ASSESSING IMMIGRANT MENTAL HEALTH IN CANADA: UNPACKING THE HEALTHY IMMIGRANT EFFECT

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Similarly to other immigrant-receiving countries, in Canada, recent immigrants (who arrived in the past 5 years) tend to report better physical health than their Canadian-born counterparts. However, this initial health advantage, often called the Healthy Immigrant Effect (HIE), appears to decline over time. Whether the HIE and its progressive deterioration apply to mental health is still subject to ongoing research. This study investigated the mental health and well-being of immigrants to Canada by analyzing several related measures from the 2021 Canadian Community Health Survey (CCHS), including self-perceived mental health, psychological distress, and life satisfaction. Measures of mental health were compared for immigrants and the Canadian-born population. Study results suggest that the HIE and its progressive decline may also apply to the mental health of immigrants in Canada. Findings also support the hypothesis that the HIE is not a systematic phenomenon and highlight the need to develop a more comprehensive explanatory framework, not limited to immigration status per se, to better explain and address mental health disparities among immigrants in Canada.

BACKGROUND

In 2021, approximately 8.3 million people in Canada were landed immigrants or permanent residents in Canada, representing almost one-quarter (23%) of the total Canadian population – the highest proportion among the G7 countries.[1] Like in other developed countries, adult immigrants are found to be healthier upon their arrival in Canada than the Canadian-born population, particularly regarding chronic conditions and health-risk behaviours.[2,3] Researchers

1 Statistics Canada. "Immigration and Diversity: Population Projections for Canada and its Regions, 2016 to 2041." Statistics Canada, last modified October 2021. www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&Id=13114175

2 Newbold, K. Bruce. "Chronic conditions and the healthy immigrant effect: Evidence from Canadian immigrants." *Journal of Ethnic and Migration Studies* 32, no. 5 (2006): 765-784.

3 Vang, Zoua M., Jasmine Sigouin, Andrea Flenon, and Alain Gagnon. "The healthy immigrant effect in Canada: A systematic review." Population Change and Lifecourse Strategic Knowledge Cluster Discussion Paper Series 3, no. 1 (2015): 4.

have argued that this phenomenon known as the Healthy Immigrant Effect (HIE) may be linked to the selective nature of the migration process. Healthier individuals may self-select for migration, and receiving countries often apply health screening processes.[4]

However, this initial health advantage, tends to diminish over time. As immigrants spend years in Canada, their health status often converges with or even worsens relative to, that of the Canadian-born population.[5] For instance, in Canada, research indicates that more established immigrants (≥ 10 years) are more likely to experience higher rates of chronic conditions and lower levels of self-assessed health compared to both recent arrivals and the native-born population. [6,7]

Although the underlying causes are complex, possible explanations for the progressive deterioration of immigrants' physical health include the assimilation of unhealthy life-style behaviors,[8] the psychological stress associated with settlement and integration challenges,[9] immigrants limited socioeconomic integration,[10] inadequate access to healthcare due to language difficulties and cultural differences,[11] and discrimination or unfair treatment.[12]

Most research on the HIE has focused primarily on physical health outcomes, with less attention given to mental health. Studies focusing on the relationship between mental health and immigration status have reported conflicting and inconclusive results. Therefore, the extent to which the HIE and its progressive deterioration apply to mental health remains unclear.[13] In Canada, the literature is similarly inconsistent. For instance, a review of 77 mental health studies found evidence that adult immigrants are significantly less likely than Canadian-born adults to experience symptoms of depression, anxiety, or other psychosocial distress. However, there was no consistent evidence to confirm that the mental health of immigrant children and seniors significantly differs from that of their Canadian-born counterparts. Furthermore, the presumed progressive decline of Canadian immigrants' mental health status with increased duration of residence was not validated.[14]

In reviewing seven national cross-sectional social surveys, Islam[15] found that the supposed mental health advantage did not hold true for all immigrant populations in Canada. Outcomes varied by factors such as country of origin, visible minority status, and wave of immigration. Yet, most studies indicated that the HIE experienced a decline with years of residence in Canada.[16] Similarly, De Maio's[17] research highlighted results that varied across gender, socioeconomic status, contextual factors (such as a region's unemployment rate and percentage of immigrants), and mental health outcomes.[18]

RESEARCH METHODS

To address the above-described gap in the literature, this study investigated the mental health status of immigrants

4 Chiswick, Barry R., Yew L. Lee, and Paul W. Miller. "Immigrant selection systems and immigrant health." *Contemporary Economic Policy* 26, no. 4 (2008): 555–578.

5 Hyman, Ilene, and Beate Jackson. "The healthy immigrant effect: A temporary phenomenon." *Health Policy Research Bulletin* 17 (2010): 17–21.

6 De Maio, Fernando G. "Immigration as pathogenic: A systematic review of the health of immigrants to Canada." *International Journal for Equity in Health* 9, no. 1 (2010): 1-20.

7 Newbold, K. Bruce, and Jeff Danforth. "Health status and Canada's immigrant population." *Social Science & Medicine* 57, no. 10 (2003): 1981–1995.

8 Antecol, Heather, and Kelly Bedard. "Unhealthy assimilation: Why do immigrants converge to American health status levels?" *Demography* 43, no. 2 (2006): 337-360.

9 Beiser, Morton. "The health of immigrants and refugees in Canada." *Canadian Journal of Public Health* 96, no. S2 (2005): S30–S44.

10 Subedi, Rajendra P., and Mark W. Rosenberg. "Determinants of the variations in self-reported health status among recent and more established immigrants in Canada." *Social Science & Medicine* 115 (2014): 103–110.

11 Higginbottom, Gina, and Jalil Safipour. "Access to primary health care by new and established immigrants in Canada." *Journal of Family Medicine & Community Health* 2, no. 5 (2015): 1–7.

12 De Maio, Fernando G., and Eagan Kemp. "The deterioration of health status among immigrants to Canada." *Global Public Health* 5, no. 5 (2010): 462–478.

13 Lee, Rosalind. "Does the healthy immigrant effect apply to mental health? Examining the effects of immigrant generation and racial and ethnic background among Australian adults." *SSM-Population Health* 7 (2019): 100311.

14 Vang, Zoua M., Jasmine Sigouin, Andrea Flenon, and Alain Gagnon. "The healthy immigrant effect in Canada: A systematic review." *Population Change and Lifecourse Strategic Knowledge Cluster Discussion Paper Series* 3, no. 1 (2015): 4.

15 Islam, Fariha. "Examining the 'Healthy Immigrant Effect' for Mental Health in Canada." *University of Toronto Medical Journal* 90, no. 4 (2013).

16 Ibid.

17 De Maio, Fernando G. "Immigration as pathogenic: A systematic review of the health of immigrants to Canada." *International Journal for Equity in Health* 9, no. 1 (2010): 1–20.

18 Ibid.

in Canada by examining data from the 2021 Canadian Community Health Survey (CCHS). The CCHS is a voluntary cross-sectional annual survey that collects information on the health status, healthcare utilization, and health determinants of the Canadian population (about 65,000 people aged 12 years and over) from the ten Canadian provinces and the three Northern territories. The survey includes all immigrants who obtained a landed immigrant or permanent resident status.[19]

A total of 5 survey items were selected from the 2021 CCHS. Psychological distress measures included:

1. perceived mental health ("In general, would you say your mental health is…?", 1 = Excellent and 5 = Poor);

2. perceived life stress ("Thinking about the amount of stress in your life, would you say that most of your days are…?", 1 = Not at all stressful and 5 = Extremely stressful);

3. anxiety disorders diagnosed ("Do you have an anxiety disorder such as phobia, obsessive-compulsive disorder or a panic disorder?", 1 = Yes and 2 = No); and

4. depression, which was measured by the Patient Health Questionnaire (PHQ-10), a ten-item depression subscale that identifies five severity categories of depression from none to severe.

Perceived life satisfaction ("Using a scale of 0 to 10, where 0 means "Very dissatisfied" and 10 means "Very satisfied", how do you feel about your life as a whole right now?") was selected as an indicator of self-perceived psychological well-being.[20] The following results present psychological distress and well-being measures by immigration status, duration of residence in Canada, and sex at birth. Respondents having spent less than 5 years in Canada were classified as recent immigrants. Pearson's chi-squared test was used to analyze observed proportion differences. Unless otherwise specified, all analyses showed statistical significance ($P < .001$). IBM's Statistical Package for Social Sciences (SPSS, Version 29.0 for Windows) was used for analyses.

RESULTS

Table 1 provides the sociodemographic characteristics of the sample (≈ 65,000). Immigrants represented 27.7% of the total sample, and the majority of them were established immigrants (84.4%). Survey participants were almost equally split between females (50.6%) and males (49.4%), while respondents aged more than 65 (22.4%) represented the most common age category. Most survey participants had a college/CEGEP degree (48.7%), while almost half of the sample (47.9%) had an income between $20,000 and $59,000. Whites (75.4%) were the most common ethnicity, followed by South Asians (6.7%), and Chinese (5.3%).

Results by immigration status and sex at birth are presented in Table 2. When considering psychological distress measures, immigrants consistently reported better mental health outcomes than the Canadian population. Compared to Canadian-borns, lower percentages of immigrants reported a poor/fair mental health status (9.0%; 12.8%), a stressful life (59.5%; 63.1%), suffering from an anxiety disorder (4.7%; 12.7%), and moderate to severe depression symptoms (6.5%; 9.5%). However, life satisfaction did not significantly differ, as similar percentages of immigrants and Canadians (7.6%; 7.4%; $P = .376$) reported feeling unsatisfied with their lives.

Table 3 presents survey results by duration of residence in Canada and sex at birth. In comparison to established immigrants, recent immigrants reported a better mental health status More recent arrivals were less likely to report a poor/fair mental health status (5.1%; 9.8%), a stressful life (55.7%; 60.2%), suffering from an anxiety disorder (2.0%; 5.2%), and moderate to severe depression symptoms (4.9%; 6.9%). A similar trend was found for life satisfaction, as a lower percentage of recent immigrants (4.4%; 8.3%) felt unsatisfied with their lives.

Among immigrants, females were regularly more likely than males to report worse mental health outcomes (Table 2) (this was also observed among Canadian-born participants). Female immigrants were more likely than their male counterparts to report a poor/fair mental health status (9.8%; 8.3%), a stressful life (62.6%; 56.5%), suffering from an anxiety disorder (6.6%; 2.8%), and moderate to severe depression symptoms (8.5%; 4.7%). Similar gender-based disparity trends were found when considering the duration of residence in Canada, indicating that female immigrants may be at higher risk of mental health-related illnesses, compared to male immigrants, even after several years of residency in Canada (Table 3). Besides sex at birth, selected mental health measures differed based on other factors, including ethnicity, age, income, and education level (data not presented here). In particular, female survey respondents in the 18–24 age category, and Black, Filipino, and Latin American females tended to report worse mental health outcomes.

19 Statistics Canada. "Immigration and Diversity: Population Projections for Canada and its Regions, 2016 to 2041." Statistics Canada, last modified October 2021. www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&Id=1314175

20 Ibid.

TABLE 1. 2021 CCHS SAMPLE CHARACTERISTICS (%). SAMPLE SIZE ≈ 65,000

Sex at Birth	
Female	50.6
Male	49.4
Age Categories	
18–24	10.0
25–34	18.0
35–44	16.8
45–54	14.9
55–64	17.8
65+	22.4
Ethnicity	
White	75.4
South Asian	6.7
Other Asian	3.1
Latin American	2.1
Indigenous	4.5
Filipino	2.9
Chinese	5.3
Black	3.8
Arab	2.4
Immigrant Status	
Immigrant	27.7
Non-Immigrant	72.3
Income	
$19,999 or Less	20.4
$20,000 to $39,999	27.2
$40,000 to $59,999	20.7
$60,000 to $79,999	12.8
$80,000 to $99,999	7.9
$100,000 or More	11.0
Education	
High School or Less	6.9
College/CEGEP	48.7
Bachelor's Degree	29.2
Graduate Degree	15.1
Immigrant Type	
Recent	15.6
Established	84.4
Immigrants by Geographic Area	
Alberta	11.4
British Columbia	13.8
Maritimes	6.5
Ontario	39.4
Prairies	6.2
Quebec	22.6

LIMITATIONS

Study results should be interpreted with caution. The CCHS's cross-sectional survey design limits the ability to draw causal inferences from observed associations, as it does not allow for a reliable assessment of the changes in mental health over the years based on the same immigrant demographic cohort. In addition, the mental health measures considered may contain inaccuracies, misreporting errors, and recall bias due to their self-reported and subjective nature.

DISCUSSION

Study results suggest that the HIE and its progressive decline may also apply to the mental health of immigrants in Canada. Immigrants consistently reported better psychological distress outcomes than the Canadian-born population, indicating the presence of an initial mental health advantage. However, established immigrants reported more detrimental psychological distress and well-being levels than recent immigrants, suggesting a progressive deterioration of the mental health status of the immigrant population with increased length of residency in Canada.

As argued by the resettlement stress theory, immigrants' decline in mental health and well-being could be partially explained by the cumulative exposure to several psychological stressors both at the individual and societal level, such as financial constraints, unequal job opportunities, language issues, and unfair discrimination.[21,22] Levels of immigrant's psychological distress increased post-settlement which has been associated with limited uptake of existing mental health services. It has been documented that Canadian immigrants underutilize mental health services, and often face multiple access barriers, including the lack of awareness about mental illness and available services.[23] The lack of culturally sensitive health care and culturally competent providers could also be a critical factor, especially for those immigrant groups originating from traditional cultures that particularly stigmatize mental health challenges.[24]

In line with the current literature, study findings also support the hypothesis that the HIE is not a systematic phenomenon, and does not uniformly apply to all immigrants. In particular, study results highlight immigrant women's higher risk of

21 Beiser, Morton. "The health of immigrants and refugees in Canada." *Canadian Journal of Public Health* 96, no. S2 (2005): S30-S44.

22 Elshahat, Samaa, Tina Moffat, and K. Bruce Newbold. "Understanding the healthy immigrant effect in the context of mental health challenges: A systematic critical review." *Journal of Immigrant and Minority Health* (2021): 1-16.

23 Thomson, Mary S., Chitraleka Chaze, Usha George, and Sepali Guruge. "Improving immigrant populations' access to mental health services in Canada: A review of barriers and recommendations." *Journal of Immigrant and Minority Health* 17 (2015): 1895-1905.

24 Elshahat, Samaa, Tina Moffat, and K. Bruce Newbold. "Understanding the healthy immigrant effect in the context of mental health challenges: A systematic critical review." *Journal of Immigrant and Minority Health* (2021): 1-16.

TABLE 2. SELECTED MENTAL HEALTH MEASURES BY IMMIGRATION STATUS AND SEX AT BIRTH (%).

Mental Health Measure	Female Landed Immigrants	Female Non-Immigrants	Male Landed Immigrants	Male Non-Immigrants	Total Landed Immigrants	Total Non-Immigrants
Mental Health						
Poor/Fair	9.8	14.4	8.3	11.1	9.0	12.8
Good/Excellent	90.2	85.6	91.7	88.9	91.0	87.2
Life Stress						
Stressful	62.6	67.0	56.5	59.1	59.5	63.1
Not Stressful	37.4	33.0	43.5	40.9	40.5	36.9
Anxiety Disorders						
Yes	6.6	16.4	2.8	8.8	4.7	12.7
No	93.4	83.6	97.2	91.2	95.3	87.3
Depression						
Moderate to Severe	8.5	12.1	4.7	6.8	6.5	9.5
Minimal to Mild	56.8	58.8	50.5	52.8	53.6	55.9
No Depression	34.7	29.2	44.9	40.4	39.9	34.7
Life Satisfaction						
Not Satisfied	7.4	7.7	7.8	7.2	7.6	7.4
Satisfied/Very Satisfied	92.6	92.3	92.2	92.8	92.4	92.6

developing mental health challenges. In Canada, the prevalence of mood and anxiety disorders is highest among young women,[25] and research suggests that a complex interaction of several mental health determinants makes especially immigrant women more vulnerable to mental illness, including a lower socioeconomic status, detrimental and stressful living conditions, and lack of social support.[26]

Pre-migration traumatic experiences and health habits, genetic predispositions and vulnerabilities, levels of acculturation, the availability (or lack thereof) of community ethnic networks and support, and stress-coping strategies represent additional potential mental health stressors that may differ among immigrant groups.[27] Therefore, when assessing the mental health risk of Canadian immigrants, it is necessary to develop a more sophisticated and comprehensive explanatory framework that goes beyond immigration status *per se*,[28] and takes into account the complex interaction of immigrants' characteristics, pre-migration factors and exposures, post-migration stressors and experiences, the particular socio-cultural context faced by an immigrant group, and the specific mental health disorders being studied.[29]

POLICY IMPLICATIONS

Given the growing size and diversity of the immigrant population in Canada, it is essential to monitor the different post-settlement mental health trajectories of Canadian immigrants. Settlement and mental health services should target at-risk and underserved population groups to help immigrants maintain a healthy mental health status. Because of their disproportionate share of mental health concerns,

25 Stephenson, Emily. "Mental disorders and access to mental health care." Insights on Canadian Society, Statistics Canada Catalogue no. 75-006-X, 2023.

26 Delara, Mahin. "Social determinants of immigrant women's mental health." *Advances in Public Health* 2016 (2016).

27 Beiser, Morton. "The health of immigrants and refugees in Canada." *Canadian Journal of Public Health* 96, no. S2 (2005): S30-S44.

28 Ibid.

29 Fung, Kwok, and Janice Guzder. "Canadian immigrant mental health." In *Mental Health, Mental Illness and Migration*, 187-207. 2021.

TABLE 3. SELECTED MENTAL HEALTH MEASURES BY DURATION OF RESIDENCE AND SEX AT BIRTH (%).

Mental Health Measure	Female Recent Immigrants	Female Established Immigrants	Male Recent Immigrants	Male Established Immigrants	Total Recent Immigrants	Total Established Immigrants
Mental Health						
Poor/Fair	6.0	10.4	4.3	9.1	5.1	9.8
Good/Excellent	94.0	89.6	95.7	90.9	94.9	90.2
Life Stress						
Stressful	58.7	63.3	53.0	57.2	55.7	60.2
Not Stressful	41.3	36.7	47.0	42.8	44.3	39.8
Anxiety Disorders						
Yes	3.6	7.2	0.5	3.2	2.0	5.2
No	96.4	92.8	99.5	96.8	98.0	94.8
Depression						
Moderate to Severe	8.1	8.6	2.0	5.2	4.9	6.9
Minimal to Mild	53.0	57.5	50.0	50.5	51.4	54.0
No Depression	38.9	34.0	48.0	44.3	43.7	39.1
Life Satisfaction						
Not Satisfied	4.3	7.9	4.5	8.8	4.4	8.3
Satisfied/Very Satisfied	95.7	92.1	95.5	91.2	95.6	91.7

particular attention should be given to the promotion of women's mental health. Culturally competent program strategies are also needed to reduce the stigma around mental illness and provide linguistically and gender-appropriate services. Finally, paramount is increasing information on existing services through an active collaboration with community organizations.

To better uncover immigrants' cumulative processes of progressive mental health deterioration, longitudinal design studies are required. Sub-group analyses and qualitative studies are also recommended to inform culturally sensitive tailored interventions, gain deeper insights into immigrants' pre-post-migration stressors and exposures, and identify mental health determinants and protective factors. Finally, in order to achieve a more complete picture of the Canadian immigrants' overall mental health status, future studies should investigate measures of both psychopathology and well-being and examine which specific psychological and behavioral outcomes are associated with immigrants' mental illness and well-being.

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