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Access to mental health consultations by immigrants and refugees in Canada

by Edward Ng and Haozhen Zhang

Release date: June 16, 2021



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DOI: <https://www.doi.org/10.25318/82-003-x202100600001-eng>

ABSTRACT

Background

Few quantitative studies have used national-level data to examine access to mental health consultation (MHC) by immigrants in Canada, and even fewer studies investigate MHCs using the following variables: immigrant admission category, duration in Canada since landing and world source regions. This study examines MHCs by immigrants and refugees—compared with those of Canadian-born respondents—while controlling for self-reported mental health (SRMH) and immigrant characteristics, using a population-based survey linked to immigrant landing information. This study, which is based on a linked database, allows for much richer insight into immigrant populations than most previous studies.

Data and methods

Based on data from four cycles (2011 to 2014) of the Canadian Community Health Survey linked to data from the Longitudinal Immigration Database, the odds ratios of having had MHCs are compared between the Canadian-born population and immigrants by immigration dimensions, while controlling for SRMH. Results are hierarchically adjusted for age, sex, socioeconomic factors and sense of belonging.

Results

After the above-mentioned factors were controlled for, immigrants were much less likely than Canadian-born respondents to access MHCs. Specifically, compared with the Canadian-born population that had high levels of SRMH, immigrants with high levels of SRMH were statistically less likely to have had an MHC (odds ratio [OR]=0.5, 95% confidence interval [CI] from 0.4 to 0.5), while those with low SRMH levels were more likely to report an MHC (OR=4.8, 95% CI from 4.5 to 5.1, for the Canadian-born population but OR=1.8, 95% CI from 1.5 to 2.1, for immigrants). Most Asian immigrants with low SRMH levels were only as likely to report MHCs as Canadian-born respondents with high SRMH levels. Refugees with low SRMH levels also had only a slightly elevated MHC level (OR=1.6, 95% CI from 1.1 to 2.3) compared with Canadian-born individuals with high SRMH levels. Overall, refugees were not more likely than immigrants of other admission categories to report having had an MHC, even though previous findings have shown that refugees report low levels of SRMH.

Interpretation

This study provides new evidence on the differences in access to MHC between Canadian-born individuals and immigrants by various characteristics, while controlling for SRMH. Results probably reflect the structural or cultural barriers to MHC and point to a possible pathway to either maintain or improve mental health among immigrants.

Keywords

immigrant category, refugee, mental health consultations, linked data

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What is already known on this subject?

- The mental health consultation is important to preventing mental illness and to promoting mental well-being. However, few studies have examined immigrants' access to mental health consultation using national-level data, and very few have analyzed the difference in access across immigrant groups by their characteristics at landing.
- The literature has generally reported that refugees experienced higher stress or poorer mental health outcomes compared with other immigrants or Canadian-born individuals. Mental health status is found to differ significantly by immigrant characteristics, such as the world source region and the length of time living in Canada. There is a need to examine the relationship between mental health status and access to mental health consultation among these groups.

What does this study add?

- Compared with Canadian-born respondents, immigrants, overall, and by individual immigration category, are less likely to have consulted mental health professionals, even after controlling for levels of self-reported mental health.
- Overall, refugees are not more likely than economic immigrants or family-class immigrants to consult mental health professionals, even though the literature generally shows that they report low levels of mental health.
- Immigrants from Asia are generally less likely to consult mental health professionals, while those from the United States, Australia, New Zealand and Western Europe are more likely to consult mental health professionals than immigrants from other world regions, even after accounting for differences in their level of mental health.

The share of immigrants and refugees in Canada reached 22% in 2016, a historical high in almost a century.¹ Immigration is expected to be a key driver of Canada's economy and the country's population growth into the future.² As the number of immigrants grows, and given that the immigration process and the subsequent settlement challenges can be stressful,³⁻⁶ a better understanding of newcomers' mental health outcomes and their use of services becomes particularly important for policymakers and service providers. Mental health research is especially needed for immigrant populations and subgroups, such as refugees. Because of existing data gaps, few quantitative studies have examined immigrants' mental health outcomes by admission class, and those that did generally reported that refugees experienced higher stress or poorer mental health outcomes than others (compared with other immigrants or the Canadian-born population).⁷⁻⁸ One such study, based on a nationwide health survey (i.e., the Canadian Community Health Survey [CCHS]) recently linked to the Longitudinal Immigration Database (IMDB), showed that immigrants, and especially refugees, were less likely than Canadian-born respondents to have a high level of self-reported mental health (SRMH), before controlling for socioeconomic and demographic factors.⁸ The SRMH levels significantly differed by immigrants' world source region and by how long they had been in Canada; for example, recent arrivals and those from North Africa, the Middle East, and West and East Asia had lower levels of SRMH than the Canadian-born population. Given that mental health consultation (MHC) is important to prevent mental illness and to promote mental well-being,⁹⁻¹⁰ there is a need to examine whether a lower level of SRMH is correlated to a lack of MHC.

Very few studies have examined immigrants' access to mental health services, by detailed immigrant-related characteristics, across Canada, although such information would help to design more effective and accessible services. For example, more support or services could be provided to recently landed and low-income immigrants or refugees if these immigrants were found to have lower access to mental health services than other population groups. This service adjustment could promote immigrants' integration into society and the economy. These limited studies on mental health service use, by admission category, have been conducted at the provincial level through linkages to immigrant landing data¹¹⁻¹² and have generally concluded that future research should examine how mental health needs align with service use, particularly for more vulnerable groups, such as refugees. The present study expands on the previous studies by examining SRMH levels among immigrants.⁸ It contributes to the literature as the first multi-province study to examine the use of mental health services by immigrant admission category, length of time in Canada, and world source region, using the same national health survey linked to immigrants' landing information, while explicitly taking into consideration the SRMH level of respondents. This study provides a more complete and detailed description of the use of mental health services for both the immigrant and the Canadian-born populations.

Data and methods

Data sources

This study uses data from four cycles (2011 to 2014) of the CCHS linked to data from the IMDB. These were used in

previous work, with one difference.⁸ Since the MHC question was adopted and used in the selected cycles in only five provinces and two territories (namely, British Columbia, Manitoba, Ontario, Quebec, Newfoundland and Labrador, the Northwest Territories, and Nunavut), the overall sample was reduced accordingly. The CCHS, first conducted in 2001 (cycle 1.1), includes cross-sectional information on health, behaviours and health care use for the non-institutionalized household population aged 12 and older.¹³ Overall, about 84% of CCHS respondents agreed to share and link their responses with other data sources.

The 2016 Immigrant Landing File (ILF) is an administrative census of immigrants who landed in Canada between 1980 and 2016, with demographic information and other immigrant-related characteristics at landing (e.g., admission category). The IMDB combines information from the ILF and immigrants' tax files in Canada. Neither the ILF nor the IMDB contains health-related information.¹⁴⁻¹⁵ This CCHS-IMDB linkage was conducted in the Social Data Linkage Environment at Statistics Canada, through a dynamic relational database of basic personal identifiers—the Derived Record Depository.¹⁶⁻¹⁸ Details of the surveys and the linkage and its validation can be found elsewhere.¹⁹⁻²⁰

Study cohort creation and definition

This study was based on an overall pooled cohort of CCHS respondents to the annual surveys who agreed to link and share their information (n=208,920). “Canadian-born individuals” refers to respondents who reported having been born in Canada, while “immigrants” refers to the CCHS respondents who were linked to the IMDB (n=39,420). Note that the immigrant populations vary in when they arrived, where they came from and why they came to Canada. Excluded from the sample were CCHS respondents in the pooled sample who self-reported as immigrants who arrived in Canada before 1980 (n=3,350), and those who self-reported as post-1980 immigrants but who were not successfully linked to the IMDB (n=785). The final study cohort drawn from the annual surveys between 2011 and 2014 comprised 10,130 immigrants and 128,655 Canadian-born respondents, who are representative of a total population of 21 million individuals residing in the above-mentioned five provinces and two territories. These are the jurisdictions that collected the optional content for this study's key outcome variables.

Outcome and key immigration-related variables

The primary outcome of this study is a report of MHC, which is characterized by a single dichotomous item (yes or no response). Respondents were asked whether they had consulted a mental health professional in the past 12 months concerning their emotional or mental health. In this paper, having an MHC means the respondent reported an MHC in the past year. The SRMH level was measured with a single question, for which respondents rated their overall mental health on a five-point scale, ranging from “excellent” to “poor.” Those who reported

having “excellent” or “very good” mental health were considered as having a high level of SRMH.

Three key immigration dimensions were used in the present study. First, duration since landing was defined as the difference between the IMDB landing year and the CCHS survey year, and immigrants were categorized as “recent” (those surveyed within 10 years of landing) and “established” (in Canada for 10 years or more). Second, immigrant admission categories included economic class, family class, refugees and others. Given the relatively small size of the “other immigrants” category (n=435), results are not presented separately for this category, although these individuals are included in the overall immigrant results. Third, immigrants' countries of birth were classified into eight world source regions: (1) the United States + (comprising the United States, Australia, New Zealand and Western Europe); (2) Latin America and the Caribbean; (3) Eastern Europe; (4) Sub-Saharan Africa; (5) North Africa, the Middle East and West Asia; (6) South Asia; (7) Southeast Asia; and (8) East Asia. Additional details can be found elsewhere.⁸

Selected demographic, social and economic characteristics from the Canadian Community Health Survey

Demographic factors include age (12 to 24, 25 to 39, 40 to 64, or 65 and older) and sex (male or female). Social characteristics include self-reported official language proficiency (both English and French, English only, French only, or neither English nor French), educational attainment (less than a postsecondary education, or postsecondary or higher education) and marital status (married or common-law; widowed, separated, or divorced; or single or never married). Economic characteristics include household income decile classified at the health region level into the lower 20%, middle 60% and upper 20%. Respondents' employment status was characterized as having a job, not having a job or being permanently unable to work in the week before the CCHS. Finally, respondents' sense of belonging to their local community was characterized as strong if they answered “strong” or “very strong” on a five-point scale or weak (the three other points on the scale). Research shows that feeling a sense of belonging to a community is highly correlated with physical and mental health.²¹⁻²²

Methods

Descriptive characteristics of the study cohort and the prevalence of having had an MHC were presented for both Canadian-born individuals and immigrants, overall, and by admission class. Multivariate logistic regression was used to examine the odds of immigrants having an MHC by the level of SRMH, according to various immigrant dimensions, using Canadian-born respondents with high levels of SRMH as a reference group. Immigrant dimensions include immigrants overall, by admission category, by duration since landing, and by world source region. Separate models were run to present the crude and adjusted odds ratios of having an MHC, by the above-mentioned immigrant dimensions cross-classified with SRMH

levels. These separate models were adjusted hierarchically for demographic, social and economic factors, and for the respondents' sense of belonging to the local community. All analyses were conducted in SAS and SUDAAN using the CCHS combined shared-link weights and bootstrap weights for the variance estimation.

Results

Study cohort

The study cohort was representative of an estimated 17 million Canadian-born individuals and 3.6 million immigrants, of whom 53% were classified as economic class, 30% as the family reunification class and 13% as refugees. Close to 80% of immigrants were of working age (i.e., aged 25 to 64), compared with 63% of Canadian-born respondents (Table 1). Most immigrants (65%) were considered established immigrants (i.e., they arrived 10 years or more before participating in the survey), with this proportion ranging from 58% of economic immigrants to a high of 75% of refugees. The majority of immigrants came from Asia or the Middle East (57%).

In terms of socioeconomic characteristics, Canadian-born individuals were more likely to be proficient in both official languages or in French only, while immigrants were more likely than Canadian-born individuals to be proficient in English only. Approximately 5% of immigrants reported that they were not proficient in either English or French. Proportionately, more immigrants than Canadian-born individuals reported being married or in common-law relationships, having a job, or having a postsecondary education, but more of them were classified as having incomes in the lower 20% decile (Table 1). Overall, immigrants and Canadian-born respondents reported similar levels of feeling a strong sense of belonging to the local community (65% and 64%, respectively), but immigrants were less likely than the Canadian-born respondents to report a high level of SRMH (70% and 73%, respectively). Heterogeneity was observed among immigrants across admission category subgroups. For example, a larger percentage of economic immigrants had postsecondary degrees, had a job, and fell in the middle 60% or upper 20% income deciles than the percentage of immigrants overall.

Mental health consultation by Canadian-born respondents compared with immigrants, by characteristics

Overall, immigrants were consistently less likely to report MHCs compared with their Canadian-born counterparts, regardless of their age, sex, official language proficiency, education, income and employment, sense of belonging to the local community, and SRMH level (Table 2). Among immigrants, established immigrants had higher levels of MHCs compared with those who arrived more recently, as did those from the United States + region compared with immigrants from other world regions. Immigrants who felt a strong sense of

community belonging and those who reported high levels of SRMH tended to have lower levels of MHCs; this was also true for both the Canadian-born population and immigrants overall. However, the proportion of individuals who had MHCs varied somewhat among immigrant admission categories.

The relationship between household income and MHC was different for Canadian-born respondents relative to immigrant respondents. Among the Canadian-born respondents, this relationship was negative in that the proportion who reported an MHC increased with decreasing household income: 19% of Canadian-born respondents with household incomes in the lowest 20% reported an MHC, compared with 12% in the highest-income households. By contrast, the proportion of immigrants who reported MHCs barely varied with household income, ranging from 7.3% to 8.4% for different income groups. However, economic class immigrants showed a positive relationship between MHC and household income, compared with Canadian-born individuals: 5% of economic class respondents with household incomes in the lowest 20% reported having accessed an MHC, compared with 8% in the highest-income households.

Multivariate comparison of Canadian-born respondents with immigrant respondents, by self-reported mental health

Using Canadian-born respondents with high levels of SRMH as the reference group, logistic regression models were used to examine the variation of reported MHCs by immigration characteristics and by SRMH level. Results showed that controlling for demographic and other covariates did not change the main findings. According to the fully adjusted results, immigrants with high levels of SRMH were statistically less likely to consult mental health professionals than the reference group (odds ratio [OR]=0.5, 95% confidence interval [CI] from 0.4 to 0.6; Table 3, Model A). Immigrants with low levels of SRMH were statistically significantly more likely to report MHCs (OR=1.8, 95% CI from 1.5 to 2.1) compared with the reference group, but at a level much lower than Canadian-born respondents with low levels of SRMH (OR=4.8, 95% CI from 4.5 to 5.1).

Table 3 also shows results for immigrants by various immigration dimensions, again using the Canadian-born population with high levels of SRMH as the reference group. First, an examination of differences by admission category (Table 3, Model B) found that immigrants with high levels of SRMH, especially refugees (OR=0.4, 95% CI from 0.2 to 0.6) were significantly less likely to report MHCs compared with the Canadian-born reference group with high levels of SRMH. Conversely, immigrants with low levels of SRMH, especially those of the family class (OR=2.0, 95% CI from 1.5 to 2.6), were significantly more likely to report MHCs compared with the reference group. Of note, refugees with low levels of SRMH also had levels of MHC just marginally higher than those of the reference group, namely, the Canadian-born population with high levels of SRMH (OR=1.6, 95% CI from 1.1 to 2.3).

Table 1
Distribution of study cohort by selected socioeconomic and immigration-related characteristics for immigrants, by admission category, relative to the Canadian-born population[‡]

	Canadian-born	All immigrants	Immigrant category		
			Economic class	Family class	Refugee
Sample size	128,655	10,130	5,505	2,980	1,210
Estimated population	17,254,765	3,628,885	1,913,180	1,092,580	466,765
			percent		
Age (years)					
12 to 24	21.3	14.4 *	18.4 *	8.3 *	15.3 *
25 to 39	22.3	34.3 *	32.5 *	38.4 *	33.8 *
40 to 64	40.6	44.8 *	45.6 *	40.7	46.8 *
65 and older	15.8	6.5 *	3.5 *	12.6 *	4.1 *
Sex					
Male	49.0	49.7	51.1	44.1 *	56.0 *
Female	51.0	50.3	48.9	55.9 *	44.0 *
Duration since landing					
Recent (in Canada within 10 years of landing)	...	35.5	42.1	32.1	24.7
Established (in Canada for 10 years or more)	...	64.5	57.9	67.9	75.3
World source region					
United States +	...	10.6	11.9	12.2	x
Latin America and Caribbean	...	16.1	8.7	25.6	18.3
Eastern Europe	...	10.9	11.0	6.7	21.6
Sub-Saharan Africa	...	5.2	4.2	4.0	11.4
North Africa, Middle East and West Asia	...	13.0	13.7	7.7	22.5
South Asia	...	16.4	14.8	20.7	13.4
Southeast Asia	...	12.6	15.6	11.4	7.2
East Asia	...	14.9	19.9	11.0	x
Official language proficiency					
Both English and French	25.8	13.9 *	16.4 *	9.7 *	14.1 *
English only	58.6	73.7 *	73.6 *	73.7 *	72.1 *
French only	15.6	7.0 *	7.4 *	6.4 *	7.6 *
Neither English nor French	0.0 ^E	5.4 *	2.6 *	10.1 *	6.2 ^{‡E}
Education					
Less than postsecondary	44.7	32.4 *	23.6 *	43.3	40.2 *
Postsecondary graduation	54.4	66.5 *	75.3 *	55.7	58.7
Marital status					
Married or common-law	54.4	66.0 *	64.8 *	71.7 *	56.7
Widowed, separated or divorced	12.3	8.8 *	5.9 *	12.5	10.2
Single (never married)	33.1	25.0 *	29.2 *	15.6 *	32.1
Income (health region decile)					
Lower 20%	15.5	32.4 *	29.5 *	32.4 *	45.8 *
Middle 60%	60.5	56.8 *	58.4	56.9 *	48.2 *
Upper 20%	23.7	10.7 *	12.1 *	10.7 *	6.0 *
Employment					
Had a job	61.6	66.5 *	68.9 *	62.2	66.4
Did not have a job the week before	26.1	28.0 *	26.9	30.1 *	28.2
Permanently unable to work	2.6	1.3 *	0.7 ^{‡E}	1.6 ^{‡E}	2.9 ^E
Sense of belonging to local community					
Weak	35.1	33.1 *	34.0	28.9 *	39.6 *
Strong	63.9	65.2	64.8	68.9 *	57.9 *
Excellent or very good mental health					
No	27.5	29.8 *	28.5	31.2 *	33.1 *
Yes	72.5	70.2 *	71.5	68.8 *	66.9 *

... not applicable

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* significantly different from the reference category (p < 0.05)

[‡] includes respondents from British Columbia, Manitoba, Ontario, Quebec, Newfoundland and Labrador, the Northwest Territories, and Nunavut who participated in the mental health consultation module and question

Notes: A small sub-group of immigrants classified as others included in total, but not in the sub-categories (see cohort description in text on p4). Proportions may not add up to 100% because of missing data. United States + comprises the United States, Australia, New Zealand and Western Europe.

Source: 2011-to-2014 Canadian Community Health Survey—Longitudinal Immigration Database linked database.

By duration since arrival (Table 3, Model C), immigrants with high levels of SRMH were significantly less likely to report MHCs, whether they had recently arrived (OR=0.4, 95% CI

from 0.3 to 0.6) or were more established (OR=0.5, 95% CI from 0.4 to 0.6). Conversely, established immigrants with low levels of SRMH had slightly elevated odds of reporting MHCs

(OR=1.9, 95% CI from 1.6 to 2.3), while the odds for recent immigrants with low levels of SRMH were just marginally higher than those of the reference group (OR=1.5, 95% CI from 1.1 to 2.1).

Finally, in terms of the world source regions (Table 3, Model D), among immigrants with high levels of SRMH, only those

from the United States + had a similar likelihood of reporting MHCs (OR=0.9, 95% CI from 0.7 to 1.3) as the reference group, while immigrants from most other world regions, especially those from North Africa, the Middle East, and West, South, Southeast and East Asia (OR=0.2, 95% CI from 0.1 to 0.4 for those from East Asia, for example), had significantly lower

Table 2
Distribution of percentages reporting mental health consultations by selected socioeconomic and immigration-related characteristics for immigrants, by admission category, relative to the Canadian-born population[‡]

	Canadian-born	All immigrants	Immigrant category		
			Economic class	Family class	Refugee
percent					
Age (years)					
12 to 24	12.6	7.6 *	7.8 *	x	x
25 to 39	18.9	7.9 *	8.1 *	8.6 *	5.0 ^{TE}
40 to 64	15.3	7.1 *	6.5 *	7.8 *	8.6 ^{TE}
65 and older	6.9	5.8 ^E	8.8 ^{TE}	4.8 ^E	x
Sex					
Male	9.8	5.4 *	5.6 *	5.8 ^{TE}	4.4 *
Female	18.5	9.2 *	9.1 *	9.2 *	9.6 ^{TE}
Duration since landing					
Recent (in Canada within 10 years of landing)	...	6.2 *	5.7 *	7.9 ^{TE}	x
Established (in Canada for 10 years or more)	...	8.0 *	8.5 *	7.8 *	7.5 *
World source region					
United States +	...	14.2	14.7	15.2	x
Latin America and Caribbean	...	7.9 *	7.6 ^{TE}	7.6 ^{TE}	8.3 ^E
Eastern Europe	...	10.1 *	10.2 ^E	11.9 ^E	9.3 ^E
Sub-Saharan Africa	...	8.2 ^{TE}	8.4 ^E	x	x
North Africa, Middle East and West Asia	...	8.5 *	7.6 ^{TE}	12.4 ^E	8.8 ^E
South Asia	...	4.8 *	5.9 ^{TE}	4.9 ^{TE}	x
Southeast Asia	...	4.8 ^{TE}	4.7 ^{TE}	x	x
East Asia	...	3.6 ^{TE}	3.9 ^{TE}	x	x
Official language proficiency					
Both English and French	14.2	9.5 *	9.1 *	11.0 ^E	7.3 ^{TE}
English only	15.2	7.1 *	7.1 ^{TE}	7.9 *	6.4 *
French only	10.4	8.0 ^E	7.6	x	10.7 ^E
Neither English nor French	x	x	x	x	x
Education					
Less than postsecondary	12.6	6.2 *	5.5 *	6.1 ^{TE}	7.9 ^{TE}
Postsecondary graduation	15.5	7.9 *	7.8 *	9.0 *	6.0 ^{TE}
Marital status					
Married or common-law	12.3	6.3 *	6.4 *	6.8 *	5.0 ^{TE}
Widowed, separated or divorced	18.3	12.3 *	11.9 ^E	11.4 ^E	17.5 ^E
Single (never married)	15.8	8.3 *	8.5 *	9.3 ^{TE}	6.4 ^{TE}
Income (health region decile)					
Lower 20%	19.3	7.3 *	5.3 *	8.9 ^{TE}	8.2 ^{TE}
Middle 60%	13.8	7.2 *	8.2 *	6.6 *	5.1 ^{TE}
Upper 20%	11.9	8.4 *	8.0	9.9 ^E	7.4 ^{TE}
Employment					
Had a job	14.0	6.7 *	7.2 *	6.2 *	6.3 ^{TE}
Did not have a job the week before	15.2	8.2 *	7.7 *	10.1 *	5.4 ^{TE}
Permanently unable to work	38.1	32.0	x	32.0 ^E	29.6 ^E
Sense of belonging to local community					
Weak	17.2	10.1 *	9.9 *	12.0 *	7.8 ^{TE}
Strong	12.5	6.0 *	5.9 *	6.0 *	6.2 ^{TE}
Self-rated mental health					
Classified as high (very good or excellent)	8.1	4.3 *	4.6 *	4.3 *	3.7 ^{TE}
Low (good, fair or poor)	30.2	14.4 *	14.2 *	15.2 *	12.8 ^{TE}

... not applicable

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* significantly different from the reference category (p < 0.05)

[‡] includes respondents from British Columbia, Manitoba, Ontario, Quebec, Newfoundland and Labrador, the Northwest Territories, and Nunavut who participated in the mental health consultation module and question

Note: Proportions may not add up to 100% because of missing data. United States+ comprises the United States, Australia, New Zealand and Western Europe.

Source: 2011-to-2014 Canadian Community Health Survey—Longitudinal Immigration Database Linked database.

Table 3
Crude and adjusted odds ratios of mental health consultation by level of self-reported mental health, hierarchically controlled for selected demographic and socioeconomic status for immigrants and for selected immigration dimensions compared, with Canadian-born population with high level of mental health as reference group[†]

Model and self-reported mental health level	(1) Crude			(2) Adjusted for age and sex			(3) Additionally adjusted for social factors [§]			(4) Additionally adjusted for economic factors ^{††}			(5) Additionally adjusted for sense of belonging		
	odds ratio														
Canadian-born individuals^{†††}															
High	1	...	...	1	...	...	1	...	...	1	...	...	1	...	...
Low	4.9	4.6	5.2 *	5.1	4.8	5.5 *	5.1	4.8	5.5 *	4.9	4.6	5.2 *	4.8	4.5	5.1 *
A – IMDB immigrants															
High	0.5	0.4	0.6 *	0.5	0.4	0.6 *	0.5	0.4	0.5 *	0.5	0.4	0.5 *	0.5	0.4	0.5 *
Low	1.9	1.6	2.3 *	1.8	1.5	2.1 *	1.9	1.6	2.2 *	1.8	1.5	2.1 *	1.8	1.5	2.1 *
B – Immigrant category															
Economic class															
High	0.6	0.4	0.7 *	0.5	0.4	0.6 *	0.5	0.4	0.6 *	0.5	0.4	0.6 *	0.5	0.4	0.6 *
Low	1.9	1.5	2.4 *	1.7	1.3	2.2 *	1.7	1.4	2.2 *	1.7	1.3	2.2 *	1.7	1.3	2.1 *
Family class															
High	0.5	0.4	0.7 *	0.5	0.3	0.6 *	0.5	0.3	0.6 *	0.5	0.3	0.6 *	0.5	0.3	0.6 *
Low	2.0	1.5	2.7 *	1.8	1.4	2.4 *	2.1	1.6	2.8 *	2.0	1.5	2.6 *	2.0	1.5	2.6 *
Refugee															
High	0.4	0.3	0.7 *	0.4	0.3	0.6 *	0.4	0.3	0.6 *	0.4	0.2	0.6 *	0.4	0.2	0.6 *
Low	1.8	1.2	2.6 *	1.7	1.1	2.5 *	1.7	1.2	2.6 *	1.6	1.1	2.4 *	1.6	1.1	2.3 *
C – Duration since landing															
Established immigrants (in Canada for 10 years or more)															
High	0.5	0.4	0.7 *	0.5	0.4	0.6 *	0.5	0.4	0.6 *	0.5	0.4	0.6 *	0.5	0.4	0.6 *
Low	2.0	1.7	2.4 *	1.9	1.6	2.3 *	2.0	1.6	2.4 *	1.9	1.6	2.3 *	1.9	1.6	2.3 *
Recent immigrants (in Canada within 10 years of landing)															
High	0.5	0.4	0.7 *	0.4	0.3	0.6 *	0.4	0.3	0.6 *	0.4	0.3	0.6 *	0.4	0.3	0.6 *
Low	1.8	1.3	2.4 *	1.5	1.1	2.1 *	1.6	1.2	2.2 *	1.5	1.1	2.1 *	1.5	1.1	2.1 *
D – World source region															
United States +															
High	1.1	0.8	1.5	1.0	0.7	1.3	0.9	0.7	1.3	0.9	0.7	1.3	0.9	0.7	1.3
Low	5.7	4.2	7.8 *	5.3	3.9	7.3 *	5.0	3.6	6.9 *	4.9	3.6	6.8 *	4.9	3.5	6.7 *
Latin America and Caribbean															
High	0.5	0.4	0.7 *	0.5	0.3	0.6 *	0.4	0.3	0.6 *	0.4	0.3	0.6 *	0.4	0.3	0.6 *
Low	2.6	1.7	3.9 *	2.3	1.5	3.5 *	2.4	1.6	3.7 *	2.3	1.5	3.5 *	2.3	1.5	3.5 *
Eastern Europe															
High	0.6	0.4	1.0	0.6	0.3	0.9 *	0.6	0.3	0.9 *	0.5	0.3	0.9 *	0.5	0.3	0.9 *
Low	3.4	2.2	5.2 *	3.4	2.2	5.4 *	3.4	2.2	5.3 *	3.1	2.0	5.0 *	3.1	2.0	4.9 *
Sub-Saharan Africa															
High	0.5	0.2	1.4	0.4	0.1	1.1	0.4	0.1	1.1	0.4	0.1	1.0	0.4	0.1	1.1
Low	3.1	1.6	6.0 *	2.9	1.5	5.7 *	2.9	1.5	5.9 *	2.7	1.3	5.6 *	2.7	1.3	5.6 *
North Africa, Middle East and West Asia															
High	0.7	0.4	1.3	0.7	0.4	1.2	0.7	0.4	1.2	0.6	0.4	1.1	0.7	0.4	1.1
Low	1.8	1.2	2.8 *	1.6	1.0	2.5 *	1.8	1.1	2.7 *	1.6	1.1	2.5 *	1.6	1.1	2.5 *
South Asia															
High	0.3	0.2	0.5 *	0.3	0.2	0.5 *	0.3	0.2	0.5 *	0.3	0.2	0.5 *	0.3	0.2	0.5 *
Low	1.2	0.8	1.8	1.0	0.6	1.5	1.1	0.7	1.6	1.0	0.6	1.5	1.0	0.6	1.5
Southeast Asia															
High	0.4	0.2	0.8 *	0.3	0.2	0.7 *	0.3	0.2	0.6 *	0.3	0.2	0.6 *	0.3	0.2	0.6 *
Low	1.1	0.6	2.3	1.1	0.5	2.2	1.1	0.5	2.2	1.1	0.5	2.1	1.0	0.5	2.1
East Asia															
High	0.2	0.1	0.4 *	0.2	0.1	0.4 *	0.2	0.1	0.4 *	0.2	0.1	0.4 *	0.2	0.1	0.4 *
Low	0.8	0.5	1.3	0.7	0.4	1.2	0.8	0.4	1.3	0.7	0.4	1.3	0.7	0.4	1.3

... not applicable

* odds ratio is significantly different from Canadian-born counterparts with high level of self-reported mental health at 0.05 level

[†] includes respondents from British Columbia, Manitoba, Ontario, Quebec, Newfoundland and Labrador, the Northwest Territories, and Nunavut who participated in the mental health consultation module and question

[§] social factors include official languages, education and marital status

^{††} economic factors include health region income decile and employment status

^{†††} Canadian-born population with high level of self-reported mental health is the reference group of all models in this table

Notes: IMDB = Longitudinal Immigration Database. Logistic regression hierarchically controlled from (1) crude odds ratios to those adjusted for (2) age and sex, (3) social factors, (4) economic factors, and (5) sense of belonging.

United States+ comprises the United States, Australia, New Zealand and Western Europe.

Source: 2011-to-2014 Canadian Community Health Survey–IMDB linked database.

odds of reporting MHCs than those of the reference group. Among those with low levels of SRMH, immigrants from certain world regions, especially those from the United States +

(OR=4.9, 95% CI from 3.5 to 6.7), Eastern Europe (OR=3.1, 95% CI from 2.0 to 4.9), Latin America and the Caribbean, and Sub-Saharan Africa, had significantly higher odds of reporting

MHCs. Others, especially those from East Asia (OR=0.7, 95% CI from 0.4 to 1.3) had similar odds of reporting MHCs as the reference group. Overall, it is important to note that most of the immigrants from Asia, regardless of their SRMH levels, had much lower odds of reporting MHCs than Canadian-born respondents with low levels of SRMH.

Discussion

This is the first multi-province study conducted using the linked CCHS–IMDB database to examine MHC, controlling for the level of mental health (SRMH level). The richness of the health data from the CCHS is enhanced through their link to the IMDB, which adds immigrant-related characteristics to the analyses. This study identifies the difference in reporting MHCs between the Canadian-born population and immigrants, overall, by admission category (including refugee status), duration in Canada since landing, and world source region, while taking into consideration determinants of MHCs, such as SRMH status and socioeconomic characteristics.

There are four main findings in this study on self-reported MHCs.

First, a general inverse relationship between SRMH and MHCs holds for both Canadian-born and immigrant populations, but the magnitude of this relationship was somewhat different between the two populations. Canadian-born respondents were much more likely than their immigrant counterparts to have had MHCs when their SRMH is controlled for. This corroborates previous studies that found immigrants to be less likely than their Canadian-born counterparts to report having had MHCs, even after taking into consideration their mental health condition.³ This differential magnitude of MHCs, by immigrant status, may reflect a structural obstacle, such as difficulty in transportation or in obtaining permission to seek treatment during work hours, or cultural obstacles, which include lack of linguistically and culturally appropriate mental health services, or other barriers encountered when seeking mental health services. It could also simply be a fear of stigma, which can be more prevalent in many source countries among racialized immigrants,³ even though mental health stigma exists within all countries and communities, not just for immigrant populations. Stigma manifests itself differently but is present even among Canadian-born individuals, as well as among immigrants. In addition, individuals could consult mental health professionals for different purposes, which may vary according to their level of mental health. For those who have relatively poor mental health, MHCs could focus on the management of mental illness and its symptoms. For individuals who have high levels of SRMH, especially among the Canadian-born respondents (and less likely among the immigrants), an MHC could be used for health maintenance, improvement and disease prevention. This may reflect the inherent traditional approach to the way that mental health is practised in Canada, compared with the rest of the world.²³⁻²⁴ Alternatively, differences in an ethnic group's perception of the utility and acceptability of using mental health

services may also explain service use differences. For example, some with low levels of SRMH may not think that MHCs are useful and may prefer to tackle mental health issues on their own. However, a previous analysis showed that ethnic status remained significant, even after adjusting for perceived acceptability.²⁵

Second, this study found that refugees, many of whom arrived in Canada from war-torn situations, were not more likely than immigrants in other admission categories to have MHCs, even though previous findings have shown that refugees report low levels of SRMH.⁸ Particularly, refugees with low levels of SRMH were just marginally more likely than Canadian-born individuals with high levels of SRMH to report MHCs. This indicates that refugees might not be receiving the care that meets their needs. A study of refugee youth found that they used emergency room services more for mental health purposes than non-immigrants, as these refugee youth were more likely than non-immigrants to present with a first mental health crisis to the emergency department.²⁶ Refugees may face barriers to accessing and using outpatient mental health services from a physician. Further study could investigate whether there are unmet mental health needs, and whether barriers to access vary by ethnocultural subgroup among refugees.

Third, results from the current study, together with those of previous studies, showed that established immigrants had lower levels of SRMH and were more likely to report MHCs, while recent immigrants had higher levels of SRMH, but lower MHCs compared with Canadian-born respondents.^{8, 27-29} This observation begs the question of whether the deterioration of the healthy immigrant effect in SRMH could be mitigated if recent arrivals could help maintain their initially higher SRMH by having better access to MHC services. A previous study in Ontario found that most immigrant populations preferred to consult their family doctor for mental health issues, rather than use more specialized mental health services.³⁰ As a result, the integration of primary care physicians and specialized mental health professionals could be one possible way to mitigate gaps in the mental health care system. In addition, improving access among immigrant populations could be related to their uptake of existing health information and services, the process of immigrant settlement, and the availability of appropriate services.³¹

Fourth, given the earlier finding that immigrants from Asia were less likely than Canadian-born respondents to have high levels of SRMH, this study further showed that these subgroups from Asia with low levels of SRMH were only as likely to have had MHCs as Canadian-born individuals with high levels of SRMH. This finding corroborates other studies on ethnic variations in MHCs that Asian people had fewer contacts with mental health professionals.³²⁻³³ This lack of MHCs among Asian immigrants may reflect the above-mentioned structural and cultural hurdles, as well as the perception of the utility of MHCs.

Limitations

First, the self-reported MHC measure used in this study is subjective and may be over- or under-reported by respondents. Self-reported measures by people who come from cultures in which people are not familiar with the concept of mental health can be misleading. It may be more challenging—especially for recent immigrants—to understand the concepts intended to be captured in health-related questions, because of existing language barriers and differences in cultural background. This measure may also be influenced by sociocultural factors, such as stigma, and non-random measurement errors (e.g., memory recall bias). Future studies could use administrative data, such as hospital records, as a complementary data source to the subjective survey data used in this study.

Second, the study results are not generalizable to the full immigrant population in Canada because the IMDB, at the time of the record linkage, did not include immigrants who arrived in Canada before 1980. With the inclusion of immigrants who landed between 1952 and 1979 in an updated version of the IMDB, there are opportunities in the future to expand the CCHS linkage to include more established immigrants. Additionally, the CCHS does not include respondents, including immigrants, who reside in institutions. Therefore, the results of this study could not be generalized to this segment of the immigrant population. Also, the lack of data from five provinces and one territory makes this study less generalizable to all of Canada. Despite this, the cohort characteristics of this study (as shown in Table 1) were similar to those described in the authors' previous study based on a national cohort.⁸

Conclusion

Based on the analysis of a recently linked CCHS–IMDB database, this study provides new evidence of differences in MHCs between Canadian-born and immigrant respondents by SRMH level, as well as by important immigrant characteristics, such as admission category (especially for refugees), length of time in Canada and source world region. Results show a strong inverse relationship between MHCs and SRMH, especially among Canadian-born respondents. The low MHC levels among immigrants, especially among recent immigrants, refugees and Asian immigrants, suggest that more support and services are needed for the immigrant subgroups. Future studies could further investigate why specific immigrant subgroups have much lower access to mental health services than others. Specifically, does the lower access result from cultural and linguistic obstacles or structural obstacles, such as a difficulty in transportation or having time for the services? Additional research could also focus on mental health-related hospitalization—a complementary data source to the subjective survey data used in this study—to corroborate the existing general results on MHCs.

Acknowledgements

We want to thank Cédric de Chardon, Director of the Research and Evaluation Branch of Immigration, Refugees and Citizenship Canada, and Julie Bernier, Director of the Health Analysis Division, Statistics Canada, for their support in this research collaboration.

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