MENTAL HEALTH OF IMMIGRANTS AND NON-IMMIGRANTS IN CANADA: EVIDENCE FROM THE CANADIAN HEALTH MEASURES SURVEY AND SERVICE PROVIDER INTERVIEWS IN ALBERTA

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UNIVERSITY OF ALBERTA

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LAY SUMMARY

This study examines the relationship between self-perceived mental health and reported diagnosis of mood disorders with age, gender, migration status, time since migration, and social determinants of health. We also sought to examine Albertan immigrant service providers' perspectives on immigrants' mental health and strategies to improve immigrants' mental health. We analyzed the Canadian Health Measures Survey to determine the factors that contribute to self-perceived mental health and self-reported diagnosis of mood disorders. Our sample included 12,160 participants aged 15 to 79 years. We also conducted interviews and focus groups with 53 immigrant service providers in Alberta. Our analysis revealed that increased income, older age, employment, shorter duration of residence in Canada, and a strong sense of community belonging were associated with better self-perceived mental health. Recent migrants were almost four times more likely to report better mental health than Canadian-born residents. However, this advantage decreased with time spent in Canada. Self-reported diagnosis of mood disorders was positively associated with being middle age, female, and unemployed, and with having a lower income and weak sense of community belonging. Our interviews and focus groups identified factors that contribute to mental health (especially poverty) and factors that contribute to access to mental health services. Strategies to improve the mental health of immigrants include community-based mental health delivery, mental health awareness programs, cultural competence in mental health and interpretation services, addressing the issue of unemployment and underemployment, building capacity of healthcare providers, and removing systematic barriers to accessing care. We conclude that there is a need for funding and programs to address the mental health service needs of immigrants across the duration of their residence in Canada. These initiatives must also attend to the diverse social determinants of health.

EXECUTIVE SUMMARY

Introduction: Although immigrants tend to arrive healthy, evidence indicates that their health deteriorates after a period of time in Canada. While evidence indicates that immigrants internationally have poorer mental health status than the host-country population, the evidence for Canada is mixed. Data from the Canadian Community Health Survey point to a lower incidence of mental health problems among immigrants. Regional studies, however, do not always concur with this national data. We sought to clarify these mixed findings by using another source of data – the Canadian Health Measures Survey – to examine the relationship between self-perceived mental health and self-reported diagnosis of mood disorders with age, gender, migration status, time since migration, and social determinants of health. Furthermore, we sought to contextualize our data in Alberta by examining the perspectives of service providers on immigrants' mental health and strategies to improve immigrants' mental health.

Methods: We analyzed three cycles of the Canadian Health Measures Survey to examine the relationship between self-perceived mental health and self-reported diagnosis of mood disorders to vital social determinants of health, including income, community belonging, country of birth (i.e. born inside or outside Canada), time since migration, age, gender, employment status, and education. The Canadian Health Measures Survey is a Statistics Canada national survey that collects information about the health of Canadians through personal interviews and physical measurements. We gained access to the Canadian Health Measures Survey upon application to the Statistics Canada Research Data Centre at the University of Alberta. We analyzed three cycles of data: Cycle 1 (collected from 2007 to 2009), Cycle 2 (collected from 2009 to 2011); Cycle 3 (collected from 2012 to 2013). Each cycle is a cross-sectional survey. We used weighted logistic regression. Our sample included 12,160 participants aged 15 to 79 years. We also conducted interviews and focus groups with 53 immigrant service providers in Alberta.

Participants were purposively recruited by contacting major immigrant serving agencies in Edmonton and Calgary after an online search. We completed thematic analysis aided by NVivo 11 software.

Results: Our initial analysis revealed that the difference in the mental health of immigrants versus non-immigrants was not statistically significant (Odds ratio 1.07, 95% CI 0.87, 1.31). We conducted another set of analyses with time since migration but without immigration status in the model due to a high level of collinearity of the two variables. Increased income, older age, gainful employment, shorter duration of residence in Canada, and a stronger sense of community belonging were associated with increased likelihood of excellent, very good, and good self-perceived mental health. The analysis revealed that recent migrants were almost four times more likely to report better mental health than Canadian-born residents (Odds ratio 3.98, 95% CI 2.06, 7.70). However, this advantage decreased with time spent in Canada. Self-reported diagnosis of mood disorders was positively associated with being middle age, female, and unemployed, and with having lower income and a weak sense of community belonging. When we examined this relationship by duration of residence in Canada, the pattern was non-linear so that the lowest risk for mood disorders was seen in the immediate 5 years after immigration, followed by little difference between 6 and 10 years, and then a reduced risk after 10 years of residence. In another model that excluded time since migration, migrants were less likely to report diagnosis of mood disorders (Odds ratio 0.80, 95% CI 0.69, 0.94, p=0.005). Education was not statistically significant in this model. Factors associated with mental health by interview and focus group participants include unemployment, underemployment, and poverty; immigration status; community belonging; family dynamic and conflict; gender; discrimination and racism; time since migration and age at immigration; culture shock; and parental stress. Interview and focus

group participants associated the following factors with access to mental health services: mental health stigma, a mismatch between cultural needs and available services, a language barrier, immigrants' economic condition, and an overburdened system and system bureaucracy. Participants suggested that providing community-based mental health delivery, mental health awareness programs for immigrants, cultural competence in mental health and interpretation services, as well addressing unemployment and underemployment, building capacity of healthcare providers, and removing systematic barriers, may reduce the burden of mental illness among immigrant population.

Policy Implication: Our quantitative findings indicate that migrants to Canada do not have worse mental health in general. However, there is a trend towards decline in immigrants' health after living in Canada for more than 10 years. Service providers identified additional factors that contribute to mental health. Both our quantitative and qualitative analysis identified income, employment status, and community belonging as consistent factors. These are all modifiable factors that are amenable to social interventions. Programs and policies targeted at these factors will improve immigrant mental health. As our participants suggested, the provision of community-based, culturally and linguistically appropriate mental health services will serve to improve the mental health of immigrants. We conclude that there is a need for funding and programs to address the mental health service needs of immigrants across the duration of their residence in Canada. These initiatives must also attend to the diverse social determinants of health.

BACKGROUND

Canada is a country of immigrants. In 2011, over 6.8 million individuals in Canada were foreign born (Statistics Canada, 2013). Canada had the second highest percentage of immigrants at 20.6 percent of the country's population (Statistics Canada, 2013). Alberta has one of the fastest-growing populations of immigrants; between 2000 and 2010, the proportion of immigrants preparing to settle in Alberta increased from 6.3% to 11.6% (Statistics Canada, 2015). The movement of populations of this size has important implications for population health and health systems in Canada, especially in Alberta.

Overall, new immigrants to Canada appear to be healthier than the Canadian-born population, by virtue of being capable, both physically and mentally, of successfully moving themselves, and often their families, from one country to another (Hyman, 2007). This is known as the "healthy immigrant effect." However, research shows that the health of immigrants declines after a period of time in Canada. The decline in immigrants' health results from a complex interplay of environmental, economic, genetic, and socio-cultural factors, including when people migrated to Canada, where and how they lived in their original home country, and how and why they migrated. Their health is also influenced by post-migration factors involving integration into their new place of residence, employment, education, and poverty, as well as the accessibility and responsiveness of health practitioners and responsiveness of the Canadian healthcare system to immigrants' health needs (Gushulak & MacPherson, 2006).

Studies worldwide point to increased risk of mental health problems and illnesses in immigrant groups (Cantor-Graae, Zolkowska, & McNeil, 2005; Levecque, Lodewyckx, & Vranken, 2007). A meta-analysis of 21 studies from across the globe found that immigrants experience higher rates of mental health problems than non-immigrants (Bourque, van der Ven, & Malla, 2011). However, only one study from North America was included in this 2011 review. Prevalence rates of mental health problems and illnesses in immigrant groups in Canada are not consistently reported as elevated compared to Canadian-born residents. Evidence from the Canadian Community Health Survey points to lower rates of psychiatric disorders, including depression and bipolar disorder, among first-generation immigrants than Canadian-born residents (Akhtar-Danesh & Landeen, 2007; Ali, 2002; Menezes, Georgiades, & Boyle, 2011; Schaffer et al., 2009; Stafford, Newbold, & Ross, 2011).

Local studies, however, do not always concur with the results of the Canadian Community Health Survey. For instance, a study of Quebec immigrant women who belonged to minority groups were found to display higher depressive symptoms than women born in Canada or women from larger immigrant groups (Mechakra-Tahiri, 2007), and a study of the Ethiopian-origin population in Toronto reported a lifetime prevalence rate of depression at 9.8% (Fenta, Hyman, & Noh, 2004) – higher than the national average, which is between 7.9% and 8.6% (Mood Disorders Society of Canada, 2007). There is some suggestion of higher rates of mental health disorders within immigrant populations in studies in Nova Scotia (Kisely, Terashima, & Langille, 2008) and Quebec (Tousignant, 1999).

The mixed findings on immigrants' mental health makes it imperative to analyze a broader range of data outside of the most commonly used one, the Canadian Community Health Survey. Also, there is a need for qualitative approaches to shed light on quantitative evidence and to situate findings within Alberta.

PURPOSE AND RESEARCH OBJECTIVES

The purpose of this study is to examine the relationship between reported mental health status and vital social determinants of health, migration status, and age, and to contextualize these findings within Alberta. We were guided by the following research questions:

- What is the relationship between self-perceived mental health and self-reported diagnosis of mood disorders with age, gender, migration status, time since migration, and social determinants of health factors?
- What are the perspectives of immigrant service providers on immigrants' mental health in Alberta?
- How can future programs, research, and policy improve the mental health of immigrants and non-immigrants in Alberta?

DESIGN/METHODS

There were two phases of this study. Phase 1 involved analysis of the Canadian Health Measures Survey. Phase 2 involved interviews and focus groups with immigrant service providers in Alberta.

Phase 1: Analysis of the Canadian Health Measures Survey

We performed a secondary data analysis of the Canadian Health Measures Survey. The Canadian Health Measures Survey is a national survey that collects information about the health of Canadians through personal interviews and physical measurements. We gained access to the Canadian Health Measures Survey data upon application to the Statistics Canada Research Data Centre at the University of Alberta. We analyzed three cycles of data: Cycle 1 (collected from 2007 to 2009), Cycle 2 (collected from 2009 to 2011); Cycle 3 (collected from 2012 to 2013). Each cycle is a cross-sectional survey. While the survey collects data from individuals age 3 to 79, our analysis focused on individuals age 15 to 79 years, as data is not available on all our outcome measures and covariates for those outside this age group. Only landed immigrants are included in this study (temporary foreign workers, refugee claimants, and visitors are excluded from the sample). In total, 12,160 participants were included in our sample.

Outcome (dependent) variables of interest include self-perceived mental health and self-reported diagnosis of mood disorders. Self-perceived mental health is represented by the question, “In general, would you say your mental health is excellent, very good, good, fair, or poor?” Mood disorders are represented by the question, “Do you have a mood disorder such as depression, bipolar disorder, mania, or dysthymia?” Covariates included immigration status (born inside or outside of Canada), time since immigration, age, sex, household income, sense of community belonging, household education, and employment status.

Weighted logistic regression was used to estimate the odds ratios and 95% confidence intervals for migration status, time since immigration, age group, gender, income, sense of community belonging, education, and employment on self-perceived mental health and self-reported diagnosis of mood disorders. Bootstrap weights were applied to account for survey design and non-response bias as well as to ensure that the findings are representative of the Canadian population. Because of collinearity between immigration status and time since migration, we used the latter variable as it is more informative in our models, but we report the former for completeness. All analysis was conducted using SAS 9.4.

Phase 2: Interviews and Focus Groups

Upon the completion of our analysis of the database, we conducted focus groups to deepen the quantitative analysis, situate the findings within the Alberta context, and propose

future immigrant mental health interventions and actions. Ethics approval was obtained from the University of Alberta Research Ethics Board. We invited individuals from immigrant-serving agencies to participate in our study. Participants were identified by contacting major immigrant serving agencies in Edmonton and Calgary after an online search. Participants were given the option of individual interview or focus group. Interviews were arranged for a time that was convenient to participants. After participants had read, understood, and signed an informed consent document, individual interviews lasted approximately 30 minutes to 1 hour, and focus groups lasted approximately 1 to 2 hours. Focus groups and interviews were semi-structured, and we provided participants with a brief summary of our quantitative analysis prior to the focus groups. In total, we interviewed 53 immigrant service providers in Alberta, 6 of whom engaged in individual interviews and 47 of whom engaged in 1 of 6 focus groups. The participants came from 9 immigrant-serving agencies in Alberta and included both immigrant mental health practitioners (5) and other immigrant service providers (4). Participants were provided with a small token of appreciation for their time.

All interviews and focus groups were audio recorded, transcribed verbatim, and analyzed. Focus group audio recordings were transcribed verbatim by a professional transcriptionist. Data analysis was completed using thematic analysis aided by NVivo 11 qualitative software. Thematic analysis is a method for identifying, analyzing, and reporting repeated patterns of meaning (themes) across a data set (Braun & Clarke, 2006).

Participants were provided with a preliminary report of the study and were invited to provide their feedback. According to Varvasovszky and Brugha (2000), seeking feedback on focus group interview summaries from stakeholders "help[s] to build trust and enable[s] [participants] to correct inaccurate reporting, give more considered responses or qualify earlier responses" (p. 342). This process will contribute to the rigor of the study. We also exercised reflexivity throughout the study by recording our ongoing awareness in the field.

QUANTITATIVE RESULTS

In total, 12,160 participants were included from Canadian Health Measures Survey data. Of these participants, 9,310 (76.6%) Canadians and 2,850 (23.4%) migrants completed the Canadian Health Measures Survey. Data analysis revealed that migrants were older and had a lower income but a higher level of education compared to the Canadian-born population.

Self-Perceived Mental Health

Our analysis revealed that immigrants had very slightly better self-perceived mental health than the Canadian-born population; but this finding was not statistically significant (Odds ratio 1.07, 95% CI 0.87, 1.31). We conducted another set of analysis with time since migration but without immigration status in the model due to a high level of collinearity of the two variables. Increased income, older age, being employed, shorter duration of residence in Canada, and a stronger sense of community belonging were associated with increased likelihood of excellent, very good, and good self-perceived mental health (see Table 1). The analysis revealed that recent migrants were almost four times more likely to report better mental health than Canadian-born residents (Odds ratio 3.98, 95% CI 2.06, 7.70). However, this advantage decreased with time spent in Canada. Individuals who have lived in Canada for less than 5 years reported better mental health status than those who have been in Canada for 10 years or more.

Self-Reported Diagnosis of Mood Disorders

Self-reported diagnosis of mood disorders was positively associated with being middle age, female, and unemployed, and with having a lower income and a weak sense of community belonging (see Table 2). When we examined this by duration of residence in Canada, the pattern was non-linear so that the lowest risk was seen in the immediate five years since immigration, followed by little difference between 6 and 10 years in Canada, and then a less reduced risk after 10 years of residence. In another model that excluded time since migration, migrants were less likely to report diagnosis of mood disorders (Odds ratio 0.80, 95% CI 0.69, 0.94, p=0.005). Education was not statistically significant in this model.

QUALITATIVE RESULTS

Immigrants face diverse challenges as they try to settle in their new environment. Below are the study's qualitative findings, which highlight the factors that affect the mental health of the immigrant population, factors that affect the access/use of mental health services by immigrants, and policy implications that interview and focus group participants identified to improve mental health services for immigrant populations.

Factors Contribution to Immigrants Mental Health

Focusing on the factors affecting the mental health of immigrants, the data was organized and classified into nine sub-themes: unemployment, underemployment, and poverty;

immigration status; community belonging; family dynamic and conflict; gender; discrimination and racism; time since migration and age at immigration; culture shock; and parental stress. Together, these conditions not only influence individual immigrants' mental health, but also hinder the treatment of mental health issues by impeding the available supports that have been proven to be effective.

Unemployment, Underemployment, and Poverty:

Although majority of immigrants to Canada are carefully selected on the basis of a merit-based point system, many participants reported that they are unable to find work that is commensurate with their education and training upon arrival in Canada. Despite having higher educational qualifications compared to native-born Canadians, immigrants are more likely to be underemployed. As one of the service providers stated,

> *In the beginning they [immigrants] are facing, like, their language problems as well, their income problems. I think income problem and their finding related job and especially if somebody is having good kind of education, good degrees over there but like denying their credentials here, not accepting as they are and they have to go through lots of long processes. So it is also one of the reason of unrest here because they are not finding themselves satisfied with their current occupation as compare to their previous occupations.* **(Participant 8, Focus Group 1)**

Immigrant service providers who participated in this study emphasized that underemployment and unemployment are frustrating and stressful experiences that have the potential to lead to mental health problems and illness. Participants stated that immigrants who have failed to improve their economic condition by migrating to Canada often suffer from depression, psychosomatic problems, marital conflict, alcohol abuse, and even suicide.

Immigration Status:

According to study participants, immigrants who migrate to Canada as temporary foreign worker, refugees, refugee claimants, and undocumented migrants have more mental health issues than immigrants who migrate as skilled workers and/or economic class migrants. As one of the focus group participants said,

> *Refugees have a distinct set of mental health needs because prior to arrival in Canada they may have experienced physical and/or sexual abuse, experienced the stress of war, the loss of family members, and may have spent a significant amount of time in refugee camps … As a result, refugees are at a higher risk for suffering from the effects of these various traumatic events.* **(Participant 14, Individual Interview)**

Study participants also discussed seeing temporary foreign workers experience stress and anxiety due to their precarious legal status in Canada. One of the participants remarked,

> *It's difficult for temporary foreign workers because they live on a tightrope. They don't know what's going to happen to them next so they're always in a state of heightened awareness and stress*. **(Participant 46, Focus Group 5)**

Refugee claimants also experience mental health stress as they struggle to become permanent residents in Canada while also coping with pre-migration trauma. Participants identified the need for support and services for refugee claimants and temporary foreign workers.

Community Belonging:

Leaving families and friends behind during the immigration process is a painful yet common experience for immigrants. Lack of community belonging and social support negatively affect individuals' health. As one of the community workers stated,

> *One more thing that I believe everybody would agree on: the mental health will be affected by where you live and your neighbourhood experience … and your community belonging.* **(Participant 17, Focus Group 2)**

Consistent with our quantitative findings, participants indicated that lack of community belonging and social support have adverse impacts on immigrant mental health as it intersects with other immigration-related stressors, such as unemployment and poor language proficiency. As one participant explained,

> *I think that's [community belonging] very important and key I can say it's a key for the immigrants to live a harmonious and positive future life when they have their communities around. Because the community belonging it's just obvious when somebody comes to Canada and have no connection with his own communities, he will feel isolated.*

> *Sense of belonging is important in all aspects starting from the language barrier looking for jobs and because this is a security of the person, security in terms of economy, security in terms of health, security in terms of well-being.* **(Participant 18, Focus Group 2)**

The majority of the study participants strongly believe that social support networks and sense of community belonging contribute to immigrants' psychological well-being and quality of life. They suggested that community belonging acts as a stress-buffering mechanism, especially for new immigrants. Participants identified the trend for immigrants to create a sense of community belonging within their ethnic communities before they feel a belonging to their geographic communities.

Family Dynamic and Conflict:

Family dynamic plays a crucial role in mental health of immigrant parents and children. Immigration often brings about challenges in familial roles and tends to destabilize family relations over time. Many of the study participants identified exposure to a new culture and new ways of living as a major source of considerable dissonance among family members, which in turn affects their relationships and expectations of each other. One of the community workers said,

> *So we, in terms of the immigrant population, we see a lot of family disputes and violence and cases, so people would come either to find better ways to communicate with each other or for one partner needing some kind of anger management or coping skill to deal with the changing needs of the marriage.* **(Participant 14, Individual Interview)**

Participants also suggested that intimate partner violence is likely to be intensified by migration processes and the related stresses, which increases the risk of developing mental health problems among immigrant women and children.

Gender:

According to study participants, women are found to be more likely than men to report emotional problems such as feelings of sadness, depression, or loneliness. As one focus group participant noted,

> *Mental problem is more in women than in men because men generally go outside, spend some time talking to other people in places but the women they have to stay home. They can only talk with the family members so this contributes to mental problems with these ladies.* **(Participant 20, Focus Group 3)**

Men were also reported to have more stoic emotional reactions, as many cultures from which immigrants come do not accept expressive reactions among men, such as crying. Domestic violence was reported to also contribute to mental health stress among women.

Discrimination and Racism:

The majority of the study participants reported that discrimination and racism is a significant factor leading to depression and mental disorders in immigrants. Participants mentioned that many immigrants experience discrimination every day due to their accent, skin colour, and cultural differences. One of the focus group participant said,

> *Discrimination, I call it actually a silent killer. This silent killer is discrimination at work, discrimination at school, discrimination at several places.* **(Participant 16, Focus Group 2)**

More than 50% of study participants strongly believe that discrimination and racism lead to mental health disorders, reduced self-confidence, and social isolation, which make acculturation and resettlement more difficult for immigrants. Experiences of prejudice and discrimination also affect immigrants' sense of belonging and psychosocial integration in Canada. Participants reported that immigrants sometimes experience challenges with establishing a strong sense of belonging to their local geographic community due to the systemic discrimination and lack of full acceptance by host communities.

Time since Migration and Age at Immigration:

The phenomenon of the "healthy immigrant effect" – an initially positive health status followed by a decline in immigrants' health after some time in their new country – was also evident in the current study. Study participants suggested that immigrants must pass through a variety of filters to migrate to Canada; thus, except for refugees, their health is often very good upon arrival in Canada. However, the health of immigrants tends to worsen over time, as one of the participant explained:

> *Within the first few years I think people have an expectation that it's going to take time to adjust so they're hopeful so they still have that sense of hope that things are going to get better, that things are going to get easier. But when ten years comes along and the situation, if the situation hasn't changed a lot, if people are still feeling isolated, if people are still having a hard time finding access to employment that they're interested in it's harder.* **(Participant 48, Individual Interview)**

Another participant said,

> *I think maybe hope, when immigrants came they are still hopeful and so it's those five years they're hopeful [that] things will be as what they imagine and then after five years they come to this realization that the dream wasn't true.* **(Participant 40, Focus Group 5)**

The pattern varies for refugees, according to our participants. They explained that more often than other immigrants, refugees arrive in Canada with poor mental health because of pre-migration trauma.

In addition, participants also noted that the age at which people migrate has a significant impact on their subsequent health status. Adolescents and elderly people experience specific challenges as well as resiliencies in the post-migration period. Discussing the school system, one of the participants remarked,

> *I see with youth a dislocation. They don't have the language to interact with their peers here … Their parents gather in clusters and maintain their culture as much as they can and the young people don't feel like they belong to either culture. I have seen serious, serious weight gain, serious weight loss, and young people who bitterly resent their parents and say I didn't want to come here, my parents brought me, they forced me to come here, I don't want to be here. As soon as I am 18, I am going back.* **(Participant 4, Focus Group 1)**

Elderly immigrants face their own set of challenges, specifically with isolation and abuse, language, culture, and mobility. Participants explained that it is a common practice for adult children to sponsor elderly immigrants to take care of grandchildren. Constantly being at home

taking care of grandchildren can lead to isolation for elderly immigrants. One participant shared a story of an elderly couple:

> *Elderly immigrants here they look after their kids' kids and they don't have time to go outside to spend time in the community, they will come under stress. I met one couple here in the X Centre; they were crying because they want to come and enjoy their time but they have the kids at home for babysitting.* **(Participant 24, Focus Group 3)**

The study participants noted that in many Asian immigrant families, the grandparents (elderly immigrants) are regarded as an integral part of the family. However, they are often financially dependent on their adult children for transportation and entertainment, and so they are increasingly isolated. With limited access to transportation, financial resources, and understanding of the culture, and without familiar activities to occupy them, many elderly immigrants remain at home with their children or grandchildren, which leads to isolation and mental health challenges.

Culture Shock:

Culture shock was also one of the factors identified by study participants that affects the mental health of immigrants. Participants explained that when immigrants enter a new culture, they need to deal with value systems, communication patterns, signs and symbols of social contact, and interpersonal relationship patterns that differ from those of their home country and culture. This negotiation, known as culture shock, can lead to stress and depression. As one participant said,

> *And then you come here and you get shocked by several factors, economic, second the climate, third if you are coming from a conservative country … to an open country very, very, very difficult for those people right. So all those aspects are affecting on your mental health.* **(Participant 17, Focus Group 2)**

Parental Stress:

Another factor that affects mental health of immigrants is the parenting of children in the immigrant country. This challenge is exacerbated by different cultural practices and disciplinary strategies that are contrary to traditional child parenting practices. Many study participants raised the issue of disciplinary practices that immigrants use back home and noted that these practices and associated attitudes are often challenged by child welfare and safety rules and regulations

concerning child abuse and maltreatment of children in Canada. One focus group participant remarked,

> *I think there is one part on the education system … What do kids learn new, newcomers or born here kids when they go to (school) they will be taught not to obey or not to follow instructions from the parents. But there is an equivalent negative approach, when they come from school and their parents want to talk to them, oh I know everything. They don't want to listen to them and as parents they might you know there is a minor hitting or beating or something, which is normal. I grew up that way so it was a blessing for me because if I wasn't brought up that way maybe I would have just been a wild person. So there is a discipline that we learn at home and in the schools they learn it in a different way when they come here if the parent is trying to approach the kid in a very positive way so that he can learn a better communication skills with parents and with other people, they will not listen. Some of them just will call...911.* **(Participant 16, Focus Group 2)**

Many participants agree with the fact that due to acculturation it's been difficult for many parents to use the same parenting strategies they use back home, which is a major cause of stress for many immigrant parents. Immigrant parents struggle to readjust their parenting styles to fit the new cultural context. Tensions often arise in these transnational spheres of parenting, which may cause stress for both immigrant children and parents.

Factors Affecting Access and Use of Mental Health Services by Immigrants

The study identified several factors that affect the access and use of mental health services by the immigrant population. Immigrant service providers identified five sub-themes: mental health stigma, a mismatch between cultural needs and available services, a language barrier, immigrants' economic condition, and overburdened system and system bureaucracy.

Mental Health Stigma:

The majority of the study participants emphasized that the most important factor that affects the use of mental health services by immigrants is the stigma attached with mental health disorders:

> *The underlining barrier also is like of course the stigma is there but the fear of being deported or somehow my immigration status would be compromised if I am diagnosed with certain illness, mostly mental illness.* **(Participant 14, Individual Interview)**

According to study participants, mental health is not to be openly discussed or referred to in any serious conversation. It is considered shameful to have mental issues, and people prefer to discuss the topic in secret to avoid stigma. This sentiment was reflected in many respondents' statements and in the researchers' observations.

> *Some immigrant communities … where mental health is actually kind of an embarrassment. So if a family member is suffering from schizophrenia or post-traumatic stress or whatever the case … the family members are actually ashamed to address the issues so what they do is just, "oh you know he's sick, he has back pain, he has some chronic disease but it's not mental health."* **(Participant 20, Focus Group 4)**

The majority of study participants believed that the stigma associated with mental illness reduces help-seeking behaviour among immigrants.

> *Yeah, sometimes we tell them we have this mental health clinic and they just say, "No, no I don't have any mental health problem I just you know, I am just a little bit sad, or I just feel a little bit stressful," but they just deny they have this problem.* **(Participant 9, Focus Group 1**)

Mismatch between Cultural Needs and Available Services:

According to study participants, culture profoundly influences every aspect of mental health, illness, and adaptation, including interpretations of and reactions to symptoms; explanations of illness; patterns of coping, seeking help, and response; adherence to treatment; styles of emotional expression and communication; and relationships between patients, their families, and healthcare providers. Immigrant service providers mentioned that many immigrants come to them with physical complaints such as pain, fatigue, gastrointestinal symptoms, which can lead to under-recognition and treatment of common mental disorders. As one participant explained,

> *I would say in many cases it's much more somatized so they will say, "oh I can't sleep, I have headaches, I you know my digestion is really bad." So it's much less on an emotional and psychological level. It's often much more on a physical level.* **(Participant 13, Individual Interview)**

In addition, participants mentioned that, as immigrant service providers, they are often not knowledgeable enough to diagnose or even adequately trained to recognize that a particular

immigrant or their family is suffering from a mental health issue. According to study participants, lack of familiarity with and understanding about the significance of clients' cultural background can lead to misunderstandings about socially acceptable and typical behaviour, which can hinder the provision of effective mental health services. As one of the service providers stated,

> *Our ability as an institution and as employees to people who serve these clients to actually recognize signs and symptoms and to differentiate between, like, different cases, I personally think I don't have those skills … how to differentiate and recognize like red flags or the specific symptoms that allow us to say, "oh well, maybe among this pool of people, maybe you need some help" … and I feel that not only the agency but in, like, the immigrant serving agencies as, like, a sector I don't think we have the skills to do that as far as I know.* **(Participant 35, Focus Group 4)**

Many study participants believe that cultural competence training for immigrant service providers related to mental health is crucial to improve effective mental health services to immigrant populations.

Immigrants' Economic Condition:

Economic factors such as costs, lack of health insurance, and unemployment were additional major barriers to immigrants' use of mental healthcare services. Study participants mentioned that new immigrants who are unemployed or underemployed have limited disposable income and poor health insurance. They are often unable to afford the high cost of consulting a psychologist. One of the community service provider noted,

> *Many clients are not willing to pay for that, you know, $200.00 per hour to talk to a stranger [psychologist], right, unless it is covered by their own you know insurance, but here basic health insurance won't cover for counselling or a psychologist.* **(Participant 10, Focus Group 1)**

Specifically, participants in the Calgary region discussed the lack of free community-based mental health services for immigrant adults. There is an immigrant counselling service for immigrant refugee children in Calgary, but there are little or no free counselling services for immigrant adults. While there are free services available in Edmonton, the resources are limited

and wait times are long. Thus, immigrants may need to rely on services of paid mental health counsellors to meet their mental health service needs, which can be quite expensive.

Language Barrier:

Language issues were also identified as one of the barriers to access and use of mental healthcare services for many immigrants. Study participants mentioned that when making first contact, the majority of the immigrants fear that their service providers might misunderstand them, either because the respondent lacks the ability to express medical terms in English or because English language choices do not always convey their intended meaning. Lack of linguistically accessible services, cultural differences, and fear of stigmatization are some of the hindrances that prevent new immigrants from seeking help. As one focus group participant said,

> *If he [the immigrant] access to, you know, the mainstream mental health clinic, language is always the problem and then even though there is a translator sit between them they are always, like, afraid that the translator can't then like do a good job to translate exactly what they are feeling about himself.* **(Participant 5, Focus Group 1)**

Another focus group participant also explained,

> *Language is also a barrier… How they interpret their emotional distress is very different than an interpreter will translate it in English … You know maybe a healthcare provider might not consider that so important the way they are communicating to them. So language is also a big barrier and then their reluctance and isolation.* **(Participant 29, Focus Group 4)**

Participants also discussed the need to be attentive to the client's sociocultural context while arranging interpretation services. For instance, issues related to gender and past traumatic experience with a specific cultural group can be an impediment to mental health services. One participant spoke about the case of Afghanistan refugees:

> *You know to us they are all Afghanis, to them they are the Afghanis who were in liaison with the Taliban, there are the Afghanis who were in liaison with the Americans, there are the Afghanis who are from the Pashto tribe who don't want to have anything to do with the others. So if you just get an interpreter you might have somebody who is Pashto and you get somebody who was in liaison with the Taliban and this person is not going to*

> *tell you anything. Right, because they don't trust this interpreter.* **(Participant 13, Individual Interview)**

Trustful relationships are important in counselling sessions that involve interpreters. Trust can be further complicated when interpretation services are provided over the telephone. Participants discussed the complexity of accessing services through Alberta Health Services. They discussed the challenges with the recent move by Alberta Health Services to provide interpretation services exclusively by phone rather than having in-person interpretation services. They emphasized the need for interpreters to interpret not only language but also the cultural context that is conveyed by clients' nonverbal gestures.

Overburdened Healthcare System and System Bureaucracy:

Study participants stressed that, due to the large number of immigrants and recent refugee influx in Canada, our healthcare system is overburdened, and many people have to wait for a very long time to access healthcare services. In addition, there are large populations of medically uninsured and underinsured newcomers across Canada who are ineligible for healthcare and who report higher levels of anxiety, stress, and mental health problems. One of the participants described wait times at their organization:

> *We get referrals from everywhere … We have more referrals than we can serve. It was first I had a half position funding here but now we are seven therapists and we still have a waitlist of six weeks.* **(Participant 13, Individual Interview**)

According to study participants, social and health system structures sometime also disable immigrants from accessing or benefitting from available social and mental health counselling services. For instance, immigrants may have to navigate bureaucratic hurdles, complete many application forms, or reach various agencies that may not be in close geographical proximity. Other structural barriers may include unequal power relationships between client and service provider, lack of confidentiality, fragmentation of services, and lack of professional translation and interpretation services in the social and healthcare systems. One participant mapped out one of the complicated processes many immigrants face:

> *Access for mental health services for immigrants is very, very difficult … So people wouldn't know that they have to ask their family doctor that they get a referral and they*

> *have to fight for it. People, our clients that's part of what we do, we call the family doctor and say no I don't want you to prescribe medication, I want her to see a specialist … because most family doctors think they can just give you some antidepressants and the world is happy … for some reason, they don't want to refer. If you get a referral then it takes at least half a year before you get to somebody.* **(Participant 14, Individual Interview).**

Immigrant service providers are often advocates as they assist immigrants in navigating the complex healthcare environment in Alberta.

Policy Implications Identified by Immigrant Service Providers

Participants agreed that access to care and services is important for the well-being of diverse immigrant population across all age groups. Ideally, there should be meaningful and accessible services available for all. Participants suggested that providing community-based mental health delivery, mental health awareness programs for immigrants, cultural competence in mental health and interpretation services, as well as addressing the issue of unemployment and underemployment, building the capacity of healthcare providers, and removing systematic barriers may reduce the burden of mental illness among immigrant population.

Community-Based Mental Health Delivery/Community Support and Collaboration:

One approach that study participants advocated is the community-based provision of mental health services for immigrants:

> *I would maybe talk about the system and how it could work better for immigrants. One of the things is that mental health for immigrants needs to be community based and I mean ethno-community based … So meaning, when we get referrals if the people can't come here because you have, might have a mom who has three kids under six and she can't get on the bus ... You know so we go to people's houses if it's needed, we meet them in the school if they are at LINC classes they can't come in, we meet them where they can meet us so removing the transportation barrier, removing the child care barrier.* (**Participant 13, Individual Interview)**

Another participant shared an example of parenting and literacy program offered to mothers who are isolated in part because they are not currently participating in the paid

workforce, as they are home taking care of their young children. This program targets women who also face language barriers and cannot readily access other services.

> *So in terms of that this program we teach them English, it's not the formal way but then it creates a space for women to come together with lot of commonalities … and there is a lot of learning that comes out. So that's a program that would really eliminate some of the problems that can come later if people are isolated and not accessing any services. And by coming here they are exposed to new information, there are people who come to speak about legal issues, health issues. So they get that information in that way and not being isolated. So that kind of program that would bring people out and then one way or the other benefit but it doesn't necessarily be called mental health you know it doesn't have that label on it.* (**Participant 14, Individual Interview**)

Participants strongly felt that programs, such as parenting programs, could help to build community belonging and strengthen immigrants' mental health. Study participants emphasized that immigrant service agencies should provide this kind of community-based programming, which, among other things, provides an opportunity for immigrants to socialize.

Mental Health Awareness Programs for Immigrants:

Study participants discussed the importance of mental health programs to promote the mental health and well-being of specific high-risk immigrants and refugees. One focus group participant said,

> *I think there should be more mental health well-being and awareness programs for the immigrant and refugees … More awareness for sure. [Mental health] education should be mandatory.* **(Participant 44, Focus Group 5)**

According to study participants, many immigrant service agencies offer different kinds of mental health promotion programs, such as counselling, parenting skills, managing day-to-day stressors, etc. The overarching goals of mental health promotion programs are to increase personal resilience by building on protective factors, and to decrease risk factors through care, counselling, and the reduction of inequities. Participants suggested that programs should be extended to mental health awareness within ethnic communities and in culturally appropriate ways.

Cultural Competence in Mental Health and Interpretation Services:

Many study participants discussed the importance of culturally competent care for immigrant and refugee populations. However, they mentioned that many immigrant service providers are not adequately trained in this area, and it is difficult for them to provide culturally competent care to immigrants and refugees. Lack of cultural competency in care creates discomfort among immigrants and reduces their use of mental health services. Participants suggested that cultural competency training is essential to ensuring access and use of mental health services by immigrant populations:

> *And also cultural competency training for service providers because then it would be that problem, the client comes, they don't find a match with the service provider and then they wont come back.* **(Participant 42, Focus Group 5)**

Participants also mentioned that the language barrier impacts the use of health services because it jeopardizes effective communication. Many participants believe that the in-person (as opposed to telephone or online) presence of a professional interpreter can improve the quality of the conversation, and, at the same time, provide the patient with more lucid explanations of his case scenario, through enhancing patient–provider face-to-face dialogue and rapport:

> *I think if Alberta Health Services could train and pay for interpretation that would be a really good start. I have some adult clients, the parents of some of the kids that I work with that had a really hard time with access just because interpretation is such a barrier. So if there were interpreters readily available and that they knew that they could speak to someone with their own language that would be a really good start.* **(Participant 48, Individual Interview)**

Addressing Unemployment and Underemployment:

According to study participants, skilled immigrants in Canada continue to experience high rates of underemployment and unemployment. Study participants stressed that the federal and provincial government should support credential assessment and recognition programs for new immigrants as well as enhance support to gainful employment. Addressing this vital social determinant of health will assist in improving the mental health of immigrants in Canada:

> *Yes, I think being able to provide that opportunity for people to work, making it easier to apply once they are in Canada. I would say in any form or status being able to work helps in terms of you know reducing the stress or the financial burden for the government too because if not then they would go ask for some kind of assistance. Or I would say providing that and even here in our centre there are many employment counsellors who support and there is a resource room where people can go apply and get assistance as they apply. So making sure that that support is there.* **(Participant 14, Individual Interview)**

Building the Capacity of Healthcare Providers and Removing Systematic Barriers:

Participants from immigrant service organizations recognized the need to enhance their capacity to deal with immigrants' mental health issues. Service providers feel that they are not trained enough to recognize the mental health issues of immigrants who come to them for help:

> *I think they need to provide the training for the frontline worker to deal with the mental health because I think quite a lot of people they may know that they want to do the supportive counselling but they really don't know about mental health issue. So they will handicap in a way when they are facing some client in front of them they don't know how to cope, how to go further or how to refer to which one, to where.* **(Participant 47, Focus Group 5)**

Study participants also suggested that immigrant-serving agencies should be flexible in terms of their service provision and also be able to provide holistic mental health services to immigrants:

> *What I suggest it [mental health service] has to be in stages and continuous so that it's more holistic to the individual not just when crisis presents. So if policies can somehow capture that I think it, it will better inform how our programs role out*. **(Participant 53, Focus Group 6)**

RESEARCH AND POLICY IMPLICATIONS

Our quantitative findings indicate that immigrants to Canada do not generally have worse mental health in general. Our quantitative findings are consistent with the phenomenon of the healthy immigrant effect. Our findings indicate that, on average, immigrants arrive in Canada with better self-perceived mental health. However, immigrants' self-perceived mental health

deteriorates after a period of time in Canada. There is a trend towards the decline in immigrants' self-perceived mental health after over 10 years in Alberta. Thus, there is a need for mental health service provision for immigrants across their continuum of stay in Canada, rather than only during their initial years in Canada. Upstream preventive approaches, including mental health awareness and community-based mental health service delivery, may improve the health of this population. Of note is that the database we analyzed only contained data from those who are current permanent residents in Canada. Thus, refugee claimants and temporary foreign workers are not included in our sample. Thus, further quantitative work needs to be done on this population in Canada. Moreover, more research is needed on the mental health of immigrant children in Canada.

Service providers identified additional factors that contribute to mental health. Our quantitative and qualitative analysis identified income, employment status, and community belonging as consistent factors. Consistent with our qualitative results, evidence indicates that immigrants experience challenges finding employment appropriate to their level of education and earning sufficient income. Descriptive data from our quantitative findings indicate that immigrants have higher education levels but lower income than Canadian-born residents. Income, employment status, and community belonging are all modifiable risk factors that are amenable to social interventions. Programs and policies targeted at these factors will improve immigrant mental health. As our participants identified, the provision of community-based, culturally and linguistically appropriate mental health services will improve mental health services for immigrants. There is also a need for mental health awareness programs within immigrant communities and to build the capacity of immigrant service providers as it relates to mental health. Community-based immigrant mental health service in Alberta is currently overburdened. In Alberta, there is a need for funding and culturally appropriate community-based programs to address the mental health service needs of immigrants across the duration of their residence. Moreover, these initiatives must take into consideration diverse social determinants of health, especially income, employment, and community belonging.

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TABLE 1: Associations with Self-Perceived Mental Health

Variable		*Odds Ratio**	*95% Confidence Interval for Odds Ratio*	*p-value*
Age				< 0.0001
	15–19 vs. 65–80	0.45	(0.25, 0.80)	
	20–34 vs. 65–80	0.46	(0.28, 0.73)	
	35–44 vs. 65–80	0.42	(0.27, 0.65)	
	45–64 vs. 65–80	0.40	(0.29, 0.56)	
Gender	Male vs. female	0.91	(0.67, 1.22)	0.52
Income	(rescaled per $10,000)	1.16	(1.11, 1.22)	< 0.0001
Sense of Community Belonging				< 0.0001
	Very strong vs. Very weak	3.91	(2.42, 6.32)	
	Somewhat strong vs. Very weak	4.89	(3.20, 7.48)	
	Somewhat weak vs. Very weak	2.42	(1.60, 3.67)	
Education				0.06
	Less than secondary school graduation vs. Post-secondary graduation	0.76	(0.50, 1.15)	
	Secondary school graduation vs. Post-secondary graduation	0.67	(0.46, 0.97)	
Employment				0.0006
	Unemployed vs. Employed	0.51	(0.34, 0.75)	
Time since Immigration				0.0006
	Canadians vs. migrants 0–5 years	3.98	(2.06, 7.70)	
	Canadians vs. 6–10 years	0.66	(0.25, 1.78)	
	Canadians vs. > 10 years	1.01	(0.58, 1.74)	

***** *Weighted multivariable logistic regression models used to calculate odds ratios, 95% CI and p-values.*

TABLE 2: Associations with Self-Reported Diagnosis of Mood Disorders

Variable		*Odds Ratio**	*95% Confidence Interval for Odds Ratio*	*p-value*
Age				< 0.0001
	15–19 vs. 65–80	1.08	(0.72, 1.63)	
	20–34 vs. 65–80	1.68	(1.02, 2.78)	
	35–44 vs. 65–80	2.47	(1.80, 3.39)	
	45–64 vs. 65–80	2.31	(1.74, 3.07)	
Gender	Male vs. female	0.58	(0.46, 0.73)	< 0.0001
Income	(rescaled by 1/10,000)	0.94	(0.91, 0.97)	0.0002
Sense of Community Belonging				< 0.0001
	Very strong vs. Very weak	0.36	(0.24, 0.53)	
	Somewhat strong vs. Very weak	0.44	(0.31, 0.61)	
	Somewhat weak vs. Very weak	0.54	(0.38, 0.75)	
Employment				<0.0001
	Unemployed vs. Employed	1.85	(1.39, 2.48)	
	Employed vs. Senior non-employed	0.29	(0.16, 0.52)	
Time since Immigration				0.001
	Canadians vs. migrants 0–5 years	0.23	(0.10, 0.53)	
	Canadians vs. 6–10 years	1.05	(0.37, 3.01)	
	Canadians vs. > 10 years	0.66	(0.46, 0.94)	
Education				0.19
	Less than secondary school graduation vs. Post-secondary graduation	1.33	(0.94, 1.90)	
	Secondary school graduation vs. Post-secondary graduation	0.97	(0.71, 1.30)	

***** *Multivariable logistic regression models used to calculate odds ratios, 95% CI and p-values.*