to understand the health-specific experiences and needs of participants in the local context. Finally, participants voted on their main health-related priorities through a short survey which served as a quantitative component. The results generated from all data analysis informed the development of a HL program to address the identified needs of the focus group participants.

The aims and objectives of this phase were developed through a collaborative partnership between a community organization, SOICS, and an academic institution, UBC's Okanagan Campus (UBCO). The UBCO Research Ethics Board approved the research protocol (H19-03007). This research was made possible by a Mitacs Accelerate Fellowship. This research partnered me, Fatima Al-Roubaiai, as a graduate student from the UBCO School of Nursing and the community organization, SOICS.

3.2.1 Setting

The study occurred in a rural region of BC, Canada. Specifically, this included the communities within the southern interior of BC, known as the Regional District of Okanagan–Similkameen. I invited participants who were identified as initial points of contact along the health journey of new immigrants in the Okanagan–Similkameen: SOICS Language Instruction for Newcomers to Canada (LINC) instructors, public health nurses, the South Okanagan Division of Family Practice primary care team, and the clients of SOICS themselves. A broad invitation to participate, as was used here, is useful for gathering rich information from a maximum variation sampling (Kim et al., 2016).

3.2.2 Qualitative Descriptive Research Design

Phase 1 mainly followed a qualitative research design. Magilvy and Thomas (2009) defined qualitative research as "an exploratory study of experience-as-lived" (p. 298) in one's

daily life in the natural world. The goal of a qualitative study is "to produce a rich description and in-depth understanding of the phenomenon of interest, the cultural or lived experience of people in natural settings" (Magilvy, 2003, p. 123). Researchers conducting a qualitative descriptive study stay close to their data to reflect the experiences in the words as described by participants (Sandelowski, 2000a). Qualitative descriptive research draws from a naturalistic perspective and examines worldviews of people involved in the study in their natural states (Bradshaw et al., 2017; Sandelowski, 2000a). Qualitative descriptive research follows the tenets of qualitative research and is suitable to explore who, what, and where questions about human behaviours, motives, and views to produce direct and uninterpreted descriptions of phenomena (Latifnejad Roudsari, 2019; Sandelowski, 2000a).

This study design is well suited to novice researchers and is a valuable method for achieving a successful experience in qualitative research (Magilvy & Thomas, 2009; Sandelowski, 2000a). Magilvy and Thomas (2009) described a qualitative descriptive study to be philosophically influenced by the major qualitative designs with a limited scope in research question, sampling, and analysis. The study design features are particularly suited to situations where direct answers are most desired by practitioners or policy makers (Sandelowski, 2000a). A qualitative descriptive approach was chosen to discover the worldviews of the healthcare professionals, service providers, and SOICS clients involved in this study, in their natural states. Also, this approach allowed for flexibility for a limited scope due to the time and resources available for this study.

3.2.3 Environmental Scan

Environmental scans are a tool for collecting and organizing information for decision making, and are used by health researchers to address health issues and promote knowledge

transfer to policy makers, decision makers, and healthcare professionals (Graham et al., 2008). A goal of environmental scans "includes the design of health programs that are geared toward and incorporate the needs of specific communities" (Graham et al., 2008, p. 1022). Environmental scans can be designed to support and initiate a project, understand trends, and build knowledge for the future direction of organizations, policies, or programs (Graham et al., 2008). The approach is dynamic and versatile such that it can be applied to both external and internal organizational resources, involving a range of target populations or subjects, and multiple sources of data (Graham et al., 2008). An environmental scan was chosen as an appropriate tool to account for the range of external resources and programs that may be employed in other small urban and rural community settings similar to SOICS.

3.2.3.1 Data Collection

The purpose of this environmental scan was to explore the resources and programs that may be employed with immigrant populations in small urban and rural communities. Data were collected from reputable sources through a "casual and opportunistic" approach to gather existing knowledge (Graham et al., 2008, p. 1022). The environmental scan included contacting public health teams and immigrant-service organizations in communities across Canada with similar populations to the Okanagan–Similkameen. Select communities across Canada were chosen based on populations with a similar percentage of immigrants to that of a small urban centre and the surrounding communities within the Okanagan–Similkameen. The SOICS team also recommended including Calgary as a select community due to their professional relationships and similar programming goals. Using internet search engines, I found public health centres and immigrant-serving community organizations to contact by telephone with requests to discuss existing programming. I had telephone calls of 15 to 30 min in length with

public health nurses and immigrant-serving community organizations to explore programs specific to the needs of immigrants and newcomers related to their health and accessing health services. Field notes were recorded and documented for analysis.

3.2.3.2 Data Analysis

There are diverse approaches to analyzing and evaluating data from environmental scans (Graham et al., 2008). A successful environmental scan will consider the goals and methods chosen, and evaluation of health-related environmental scans is usually descriptive (Graham et al., 2008). Field notes were recorded during the environmental scan calls and documented for descriptive analysis. All data were documented into an excel sheet, categorized by location and organization, and themes were identified through highlighting common threads throughout the notes. Themes were summarized based on resources identified and described narratively.

3.2.4   Interviews and Focus Groups

Data collection in qualitative descriptive studies typically employs techniques meant to discover the details of events or experiences in their natural state (Sandelowski, 2000a). Techniques include individual interviews and/or focus groups to obtain a broad range of information, similar to how quantitative surveys are a strategy to collect a broad range of information (Sandelowski, 2000a). I gathered data on the health-related experiences and needs of immigrants living in small urban and rural contexts through healthcare professional and service provider interviews, and client focus groups.

3.2.4.1 Sample and Sample Size

Magilvy and Thomas (2009) explained that the sample size for a qualitative descriptive study is often small and conveniently selected. The sample size may range from 3 to 20 participants to provide the novice researcher an opportunity to listen, record, and gather a

manageable amount of data to inform a pilot study (Magilvy & Thomas, 2009). Participants in this type of research design include those who have experienced the phenomena, have an ability to communicate with the researcher, and have a willingness to share their stories to a researcher.

Efforts were made to recruit a CALD group of clients, healthcare professionals, and service providers. To protect participant anonymity within a small sample size, specific participant demographics were not collected at this stage. As long as the participants were over the age of 18, understood the consent form in English, and were active SOICS clients, they were included. Efforts were made to recruit healthcare professionals and service providers to be interviewed from a variety of perspectives, including at least one public health nurse, primary care provider, and others working within primary care, along with SOICS service providers.

3.2.4.2 Recruitment

In the initial phase, there were primary and secondary participants. Primary participants were current SOICS clients. Secondary participants were local service providers and healthcare professionals with whom the SOICS clients may connect with for language and health-related services, such as language instructors and local public health nurses. Primary participants were recruited using convenience sampling through the SOICS client distribution list. SOICS staff members assisted with recruitment of clients by sending an email invitation to clients, posting printed copies of the invitation in their offices, and offering feedback as needed. The SOICS Executive Director, C. Fernandez, acted as the project's executive sponsor and provided organizational support. Secondary participants were also recruited using convenience sampling. I sent invitations to the healthcare organizations directly for distribution to the staff and invited healthcare professionals to participate in an interview for the study. From UBCO, graduate supervisors and research committee members guided and advised the process.

Recruitment for this study was conducted over an 8-week period with a convenience sample of 11 client participants and three service providers being recruited. Similar sized studies have been published by Nimmon (2007), Soto Mas et al. (2013), and Ghahari et al. (2020). The timing of recruitment alongside the start of the COVID-19 pandemic was the biggest barrier to recruiting local healthcare professionals and service providers. Due to the demands of the pandemic response, the healthcare professionals including public health nurses and primary care teams were unavailable to participate and therefore, the only service providers recruited were members of the SOICS staff team.

3.2.4.3 Data Collection

Consent was obtained prior to data collection. Qualitative researchers may use a range of approaches to document the consent process (Government of Canada Interagency Advisory Panel on Research Ethics, 2018). Consent forms for Phase 1 are included in Appendix B and C.

Client Focus Groups. Data were collected from primary participants through two facilitated focus groups with SOICS clients. Facilitated focus groups can be useful in obtaining a broad range of information (Sandelowski, 2000a). For client focus groups, the SOICS staff shared the consent form via email or print ahead of the focus group. After reviewing with the SOICS staff, each client and I sat down ahead of the focus group to review the study design together and answer any questions. As clients had various levels of English language proficiency, I carefully reviewed the consent form with them individually and ensured that the questions and content were at a language level that they could understand. Focus groups ranged in size from three to eight people and were held at SOICS offices in Penticton and Oliver. The focus groups were facilitated by me and my graduate supervisor, N. D. Oelke. We took notes, and all participants consented to the discussions being audio recorded for transcription and

analysis. The question guide used for the primary participant focus groups is included in Appendix D.

Service Provider Interviews. Data were collected from secondary participants through minimally structured open-ended service provider interviews (Sandelowski, 2000a). For service providers, I shared the consent form ahead of time and used time ahead of the interview to review any questions before they signed their consent. Participants were scheduled for a 30 to 60 min interview at a time and location that was convenient for them. I led the interviews with the service providers and audio recorded the discussions for transcription and analysis. The question guide used for the service provider interviews is included in Appendix E. Question guides were not piloted or validated before data collection, however, they were developed iteratively with input from researchers with expertise on qualitative methods, primary care, immigrant health, and equity.

COVID-19 Considerations. The COVID-19 pandemic affected several components of this project. Interviews and focus groups began the week of March 9, 2020, and were completed in person. On March 11, 2020, the World Health Organization declared the COVID-19 pandemic (World Health Organization, 2020). Subsequently, a state of emergency and public health restrictions were imposed in BC on March 18, 2020, and all events that followed were delivered in accordance with public health orders and guidelines (BC Government News, 2020). The research team prioritized the safety of those involved and all interactions adhered to pandemic precaution guidelines including physical distancing restrictions. All contact after that date was virtual and transitioned to remote platforms (telephone calls, emails, Zoom, or Skype). Due to this unprecedented global crisis, all healthcare professionals invited to participate in the study were unavailable as they prepared for pandemic response planning.

3.2.4.4 Data Analysis

Data from the service provider interviews and client focus groups were analyzed using qualitative content analysis and descriptive statistics. "Qualitative content analysis is the analysis strategy of choice in qualitative descriptive studies" (Sandelowski, 2000a, p. 338). Qualitative content analysis is derived from the data, whereby the data are collected and analyzed simultaneously to ensure that the collection best fits the analysis and vice versa (Miller & Crabtree, 1992; Sandelowski, 2000a). Codes were generated from the data themselves and themes were highlighted with a goal of extracting characteristics and features that would inform the development of the HL program content. I highlighted key quotes and coded data directly in the transcripts. Participant responses were themed, summarized, and supported using direct quotes.

3.3   Results

3.3.1   Environmental Scan

An environmental scan is considered effective if it achieves the overall goals determined by the research team (Graham et al., 2008). The purpose of this environmental scan was to explore the range of resources and programs that may be employed with immigrant populations in small urban and rural community settings across Canada that were similar to SOICS. Specifically, public health offices and immigrant-serving organizations were contacted ($N = 10$). During the environmental scan of other small urban communities, I spoke with public health nurses and immigrant-serving community organizations from a range of places across Canada. Locations of the responses received are outlined in Table 5.

Table 5. *Overview of Environmental Scan Results*

	Public health	Community organization
Calgary, Alberta[a]	X	X
Moose Jaw, Saskatchewan		X
Brandon, Manitoba	X	
Sault St Marie, Ontario	X	
Thunder Bay Ontario	X	X
Vernon, British Columbia	X	
Kamloops, British Columbia	X	X
Kingston, Ontario		X

Note. $N = 8$. [a] Calgary recommended by SOICS staff.

The public health professionals described a common focus around vaccines and infectious diseases. As public health professionals, their primary role with newly arriving immigrants was ensuring immunizations were up to date and infectious disease screenings were completed. Over and above these topics, the public health nurses noted that their local public health office often received specific requests from immigrant-serving community organizations to deliver presentations to their clients on health-related topics. The topics for these presentations often came from the community organizations making the request. Language interpretation depended on the availability of local language speakers. For example, a public health nurse from Brandon, Manitoba stated that interpreters in Spanish and Mandarin were available, and that an Ethiopian interpreter used to be an option but was no longer available.

Representatives from community organizations described a common service in assisting new immigrants to apply for their health cards and to understand what services would be covered by provincial health insurance. Additionally, they organized a variety of health-related presentations covering topics such as mental health, diabetes, maternal–newborn health, and how to prepare for a doctor or emergency room visit. These were described as one-way, didactic, information-sharing type presentations delivered by public health nurses to immigrant clients of

the requesting community organizations. Language classes, when offered, would also include a health-specific unit at one or several points throughout the year.

A unique program was offered by the Thunder Bay Multicultural Association. A partnership between the association and the Northern Ontario School of Medicine identified a gap in continuity and transitions of care for new immigrants. As new immigrants began their settlement process, they often had several appointments with multiple practitioners who were not connected with each other or through an electronic medical record and therefore, parts of their health history and background story may have been missed. To address this gap, a health passport program for new immigrant clients was created to promote self-management and smoother transitions of care. This process would begin with individual client needs assessment before providing the health passport for clients to use during their health visits. Local providers and agencies were engaged with the program and asked clients about their health passport during their visits. Anecdotally, providers thought the program was useful and helped with continuity of care. I was unable to find published articles on this program.

An existing HL program from a medium urban centre in Ontario was identified and brought forward by SOICS staff. This was a pilot program from Kingston, Ontario developed, validated, and tested by Ghahari (2019): *Accessing Canadian Healthcare for Immigrants: Empowerment, Voice & Enablement (ACHIEVE)*. The ACHIEVE study "hypothesized that immigrants who receive the ACHIEVE program will report better self-reported communication with healthcare professionals and have improved confidence in navigating health services in comparison to their baseline" (Ghahari, 2019, p. 2). The pilot study by Ghahari (2019) showed that participant confidence in accessing health services improved after the ACHIEVE program. ACHIEVE was delivered to immigrants in the Kingston area as a series of workshops integrated

into their English-language classes. Kingston is a medium-sized urban centre in which immigrants represented 12% of the city's population in 2016 (Statistics Canada, 2019). The SOICS leadership team learned about the ACHIEVE program and saw this thesis study as an opportunity to adapt this program and deliver a similar series in the Okanagan–Similkameen to focus on increasing clients' self-perceived confidence in accessing health services.

3.3.2 Findings from Interviews and Focus Groups

Themes from interviews and focus groups included varied experiences with healthcare, knowledge of services, language and communication, immigration status and insurance coverage, delayed access and fear of the unknown, discovering what healthcare is in Canada, and SOICS as a resource. Quotes have been used verbatim as much as possible to preserve the participants' voices.

Varied Experiences with Healthcare Services. Client participants' length of time in Canada ranged from 2 months to 12 years. Most client participants spoke about seeking care through walk-in clinics and emergency departments, and several clearly recounted specific experiences seeking services for themselves or their children. One participant had a chronic condition and several years of experience with the health system. Another participant shared that they had not been sick since being in Canada, so had not yet needed health services. Participants agreed that finding a family doctor was difficult, that there were not enough family doctors, and that waiting for specialists was often a long process. Service provider participants shared that health is a topic that often arises in client needs assessments, and that they typically poll language learners for questions and topics ahead of any presentations.

Knowledge of Services. Client participants described how the lack of information affected their access to services. As one client participant stated, "When you don't know that you

have these services available to you, you cannot access them" (Phase 1-FG2-7). Service provider participants described that knowledge of services and knowing what is available to clients was a challenge that new immigrants faced in accessing health information and healthcare services early in their settlement. Client participants shared that their initial arrival to Canada influenced how they cared for their health and well-being, which was reflected in this comment: "the first three months . . . I don't even know how to make an appointment, to go to the hospital or I didn't know too much information here, so I'm just trying to avoid getting sick" (Phase 1-FG2-5). This participant went on to share:

> And it is important when they come here to first, like, lecture or something like this to tell people where to go, how to go, how to contact doctors and/or some nurse. To be in the moment and ask what to do, where to go and something like this because they're scared and they don't know where to go. They don't know that they can go to Emergency, for example, or in walk-in clinics and they're looking for family doctors but it is trouble . . . I think that there are not enough family doctors here because a lot of them, they say, "I can't find, I can't find." (Phase 1-FG2-5)

Language and Information Sharing. Both clients and service providers highlighted language skills as important. One client participant shared that they did not want to have a phone yet in Canada until their English language skills improved, and that email communication is easier for them to translate. Later on, they commented on the focus group facilitator's clarity of speech: "For me it's good because you have very clear English. Sometimes [too] many people for me, it's difficult to understand" (Phase 1-FG1-3). The language barrier was mentioned by several other client participants in speaking about their experiences.

Service provider participants commented that confidence in clients' ability to communicate in a health-related setting is particularly important. One participant shared that they arrived to Canada knowing English and then had to learn to communicate about health, "In [my country], we are taught English from Grade 1. I just learned [about healthcare] from speaking with my doctors . . . you have to learn. You have to help yourselves" (Phase 1-FG2-4). Several

clients expressed an interest in an orientation or training around learning to access health services, "First there is the language barrier and now there is navigating the system. Yeah, the system is totally different. I don't know if there are some such classes here, community resources" (Phase 1-FG2-5). This orientation could include the practical components of accessing care like how to find a family doctor, identification and documents to bring to health appointments, and information from employers or academic institutions.

Informal information sharing took place during the client focus groups, as well. For example, a client participant explained, "New immigrants don't have information . . . I didn't know that 811 [a free-of-charge provincial health information and advice phone line] have an interpreter service" (Phase 1-FG-6), and then went on to share with the group the story of how they accessed 811 in their first language with their limited English skills. Another client participant pulled out a card they were given at a walk-in clinic for how to add their name to the family doctor waitlist, and several other participants took photos of the card. This is an illustration of how client participants described the role of SOICS as a hub, stating, "I think for us building our community, we're helping each other, we're asking questions . . . it's very helpful for us" (Phase 1-FG2-4).

> Being a new immigrant, it is important to know the resources or the community group . . . community support groups because as a new immigrant, I don't have any idea where to go . . . so I think it's important for knowing the support groups. (Phase 1-FG1-1)

Immigration Status and Insurance Coverage. Several client participants identified the nuance of their immigration status related to their health coverage. For example, one participant shared that their work permit had expired and they were waiting on an extension. During the past 4 months, they had been paying for doctor's fees, medications, and bloodwork out of pocket. Another client participant described their situation as an international student and the extent of their coverage: "As time progressed, I understood more and more about health benefits. The

problem is that if you are a student visa and are not a permanent resident, there are many constraints to how much the government is going to cover" (Phase 1-FG2-7). Participants stated that it would be important for new immigrants to learn about healthcare in Canada and educate themselves as best as they can:

> I think the important thing for new immigrants to learn is I think they have to . . . to educate themselves before they came here in Canada because it's very important. For my experience, it's not hard because my mom is here, she's the one who helped me get in Canada. So, I came here and we got a doc . . . a family doctor right away. So, I understand those people that they came here by themselves, it's very hard for them because it's a new environment for them and especially the English thing, the speech language barrier thing, they're afraid to talk about it. (Phase 1-FG2-4)

Delayed Access and Fear of the Unknown. It was clear that client participants delayed access to healthcare for a variety of reasons—no coverage, not knowing how to access services, fear of implications to immigration status. Several clients expressed that immigrants may not know what is available to them, or what services were covered. Some also expressed concerns about the financial or legal repercussions of seeking care depending on their immigration status or visa parameters. One participant shared a story of their friend:

> One of my friends [got sick] but she was so scared to go to the doctor because she was barely making, you know, the money to give her rent and have groceries and everything . . . And you have to prove to the government to come over here that you are financially stable, so you cannot say [when you are here] that I'm not financially stable . . . Canada is very good for immigrants but still, it takes a toll on you and your emotional balance as well. (Phase 1-FG2-7)

Another participant shared that younger immigrants, in particular, may be less likely to seek services and information because they do not want to say something they feel may jeopardize their immigration status or risk seeking care they are not covered for.

Discovering What Healthcare Is in Canada. All participants described the services in Canada as beneficial and appreciated that they were mainly free of cost, although a couple of client participants were waiting for their work permits to be renewed, and during this time they

needed to pay for all healthcare expenses. Participants expressed gratitude towards Canada for its health system and services available. One client participant described, "It's very good because in [my country] there's no healthcare. You have to pay [for] everything. I'm just lucky to be in Canada and then diagnosed . . . so if I'm in [my country], probably dead by now" (Phase 1-FG2-4). Others shared, "I think for booking an appointment with a doctor and also for the walk-in clinic is very accessible here and I really appreciate about the free immunizations and also the flu shots because in our country it's not free" (Phase 1-FG1-1). Another participant added:

> I had my baby [here] and I don't have a family doctor and after I gave birth, they just offered them, like . . . the doctor said, like, "You don't have a family doctor?" I said, "No, because I just went into the maternity clinic every time." And then, he just asked me if [I want him to be my family doctor] . . . And then, yeah, I said yes right away because it's hard to find a family doctor and . . . until now he is my family doctor with my kids, of course, and, yeah, that worked well for me. (Phase 1-FG1-2)

SOICS as a Resource. When participants were asked if they consider SOICS to be a good source of information, they all agreed. One client participant added that, "they [SOICS] provide education for immigrants, especially for all the rules and regulations in Canada, not just healthcare" (Phase 1-FG2-5). Another client participant described SOICS as a "complete package, English, community, everything. They send us emails about programs like this" (Phase 1-FG2-4). SOICS staff helped new immigrants to sign up for BC's Medical Services Plan (MSP), which is BC's universal provincial health insurance, and to put their names on a waitlist for a family doctor. They offer English language classes and serve as a settlement resource. The SOICS service providers described their roles as frontline workers; they answer questions, find and direct clients to resources for their needs, fill out forms, and create partnerships. Clients usually discuss their health needs with a trusted staff member first, who will then help them navigate the appropriate services as best as possible.

3.3.3 Client Participants' Selection of Health Topics

During the client focus groups, a list of various health topics was distributed to the clients for their votes and thoughts on their top priorities. Participants were asked to privately and anonymously vote on their top three priorities using a private ballot on a piece of paper. I developed the list based on the key topics identified from the environmental scans, including from the ACHIEVE program (Ghahari, 2019). The list was shared with the secondary participants during their individual service provider interviews for validation and feedback. The input gathered from client focus groups around these topics informed the foundation for the HL program content.

Client participants selected an introduction to healthcare as their top priority, which included information on insurance coverage and seeking emergency care. Communication was a close second in terms of describing how one is feeling and interacting with healthcare professionals. These results were in alignment with several barriers identified from the literature around accessing healthcare—language and the knowledge of the system. Mental health as a topic received low votes and where to get help for mental health received no votes. Descriptive statistics for the client focus group vote on priority health topics are listed in Table 6.

Table 6. *Results of Client Selection of Priority Health Topics*

Topic	% votes
Introduction to healthcare – insurance, emergency care	30%
Communication – describing how you are feeling, language	22%
Family doctor – finding a family doctor, walk-in clinics	15%
Men's and women's health	15%
Mental health – what is mental health, depression, anxiety	11%
Coronavirus	7%
Mental health – where to get help	0%

Note. N = 27.

The results from the environmental scan, interviews and focus groups informed the development of the HL program. Further details of the development are described in the next section.

3.4   Program Development

The LINC instructors and I codeveloped a program, *The Staying Healthy Workshop Series*, within a new setting and context after the pandemic was declared. The last client focus group took place at the SOICS office on March 11, 2020, the same day the World Health Organization declared COVID-19 a global pandemic. The SOICS leadership team then paused the study for several weeks to assess operational capabilities and capacities to offer their core programs and services remotely. SOICS licensed Zoom accounts were activated, virtual meetings were tested with staff members, and the study resumed in accordance with the public health restrictions in place at the time.

The content and format were designed using the results from the environmental scan, interviews, and focus groups and adapted to be responsive for the pandemic climate. LINC instructors reviewed the content and provided feedback iteratively with special consideration to the daily public health updates and announcements. COVID-19 and coping in the current circumstances became a high priority.

The series consisted of four, 90 min modules, each with a distinct overarching topic and set of learning objectives. Table 7 outlines the learning objectives for each module. The series was designed with a structure that could be adapted to online or in-person delivery. The program was originally planned for in-person implementation, because all studies in the rapid review were done in person or through a mobile health app. With the shift in public health guidelines around

physical distancing, the facilitators followed the SOICS synchronous virtual learning format used for their English class and conducted the series online over Zoom.

Table 7. *Staying Healthy Workshop Series – Learning Objectives*

Module & title	Learning objectives
Module 1 – Health system	- To recognize the levels of health services available - To demonstrate and communicate when in need of assistance with health and illness matters - To describe what COVID-19 is and how it spreads
Module 2 – Healthy body	- To identify features of a health body - To examine the current state of their own physical well-being - To identify opportunities to improve physical health
Module 3 – Healthy mind	- To identify features of a healthy mind - To examine the current state of their own mental well-being - To identify opportunities to improve mental health
Module 4 – Sources of information	- To describe main sources of health information - To locate reliable sources of information

The LINC instructors and I aimed to be as adaptive with the series as possible to show a responsiveness and care for the state of the pandemic. The content included a greater emphasis on accessing health services, general health and wellness, self-care, and COVID-19 as an added topic. An introduction to healthcare and communication were the top two selected priorities from Phase 1 client participants. There were minimal votes for the mental health topic during the focus groups and no votes for where to get help for mental health, however, the LINC instructors opted to include a module focused on maintaining mental health. This was an unexpected addition, however, they felt it was important due to the current state of the pandemic and guidelines for sheltering at home and potential impacts of social isolation.

The structure built in opportunities for participants to engage and share their experiences around health and healthcare in the virtual format. To prepare participants for the discussion activities, LINC instructors developed and distributed a worksheet ahead of the workshop. This

worksheet included all the discussion questions that the facilitator or LINC instructors would ask the participants during the modules. This allowed time for the participants to reflect on and prepare their responses in English ahead of the synchronous workshop time.

The LINC instructors planned two full workshop offerings; the first was with the intermediate-level English class, after which the facilitators made adjustments based on participant and instructor feedback, then a revised version was developed and implemented for the beginner-level English class. LINC instructors often delivered weekly themed units in the LINC English classes, and this workshop would be a health-focused theme for those weeks.

The Staying Healthy Workshop Series modules (see Figure 3) was cofacilitated by a LINC instructor and a healthcare professional facilitator. Studies utilized a healthcare professional as a facilitator or cofacilitator with positive outcomes in terms of relationship-building with participants and learning to work with CALD populations (Goldsmith et al., 2016; Martin et al., 2017; Nimmon, 2007; Prescott et al., 2018). To deliver and evaluate the program, I worked closely with the LINC instructors, who were SOICS staff members who taught ESL courses to clients at the SOICS offices. Detailed PowerPoint slides of each module are available upon request.

Figure 3. *The Staying Healthy Workshop Series – Program Map*

Staying Healthy Workshop Series

| 1. Health System | 2. Healthy Body | 3. Healthy Mind | 4. Sources of Information |
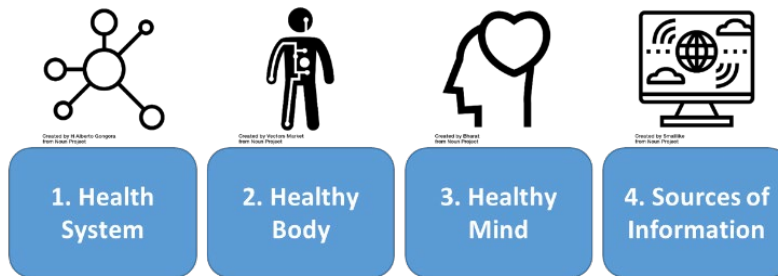
The public health nurses were unavailable to cofacilitate the program due to the COVID-19 pandemic. In the absence of public health nurses, I stepped in as the facilitator as a graduate nursing student and additional supports were solicited to inform the content development. For example, I consulted with a graduate student with mental health experience from the School of Nursing at UBCO to inform the development of the mental health module. Each module was scheduled in lieu of a typical LINC English class, which had transitioned to online delivery during this time. All classes, including this workshop series, were hosted via SOICS licensed Zoom accounts.

In terms of language, the content was delivered entirely in English. Two previous Canadian studies had been carried out entirely in English with positive results (Ghahari et al., 2020; Nimmon, 2007). Due to limited availability of interpretation resources in a rural community like the Okanagan–Similkameen and the wide range of languages spoken among SOICS participants, this approach was the most accessible and aligned with the curriculum for the LINC English classes. For these reasons, the LINC instructors and SOICS leadership team made the decision to conduct this series entirely in English. Where possible, I found written translated materials on related topics to provide to participants after each of the modules.

The modules were similarly structured with different content covered each day. Each module began with an interactive movement or deep breathing exercise, questions from the group, and then moved into content for that day. In Module 1, the participants discussed health insurance, the local modalities of health services available (such as walk-in clinics and hospitals), as well as Health Link BC's 811 telehealth line. Those that were not already on a waitlist for a family doctor were offered the opportunity to add their names to that waitlist. The facilitators incorporated topics relevant to COVID-19 into Module 1, such as modes of transmission, the public health recommendations around slowing the spread, and latest data on global case counts. The facilitators described the chain of infection, how to self-assess for symptoms, and where to get tested locally during this module.

In Module 2, facilitators focused on physical health and well-being. The group began the module with a deep breathing and stretching exercise, and transitioned into learning about the body's overall immune system. Facilitators offered several strategies for strengthening the immune system including fluid intake, sleep, eating a balanced diet, and incorporating exercise and movement. Participants were divided into Zoom breakout rooms to discuss how these areas of their lives have changed during the period of self-isolation and to share ideas on how they are keeping physically healthy.

In Module 3, facilitators focused on mental health and well-being. The module began with a deep breathing exercise followed by a roundtable wellness check. A list of feeling or emotion words was displayed on screen and each participant chose a word to describe how they were feeling that day and why. This segued into the various drivers of a healthy mind and the impact of stress and the stress response. The facilitators led a mindfulness practice with a muscle

tensing and relaxing exercise, as well as several breakout sessions with discussion questions for the groups.

In Module 4, facilitators delved into reliable sources of information and media literacy. This module also began with a deep breathing exercise for the participants to try, followed by a roundtable discussion about where each participant finds their news and in what language. Sources of information were discussed, including critical questions to improve media literacy. An example of a news article on the same topic from a variety of sources was used as a case study. Local sources of information were offered, along with relevant local phone numbers for COVID-19 related topics including the COVID-19 hotline, local testing centre, and how to arrange for an assessment if needed. Virtual clinics were also introduced and demonstrated in this module. Resources and summary sheets were sent out as a follow-up after the session.

3.5 Phase 1 Discussion

In Phase 1 of the study, information was collected to develop a HL program for immigrants living in rural Okanagan–Similkameen. The results showed that healthcare access, knowledge of services, language skills, and information sharing were important to client participants. Phase 1 also revealed a level of uncertainty about the perceived implications of seeking healthcare supports on immigration status and fear of the unknown that could create hesitancy or delays in accessing health services. In one study, "ESL teachers informed the research team that many immigrants, particularly refugees, are hesitant to sign any form of documentation" (Ghahari et al., 2020, p. 10). Further clarity around privacy and confidentiality, data sharing between sectors, and parameters related to immigration status may assist in overcoming this barrier for new immigrants.

Participants expressed that having a family doctor or family physician in Canada is important and they perceived that there were not enough family doctors for everyone. Rural and remote recruitment and retention efforts support this perception. "Although about 18% of Canadians live in rural or remote areas, only 14% of family physicians practice there" and they provide a full spectrum of primary care services from maternal-newborn to palliative care" (Colborne, 2016, para. 3). This could be a deciding factor for immigrants choosing to settle in small urban and rural communities, especially when new immigrants are significantly less likely to have a doctor compared to nonimmigrants (Degelman & Herman, 2016; Patel et al., 2019). Programs offered by organizations like SOICS play a key role in assisting new and long-term immigrants to add their names to a waitlist for access to a family doctor. However, organizations like SOICS are not part of the provincial primary care networks. Primary care networks are "clinical networks of local primary care service providers located in a geographical area" working together to improve patient care (Family Practice Services Committee, n.d., para. 2). By including more community organizations within the network, there is an opportunity to expand the upstream promotion and dissemination of primary care services to a broader audience outside of healthcare.

In the environmental scan, I found many programs that could be used as innovative models for action. For example, the health passport from Thunder Bay appeared to improve continuity of care and self-advocacy for immigrants in the area. However, this example was not used in this study because the primary care providers needed for adoption were unavailable to participate. Another model for action was the specific ESL-tailored program, ACHIEVE, from Kingston, Ontario that improved participant confidence in accessing health services (Ghahari, 2019). I used the format and topics of this program as a guide, while the facilitation toolkit was

not used in detail as many activities were designed for in-person delivery. I did use results from the environmental scan regarding health presentations and information-sharing opportunities for ideas about content and adaptations for virtual program delivery.

Overall, model programs involved engaging local healthcare professionals in interventions to overcome barriers to accessing health services and improving continuity of care. The original study proposal involved local healthcare professionals in the development phase and as facilitators in delivery and evaluation, to support long-term sustainability of the program and to encourage relationships between healthcare professionals and the SOICS clients and instructors. Local healthcare professionals, in particular public health nurses that would typically participate in a program like this (Martin et al., 2017; Nimmon, 2007), were largely unavailable due to their roles in the pandemic response.

A strength of Phase 1 was the flexibility and responsiveness of the SOICS team. Once the pandemic was declared, the SOICS staff responded calmly and swiftly both within their teams and with their clients. Within 2 weeks, the SOICS office was online and core services resumed virtually. Service providers are often a first point of contact for new immigrant clients, and this relationship could be leveraged by the health system to support information sharing and trust-building, in particular in times of crisis, such as during the COVID-19 pandemic. A study that examined experiences during COVID-19 showed that racialized immigrant communities faced a disproportionately higher burden of illness, larger impact from the lockdowns, and more difficulty physical distancing or staying home from employment (Machado & Goldenberg, 2021). The results of Phase 1 of this study suggest that there is value in including not-for-profit, community organizations within the system of healthcare to help address gaps in health equity,

in particular, in a small urban and rural community where health service capacity is already limited.

A limitation of Phase 1 was the lack of language interpreters during the focus groups. Language was identified as an important element of health literacy (Soto Mas et al., 2015). Interpreters may have helped to draw out more information and follow-up from the primary client participants. The lack of interpreters is typical of a diverse rural community where there are not interpreters available for each of the many languages spoken within the small population overall. For example, SOICS reported that in 2019 they served clients from over 80 countries of origin (C. Fernandez, personal communication, June 19, 2020).

Another important limitation to acknowledge was timing and overlap with the COVID-19 pandemic. The announcement of the pandemic affected operations in all sectors, including the ability to meet in person and access healthcare professionals in the area. Local healthcare professionals held strong relationships with SOICS staff and had been guest speakers to the LINC English classes regularly up to that point, but their participation was not possible due to the high demand for and redirection of health services to the pandemic. Public health nurses and the Division of Family Practice primary care team (who had also been invited to participate in the interviews) were unavailable due to the crisis. This limited the gathering of input from secondary participants on the development of the intervention, further limited the options for facilitators to deliver an intervention, and excluded the in-person option for program delivery.

3.6   Chapter 3 Summary

Phase 1 aimed to collect input on the health-related experiences and needs of immigrants living in Okanagan–Similkameen and lessons learned from the environmental scan. *The Staying Healthy Workshop Series* was developed based on results from Phase 1, as well as relevant and

timely information related to the pandemic. Efforts were made to continue the study through the

COVID-19 pandemic using an iterative and responsive approach to both content and format. In

the next chapter, the delivery and evaluation of the program is described.

Chapter 4: Program Evaluation (Manuscript 2)

In this chapter, I discuss Phase 2 of the research study. The objective of Phase 2 was to deliver and evaluate the impact of *The Staying Healthy Workshop Series* developed in Phase 1. The following outlines the background of this phase, the evaluation framework, the methods for delivery of this program, and the results of the evaluation.

4.1 Phase 2 Program Evaluation Background

Through HL and HL programs, new immigrants may learn how to navigate the Canadian healthcare system and access better services to meet their needs. Education programs focused on HL topics for new immigrants may address the barriers to health access related to language, knowledge of available services, and how to navigate those services (Kalich et al., 2016; Martin et al., 2017). Specifically, a focus on improving official language skills can be a foundational objective towards improving HL and other health-related behaviours (Martinez et al., 2017). Building on this language foundation, increasing immigrants' knowledge of and confidence in navigating the health system may further enable them to maintain their health with self-determination and independence. This language skill includes the ability to express themselves and communicate their wishes to their healthcare professionals.

From a review of the literature on HL programs for immigrant and ESL learners, there are a variety of approaches to HL program evaluation. HL intervention studies reported using summative evaluations, after program completion, with five studies reporting a pre- and postassessment via a structured questionnaire, survey, interview, or focus group (Fernández-Gutiérrez et al., 2019; Ghahari et al., 2020; Goldsmith et al., 2016; Soto Mas et al., 2015; Tsai et al., 2018). Program evaluations were either delivered in all one language, like English, similar to the way the programs themselves were delivered (Ghahari et al., 2020; Nimmon, 2007) or

delivered by employed interpreters or translated material that supported the program delivery (Mancuso, 2011, Prescott et al., 2018; Soto Mas et al., 2013). HL measurement tools varied. Some authors used a validated tool (Fernández-Gutiérrez et al., 2019; Ghahari et al., 2020; Soto Mas et al., 2015), while others developed a survey tool unique to their specific workshop and used that explicitly (Goldsmith et al., 2016; Martin et al, 2007; Prescott et al., 2018) or in combination with a validated tool (Ghahari et al., 2020). Validated tools used included the Health Education Impact Questionnaire's Program Evaluation Scale to measure participant satisfaction (Ghahari et al., 2020); the European Health Literacy Survey Questionnaire (Fernández-Gutiérrez et al., 2019); and the Test of Functional Health Literacy in Adults (Soto Mas et al., 2015). The validated tools were copyrighted and required license agreements for use. The depth and breadth of ways to evaluate HL programs appears to depend on the components of the program itself and the objectives of the researchers studying the intervention.

For the purposes of this study, the Calgary Charter on Health Literacy Scale was selected as a broad, user-friendly, and open-source tool. The Calgary Charter on Health Literacy Scale developed by Pleasant (2018) is a "short, easy-to-use self-report measure of health literacy" (p. 2). Pleasant et al. (2018) defined HL as "the use of a wide range of skills that improve the ability of people to act on information in order to live healthier lives. These skills include reading, writing, listening, speaking, numeracy, and critical analysis, as well as communication and interaction skills" (p. 2). The scale was based on the complex and multidimensional nature of HL that considers adult education from two perspectives, the learners receiving information and healthcare professionals providing the information. The scale is an open-source tool with simple instructions and takes into account the universal characteristics of HL to find, understand, evaluate, communicate, and use information (Pleasant et al., 2018). The scale includes self-

reported answers to five statements reflecting participants' abilities to: (a) find or look for health information; (b) understand information about your health; (c) evaluate how health information relates to your life; (d) communicate about your health to others; and (e) act on information about your health. As a short, simple measure for HL, this scale was ideal to incorporate into the evaluation of *The Staying Healthy Workshop Series*.

4.2 Theoretical Framework

To evaluate the implementation of the workshop series, we used the RE-AIM Framework (Glasgow et al., 1999). The original article by Glasgow et al. (1999) has been cited in over 2800 publications (Glasgow et al., 2019). Any health promotion activity may be evaluated using this framework, from small- to large-scale implementations, as it emphasizes both quantitative (the what) and qualitative (the how and why) data points. The framework has been generally applied to assess the implementation and sustainability of health promotion interventions. The RE-AIM Framework covers five dimensions—reach, effectiveness, adoption, implementation, and maintenance—and encouraged a comprehensive view of the impact of this HL program while considering sustainability (Glasgow et al., 1999). This broad view goes beyond the effect alone, and looks at both the process of developing and implementing a program and its outcomes.

This framework was chosen for this study as it is easy to use and easy to understand, while also providing a comprehensive and multidimensional evaluation for public health interventions (Martinez et al., 2017). The overall goal of RE-AIM is to encourage program planners, evaluators, and decision-makers to pay attention to program elements that can improve adoption and implementation of health interventions. The method for evaluating this study across each of RE-AIM's five dimensions is outlined in Table 8.

Table 8. *RE-AIM Framework Dimensions Overview*

Dimension	Description	Evaluative Measures
Reach: What proportion of the target population participated in the series?	The target population reached by the program. This includes the proportion and representativeness of individuals who were willing to participate out of the total eligible population. This may include reasons for not participating.	Participant demographics. SOICS client database. Eligibility criteria.
Effectiveness: What was the effectiveness of the series in promoting HL?	The impact of an intervention based on determined outcomes. This study measured participant self-reported health literacy using a pre–post scale, as well as surveys to rate satisfaction of each individual module.	Participant individual module feedback. Calgary Charter for HL Scale: pre–post. Postworkshop focus group.
Adoption: How easily was the series delivered and adopted by staff and participants?	The staff and setting of the intervention. Staff included anyone directly involved in delivering the program, and the setting included sites where the intervention took place. Reasons for adoption or nonadoption are described at the individual level and the setting level.	Facilitator debriefs. Facilitator field notes.
Implementation: What were the barriers and enablers to implementing the series?	The consistency of delivery. This dimension explores whether a program is delivered as intended, including facilitators and barriers that contributed to implementation efforts.	Facilitator debriefs. Facilitator field notes.
Maintenance: How do we incorporate the intervention into the SOICS programs and services long-term?	With a sustainability focus in particular, this dimension explores the extent to which a program or policy becomes institutionalized or part of the organization's routine practices and policies.	Beyond the scope of this study.

Note: Adapted from Glasgow (1999).

The questions guiding the evaluation followed the RE-AIM dimensions and included:

1. How effective was *The Staying Healthy Workshop Series*?

(a) Reach: What proportion of the target population participated in the series?

(b) Effectiveness: What was the effectiveness of the series in promoting HL?

(c) Adoption: How easily was the series delivered and adopted by staff and

participants?

(d) Implementation: What were the barriers and enablers to implementing the

series?

(e) Maintenance: How do we incorporate the intervention into the SOICS

programs and services over the long term?

2. What content was most important to the participants?

4.3   Program Evaluation Methods

Mixed-methods designs may fall into several distinct categories depending on the study design. "Mixed-method studies promote an understanding of chosen phenomena in a manner that would not be possible using a single approach" (dos Santos et al., 2017, p. 3). The time distribution, whether collected sequentially or concurrently, and weight attribution, whether the qualitative and quantitative data are given the same weight, can vary based on the research question and nature of the study (dos Santos et al., 2017). Depending on the combination of approaches, a mixed-method study could fall into one of several strategies described in the research (dos Santos et al., 2017).

I used a concurrent-nested mixed-methods design for this study (dos Santos et al., 2017). A combination of qualitative and quantitative measures were utilized to evaluate *The Staying Healthy Workshop Series*, an online health literacy program focused on building HL and health service navigation skills within an immigrant community. A concurrent-nested study is used when "quantitative and qualitative data are collected concurrently. However, one is a main method to guide the project and the other a secondary database" (dos Santos et al., 2017, p. 4). Qualitative and quantitative methods were used concurrently, with the main methods being qualitative and secondary methods being quantitative. The main qualitative method was a qualitative descriptive approach, which is a method used in qualitative health research to present an event or experience in its natural state (Sandelowski, 2000a).

From a quality improvement perspective, each module may be considered small-scale tests of change like a plan-do-study-act cycle (Institute for Healthcare Improvement, n.d.). A test is planned, executed in real-time and conditions are studied for lessons learned and then adapted, adopted, or abandoned (Institute for Healthcare Improvement, n.d.). Individual modules were

evaluated using an individual module feedback survey as well as facilitator debriefs. The workshop as a whole was evaluated through a pre–post scale and a postworkshop focus group.

The program development is described in detail in Chapter 3. In terms of program delivery, the facilitators delivered two rounds of the workshop with two different levels of participants; the first round with the intermediate-level English class, and the facilitators made adjustments based on participant and instructor feedback, then a revised version was implemented for the beginner-level English class. The same evaluation approach was used for both rounds.

Data were integrated and synthesized to answer the questions outlined across the RE-AIM dimensions and framework utilized for evaluation. Evaluation began in May 2020 and the overall evaluation plan across the workshop modules is outlined in Figure 4.

Figure 4. *The Staying Health Workshop Series – Data Collection Plan*

Health Literacy Program Map
South Okanagan Immigrant & Community Services
May 2020
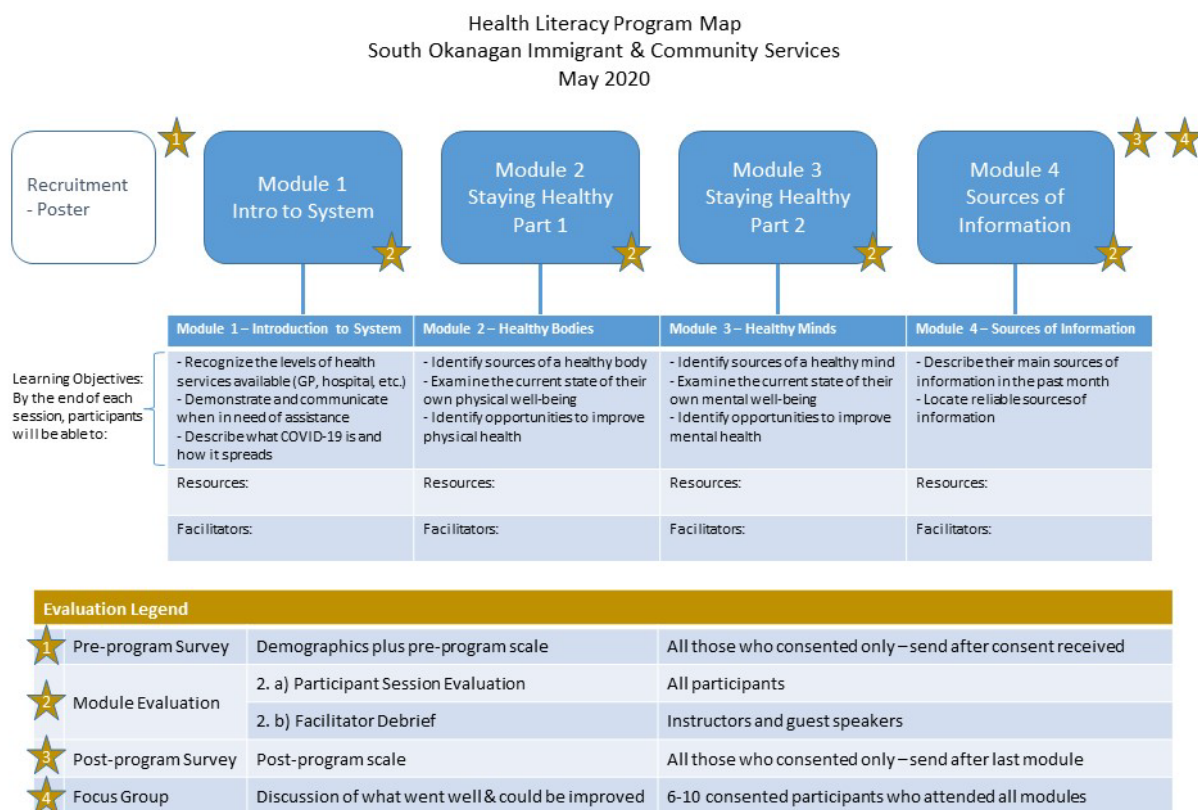
4.3.1 Recruitment of Participants

A broad invitation to participate is useful for gathering rich information from a maximum variation sampling (Kim et al., 2016). Eligibility criteria for the workshop included those past or present SOICS clients over the age of 18 that could provide informed consent in English. At this point, all meetings and interactions were virtual or remote as per public health orders due to the COVID-19 pandemic.

Study participants were recruited via email using convenience sampling. SOICS staff invited SOICS clients to participate in the implementation and evaluation of the study. A general email invitation was sent to all eligible clients in the SOICS database. SOICS staff also invited

clients during settlement appointments. LINC instructors invited clients enrolled in LINC

English classes, and also informed them of the dates to provide clients with the opportunity to

opt out of the workshop if they chose not to participate. Those that opted out joined an

alternative English class for the week. Interested clients either provided consent for contact or

sent an email directly to me to express their interest in the study. I emailed a consent form to the

interested clients and scheduled a one-on-one call to discuss the approach, answer questions, and

ensure overall understanding of the consent form and information about the study. An oral

consent script was used with clients who did not have the hardware at home to print, sign, and

scan a paper copy of the consent. The consent form and oral consent script for Phase 2

participants are included in Appendices F and G.

Efforts were made to recruit a diverse group of participants across age, gender, and

language levels. Language level was a barrier to recruitment because clients could arrive with

varying degrees of English-language proficiency. To mitigate this risk, I reviewed the project

and consent with each interested participant to confirm their full understanding of the consent

form and the study process. The COVID-19 lockdown was another barrier to recruitment

because communities were in and out of lockdowns across Canada and everyone was living

through such uncertainty related to employment, spread of illness, and travel restrictions

globally. Many SOICS clients had family and friends outside of Canada to consider, as well as

children at home as schools were closed, and these served as additional stressors.

4.3.2   Data Collection Plan

Demographics. Participant demographics, such as age, gender, years in Canada, marital

status, and education background, were collected through an online survey hosted on the UBC

Qualtrics platform. A series of questions related to health and healthcare were included.

Specifically, I collected demographics to gain a better understanding of participants' past experiences with health services and their current health-related concerns. For example, whether they had an MSP card or a family doctor, and their current key health concerns. Demographics data was kept as open as possible, with a "prefer not to answer" option for most questions. The full demographics survey is included in Appendix H.

Participant Pre–Post Scale. Participants completed a pre–post scale to self-report their HL scores. Due to the open-source availability, ease of use, and broad definitions and theories, I chose the Calgary Charter on Health Literacy Scale (Pleasant et al., 2018) to conduct the pre- and postassessment of HL in this project. Participants self-reported answers to five statements on a 4-point frequency scale of *never*, *sometimes*, *often*, and *always*: (a) find or look for health information; (b) understand information about your health; (c) evaluate how health information relates to your life; (d) communicate about your health to others; and (e) act on information about your health. Participants completed this scale twice; at Time 1 prior to the workshop beginning and at Time 2 after the completion of the workshop series. A full copy of the scale is available in Appendix I.

Participant Individual Module Feedback. Testing a change helps determine whether a proposed idea will work in a certain environment, and engaging those involved in the change helps determine which ideas will be of value and lead to improvement (Institute for Healthcare Improvement, n.d.). Participants evaluated each module using an online survey link hosted on the UBC Qualtrics platform and distributed immediately after the module ended. The survey assessed self-perceived interest and understanding, including several open-ended questions asking participants to describe what they learned, offer ideas for improvement, and whether they had any further questions. Participants rated three questions around how they liked and

understood the content using a 0-10 point Likert rating scale, with 0 = not at all and 10 = very much. The facilitators reviewed participants' follow-up questions shared through the surveys and addressed questions anonymously at the start of the next day's module.

The LINC instructors recommended this evaluation form for the individual modules because the approach was used in past presentations and would therefore be familiar to the participants. Since we had to move to a virtual format, learning remotely from home, LINC instructors suggested that keeping the evaluation simple would be best for participants who may already be overwhelmed by change. A full copy of the individual module feedback form is included in Appendix J.

Facilitator Debriefs. Facilitator debrief meetings took place over Zoom immediately after each individual module was delivered. Facilitators shared their overall reflections of what happened during the modules and discussed what went well, what did not appear to go well, and what could be done differently in future modules. From an improvement lens, teams take time to study the results of a change test, compare the data to predictions around the intended outcomes and reflect on what was learned (Institute for Healthcare Improvement, n.d.). Facilitators summarized their reflections and used those insights to make improvements to the content and delivery of the next day's module. Debriefs were audio recorded with permission. The facilitator debrief guide is included in Appendix K.

Postworkshop Focus Group. Studies from the literature review used a qualitative approach to collect participant insights on interventions, whether through open-ended questions or a focus group (Ghahari et al., 2020; Mancuso, 2011; Nimmon, 2007; Prescott et al., 2018; Soto Mas et al., 2013). All participants that joined the workshop were invited to a focus group to offer their experiences and ideas for improvement on the series after attending the full workshop

series. The focus group was held over a UBC licensed Zoom account 2 weeks after the series ended. To facilitate objective feedback from the group, the focus group was led by a graduate student from the School of Social Work at UBCO with no connection or influence with SOICS. The postworkshop focus group was audio recorded with permission. The question guide for the postworkshop focus group is included in Appendix L.

4.3.3 Data Analysis

Both qualitative and quantitative data were integrated and categorized across the RE-AIM framework dimensions used for evaluation. Studies using mixed-method techniques help to expand the scope and deepen the insights, and how the techniques are combined is based on the specific researcher and study contexts (Sandelowski, 2000b). From a constructivist paradigm, concepts are derived from the data and there is no hierarchy of data collection or analysis methods to which one is more accurate or truer than another (Sandelowski, 2000b). In terms of linking data analysis in mixed-methods studies, typical analysis for qualitative and quantitative data collected is applied to each data set and combined at the interpretive level (Sandelowski, 2000b).

For the qualitative data, the analysis was iterative and analysis took place simultaneously as data was collected. All data recordings were transcribed verbatim by a professional transcriptionist. The analysis was conducted reciprocally where the collection informed the results and the results informed the collection (Sandelowski, 2000a). A qualitative descriptive approach allowed the flexibility to determine the goal of the analysis with the results and vice versa. The ongoing analysis and results were used to inform, refine, and nuance content and delivery while illuminating new insights through each evaluation measure.

The analysis was driven by the RE-AIM Framework. Data were then categorized into each RE-AIM dimension. I began by reading results after each step of the evaluation, including the open-ended responses and focus group transcript to familiarize myself with the data. To anonymize the data, all identifiable information was removed from the transcripts. Then I independently identified and coded participant responses into relevant patterns and themes using descriptive content analysis (Sandelowski, 2000a) for effectiveness, adoption, and implementation.

Reach. To evaluate reach, the target population reached by the program, it is important to identify the proportion and representativeness of individuals who are willing and eligible to participate, including reasons for not participating (Glasgow et al., 1999). Reach was evaluated by (a) the number of SOICS clients recruited to the study and proportion of SOICS clients in their database, (b) the participants' demographics, and (c) eligibility criteria and pandemic context.

Participant demographics responses were aggregated for descriptive analysis. Descriptive statistics were completed for all participant demographics. I downloaded the demographics survey report from Qualtrics and organized data in Excel for analysis. Preserving privacy and anonymity is a challenge when doing health research in rural communities (Robinson et al., 2005), thus any identifiable information, such as country of origin and language spoken, was reported in aggregate form.

Effectiveness. Results from the participant pre–post scale were aggregated and compared pre- and postworkshop to identify any statistically significant changes between Time 1 and 2. Statistical analysis was conducted using Statistical Package for the Social Sciences (SPSS Version 28). For the change in HL scores, each participant's score on the HL scale was summed

up to a cumulative score for each participant. The overall score represents the frequency of accessing and engagement with health information. A nonparametric test was utilized to determine change between pre- and postworkshop scores. A Wilcoxon Signed-Rank test is a statistical test used to compare paired measures from a single group (Plichta et al., 2013). The HL scale score was the variable of interest with the same sample group at Time 1 and Time 2. All three assumptions for a Wilcoxon Signed-Rank Test were assessed and met including: (a) two paired measurements of the characteristic of interest (b) the measurement scale is ordinal, interval, or ratio, and (c) the total sample size contains at least 5 pairs of measurements (Plichta et al., 2013).

Participant individual module feedback results were aggregated for descriptive analysis. Descriptive statistics were completed for all individual module feedback. The modules aimed to identify what participants liked about the content, and how this impacted their HL abilities. Survey reports were downloaded from Qualtrics into an Excel file, and I grouped responses and coded data directly in the Excel file. Responses were themed and summarized for the effectiveness dimension.

The postworkshop focus group was transcribed for analysis. Codes were generated from the data and themes were highlighted with a goal of identifying what participants thought was effective. I highlighted key quotes and coded data directly in the transcripts. Participant responses were themed, summarized, and supported using direct quotes for the effectiveness dimension.

Adoption and Implementation. Facilitator debriefs were summarized for analysis. Summaries of enablers and barriers experienced during program implementation, as well as

opportunities for improvement for future sessions were used in the adoption and implementation dimension.

Maintenance. Beyond the scope of this study.

4.4   Results

4.4.1   Reach

In total, 16 clients participated in the two workshops. The full sample were active SOICS clients, 12 of which were current LINC English class students. One participant was not able to attend either offering of the workshop after providing consent, completing the demographics, and initial HL scale. In 2019, SOICS's CALD client database was approximately 1,380 clients from over 80 countries (C. Fernandez, personal communication, January 27, 2020). Of those clients registered in the SOICS electronic database, 1230 were eligible to participate. The program had a reach of approximately 1.3% of the total eligible population. According to the SOICS Executive Director, this rate of participation is anticipated for a program like this. The total population within the client database grows over time and clients are removed from the database by request only (C. Fernandez, personal communication, January 18, 2023).

Results from the demographic survey showed that the sample included participants from 12 different countries of origin with 14 different languages spoken. Participants had a mean age of 40 years. The majority were women (88%), married (75%) with children (57%) and had lived in Canada for fewer than 5 years (81%). Over half of the total sample group (63%) acknowledged receiving an introduction to the BC healthcare system via SOICS and 38% reported having a family doctor. All participants held an MSP card, the provincial health card needed to access health services in BC. When asked which health services they had already used while living in Canada, top responses were walk-in clinic, family doctor visits, and pharmacy

services. The participants selected COVID-19 and stress as their top two health concerns.

Detailed variables with potential for identifiability were not included to preserve participant

privacy and anonymity, such as country of origin, languages spoken, type of immigration, and

current status of immigration. See Table 9 for more on participant demographics.

Table 9. *Participant Health-Related Demographics*

Demographic variable	*n* or % (*n*)
Family doctor	
Yes	6
No	7
No, but on waitlist	< 5
BC healthcare system explained to you [a]	
Yes	10
No	5
Hold a Medical Services Plan (MSP) Care Card	
Yes	16
Healthcare services used in Canada [b]	
Walk-in clinic	11
Family doctor	6
Other (Pharmacy, emergency, public health, specialist, 811, allied health, 911, other)	< 5
Most concerned about health and healthcare [c]	
COVID-19/coronavirus	10
Stress and anxiety	6
Other (Diet and nutrition, exercise and weight loss, heart disease, depression, chronic pain, kidney disease, mental health, diabetes, other)	< 5

Note. $N = 16$; MSP = Medical Services Plan. [a] 1 participant preferred not to say. [b, c] participants

selected all that applied and responses less than 5 were too small to list individually.

SOICS staff aimed to engage clients that were newer to Canada, however, any SOICS

client was eligible to participate regardless of when they immigrated. Several clients attending

LINC English classes who did not participate had language skills below the level needed to

provide informed consent in English. Due to the COVID-19 lockdowns and public health

restrictions, many clients were not available to participate because they were searching for

alternative employment, worried about their own health or the health of family members, or

child-minding school-aged children who were completing their studies virtually from home (C.

Fernandez, personal communication, May 4, 2020).

4.4.2 Effectiveness

Evaluating the effectiveness or efficacy of health intervention outcomes, including any negative or unintended consequences, is an important step to determining the value of the reach of an intervention (RE-AIM, n.d.). The outcome measures at an individual level as a result of an intervention may provide insight as to the potential for success upon implementation in a real-world context (RE-AIM, n.d.).

Individual Module Feedback. Module 1 provided a brief overview of documentation needed to access care, provincial insurance coverage, and the avenues for accessing care, for example hospital, walk-in clinic, virtual clinic, or family doctor's office. The facilitators incorporated topics relevant to COVID-19 into Module 1, such as how to self-assess for symptoms and where to get tested locally. Participants reported that the main points learned from this module were around the HealthLink BC's 811 language services and pandemic-related information, including phone numbers for the COVID-19 hotline and local testing centres, the symptoms of COVID-19, and how to slow the spread. Participants' suggestions for improvement were for facilitators to speak slower, to speak faster, and to offer information before asking specific questions of the group. Participants asked questions through the survey around whether masks work, what specific treatments for COVID-19 Canada is considering, and whether there were more ways the virus could spread.

In Module 2, aspects of physical health and self-care were covered with an opportunity to dialogue about how their physical health has changed since the pandemic. The top three things participants reported learning were ways to stretch and exercise, to drink enough water each day, how to maintain the immune and body systems, and to eat a variety of healthy foods each day. When asked how the module could be better, participants asked for more explanations for each

concept, and for stretching videos or photos that could be followed at home. Participants asked questions in the survey around improving the quality of sleep by using melatonin or taking naps throughout the day, as well as additional questions about COVID-19.

In Module 3, facilitators focused on mental health and well-being. The top item that participants noted they learned the most about from this module was around stress and how to reduce or overcome stress, followed by deep breathing, finding balance in life and support systems, as well as describing their feelings. Participant survey results showed positive comments about the presentation with comments like "today was good", "no changes", and "you speak slow is very helpful to us now". No specific ideas for improvement were offered on this day. Follow-up questions were specific to where to get help for a mental health problem and how to recover the mind when it is broken.

Module 4 covered media literacy and how participants could access widely available health-related information from credible Canadian sources, including how to access virtual walk-in clinics. The top concept learned in this module was around the virtual clinics, followed by media bias and checking sources of information they read. As an opportunity for improvement, participants offered that the facilitators could speak faster in this module and make the topics more interesting. During the facilitator debrief, facilitators noted that this module had less participant engagement than the previous module.

When asked to evaluate characteristics of effectiveness, participants rated each module on three questions using a Likert Scale of 0–10 on questions related to their satisfaction with and understanding of the content. Participants rated the modules high on these satisfaction scores, as outlined in Figures 5, 6, and 7. The response rates for each are located in Table 10.

Table 10. *Participant Response Rates on Individual Workshop Module Feedback*

Individual Module Feedback	Module 1 Health Systems	Module 2 Physical Health	Module 3 Mental Health	Module 4 Sources of Information
	n	*n*	*n*	*n*
Response Rates	15	14	12	13

Note. N = 16.

In Figure 5, participants liked module 3 most with 92% of participants rating this as 10/10 on the scale.

Figure 5. *Participants' Module Ratings on a Scale of 1 to 10: How Did You Like the Presentation?*
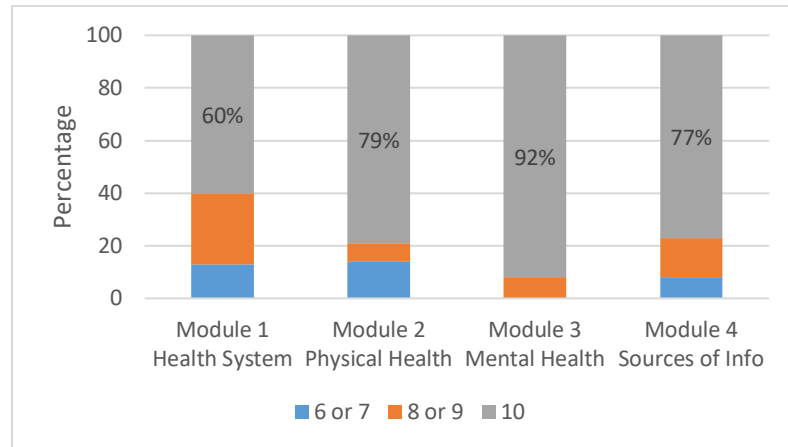
In Figure 6, participants understood module 1 the least with 47% of participants rating this as 10/10 on the scale.

Figure 6. *Participants' Module Ratings on a Scale of 1 to 10: Did You Understand the*
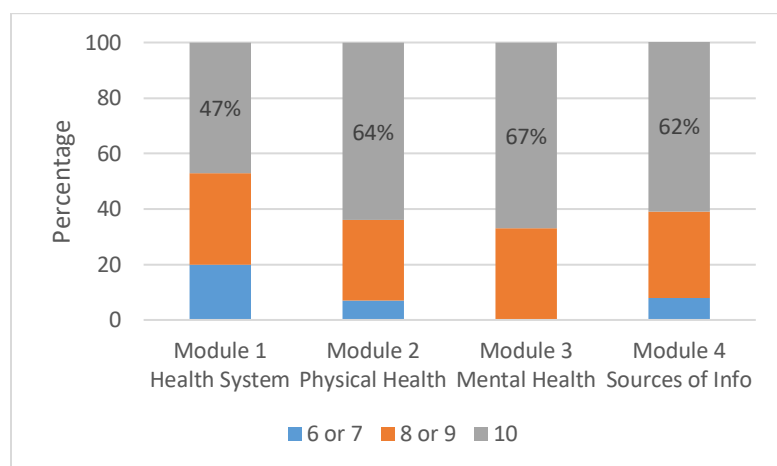
Presentation?

In Figure 7, participants rated module 3 and 4 most interesting with 75% and 77% of

participants rating these modules a 10/10 on the scale.

Figure 7. *Participants' Module Ratings on a Scale of 1 to 10: Was the Presentation Interesting*

or Informative?
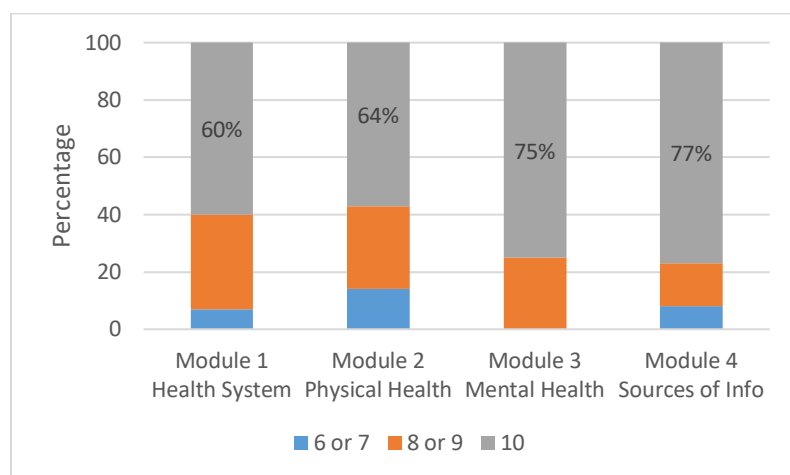
Workshop participants rated each module higher as the series progressed, with Module 3

the mental health module, being the most liked and most understood module. The participants

were not provided pre- or postmodule testing specific to content so the degree of knowledge gain

is unknown. However, the modules focused on the practice of using health-related language and

opportunities to speak and express oneself, as well as availability of services and attaining knowledge of how to access services. Some knowledge gains were shared anecdotally; for example, one participant told a story about calling HealthLink BC's 811 telehealth line to test the service the day after this content was taught. The sudden switch to learning virtually changed the approach to activities and evaluation and this may have contributed to the positive progression throughout the series.

Throughout the modules, participants spoke about their experiences of racism and discrimination they faced in their communities and in the region. These stories were not collected through the evaluation tools, however, the facilitators discussed the importance of these experiences during the postmodule debrief sessions and determined there was value in capturing as part of the results of the series. Particularly those from Asian countries spoke of anti-Asian discrimination during the early stages of the pandemic. One participant shared a story of walking down the street, wearing a mask, and being asked aggressively if they had COVID-19. Several participants felt that being Asian was part of why people were looking away or crossing the street when they were walking. SOICS staff also shared an experience of the impact of implicit bias through assisting a new couple in finding a family doctor. The husband has an English name, he is of European ancestry and many generations of his family have lived in Canada. The wife is of Asian ancestry, with an Asian last name. The SOICS staff member added the wife to the family doctor waitlist, as she was the main client. Months passed with no contact. The staff member decided to try the husband's name, and he was phoned within 2 weeks. To date, after 2 years, the wife has still not been contacted.

Calgary Charter for HL Scale. Participants (*n*=14) completed the Calgary Charter on Health Literacy Scale twice throughout this program. One week before and 1 week after the

workshop series ended, participants self-reported answers to five statements on a 4-point frequency scale and these scores were then added up to a total score out of 20. A Wilcoxon Signed-Rank Test showed that *The Staying Healthy Workshop Series* did not elicit a statistically significant change in HL scores (Z = -.471, p = 0.638). The median HL score was 13.5 pre- and 13 postworkshop. These results show that the program did not have a significant impact on a change of HL scores.

Client Postworkshop Focus Group. Participants (N = 9) shared which modules they liked most, and what they did not like as much. Three participants expressed that they liked the physical and mental health class most. In particular, that the modules served as a refresher about the importance of exercise and health, as well as a space to pick up new techniques for stretching, deep breathing, and music therapy. As one participant shared, "For me, I liked [the] healthy body [class], it had a lot of information, so I think it's important for me to know how to stay healthy" (Phase 2-FG-3). Another participant commented on the unique physical health needs of someone living in Canada:

> The topics that I liked the most is about physical health because we are immigrants and for me I come from [country] and we don't need to take vitamin D but when I come to Canada, yeah, is it good that some people tell us that, you know, you need to take vitamin D for your health. (Phase 2-FG-5)

Results from the postworkshop focus group revealed more about the value and impact of the classes than the pre–post use of the Calgary Charter for HL Scale. Several participants commented on learning to access virtual clinics, for example a participant made a note about the "information about the virtual walk-in clinic . . . I didn't know before and I really enjoyed . . . glad to know that from the class" (Phase 2-FG-1). Another participant mentioned, "I got advice . . . how can I use online clinic and the information" (Phase 2-FG-7). The live demonstrations were received well, as several participants shared their appreciation of learning about HealthLink

BC's 811 telehealth line and their experience of trying to call this service themselves. As a participant stated, "I learned about 811 from the workshop. I know if I need some information to connect with them, it was really useful information for me" (Phase 2-FG-5).

There were mixed reviews of the COVID-19 content. One participant shared that "it was so good to know about COVID-19" (Phase 2-FG-5), while another shared that the details about COVID-19 may not have been necessary, since all news and media outlets were discussing the same information. The participant explained:

> It's hard to say which class [I liked] the most . . . or least but I think the class for information about COVID, actually COVID, what is it? COVID. So, we heard about . . . we learned about a lot of information from TV or other . . . newspaper or other things, so we already know many things about what is COVID. So, I heard the same thing from that information, so it was . . . so I can't say . . . the information about COVID was the least [favourite] one. (Phase 2-FG-1)

There were mixed reports of the accessibility in terms of language. While one participant described the facilitators' pace of speaking and clarity to be "an easy style . . . I can understand" (Phase 2-FG-5), two participants talked about the challenges in understanding the technical vocabulary in the mental health and sources of information modules. "For me it's about mental health I feel I liked the least because they have some difficult vocabularies, like technical vocabularies" (Phase 2-FG-2). This is a contradictory result since mental health was the top rated module and vocabulary was not mentioned in the open-ended questions. They offered that perhaps if they had more time with the vocabulary ahead of the class that it may be have been better. Participants talked about the online format as well. One participant expressed that it was hard to pay attention and "it's difficult when you're having an online format instead of in-person . . . it will be more interesting if we meet together" (Phase 2-FG-9). Another participant mentioned that their connection was unstable and choppy, making it difficult for them to attend all modules.

Participants discussed strategies or techniques they implemented since the workshop. Several participants discussed that they knew the information but had not applied it to their lives, and now they were drinking more water and exercising at home to be healthier. They spoke about feeling very motivated and the value of connecting with others, "the conversation with everybody I think what we obtain is very important because I can help you, you can help me, [and] we can share different opinions (Phase 2-FG-1).

For future sessions, the participants suggested more time to talk and share in smaller groups, as well as more ways to assess themselves and their own physical and mental health. One participant also wanted more ideas on how to provide mental health support to family and friends that were in need. Also, women's health and healthy relationships in particular were requested for future topics.

All focus group participants said they would recommend this workshop be offered again, with a preference for an in-person versus online format. In terms of facilitators, one instructor commented, "Everyone had nothing but positive things to say about the workshop, both teachers and students enjoyed it" (Facilitator Debrief).

4.4.3 Adoption

In the context of the RE-AIM dimensions, adoption refers to the degree to which the intervention was taken up by staff, including reasons for nonadoption (Glasgow et al., 1999). Adoption was evaluated using the facilitator debrief sessions and facilitator field notes at both the staff and setting level.

Staff Level. LINC instructor contributions and participants' sharing their experiences promoted the facilitators' adoption of this workshop. In total, three of the regular four LINC instructors who typically provide the LINC English courses to SOICS clients participated in the

study, as well as two to three additional SOICS staff helping with recruitment and logistics. The facilitator and LINC instructors codeveloped the content and implementation approach to support the continued use of this series after its initial delivery. Facilitators and participants from SOICS offices in both Penticton and Oliver combined LINC classes after the pandemic moved them online. Hence, there was a larger class size with fewer geographic barriers when the workshop series was delivered virtually. Beginner- and intermediate-level English classes were included in the series. Participants had previous experience with guest presenters in their LINC classes. Participants were familiar with the topic of health and were accustomed to public health nurse presentations prior to this workshop series. However, with the assistance of the LINC instructors, *The Staying Healthy Workshop Series* content integrated more English-language assessments and in-class activities than a typical presentation. One instructor indicated during a facilitator debrief that they felt their feedback was heard and included throughout the development and delivery, more so than in guest presentations they hosted in the past. The LINC instructors felt like they were an active part of this workshop. This is an important note because the LINC instructors have an existing relationship with the participants and their role as facilitators in this workshop series was a benefit. This factor would support the adoption of future programs.

Setting Level. To assess adoption at a setting level, I explored the implementation from within the organization as a whole. Leadership support at an organizational level was critical in the adoption of this workshop series. First, the focus on building partnerships around client health needs aligned with objectives outlined in the SOICS Strategic Plan (C. Fernandez, personal communication, November 2019). The SOICS Executive Director, C. Fernandez, set clear goals, encouraged participation at all levels, and removed barriers along the way. For

example, she created capacity to accomplish this work by sponsoring the project as a partner

with Mitacs, a not-for-profit research organization which matched SOICS's investment to create

a student internship position for this project. This funding supported me as the student intern to

be on site while conducting the study, prior to the COVID-19 pandemic being declared.

Consultations with staff and clients during Phase 1, the program development, helped identify

the SOICS culture of client-centred service, which contributed to adoption at a setting level.

Focus groups with clients and interviews with SOICS staff helped to focus the series on current

client needs and identified resource limitations. This needs assessment and wide support

ultimately contributed to adoption at the setting level.

4.4.4   Implementation

Implementation Enablers. Through the facilitator debriefs, enablers for success were

revealed. Facilitators discussed what went well and what could be improved after each module.

Field notes were also used to explore implementation. Results showed that the content being

delivered was both versatile and adaptable. Notes were made based on observation and also by

reviewing the participants' individual module feedback to highlight opportunities for

improvement for the next day's module. Basic health-related vocabulary and familiarity with

health concepts and the health system were considered within the content development,

regardless of English language proficiency. Furthermore, the facilitators working as part of the

SOICS team promoted local ownership; meaning the LINC instructors as frontline staff felt

greater accountability and responsibility for the workshop after the formal project was complete.

Facilitators noted that respect for all cultures and countries of origin was considered when

describing the Canadian healthcare context relative to the experience of the participants. The

facilitators made a concerted effort to structure content around the Canadian healthcare system as not better or worse, just different from that in other countries.

Implementation Barriers. The challenges presented by the COVID-19 pandemic were a noteworthy implementation barrier to program delivery and evaluation. There had been no virtual or online LINC English classes prior to this time, which led to a steep learning curve in the use of Zoom for both facilitators and participants. Participants wanted more time together to exchange information and dialogue in an organic way and shared in the focus group that they recommend the program be done in person. Switching to online learning so quickly and from home was a challenge. Those participants with children (about 50%), found it difficult to focus while learning from home. For example, one participant commented, "I think it is hard to [pay] attention to the class because I have two kids" (Phase 2-FG-9). Although small breakout rooms were used throughout the series, the participants expressed that more opportunities to speak in smaller groups would be better, as one participant stated, "I desire more time in small groups because when we divided into small groups, we can express more" (Phase 2-FG-5).

All participants attended all modules, with the exception of one participant who missed two modules. This high level of attendance may be a result of sheltering at home, where it may have been easier for participants to attend virtually from home. Also, because childcare centres were closed, many children were invited to join their parents on screen during the modules.

4.4.5 Maintenance

Maintenance refers to the long-term sustainability of the program 6 months after the program ended. In-depth data collection and analysis for this dimension were out of the scope and timeframe of this thesis study. However, strategies to sustain and disseminate the results of this study were gathered throughout its implementation. During facilitator debriefs, several ideas

were offered by LINC instructors on how to incorporate this content into their LINC English classes. One instructor thought it would be a good idea to offer the program once in the fall and once in the spring with an open invitation to all SOICS clients. Facilitators expressed that connecting with local public health nurses for future workshops would be ideal to build relationships between healthcare professionals and clients. C. Fernandez, SOICS Executive Director supported this approach.

4.5   Phase 2 Discussion

Phase 2 of the study involved implementing *The Staying Healthy Workshop Series*, developed in Phase 1, and using the RE-AIM Framework (Glasgow et al., 1999) to evaluate the program. Overall, the participants reported that they understood the content of the workshop series and found what they learned useful to apply in their day-to-day lives.

The program could be delivered by a range of facilitators. Due to the broad content topics and material, as well as the online or in-person adaptability of the format, it would be possible for the workshop to be delivered by a healthcare professional or a non-healthcare professional. This may allow further accessibility of the program with potentially reduced cost or resource barriers. The content could be reviewed by a healthcare professional to keep it robust and up to date, while being facilitated and delivered by a non-healthcare professional.

The participants shared the importance of helping one another and the value of connecting with others through this experience. This study did not include a measure for community building or social connections developed throughout the series. In previous studies, the summative evaluations for the HL interventions often focused on knowledge gain and skills development. Nimmon's (2007) study reported on community building as an outcome and showed that immigrant ESL-speaking women working through a photonovel approach together

created a sense of community and increased their sense of value and importance. A more explicit focus on supporting social networks and building connections would benefit participants' HL, as well as having economic and social impacts, that may promote living in small urban and rural areas to a growing immigrant population. "Desirable physical environment, availability of employment, and existent social ethnic networks attract refugees to the area. Refugees are highly reliant on social networks" (Hume & Hardwich, 2005 as cited by Mancuso, 2011, p. 61). Future studies would benefit from exploring the value of building connections, relationships, and community within HL programs such as this one.

Although the individual module feedback was positive overall, the postworkshop focus group showed that several participants still had trouble with the level of English language used in the program. Participants were challenged by the technical language in the modules on mental health and sources of information. Several previous studies employed interpreters and translators to support their health education programs (Martin et al., 2017; Prescott et al., 2018). Mancuso (2011) planned 1 year ahead and identified individuals within the community willing to be trained as certified medical interpreters. The diversity in language often seen in rural communities may pose a challenge for interpretation: For example, in our study with SOICS, there were 16 participants from 12 countries who spoke 14 languages other than English. Interpreters could enhance the culturally appropriate nature of the sessions (Martin et al., 2017). An opportunity for future rounds of the workshop would be hosting smaller, language-specific sessions with interpreters available.

Participants rated the mental health module as most liked and understood among the four modules, and facilitators found the mental health module to have the highest level of participant engagement. Interestingly, mental health was not rated as a high priority health topic in the

program development phase. Results from the individual module feedback surveys did not identify specifically what contributed to their high levels of satisfaction. It was noted during the facilitator debriefs that this module had the most breakout sessions and small group discussion time built into the module time. Therefore, it could be interpreted that participants felt more engaged during the module due to their desire to spend more time engaging with peers. Mancuso (2011) mentioned that "mental health issues may be culturally taboo subjects" (p. 62), so the small group exercises may have enabled a psychologically safe space to talk about mental health and overcome this barrier. In terms of ongoing support, future offerings of health presentations specific to mental health would ideally incorporate more time for participant engagement and interactive exercises.

Although COVID-19 was identified as a health concern, the COVID-specific content was ultimately deemed unnecessary by several participants given the global media coverage of the topic in multiple languages. The evaluation did not ask specifically about HL related to COVID-19 or any issues with language-accessible resources and public health information. In the program development phase, prior to the pandemic being declared, COVID-19 was not rated as a high priority for participants. However, due to the health climate, the decision to include the pandemic topics was a responsive choice. From the literature review, no studies included pandemics or infectious diseases as a HL topic.

Participants attended the workshop online and this presented advantages and disadvantages. Participants were able to attend more regularly than if this workshop had been provided in person because childcare was not an issue and travel was not required. Transportation barriers in rural communities is an access barrier (Kornelsen et al., 2021). On the other hand, being online and at home meant that the participants were distracted more frequently

by their children and some experienced unstable internet connections. Internet access is now an essential service and considered a social determinant of health (Dow-Fleisner et al., 2022). For future workshops held in-person, childcare and travel should be considered, and future workshops held online should consider participants' internet access.

The change in participants' HL scores were not statistically significant, however, this was expected due to the close timing and the sample size. I asked participants to complete the Calgary Charter for Health Literacy Scale (Pleasant et al., 2018) the week before the workshop and repeat the same scale the week following the workshop. There may not have been enough time for participants to seek out specific information pertaining to their personal health conditions or to put new skills into practice. The evaluation of potential improvement in HL would be stronger by continuing to evaluate using the same scale every 3 to 6 months as health information and services are sought out over time. Also, the modules were not specifically designed to address the elements in the scale, which is another factor for future programs to consider when selecting evaluation tools. Future research opportunities would include psychometric testing, including factor analysis, on the scale with the scores totaled.

Results from the postworkshop focus group revealed more about the value and impact of the classes than the pre–post use of the Calgary Charter for Health Literacy Scale did. The scale focused specifically on the self-reported frequency of finding, understanding, and acting on health information, while the focus group allowed for more dialogue and follow-up about key concepts that were shared and why they were important to participants. This depth and richness of participant feedback allowed for further understanding of their experiences and ideas. To find out more about what is relevant for participants, a focus group with the same participants prior to and after the program may be beneficial to further explore the impact the program had.

4.5.1   Strengths

This series may be easily transferable and adaptable to the needs of other immigrant-serving community organizations and those in small urban and rural areas. The curriculum and program could be shared with similar organizations as SOICS to use as a HL series to be offered to clients, particularly in ESL classes. At least one of the facilitators was a healthcare professional in this study, though the content could be delivered without a healthcare professional. LINC instructors and SOICS staff serve an important frontline role with their clients in regards to health and healthcare, such as assisting new immigrants to apply for their MSP card during initial settlement appointments. Immigrants arriving to any part of Canada, urban or rural, face similar barriers when accessing health services (Degelman & Herman, 2016), and would benefit from the same level of support that SOICS and other community organizations offer.

This study was accomplished with limited resources. The full study was completed by myself and the LINC instructors, including the development, delivery, and evaluation of the program. Codesigning and delivering the workshop series in collaboration with the LINC instructors leveraged their existing relationships and knowledge base, which contributed to the success of the program overall. I had a non-affiliated person lead the postworkshop focus group to limit bias when evaluating the workshop series. After moving to a virtual format and learning remotely from home, LINC instructors made suggestions to improve the experience for the participants. For example, an oral consent script was offered for those participants that could not print, sign, and scan a paper copy of the consent form. It would be a notable investment for other not-for-profit community organizations to build upon the work that was done in this study.

The relationship between the LINC instructors and the participants contributed positively to the overall outcomes of the study, including regular attendance at the sessions. There was very little attrition, with only one participant not attending the workshop after providing consent. This was, in part, related to the facilitators' focus on building rapport with the participants throughout the workshop series. This rapport with participants may also have helped them feel more comfortable in sharing their experiences during the series (De Tona, 2006). SOICS participants said they felt heard and appreciated the encouragement and guidance in incorporating health topics into their English speaking practice. The focus groups and consent discussions may have also contributed to building trust with the participants prior to the series itself. At least one facilitator who is familiar to the participants would be ideal in future offerings of this workshop, with SOICS or elsewhere.

4.5.2 Limitations

To conduct the pre- and posttests in this project, I initially planned to follow Ghahari et al.'s (2020) approach using the Health Education Impact Questionnaire's Program Evaluation Scale as a pre–post measure. A license agreement was required and due to the pandemic, delays were expected with indefinite timelines for review. In place of this tool, I chose the Calgary Charter on Health Literacy Scale (Pleasant, 2018) because of its open access availability and user-friendliness. However, this is a new tool, developed in 2018 and the authors stated that further testing is required with various populations (Pleasant et al., 2018). I found several participants asked whether they should answer the questions in the scale around understanding health information in English or in their primary or most proficient language. This is relevant because their stated understanding was higher in their primary language. The scale was not explicitly designed for use with people for whom English is their second language. The scale

may require further testing with immigrant and non-English dominant participants to further clarify the points around language and context when completing the scale.

Participants were not provided a pre- or postmodule test specific to the workshop content, so the degree of knowledge gain is unknown. In the future, a measure testing knowledge pre- and postmodule would be valuable to understand the degree of knowledge gain and knowledge translation. The individual module feedback survey used to evaluate each module was not validated, however it was a familiar tool to the participants from previous SOICS presentations. The knowledge gain was not assessed, nor was any long-term post evaluation conducted, underscoring that there is no way of knowing about any behaviour changes resulting from the workshop. There is no consensus on how to evaluate HL programs or how to measure HL in the literature, with the use of various measurement tools reported, including self-report and objective measures (Fernández-Gutiérrez et al., 2019; Ghahari et al., 2020; Goldsmith et al., 2016; Prescott et al., 2018; Soto Mas et al., 2015).

Sample sizes can be an ongoing challenge for research focused on immigrant populations carried out in rural and remote areas because the overall population is small. Privacy and confidentiality in rural settings is a challenge as well, in particular with health and personal experiences being shared in a group setting (Robinson et al., 2005). I used convenience sampling and relied on remote recruitment strategies like email. Convenience sampling is common and relatively quick, but may not be representative of the target population (Heavey, 2014). As well, relying entirely on email assumes that each client received the SOICS email invitation. For example, one can unsubscribe from a mailing list or emails go to spam folders. There is an opportunity to close the loop with SOICS clients on whether they actually received and/or read the emails that were sent inviting them to the study.

4.6   **Chapter 4 Summary**

       The LINC instructors and I delivered *The Staying Healthy Workshop Series* twice to participants over Zoom. The goal of the program was to build healthcare navigation skills and health literacy through a HL program. Overall, the program was well received and there are opportunities for improvement for future sessions of the workshop.

Chapter 5: Conclusion

5.1   Study Overview

Immigrants play an important role in Canadian life and in Canada's economy, contributing to population growth at an increasing rate (IRCC, 2022a). With the recent federal government goals of increasing immigration to 500,000 by 2025 (IRCC, 2022a), building the capability and capacity to support immigrant settlement is important. In particular, infrastructure will be needed within the healthcare system to support the health and well-being of people when they arrive in Canada.

New immigrants often experience a phenomenon called the *healthy immigrant effect* (Degelman & Herman, 2016). Due to immigration policies and examinations, immigrants accepted to Canada are healthier overall than their Canadian-born counterparts (Degelman & Herman, 2016). However, due to barriers to accessing health services and to maintaining their well-being, this health advantage declines over time (Degelman & Herman, 2016; Mancuso, 2011; Shommu et al., 2016; Thomson et al., 2015). The COVID-19 pandemic also disproportionately affected vulnerable groups, exacerbating the impact of these barriers on the health of Canada's immigrant population (Machado & Goldenberg, 2021). The barriers to maintaining health for new immigrants include their lack of official language skills and knowledge of the system, as well as cultural barriers (Higginbottom et al., 2016; Kalich et al., 2016; Sethi, 2013). Those living in small urban and rural areas encounter additional barriers, such as needing to travel long distances for specialty services, compounding the challenges to accessing health services (Patel et al., 2019).

The role of settlement programs in helping immigrant newcomers adjust to life in Canada varies by jurisdiction. In smaller communities, not-for-profit community organizations, such as

SOICS, receive federal funding to host these services. The scope of services provided spans informed decision-making, community and civic relationship building, and language instruction (SOICS, n.d.). Many community organizations lead programs and services that are resourceful and creative. For this thesis study, I partnered with SOICS to develop and evaluate a HL program. The purpose of this HL program was to build health service navigation skills for SOICS clients, immigrants living in small urban and rural communities. To achieve this purpose, I designed and implemented a two-phase research study, including a rapid literature review. Details of the two phases are described in earlier chapters and summarized briefly in the following section.

5.2   The Staying Healthy Workshop Series

Participants from Phase 1 of this study explored the current needs of immigrants living in the Okanagan–Similkameen through focus groups and interviews. Participants had varied experiences with healthcare and emphasized the importance of building knowledge of available services and language skills to access health services. Additional themes included immigration status and insurance coverage, delayed access and fear of the unknown, discovering what healthcare is in Canada, and using SOICS as a resource. Those results combined with an environmental scan of existing programs in other small urban and rural areas, as well as the ACHIEVE program (Ghahari et al., 2020), informed the creation of a HL program for this community. LINC instructors and I designed a four-module workshop series planned for virtual delivery over Zoom as COVID-19 was deemed a global pandemic at the end of Phase 1. The pandemic shifted the trajectory of the workshop series towards a virtual platform with a greater emphasis on the pandemic. The modules were focused on accessing healthcare services and information about COVID-19, physical health, mental health, and media literacy.

Phase 2 of this study included the implementation and evaluation of the workshop series using the RE-AIM Framework (Glasgow et al., 1999). RE-AIM is a process evaluation framework with five dimensions: reach, effectiveness, adoption, implementation, and maintenance. It is used as an evaluation approach for public health programs to determine their impact and translatability to the real world (Glasgow et al., 1999). Sixteen participants took part in the workshop series. The workshop series was effective in improving knowledge of services and abilities to navigate services, however, HL scores did not improve with statistical significance. Closely involving the LINC instructors allowed for the program to be adopted into existing LINC English classes with ease. In terms of implementation, having immediate feedback through module surveys allowed for rapid improvements. However, delivering the program during the COVID-19 pandemic added some barriers, such as technological challenges with remote learning and additional competing demands on participants with regard to childcare.

5.3   Insights and Implications

These findings would be most helpful to not-for-profit community organizations in small urban and rural settings, as well as public health and primary care professionals in the area, looking to create HL programming and education. The definition of HL evolved in the literature over time, as did the operationalization of HL as a concept throughout this study. There were lessons learned around the different uses of HL and which definitions were most useful. The study highlighted the importance and reinforced the recommendation from Nutbeam (1999, 2000) to move past the traditional definition of HL that focuses on the skills in understanding, evaluating and communicating health information and towards the functional and interactive literacies needed to critically examine health information for our own well-being.

This study offered SOICS valuable insight into how to structure a HL workshop over Zoom, as well as into what participants are interested in learning more or less about. SOICS staff also gained knowledge about health services available to the participants, and the participants shared their experiences with one another, promoting social connections. The use of a virtual platform like Zoom helped to reach a broader audience. Making the workshop series content freely available would allow others to build off this work. The literature review for this study did not focus on virtual-specific learning and future virtual programs would be best to specifically look at studies related to virtual program delivery.

An opportunity for future studies would be to incorporate the voices of local healthcare professionals working in small urban and rural communities. Martin et al. (2017) found that "because many individuals from CALD backgrounds have had negative experiences with the healthcare system, positive encounters with our healthcare volunteers build a positive relationship in the healthcare sector and provide participants with an increased sense of community belonging" (p. 2). There are issues of trust to consider with some immigrants as well, in particular with refugees (Mancuso, 2011). "Creating alliances with existent social networks of refugees is an effective means of building trust and enhancing culturally competent services" (p. 62).

Connection and a sense of belonging are important elements in the health and well-being of immigrants during their settlement experience (Caxaj & Berman, 2010). This workshop series provided a space for collaboration and community building of HL curriculum specific to immigrants learning ESL in a community setting. Martin et al. (2017) stated:

> Not only does education reduce the burden of illness on individuals, communities and the healthcare system, but individuals who proactively seek health improvement are also likely to improve other areas of their lives by pursuing social, educational, and employment opportunities. (p. 3)

Relationships are a critical element to the implementation of evidence-based research (Metz et al., 2020). SOICS as an organization interacts with their client base from early in their settlement process, and staff build trust with clients over time. Ghahari et al.'s (2020) participants reported that they referred to their ESL teachers as a resource for finding answers to their health-related questions (p. 3). The cocreation of this series meant that SOICS staff and leadership team felt a sense of ownership of the program, and the participants felt a sense of importance and value in their contributions. SOICS plans to continue using the modules following completion of the formal study.

Health topics are dynamic and change over time. The two most noteable dynamic topics during this study overall were COVID-19 and mental health. In Phase 1, participants did not identify COVID-19 as a high priority health topic. Meanwhile, during Phase 2 the same topic was rated as the top health concern in the demographics survey, and participants in the postworkshop focus group provided feedback that the COVID-19 content was not needed because of the global media coverage. The perspectives and perceptions of COVID-19 as a knowledge gap changed over a short time. Similarly, the mental health topic received low votes as a health topic of interest in the program development phase and then was the most liked module during the workshop. Phase 1 was completed with participants prior to the official declaration of the pandemic, while Phase 2 occurred after with many restrictions put into place (e.g., physical distancing, closure of schools and businesses). The study unfolded in two seemingly different contexts and exemplified how health as a topic and focus can be dynamic. For future workshops, working with clients and participants to identify needs before delivering a program will be important to creating meaningful content.

The program was designed to be nimble and adaptive to emerging needs. The content focused on self-care and service access. This will be especially important as the prioritization of the COVID-19 pandemic in public health and primary care at the time left a gap in resources that community organizations, in particular in rural communities, were left to fill in creative ways. An important overall limitation of this study was the scope of the research relative to the resources available. Public health nurses and local primary care providers were not available to participate, both in the development or delivery of the HL program, due to being needed for the COVID-19 pandemic response. This was a relationship-building opportunity through a crisis that, for this study, could not be resolved. However, for future programs, the active participation of local primary care and public health partners will be important. Patel et al. (2019) stated that "new immigrants are less likely to have a regular doctor compared to non-immigrants, and should be targeted by policies and programs facilitating finding a doctor" (p. 1). Public health was collaborating with SOICS on health presentations prior to the pandemic and there is hope for SOICS to reengage that connection soon.

A topic area that unexpectedly arose during the study was around the participants' experience with racism and discrimination. The study did not intentionally set out to explore experiences of racism, yet, this topic organically arose throughout the series. This indicated that the facilitators were effective in creating a safe space for participants to share their lived experiences during a time of great uncertainty. Racism is a social determinant of health that has physical, emotional, and mental health consequences (Tuyisenge & Goldenberg, 2021). The stories that participants and SOICS staff shared about their experiences highlighted the importance of addressing racism and the impact it can have on a person's health and wellness. Interventions are being informed by the lived experience of those affected by structural racism

(Tuyisenge & Goldenberg, 2021). For future HL series, formally including time to discuss racism as a topic would be beneficial in helping to normalize the discussions on race, its impact on health, and what participants could do to report acts of discrimination and harm within their communities. Additionally, SOICS can serve a role in raising community-level awareness about the presence and harms of racism in the communities they serve.

5.4   Future Direction and Recommendations

Based on the findings from this study, there are a number of future directions that could be explored. Future research should consider the value of social networks and community building when building HL education and programs. *The Staying Healthy Workshop Series* was effective in making connections between participants for information sharing and support when it comes to accessing health services. Once a community is established as providing quality of life and economic opportunities, family and friends migrate to these areas and create larger diasporas from one country, which reduces the stress of migration overall (Mancuso, 2011). There is an opportunity to study the key role of community organizations in contributing to community development and a sense of belonging, particularly in rural areas, and the effect this has on social networks related to health information sharing.

A related practice recommendation would be to encourage the local primary care networks in rural areas to engage with more community organizations, like SOICS, on primary care initiatives. Due to the demands of the pandemic, public health and primary care teams were unavailable to participate in this study and this left a gap in terms of resource investigation. Not-for-profit community organizations serve a key role in service navigation and access. Their inclusion and participation could help to bridge the fragmented silos that exist within the health system and enhance the quality and access of primary care.

There are future research opportunities working with the Calgary Charter for Health Literacy Scale. In this study, the score on all five items of the scale were totaled to one total score of 20 and the statistical test applied to the pre- and posttotal. Psychometric testing, including factor analysis, to test the scale with the five questions as a total score would strengthen the body of knowledge on this new tool. As well as continuing testing with participants who speak English as a second language, since the feedback during the program was whether they were answering the items based on their primary language spoken or English. The implication being that they would rate themselves with a higher understanding of health information in their most proficient languages.

A recommendation for research, policy, and practice would be to consider the internet as an essential service at each stage of planning and implementation. During the pandemic, there was an increased use of technology with common technological challenges like slow connections, no computers at home, and the financial burden related to being online (Dow-Fleisner et al., 2022). Additionally, there is an unspoken expectation that everyone has access to the internet (Dow-Fleisner et al., 2022). Facilitating internet connectivity to rural and remote communities, as well as technology subsidies for vulnerable populations may help to address the barriers of technology.

A policy recommendation would be for more equitable funding from provincial governments for small urban and rural not-for-profit, community organizations to provide health-related programming to clients in partnership with local healthcare professionals. As more immigrants settle in smaller cities and their surrounding rural areas, more infrastructure, such as language classes, may become available in these areas to assist with settlement (Bernard, 2008). Additional funding will support the spread of innovative practices as well. Community

organizations are currently not funded to hire researchers and writers to help publish their work and promote the programs they have initiated (C. Fernandez, personal communication, February 3, 2020).

Future health research should also consider an antiracism focus. Building interventions and studies that explore the impacts of racism on health and health outcomes will build resilience and inclusivity in communities; as well as help to dismantle systemic and structural racism within healthcare (Tuyisenge & Goldenberg, 2021). *The Staying Healthy Workshop Series* delivered content around health and health access and did not have a focus on racism. The participants' experiences of racism in the community organically arose throughout the workshop. Antiracism work will be an important aspect of future health research.

5.5   Chapter 5 Summary

In this study, I completed a rapid literature review, a program development phase, and an evaluation phase. Chapters 3 and 4 cover both phases respectively, with results and discussions for each phase. The COVID-19 pandemic played a pivotal role in the design and redesign of this research study. The pandemic influenced the content development and mode of delivery in particular. The evaluation methods were mainly qualitative, however, there is future opportunity to design programs specifically to elicit quantitative change in HL over time. More rural-based health research involving immigrant communities and local not-for-profit community organizations would be beneficial investments in the future.

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Appendices

Appendix A: Data Extraction Table

Authors and purpose/objectives	Research design	Participants and setting	Instruments used	Findings	Limitations	Language
Fernández-Gutiérrez et al. (2019)						
To evaluate the effectiveness of an mHealth intervention to improve the cognitive and social skills that enable migrants to access and use health services.	Quasi experimental design with only one group and measurements preintervention and post intervention. To determine normality of distribution of the sample, Kolmogorov-Smirnov test. Univariate and bivariate descriptive analyses and Spearman's correlation was used. To test efficacy of the intervention, the nonparametric Wilcoxon signed rank test applied for two dependent or related samples. For independent samples, the nonparametric	93 participants of 17 distinct nationalities (with a final sample of 71). Average age of 31. Adult population, non-Spanish nationality, and included second- and third-generation immigrants born in Spain. Spain.	European Health Literacy Survey Questionnaire (HLS-EU-Q16). Scores ranging from 0–16, tool establishes three levels of HL: (a) inadequate, (b) problematic, and (c) sufficient.	HL improved significantly after the intervention, increasing from a problematic level to a sufficient level. Differences were statistically significant for males and females as well as for participants of all nationalities, except the Chinese group. After the intervention, percentage of participants with inadequate HL decreased from 40% to 4%. Percentage of participants with sufficient HL increased from 29% to 73%.	HLS-EU-Q16 questionnaire - reduction from 47 to 16 questions created a loss of information. Future research should use a broader measure of HL. Methodological characteristics of quasi-experimental designs with only one group: selection bias, sample representativeness, interference of outlying variables, and external validity.	Mobile health app offered in six different languages.

Authors and purpose/objectives	Research design	Participants and setting	Instruments used	Findings	Limitations	Language
	Mann-Whitney U test was used.					
Ghahari et al. (2020)						
The aims of the study were to develop an evidence-based health education program to address barriers that immigrants may face in accessing health services in Canada; and to pilot test the program in a sample of immigrants.	Mixed methods. Study 1: Qualitative. Study 2: Program development. Study 3: Quantitative.	Study 1: Immigrants and healthcare professionals in this study. 11 immigrants and 6 healthcare professionals. Study 2: 20 participants in the formative evaluation. Study 3: 46 participants in the pilot study. All were over the age of 18 with CLB level 3 or above. Kingston, ON, Canada (population 132,000).	Study 1: Interview guide Study 2 - no instrument identified Study 3: (a)Demographics, (b) Health Education Impact Questionnaire (heiQ) - used to measure participant satisfaction using the Program Evaluation Scale, (c) Confidence in Health Access questionnaire developed by research team, and (d) Four open ended questions.	Study 1: Individual, community, and system-level barriers identified. Study 2: Four main topics plus three additional specific topics were determined, and a training and manual for program facilitators. Study 3: Overall results: (a) Paired sample t-test calculated to test the effectiveness of the program in improving confidence in accessing Canadian healthcare, (b) Posttest scores significantly higher than pretest scores, (c) Wilcoxon Signed Rank tests	Attrition and missing data due to a variety of reasons. Consent and comprehension among low to intermediate level English participants. Consent too difficult to comprehend. Hesitation to sign formal documents. Undocumented participants not wanting to provide demographics information, despite reassurance of confidentiality. Confidence in Health Access questionnaire not validated. Given the above, explore shorter sessions, include a baseline measure a few weeks prior, and add a	All in English. This was an inclusion criteria outlined in the consent process (CLB level 3 or higher, enough to understand the materials and participate).

Authors and purpose/objectives	Research design	Participants and setting	Instruments used	Findings	Limitations	Language
				calculated to determine effectiveness of each individual session, (d) Significance reported per session, and (e) Open-ended questions, nothing noted for change and mental health session was liked the most. Family health, types of cancers, and nutrition were additional topic ideas shared.	qualitative component to explore experiences of participants (could not happen due to English language levels).	
Goldsmith et al. (2016)						
To assess refugees' understanding of the U.S. pharmacy system and to develop and determine whether an educational workshop designed to introduce basic pharmacy concepts to refugees improved their understanding of	Quantitative. Comparison of pre- and postworkshop responses. Fisher's Exact test to compare the association of the numbers of correct responses before and after the workshop. Mann-Whitney	Convenience sampling with 59 participants. Those participating in ESOL classes in NH, United States. Several cultures present so the workshop was not tailored to one particular culture. Participants	Practical tests established, distributed as a function of HL dimensions: functional, interactive, and critical.	Significant improvement in identifying pharmacy locations, understanding that they need to bring ID with them, can receive refills on prescription medication bottles, and translators are available. Workshops did not	Participants encouraged to ask questions about the survey, with peer interpretation when possible. These peer interpreters may have unknowingly influenced the survey responses or provided incorrect information. Surveys may	English only (with peer-to-peer interpreters)

Authors and purpose/objectives	Research design	Participants and setting	Instruments used	Findings	Limitations	Language
the U.S. pharmacy system.	analysis for Likert-scale responses.	originally from Bhutan, Nepal, Iraq, Guatemala		significantly increase the participants' comfort level in talking to a pharmacist. Workshop did not increase likelihood of participants to speak to a pharmacist. Lessons - language is a big factor.	underestimate participants' knowledge owing to their limited English proficiency. Incorrect answers may have been due to language barriers and not the lack of knowledge or understanding. Pilot study with a small sample size of specific refugee groups; results may or may not be similar to other refugee groups.	
Mancuso (2011)						
To develop and implement culturally sensitive programs that are socially sensitive to the local Indonesian refugee population. Build a model to overcome HL barriers for the local Indonesian population guided the draft curriculum development for a	Mixed methods. Medication safety program: Rate effectiveness based on Likert scale. Health fair: Undefined, with qualitative results shared from professionals.	Indonesian refugees and asylum seekers to the United States. Medication safety program: 30 community participants. Health fair: 60 participants. Rural: Portsmouth, NH, United States; population 21,000 with 2,500	Medication safety program: Participants asked to rate the effectiveness of the education on a Likert scale from 1 (strongly disagree) to 5 (strongly agree). Anonymous. Translated. Health fair: Written participant evaluations. Anonymous.	Medication safety program: 30 community participants, registration, half didn't attend and others attended that were not registered. Participant evaluations were positive with average participant rating on Likert scale: 3.2. Community members engaged (pastors and local	None stated.	Planning ahead for interpretation needs: One year ahead, leaders within the Indonesian community identified 13 individuals willing to take training to become trained medical Indonesian interpreters (with subsidized tuition). Local interpreters translated English

Authors and purpose/objectives	Research design	Participants and setting	Instruments used	Findings	Limitations	Language
medication safety program and a health fair.		Indonesian refugees in the area.	Translated. Also, no need to register for health fair.	interpreters whom the Indonesian community trusts). Nurses and director from a local health organizations attended as well. Health fair: 60 participants. No registration required. Written participant evaluations were excellent. Professionals participating in the event reported feeling energized and positive about the experience. Cultural broker employed, and volunteer nursing and pharmacy students helped run the fair.		materials to Indonesian language. Delivered via medication safety program and health fair. Those materials in English assisted professionals in speaking with clients. Focus on translation of meaning and congruency with intended messages.
Martin et al. (2017)						
The objective of the health education sessions is to improve HL of refugees, asylum seekers, and migrant populations to enable equitable	Mixed methods.	Primary participants: refugees, asylum seekers, and migrant backgrounds. No sample size provided. Secondary participants:	No instruments defined, only measurements provided: (a) number of sessions delivered, annually and total;	Between 2011–2016, over 300 education sessions have been delivered to more than 3000 participants with 400 health professionals trained.	None stated.	In-person presence of interpreters improves communication and enhances the culturally appropriate nature of sessions.

Authors and purpose/objectives	Research design	Participants and setting	Instruments used	Findings	Limitations	Language
access to healthcare and available resources; to reduce gaps in HL in CALD communities.		volunteer healthcare professionals who facilitate the sessions. Specific setting / locations not identified. Many locations in Victoria, Australia. Expanding to "other rural and regional areas." Time in Australia not identified.	(b) total number of participants; and (c) total number of volunteer health professionals trained.	1. CALD participants feel more familiar with the Australian healthcare system and are empowered to share their newly acquired health information with family and friends. 2. Healthcare professionals receive an improvement in cultural awareness after delivering health education sessions in the community. 3. Referral organizations see value in providing HL education to their clients, often resulting in further requests for sessions. For participants, this fosters an improved awareness of and trust in the healthcare system; for volunteer healthcare		Support from Translating and Interpreting Services, which provides free interpreting services during business hours.

Authors and purpose/objectives	Research design	Participants and setting	Instruments used	Findings	Limitations	Language
				professionals, this affords the opportunity to contribute to the health of vulnerable populations while developing skills in working effectively with interpreters and CALD communities.		
Nimmon (2007)						
Examines if the process of creating and using a participatory photonovel can empower immigrant ESL-speaking women and also act as a tool to educate these women about a specific health topic. Literature review showed immigrants reported good health after 2 years in Canada, and poorer health when asked again at 10 years.	Qualitative. Participatory photonovel.	5 women, aged 35–80, ESL-speaking immigrants, who attend the Inter-Cultural Association of Victoria (ICA) women's group to learn about various settlement issues. Low intermediate to intermediate level ESL. Time in Canada 10–35 years Location: Victoria, BC, Canada, population 91,000.	(a) two separate interviews with each participant, (b) two focus groups, (c) field notes during the meetings the author had with the women once a week, and (d) photographs of the photonovel project.	Participatory photonovels can be an effective HL tool for immigrant ESL-speaking women. Quotes from the women on the impact of the program included: (a) Healthy eating, (b) Sense of community and relationship building, (c) Representation and feelings of importance, and (d) Shifts in mindsets and consciousness.	None stated.	A public health nurse was hired for a short presentation, done entirely in English.
Prescott et al. (2018)						
To develop a community-based	Mixed methods.	282 refugees from 33 countries.	Baseline demographics	Average correct response rate 78%,	Not all refugees completed all	Materials translated into 11 of the most

Authors and purpose/objectives	Research design	Participants and setting	Instruments used	Findings	Limitations	Language
educational workshop to improve medication HL in refugees.	Design and implement a student-led medication HL program with pharmacy faculty oversight. Recruitment not described.	"Refugees" = participants "Students" = instructors Urban. Buffalo, NY, United States area (population 278,000) ESL classes and local settlement agency's education classes. In United States for less than 2 years.	collected. Pre- and postassessment questions. Structured questions with verbal descriptive responses collected.	with 10/17 questions have 80% correct response rate. Lowest scoring was on questions re: preventative medications. (a) Liked the use of visual aids (34%), general application of medication information (34%), and having the ability to ask questions (10%). (b) Learned that interpreter or translated labels are available at the pharmacy, how to read a prescription label, childproof safety caps, and knowing when to go to a physician. (c) Would've liked more information on overdoses, in-depth teaching on the over-the-counter medications, nonpharmacological measures, and directions to healthcare facilities.	assessment questions. Language barriers and adapting the workshop to fit a range of HL levels were a concern. Translated materials overcame the barrier of language, but refugees could not always read in their native language or had only spoken languages. Ongoing cost of interpreters would limit sustainability.	common languages in the area. Demonstrations, small group activities, and take-home material. Paid interpreters for each class.

Authors and purpose/objectives	Research design	Participants and setting	Instruments used	Findings	Limitations	Language
Soto Mas et al. (2013)						
Purpose of this project was to evaluate the feasibility of using ESL instruction as a medium for improving HL among Hispanic immigrants.	Qualitative. Semistructured discussions. Article provides the curriculum development process and preliminary qualitative data on learners' experiences with the curriculum.	El Paso, TX, United States (town near border with Mexico) Piloted with 12 ESL students. Finalized and implemented in a 6-week course with 84 ESL students. No further descriptives were provided about the sample in this paper.	Qualitative data collected on the experiences of students through a semistructured discussion with all students at the end of the program. Data were analyzed and coded for themes related to students' satisfaction with the curriculum and the integration of theory and practice.	High degree of satisfaction with the curriculum on the part of students. Positive feedback on the course, several quotes provided. Comments that indicated explicitly, concrete learning on the part of students with respect to HL. Findings from the group discussions indicated that the combination of ESL and HL contributed to a perceived positive learning experience among participants.	None stated.	
Soto Mas et al. (2015)						
To test the feasibility of using conventional ESL instruction for improving HL among Spanish-speaking adults.	Quantitative Development, implementation and evaluation of HL/ESL curriculum. Analyses included independent sample t-test, chi-square,	Total of 155 participants. El Paso, TX, United States	TOFHLA in English was used to assess HL levels.	Results showed significantly higher increase in the TOFHLA posttest score in the intervention group ($p = .01$), and noticeable differences in HL levels between groups.	Exploratory study designed for the collection of preliminary data—generalizations should be made cautiously. Results may only apply to Spanish-speaking Hispanic adults with the same characteristics as	Designed specifically for Spanish-speaking adults. Eligibility included ability to read/write Spanish and basic English levels.

Authors and purpose/objectives	Research design	Participants and setting	Instruments used	Findings	Limitations	Language
	and linear regression			Results indicate that ESL constitutes a promising venue for improving HL among Spanish-speaking adults. Incorporating HL-related content may provide additional benefits.	this study's population. Sample small and homogenous. No follow-up conducted and it is not known whether changes persisted over time. Facilitated by two different ESL teachers, variations in the delivery of the instruction may have affected comparative results.	
Tsai et al. (2018)						
Evaluating the effectiveness of a problem-based HL program aimed to improve HL, health empowerment, navigation efficacy, and healthcare utilizations among immigrant women in Taiwan.	Quasi-experimental design using surveys at baseline and 6-months post. Two-group pre- and posttest quasi-experimental design to assess the effectiveness. Intervention group and comparison group, T1 baseline—PBL (intervention group)—T2 1st posttest—T3 2nd	Southeast Asian women who immigrated to Taiwan as a result of marriage to a Taiwanese man (transnational marriage category). Snowball recruitment method (flyers and posters). 70 intervention group; 153 comparison group. Average age 36	Baseline data collected via questionnaires administered by the investigators. Survey administered 6 months postintervention to collect data on HL and navigation efficacy. 10 items to measure communicative and appraisal HL.	Women who received a HL intervention program experienced improvement in health service utilization and access to healthcare. No significant improvement in HL, health empowerment, and navigation efficacy. Further research needed to develop	Strengths: a HL-based curriculum and implementation in a real-world community setting. Limitations: nonrandomized design, small group of immigrant women. Attrition rate high in comparison group. Those lost to the study may be ones with lower HL. Recruitment challenges and	Done in Traditional Chinese

Authors and purpose/objectives	Research design	Participants and setting	Instruments used	Findings	Limitations	Language
	posttest. Fisher's exact test and Pearson chi-square test to compare sociodemographics. Used *t* tests to compare differences in HL, health empowerment and navigation efficacy. McNemar test to examine within group change of healthcare utilizations.	years, majority 80% Vietnamese, most had less than high school education, 40% housewives, and all low-income households. 5–11 immigrant women per group. Approximately 6 months for the PBL (6 months after recruitment), then surveyed another 6 months (12 months after recruitment).	Sense of health control assessed using a 10-point visual analog scale. Six 5-point Likert scale items to assess participants' ability to take actions. 10-item 5-point Likert scale navigation self-efficacy scale. Healthcare utilization, ER visits and hospitalizations, and participants asked if delayed/avoided seeking healthcare because of communication barriers, unfamiliarity with the healthcare setting, or confusion with the care process.	an effective intervention that improves these cognitive and psychological factors. Average HL of immigrant women in the intervention group higher than comparison group, not statistically significant. Effect on HL: PBL did not have a statistically significant effect on HL. Effect on health empowerment indicators: health control and health action. The level of sense of health control increased in intervention group (how not stat sig differences). Levels of health action remained consistent. Effect on navigation: PBL had no significant	attribution rates resulted in imbalanced sample sizes in both groups. Measurement errors from repeated exposure to survey questions.	

Authors and purpose/objectives	Research design	Participants and setting	Instruments used	Findings	Limitations	Language
				impact on navigation efficacy. Effect on healthcare utilization: significant reduction in ER visits and hospitalization among immigrant women in the intervention group, decrease was not statistically significant in comparison group. PBL program did not contribute to improving healthcare seeking.		

Note. HL = health literacy; CLB = Canadian Language Benchmark; PBL = problem-based learning; TOFHLA = Test of Functional

Health Literacy in Adults.

Appendix B: Client Focus Group Consent Form

Building Navigation Skills Through a Health Literacy Program
SOICS Client Focus Group Consent Form

Who is conducting this study?

Principal Investigator:
Nelly D. Oelke, Associate Professor, School of Nursing, University of British Columbia, Okanagan
Telephone:
Email:

Co-Investigator:
Katrina Plamondon, Assistant Professor, School of Nursing, University of British Columbia, Okanagan
Telephone:
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Graduate Student:
Fatima Al-Roubaiai, Master of Nursing Student, University of British Columbia, Okanagan
Telephone:
Email:

This study is being completed as part of Fatima Al-Roubaiai' Master's degree. The thesis will be a public document and available on the internet.

Funding: This research is funded by a Mitacs-Accelerate Internship.

Why are we doing this project?
This project will bring a new program to South Okanagan Immigrant and Community Services (SOICS). This program will give new immigrants information about the Canadian healthcare to SOICS clients.

You are invited to take part in this project because you are a SOICS client. We invite you to help us understand what is important for new immigrants to learn about Canadian healthcare.

Who can take part in this project?
- Registered SOICS client
- Able to read and understand this consent form
- Are over the age of 18 years old

What happens if you say "Yes, I want to be in the project"?

Two focus groups will be done, one in Penticton and one in Oliver. Each group will have 6-8 SOICS clients. You have been invited to participate in the focus group. The focus group will take approximately 1.5 hours. You will be asked questions about your understanding of the healthcare system and you will be asked to review the health literacy program curriculum. With your consent, the focus group will be audio-recorded. As well, notes will be taken. If you or someone else does not agree to being audio-recorded, detailed notes will be taken instead. No information that could identify you will be included in the transcripts or the notes.

Your participation in this project is completely voluntary. The SOICS staff may be aware you are attending the focus group. You are not required to let anyone know if you are participating or not, and this decision will not affect your schooling or other services from SOICS negatively.

You may change your mind at any time. If you decide, you do not want to take part, please email or phone Nelly Oelke or Fatima Al-Roubaiai to remove yourself from the project. Their email and phone numbers are listed at the beginning of this form.

Once the focus group is started, we will not be able to remove your data due to the nature of focus group discussion.

What are the risks in taking part in this project?

We do not think there is anything in the study that could harm you or be bad for you. You can choose not to answer any questions that are asked.

What are the benefits of taking part in this project?

This study may not directly benefit you. The information you share will help SOICS develop a health literacy program for yourself and other SOICS clients.

You will also receive a small amount of money, $25.00, for taking part in the focus group.

Childminding will be offered by SOICS, as needed.

How will we keep your privacy?

We will try our best to keep the information that you share private. We cannot be sure that information will not be shared by others taking part. We will ask everyone at the beginning of the focus group and at the end to not share the information talked about or the names of those who took part in the focus group.

We will be using a professional transcriptionist to assist with typing the audio files into a "word file." They will sign a confidentiality agreement and files will only be transferred via secure network methods. Signed consent forms will be kept in a locked cabinet in a locked room at the UBC Okanagan campus. Paper copies of notes will be stored in a different locked cabinet at the

UBC Okanagan campus. During the project, all electronic files will be saved with password protection. The computer with the files saved will be password protected. Five years after publishing the results of the study all files will be deleted or shredded.

Some quotes from the focus groups will be included in presentations, reports, professional meetings or academic journal articles. You will not be identified in these quotes. These presentations and articles will be used to let community members including SOICS clients, health care providers, and managers in the South Okanagan and elsewhere know what we learned from this project.

Who can you contact if you have any questions about the study?
If you have any questions or concerns about what we are asking of you, please contact Nelly Oelke or Fatima Al-Roubaiai. Their email and phone numbers are listed at the start of this form.

Who can you contact if you have complaints or concerns about this study?
If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the UBC Office of Research Ethics toll free at 1-877-822-8598 or the UBC Okanagan Research Services Office at 250-807-8832. It is also possible to contact the Research Complaint Line by email (RSIL@ors.ubc.ca). Please reference the study number (H19-03007) when contacting the Complaint Line so the staff can better assist you. You may also contact the Chair of the Interior Health Research Ethics Board at 250-870-4602 or by email to researchethics@interiorhealth.ca.

Would you like to participate in this study?
Your decision to participate in this study is completely up to you. You can decide to stop taking part at any time during the study without giving a reason and without any negative effects.

□ I have received a copy of this consent form for my own records.

□ I agree to having the consultation session audio-recorded.

_____

Participant Signature   Date

_____

Printed Name of the Participant
□ I would also like to participate in the classes that will be taking place in the next couple of months.

Email: _____

Phone Number: _____

Appendix C: Service Provider Interview Consent

Building Navigation Skills Through a Health Literacy Program
Provider Interview Consent Form

Who is conducting this study?

Principal Investigator:
Nelly D. Oelke, Associate Professor, School of Nursing, University of British Columbia, Okanagan
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Graduate Student:
Fatima Al-Roubaiai, Master of Nursing Student, University of British Columbia, Okanagan
Telephone:
Email:

This study is being completed as part of Fatima Al-Roubaiai' Master's degree. The thesis will be a public document and available on the internet.

Funding: This research is funded by a Mitacs-Accelerate Internship.

Why are we doing this study?
The South Okanagan Immigrant and Community Services (SOICS) is a non-profit organization serving immigrant populations in the South Okanagan and Similkameen region. This study aims to assist SOICS in expanding services through additional programming for SOICS clients, specifically related to building health literacy skills and introducing Canadian healthcare to new immigrants in the community. This health literacy program will be incorporated into the existing English language instruction classes delivered by SOICS and Interior Health Authority staff.

You are being invited to take part in this study because you are involved, directly or indirectly, with SOICS clients and their health literacy development. The goals of this study is to incorporate your feedback in the adaptation of existing health literacy programs to develop a program for a small urban and rural British Columbia context. We invite you to offer your experience and provide feedback on this program.

Who can take part in this study?

- SOICS Staff (e.g. Language Instructors, Settlement Workers, etc.)
- Penticton Public Health Staff (e.g. Public Health Nurses)
- South Okanagan Division of Family Practice Providers and Staff (e.g. Primary Care Manager, General Practitioner)

What happens if you say "Yes, I want to be in the study"?
You have been asked to participate in an individual or group interview led by Fatima Al-Roubaiai, the graduate student with the study. The interview will take place in a location suitable to you (e.g., your office, Public Health Centre, etc.) or by phone and will take 0.5-1.0 hours. Arrangements have been made for this interview to occur during your regular work hours. You will be asked a series of questions about health literacy needs for immigrants and your experience with barriers to access they may encounter. You will also be asked about recommendations for program content and feedback on the current curriculums from various existing programs. With your permission, the interview will be audio-recorded. Notes may also be recorded by the interviewer. No information that could identify you or your organization will be included in the transcripts or the notes.

It is important to know that participation in this study is completely voluntary. You may change your mind at any time. If you decide that you no longer want to take part in the study, please contact Nelly Oelke or Fatima Al-Roubaiai. Their contact information is listed at the beginning of this form. If you decide to withdraw before we have started to analyze the data, all information that you have provided to us will be destroyed. If you participate in a group interview, we will not be able to remove your data given the nature of group discussion. If you withdraw once analysis has begun, we will make sure that we do not include any quotes from your interview in any presentation or publication.

What are the risks associated with participating in this study?
We do not think that this interview will cause any risks that you would not normally experience every day. You can choose not to answer any of the questions that are asked.

What are the benefits of participating in this study?
There is no guarantee that you or your organization will directly benefit from participating in this study. However, your comments will help inform a health literacy program being introduced to SOICS clients in Spring 2020.

How will your privacy be maintained?
All information that you provide us will be kept confidential. You will only be identified by a unique research ID number. Only the principal investigator and graduate student will be able to access a list of participants with your research ID number. This list will be destroyed once all interviews are completed.

We will be using a professional transcriptionist to transcribe audiofiles for the interviews. The transcriptionist will sign a confidentiality agreement and all files will be transferred via a secure UBCO network. Signed consent forms and a list of participants with research ID numbers will be stored in a locked filing cabinet in a locked room at the UBC Okanagan campus. Paper copies of other documents (e.g., field notes) will be stored in a different locked filing cabinet at the UBC

Okanagan campus. During the study, all electronic data files (e.g. transcripts) will be stored on a UBCO network folder and/or encrypted computer. Following completion of the study, all files will be stored on a password protected shared network folder. We will keep all research files for 5 years after publication of the findings, when they will be deleted or shredded.

Some quotes from the interviews will be included in presentations, reports, and publications. You or your organization will not be identified in these quotes. These presentations and articles will be used to let community members, health care providers, SOICS staff, and other interested providers or researchers know what we learned from this study. We also plan on presenting the findings at professional meetings and in journals.

Who can you contact if you have any questions about the study?
If you have any questions or concerns about what we are asking of you, please contact Nelly Oelke or Fatima Al-Roubaiai. Their email and phone numbers are listed at the start of this form.

Who can you contact if you have complaints or concerns about this study?
If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the UBC Office of Research Ethics toll free at 1-877-822-8598 or the UBC Okanagan Research Services Office at 250-807-8832. It is also possible to contact the Research Complaint Line by email (RSIL@ors.ubc.ca). Please reference the study number (H19-03007) when contacting the Complaint Line so the staff can better assist you. You may also contact the Chair of the Interior Health Research Ethics Board at 250-870-4602 or by email to researchethics@interiorhealth.ca.

Would you like to participate in this study?
Your decision to participate in this study is completely up to you. You can decide to stop participating at any time during the study without giving a reason and without any negative impacts to you or your employment.

☐ I have received a copy of this consent form for my own records.

☐ I agree to having the consultation session audio-recorded.

_____   _____
Participant Signature   Date

_____
Printed Name of the Participant

Appendix D: Client Focus Group Guide

Building Navigation Skills Through a Health Literacy Program
Client Focus Group Guide

Thank you for agreeing to participate in this focus group. This project is a partnership between SOICS, Interior Health and the University of British Columbia Okanagan. Your feedback will help us understand what SOICS clients want to learn about health and the health system. SOICS is testing new health classes, or units, for the beginner morning classes and intermediate afternoon classes.

The focus group will last approximately 1.5hours. You will be asked questions about your understanding of the health system and to review health topics for SOICS classes. You do not need to answer all of the questions we will ask, if you do not wish. If you have any questions or you do not understand something, please ask me.

With your permission, the focus group will be audio-recorded and notes will be taken. No information that could identify you will be included in the notes. Please respect each other's privacy and do not share information that is talked about or the names of those participating.

Your participation is voluntary. SOICS staff may know you are participating. You are not required to let anyone know you are in the focus group. And this decision will not affect your schooling or other SOICS services.

Questions	Prompts
1. When did you first immigrate to Canada?	• Understanding of length of time in Canada and South Okanagan
2. What is your experience with the health care services? (check all that apply)	• Making appointments, doctor's office, walk-in clinic, hospitals, immunizations
3. What worked well?	•
4. What did not work well?	• Hardest parts about using these services
5. What might be important for new immigrants to learn about health and the health care system in Canada?	• Health – Diseases, illness, injuries, vaccinations, mental health • Health care system – Doctor's office, walk-in clinics, emergency, hospital • Use flip chart paper or white board to record answers
6. Have you had classes or units about health care at SOICS before?	• What topics? • What do you remember? • Was it helpful?

7. What formats and types of tools would be helpful for you to learn about with health and the health care system?	• Pictures available, Google translate on screen
8. What do you think of these ideas for future classes or units?	• Share modules/content topics
9. Should more on health and the health care system be included as part of SOICS programs?	• Yes/no • When and how should they be delivered
10. Would you prefer a program covered in one week of classes or spread over many weeks?	•
11. Any questions or more comments?	

Appendix E: Service Provider Interview Guide

THE UNIVERSITY OF BRITISH COLUMBIA   SOUTH OKANAGAN IMMIGRANT AND COMMUNITY SERVICES   Interior Health

Building Navigation Skills Through a Health Literacy Program
Interview Guide for Providers

Thank you for agreeing to participate in this interview. Your feedback will help us understand the current state of health education and health literacy available in the South Okanagan communities for new immigrants. This study is being done in partnership with the South Okanagan Immigrant and Community Services or SOICS, which provides a range of services to immigrants living in the South Okanagan. SOICS is looking to add a consistent program related to building health literacy skills to the suite of programs offered to their clients. Your feedback on the needs of clients for a health literacy program, facilitators and barriers to health literacy and on programs found in other regions will help inform the program built for SOICS. You do not need to answer all of the questions we will ask, if you do not wish to. If you have any questions or you do not understand something, please do not hesitate to ask me.

Add for group interviews: Please do not share the information that is shared here or the names of those participating in this interview.

Questions	Prompts
1. What is your role with the new immigrant population and their access to health services?	• Organization, role, time in current role • Connection – direct/indirect • Different components of the role
2. What challenges do new immigrants face in accessing health information and health care services?	•
3. What factors facilitate new immigrants' ability to access information and health care services?	•
4. Tell me about any health related classes offered to SOICS clients or other new immigrants in this area at this time.	• How often? • How developed?
5. How are the classes received by clients?	• Their feedback
6. Content review – I would like you to share your feedback on these potential topics/content/structure for classes being developed?	• Show modules & facilitator guides • Share overview of timeline/logistics • What should be included/excluded?

7. Are you aware of other organizations offering similar programs, particularly for small urban and rural communities?	• Either in BC or outside of BC
8. What benefits do you see from offering a program like this in the community?	• What are the benefits for clients, for health care providers?
9. What barriers/concerns do you predict may arise?	• Is the length/format realistic? • Location • Format • Any concerns you may have

Appendix F: Program Participant Consent Form

Health Literacy Program
Consent Form for Program Participants

Who is conducting this study?

Principal Investigator:	**Co-Investigator:**	**Graduate Student:**
Nelly D. Oelke, Associate Professor, School of Nursing, University of British Columbia, Okanagan Telephone: Email:	Katrina Plamondon, Assistant Professor, School of Nursing, University of British Columbia, Okanagan Telephone: Email:	Fatima Al-Roubaiai, Master of Nursing Student, University of British Columbia, Okanagan Telephone: Email:

This study is being completed as part of Fatima Al-Roubaiai' Master's degree. The thesis will be a public document and available on the internet.

Funding: This research is funded by a Mitacs-Accelerate Internship.

Why are we doing this project?
This project will test a new program for the South Okanagan Immigrant and Community Services (SOICS). This program will give SOICS clients and new immigrants information about Canadian healthcare. We will also provide information on the COVID-19 pandemic.

You are invited to take part in this project because you are a SOICS client. We invite you to attend the new program for immigrants learning about Canadian healthcare.

Who can take part in this project?
- Registered SOICS client
- Able to read and understand this consent form
- Are over the age of 18 years old

What happens if you say "Yes, I want to be in the project"?
Saying yes means you are willing to participate in the online classes. Also, you are willing to take surveys before and after the classes and to participate in the focus group if invited.

Classes: Online classes will cover different topics of health and healthcare. Students in the online class will be SOICS clients only.

Session Schedule:	Session 1	\<insert date\> at \<insert time\>
	Session 2	\<insert date\> at \<insert time\>
	Session 3	\<insert date\> at \<insert time\>
	Session 4	\<insert date\> at \<insert time\>

Surveys: There will be surveys at the start of the program and at the end of the program. One short survey will be done with Fatima over the telephone. This survey will take 5 minutes. A second survey will be done online. This will take about 10-15 minutes. Each class will have an an evaluation at the end. This evaluation will take about 5 minutes each. The online surveys will be administered by the UBC-hosted version of Qualtrics Software. All data will be stored and backed up in Canada.

Focus Group: At the end of the program, you may be invited to take part in a focus group. The focus group will be 6-10 clients who took the class. The students who attended all four sessions will be invited first. The focus group will take approximately 1.5 hours. You will be asked questions about your experience through the program. You will be asked to review the topics of the program and the format of the program. With your consent, the focus group will be audio-recorded. As well, notes will be taken. If you or someone else does not agree to being audio-recorded, detailed notes will be taken instead. No information that could identify you will be included in the transcripts or the notes.

Attendance: Your attendance will be recorded by your instructors for two reasons. Students who join all four classes will be invited to the focus group. Students who join all four classes will be emailed an electronic gift card for participation.

Your participation in this project is completely voluntary. The SOICS staff may be aware you are attending the classes and the focus group. You are not required to let anyone know if you are participating or not, and this decision will not affect your schooling or other services from SOICS negatively.

You may change your mind at any time. If you decide, you do not want to take part, please email or phone Fatima Al-Roubaiai or Nelly Oelke to remove yourself from the project. Their email and phone numbers are listed at the beginning of this form.

Once the focus group is started, we will not be able to remove your data due to the nature of focus group discussion.

What are the risks in taking part in this project?
We do not think there is anything in the study that could harm you or be bad for you.

What are the benefits of taking part in this project?
This study will offer you knowledge and skills to navigate health services in the South Okanagan. You will help SOICS develop a health literacy program for yourself and other SOICS clients. Students who join all four classes will be emailed a gift card.

You will also receive a small amount of money, $25.00, for taking part in the focus group.

How will we keep your privacy?

We will try our best to keep the information that you share private. We cannot be sure that information will not be shared by others taking part. We will ask everyone at the beginning and at the end of the classes and the focus group to not share the information talked about or the names of those who took part in the focus group. Your attendance will not be shared outside of the research team. The attendance will be kept separate from surveys and consent forms.

We will be using a professional transcriptionist to assist with typing the audio files into a "word file." They will sign a confidentiality agreement and files will only be transferred via secure network methods. Signed consent forms will be kept in a locked cabinet in a locked room at the UBC Okanagan campus. Paper copies of notes will be stored in a different locked cabinet at the UBC Okanagan campus. During and after the project is finished, all electronic files will be saved on the UBC Okanagan secure network. Five years after publishing the results of the study all files will be deleted or shredded.

Some quotes from the focus groups will be included in presentations, reports, professional meetings or academic journal articles. You will not be identified in these quotes. These presentations and articles will be used to let community members including SOICS clients, health care providers, and managers in the South Okanagan and elsewhere know what we learned from this project.

Who can you contact if you have any questions about the study?
If you have any questions or concerns about what we are asking of you, please contact Nelly Oelke or Fatima Al-Roubaiai. Their email and phone numbers are listed at the start of this form.

Who can you contact if you have complaints or concerns about this study?
If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the UBC Office of Research Ethics toll free at 1-877-822-8598 or the UBC Okanagan Research Services Office at 250-807-8832. It is also possible to contact the Research Complaint Line by email (RSIL@ors.ubc.ca). Please reference the study number (H19-03007) when contacting the Complaint Line so the staff can better assist you. You may also contact the Chair of the Interior Health Research Ethics Board at 250-870-4602 or by email to researchethics@interiorhealth.ca.

Would you like to participate in this study?
Your decision to participate in this study is completely up to you. You can decide to stop taking part at any time during the study without giving a reason and without any negative effects.

□ I have received a copy of this consent form for my own records.

□ I agree to participating in the health classes.

□ I agree to completing the surveys and evaluations throughout the program.

_____

Participant Signature   Date

_____

Printed Name of the Participant

□ I would like to receive a copy of the final report of this study through email.

Email: _____

Appendix G: Program Participant Oral Consent Script

Health Literacy Program
Oral Consent Script for Program Participant

Hello <name>. Thank you for agreeing to participate in the health classes for SOICS. I have emailed you the full consent form that we are going to review now. Have you received this?

This research project is being done by researchers from the School of Nursing at the University of British Columbia Okanagan. This project is being completed as part of Fatima Al-Roubaiai' Master's degree.

This project will test a new online program for the South Okanagan Immigrant and Community Services (SOICS). This program is for SOICS clients. We invite you to attend the new program to learn about health and healthcare in Canada. We will also be talking about COVID-19. You can take part if you are a SOICS client, able to read and understand this consent, and are over 18 years old.

Saying yes, I want to be in the project means you are willing to attend the online classes and take all the surveys and evaluations. Online classes will be done on different topics of health and healthcare. Students in the online class will be SOICS clients only.

Surveys will be done before and after the program. The demographics survey and the evaluations of each class are online. One survey will be done with me before and after the program. You can choose not to answer any questions you don't want to. No information that could identify you will be shared.

Your attendance will be recorded for two reasons only. To invite you to the focus group at the end of the program. If you complete all four classes, you will be given a gift card.

Your participation in this project is completely voluntary. You are not required to let anyone know if you are participating or not, and this decision will not affect your schooling or other services from SOICS negatively.

You may change your mind at any time. If you decide, you do not want to take part, please email or phone Fatima Al-Roubaiai or Nelly Oelke to remove yourself from the project. Our email and phone numbers are listed at the beginning of the consent forms.

We do not think there is anything in the project that could harm you or be bad for you.

The benefit of this project will offer you knowledge and skills to navigate health services in the South Okanagan. You will help SOICS develop a health literacy program for yourself and other SOICS clients.

We will try our best to keep the information that you share private. We cannot be sure that information will not be shared by others taking part. We will ask everyone at the beginning and at the end of the classes and the focus group to not share the information talked about or the names of those who took part in the focus group.
If you have complaints or concerns about the project, please contact the UBC Office of Research Ethics. The contact information is on the consent form.

Your decision to participate in this study is completely up to you. You can decide to stop taking part at any time during the study without giving a reason and without any negative effects.

Can you tell me yes or no if you agree to the following:

□ I have received a copy of this consent form for my own records.

□ I agree to participating in the health classes.

□ I agree to completing the surveys and evaluations throughout the program.

_____

Name & Signature of Person Obtaining Oral Consent   Date

_____

Printed Name of Participant   Date

□ I would like to receive a copy of the final report of this study through email.

Email: _____

THE UNIVERSITY OF BRITISH COLUMBIA | UBC | SOUTH OKANAGAN IMMIGRANT AND COMMUNITY SERVICES | Interior Health

Participant Code #: _____

Health Literacy
Demographics Questionnaire (online)

1. Date of Birth (month/year): _____

2. Sex:
   ☐ Male
   ☐ Female
   ☐ Other (Please specify) - _____
   ☐ Prefer not to say

3. Marital status
   ☐ Single   ☐ Separated/divorced
   ☐ Married   ☐ Widowed
   ☐ Common-law   ☐ Prefer not to say

4. Living situation
   ☐ Number of adults you live with: 1 --- 2 --- 3 --- 4 --- 5 --- 6   more than six
   ☐ Number of children you live with: 1 --- 2 --- 3 --- 4 --- 5 --- 6   more than six
   ☐ Prefer not to say

5. Location of Residence
   ☐ Summerland   ☐ Osoyoos
   ☐ Penticton   ☐ Other (Please specify) -
   ☐ Oliver   _____

6. When did you arrive to Canada? (month/year): _____

7. Type of immigration:
   ☐ Family
   ☐ Skilled Worker
   ☐ Refugee
   ☐ International Student
   ☐ Other (Please specify) -

      _____
   ☐ Prefer not to say

8. Current residency status in Canada:
- ☐ Permanent resident
- ☐ Canadian citizen
- ☐ No status in Canada
- ☐ Prefer not to say

9. Country of birth? _____

10. What languages do you speak? _____

11. Ethnicity:
- ☐ Aboriginal (First Nations, Metis, Inuit)
- ☐ European Origins (i.e., Caucasian)
- ☐ Caribbean
- ☐ Latin, Central and South American
- ☐ African
- ☐ Central Asian or Middle Eastern
- ☐ South Asian or South East Asian
- ☐ Prefer not to say
- ☐ Other (Please specify)

    _____

12. Educational status
- ☐ Less than high school
- ☐ High school
- ☐ Some post-secondary
- ☐ Apprenticeship or trades certificate
- ☐ College/technical diploma
- ☐ University degree
- ☐ Postgraduate education
- ☐ Prefer not to say

13. Employment status in Canada:
- ☐ Employed full-time
- ☐ Employed part-time
- ☐ Unemployed
- ☐ Not employed, not looking for work
- ☐ Homemaker
- ☐ Student
- ☐ On sick/disability leave
- ☐ Receiving provincial disability income benefits
- ☐ Retired
- ☐ Prefer not to say

14. Have you seen a doctor since arriving to Canada?
- ☐ Yes
- ☐ No
- ☐ Other (Please specify) _____

15. Do you have a family doctor?
- ☐ Yes
- ☐ No
- ☐ Other (Please specify) _____

16. Has anyone explained to you how the British Columbia healthcare system works?
- ☐ Yes
- ☐ No
- ☐ Other (Please specify) _____

17. Do you have a BC Service Card or a health card?Yes
- ☐ No
- ☐ Other (Please specify) _____

18. What health services have you used since you've been in Canada? (select all that apply)
- ☐ Walk-in Clinic
- ☐ Family Doctor
- ☐ Specialist Doctor
- ☐ Public Health Centre
- ☐ Hospital Emergency Room
- ☐ Hospital Other (surgery, maternity, etc.)
- ☐ Emergency 911
- ☐ Ambulance Services
- ☐ HealthLinks BC 811
- ☐ Pharmacy Services
- ☐ Other health professional (physiotherapy, chiropractor, dietician)

19. What are you most concerned about when it comes to health and healthcare? (select all that apply)

- ☐ COVID-19 / Coronavirus
- ☐ Diabetes
- ☐ Heart disease
- ☐ Kidney disease
- ☐ Asthma
- ☐ Depression
- ☐ Mental health
- ☐ Stress
- ☐ Anxiety
- ☐ Post-traumatic Stress Disorder
- ☐ Chronic Pain
- ☐ Diet and nutrition
- ☐ Exercise and weight loss
- ☐ Other (Please specify) _____

Appendix I: Calgary Charter on Health Literacy Scale

Participant Code #: _____

Health Literacy Program
Pre-Post Program – Health Literacy Questionnaire

Thank you for joining the SOICS health classes. There are five questions you will be asked before and after the program. You do not have to answer any questions if you do not want to.

On the following scale from Never to Always, how often do you engage in the following tasks?

	Never	Sometimes	Often	Always
Find or look for health information.				
Understand information about your health.				
Evaluate how health information relates to your life.				
Communicate about your health to others.				
Act on information about your health.				

Adapted from Calgary Charter on Health Literacy Scale

Appendix J: Individual Module Feedback

Health Literacy Program
Client Session Evaluation (online)

Thank you for participating in today's session! We are interested in your ideas on how to make this better. Please fill out the questions below about today's session.

Questions:

Today's Date:

Presentation Title: <insert presentation title for each week>.

How did you like the presentation?

0 ----- 1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7 ----- 8 ----- 9 ----- 10

Did you understand the presentation?

0 ----- 1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7 ----- 8 ----- 9 ----- 10

Was the presentation interesting or informative for you?

0 ----- 1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7 ----- 8 ----- 9 ----- 10

How can this be better? (speed, clear, pictures, difficult words)

What 3 things did you learn?

Write 1-2 questions you have for the presenters today.

Any other questions? Or things you want to know?

Thank you for taking the time to complete the survey!

Appendix K: Facilitator Debrief Guide

Health Literacy Program
Facilitator Session Debrief Guide

Questions to guide end-of-module debrief amongst facilitators. This may be conducted in real time immediately after the session after all participants have logged off. Alternatively, if time does not permit, this can be done individually by email.

Reflection Questions	Notes:
1. What went well?	
2. What did the students appear to like most?	
3. What did not go well?	
4. What did students appear to struggle with most?	
5. How could today's class be improved?	
6. Any surprises or lessons learned?	
7. Additional comments or questions?	

Appendix L: Postworkshop Focus Group Guide

THE UNIVERSITY OF BRITISH COLUMBIA   SOUTH OKANAGAN IMMIGRANT AND COMMUNITY SERVICES   Interior Health

Health Literacy Program
Client Post-Program Focus Group Guide (Online)

Thank you for agreeing to participate in this focus group. This project is a partnership between SOICS, Interior Health and the University of British Columbia Okanagan. Your feedback will help us improve the health program created for SOICS clients in beginner and intermediate level classes.

The focus group will last approximately 1.5 hours. You will be asked questions about your experience through the online program. Some questions will be about what you learned, like the topics. Other questions will be about how it was attending these classes and learning online. You do not need to answer all of the questions we will ask, if you do not wish. If you have any questions or you do not understand something, please ask me.

With your permission, the focus group will be audio-recorded and notes will be taken. The original consent you signed for the program explains this. No information that could identify you will be included in the notes. Please respect each other's privacy and do not share information that is talked about or the names of those participating.

If anyone does not agree to recording, I will take notes only. Does everyone agree to recording? Please say yes or no (obtain and count oral consent)

Please remember, your participation is voluntary. SOICS staff may know you are participating. You are not required to let anyone know you are in the focus group. And this decision will not affect your schooling or access to other SOICS services.

Questions	Prompts
1. How many classes did you attend?	• All four or partial
2. Did you log in using a computer or phone?	• Sound quality, video quality • Any trouble logging in
3. Which class did you like most? And why?	• What part specifically?

	- What about it? - Too slow or too fast?
4. Which class did you like the least? Why?	
5. How will you use the information?	- Is it valuable? - Have you tried anything different yet?
6. Was one hour enough time?	- Too long, too short? - Pace? Too slow, too fast?
7. What changes would you like to see in the classes as they were presented?	
8. What other topics would you like to see?	Covid or otherwise
9. Would you recommend that we do these classes again? Face-to-face if possible or online?	Yes/no
10. Any last comments?	