

Examining the “Healthy Immigrant Effect” for Mental Health in Canada

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Abstract

This paper is a literature review examining the evidence for and against the existence of the “healthy immigrant effect” for mental health in Canada, a phenomenon where the foreign-born population has better levels of mental health compared to the national-born population. The methodological strengths and weaknesses of the present body of literature are examined, followed by recommendations for future research. The literature review yielded inconclusive evidence. The “healthy immigrant effect” for mental health did not hold true across all immigrant populations. It varied by factors such as country of origin, visible minority status, and wave of immigration. Future studies need to consider these important factors and include analyses of longitudinal data to further elucidate the “healthy immigrant effect” for mental health in Canada.

Introduction

Canada’s Immigrant Population

Canada has the highest population growth among G8 countries, experiencing a 5.9% growth in the past five years.¹ Two-thirds of Canada’s population growth in the last decade has been attributed to net internal migration.¹ According to the 2006 Census, about 19.8% of the Canadian population consists of immigrants.² By 2031, this proportion is projected to increase to at least 25%.³

Defining the “Healthy Immigrant Effect”

Research reports have repeatedly found evidence for a “healthy immigrant effect,” a phenomenon where the foreign-born population enjoys better levels of health compared to the national-born population. The “healthy immigrant effect” is a robust phenomenon that has been documented not only in Canada, but also in other countries with large immigrant populations such as the United States,⁴⁵ United Kingdom,⁴ and Australia.⁴⁶ People often immigrate to these countries seeking better opportunities, higher standards of living, and better health care, yet immigrant health deteriorates upon arrival to the host nation. Immigrants are a vital part of these countries, and host nations are concerned with the downward spiral of immigrant health to national-born

levels. In response, research and resources have been invested in order to reverse this trend and keep the nation’s immigrants healthy.

In Canada, the “healthy immigrant effect” has been attributed to a number of factors: 1) the rigorous health and medical screening process prior to qualifying for immigrant status in Canada; 2) lower prevalence rates of unhealthy lifestyle and diet behaviours in the countries of origin; and 3) the immigration selection process, which screens for younger and better educated immigrants, who are more likely to be healthier than their older and less educated counterparts.⁷⁻¹² What is worrying, however, is the existence of a duration effect, where this health advantage declines with years of residence in Canada.^{10,13-15} In Canada, immigrants have lower mortality rates (adjusted for age),¹⁶ lower rates of self-reported chronic conditions,^{10-11,17} lower rates of self-reported long-term disability and health-related dependence,¹⁰ and lower levels of self-reported poor health status^{13,15} compared to their Canadian-born counterparts upon arrival. Unfortunately, all of these health indicators deteriorate and converge to Canadian-born levels over time. Moreover, it has been found that this decline in physical health cannot be attributed to better screening and detection of pre-existing health conditions in the host country.¹⁷

“Healthy Immigrant Effect” for Mental Health

In addition to physical health, there is evidence for a “healthy immigrant effect” for mental health.^{9,18-20} Immigrants have lower prevalence rates of depression and alcohol dependence,⁹ fewer depressive symptoms and major depressive episodes (MDE),²¹ and are less likely to commit suicide²² in comparison to their Canadian-born counterparts. Moreover, studies looking at self-reported fair-poor mental health status found lower prevalence rates for immigrants¹⁹ and visible minority recent immigrants¹⁸ compared to their Canadian-born counterparts. Within about 10 years of living in Canada, however, the “healthy immigrant effect” disappears and immigrant health deteriorates and converges to Canadian-born levels of mental health.⁹

One in five Canadians will experience mental illness or addiction during their lifetime.²³ The economic cost of mental illness in Canada is staggering, with the estimated direct and indirect costs of mental illness at \$51 billion in 2003.²⁴ Canada’s Mental Health Strategy identifies the lack of detailed research data on mental health issues affecting the nation’s diverse immigrant populations as a crucial knowledge gap that needs to be addressed.²⁵ A better understanding of the

“healthy immigrant effect” for mental health and the factors involved in its decline is critical in order to safeguard the mental health of Canada’s booming immigrant population.

This review paper will investigate the “healthy immigrant effect” phenomenon for mental health in Canada. Is immigrant status really a protective factor in regards to mental health or is immigrant status confounding other more important variables? This paper has three objectives. First, a literature review outlining the evidence for and against the “healthy immigrant effect” for mental health in Canada will be carried out. Second, this paper will examine the methodological strengths and weaknesses of the current body of literature in Canada. Finally, it will offer recommendations for future research.

Background

Examining the Evidence for the “Healthy Immigrant Effect” for Mental Health

A literature review of papers examining the “healthy immigrant effect” for mental health in Canada was conducted by searching through the PubMed, Psych Info, Sociological Abstracts (SSAB), and Cumulative Index to Nursing and Allied Health Literature (CINAHL) article databases. The following keywords were used: Canad*, healthy immigrant effect, and migrant/immigrant/refugee/foreign-born. Reference lists of relevant articles were also searched. Articles were excluded if they did not examine Canadian immigrant populations, the “healthy immigrant effect” for mental health specifically, or were not primary research. Seven articles were included in the final literature review. These articles defined “immigrants” as those who were born outside of Canada and/or not born as Canadian citizens. Information on immigrant sub-populations and details regarding landed immigrant status, refugee status, non-status etc. were not included.

All of the research studies examining the “healthy immigrant effect” for mental health in Canada have been epidemiological analyses of national cross-sectional social surveys. Ali analyzed the Canadian Community Health Survey (CCHS) 2000 cycle 1.1.⁹ Based on self-reported responses assessed with the short form of the Composite International Diagnostic Interview (CIDI), the prevalence rate of experiencing a major depressive episode in the past year was 6% for immigrants, which was significantly lower than the Canadian-born 8%. Similarly, 0.5% of immigrants self-reported past-year problems with alcohol dependence (assessed with the short form of the CIDI) compared to 2.5% of the Canadian-born population. Evidence for the duration effect was found, where long-term immigrants who had resided in Canada for 10-14 years converged to Canadian-born prevalence rates of depression and long-term immigrants converged to Canadian-born rates of alcohol dependence after residing in Canada for 30+ years. This “healthy immigrant effect” trend remained even after multivariate logistic regression modeling, controlling for age, sex, marital status, income, education, inability to speak either of the official languages (English and French), employment status, and sense of belonging to the local community.

This study also presented evidence to suggest a certain amount of instability in the “healthy immigrant effect” for

mental health. Ali found that although the “healthy immigrant effect” for depression diminished for long-term immigrants residing in Canada for 10-14 years, it curiously reappeared for immigrants who had resided in Canada for 15-19 years, only to disappear again for immigrants that had lived in Canada 20+ years.⁹ Moreover, analysis of country of origin found that the “healthy immigrant effect” for depression did not hold true for immigrants from Mexico, the US, and Europe.

Malenfant analyzed data from the Canadian Vital Statistics Data Base and the Census, and found evidence for a “healthy immigrant effect” for death by suicide and self-inflicted injury.²² When age-standardized suicide rates were calculated for 1995-1997, 7.9 per 100,000 immigrants committed suicide per year compared to 13.3 per 100,000 of the Canadian-born population. All immigrants, regardless of their birth continent, had lower rates of suicide, although immigrants from Oceania and Europe had relatively higher suicide rates than those from Africa and Asia. Length of stay in Canada was not examined in this study. As a result, the existence of the duration effect for suicide cannot be determined. Contrary to these findings, a much earlier study carried out by Kliewer and Ward examining 1969-1973 suicide mortality data in Canada found evidence of immigrants having higher overall suicide rates than the Canadian-born population.²⁶ When the analysis was stratified by country of origin, they found that immigrant suicide rates undergo change upon arrival in Canada: for immigrants originating from countries with lower suicide rates compared to Canada, suicide rates increase, while the converse occurs for immigrants originating from countries with higher rates of suicide. The “healthy immigrant effect” only holds for immigrants originating from countries with lower suicide mortality rates. Beyond simply focusing on immigrant status, Kliewer and Ward’s study highlights the importance of considering the country of origin, immigration wave, and history when examining immigrant mental health.²⁶

Wu and Schimmele²¹ examined the 1996-1997 National Population Health Survey (NPHS) cycle 2 and found evidence to corroborate the existence of the “healthy immigrant effect” phenomenon. The number of depressive symptoms and experience with MDE was determined using the NPHS depression scale based on the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III-R). Multiple linear regression modeling revealed that immigrants had fewer depressive symptoms compared to non-immigrants in Canada. They disaggregated length of stay and controlled for the following covariates: gender, race/ethnicity, family income, education, low income, loss of employment, social support, social contact, health, chronic conditions, age, marital status, children under 6, and rural residence. Immigrants who had resided in Canada for less than 5 years, 5-9 years, and 15-19 years were found to have a significantly lower number of depressive symptoms compared to the Canadian-born population. Moreover, immigrants who had resided in Canada for less than 5 years, 5-9 years, 15-19 years, and 30-34 years had a lower probability of experiencing an MDE compared to non-immigrants.

Wu and Schimmele’s study also offered evidence to suggest inconsistency in the “healthy immigrant effect” for mental health.²² Although this study found evidence for the “healthy

immigrant effect” when immigrants were compared to non-immigrants, the trend did not hold when immigrant length of stay in Canada was further broken down. Similar to Ali’s analysis of the CCHS, Wu and Schimmele also curiously found a rebounding of the “healthy immigrant effect” for depression for immigrants in the 15-19 years of residence bracket.²² This again suggests instability in the “healthy immigrant effect” when examined over time. Moreover, echoing the findings of Ali,⁹ the “healthy immigrant effect” for mental health did not hold for all immigrant groups. Wu and Schimmele found that while Chinese, other Asian, and North/West European ethnic/racial groupings had a lower risk of depression compared to non-immigrants, South, and East European immigrants had a similar risk of depression as non-immigrants in Canada.²²

Lou and Beaujot carried out an analysis of the CCHS 2002 cycle 1.2, examining self-reported mental health status.¹⁹ The CCHS surveyed people on how they would rate their mental health (poor, fair, good, very good, or excellent). About 4% of recent immigrants (0-9 years of residence) self-rated their mental health as fair-poor compared to 7% of the Canadian-born population. In line with the decline of the “healthy immigrant effect,” longer-term immigrants (10+ years in Canada) had a similar prevalence rate compared to their Canadian-born counterparts (7%). Multivariate logistic regression modeling controlling for age, sex, marital status, education, and income adequacy revealed that immigrants were 19% less likely to perceive fair-poor mental health status compared to non-immigrants. Multivariate logistic regression modeling also revealed that while recent immigrants are 57% less likely to perceive fair-poor mental health, long-term immigrants do not significantly differ in perceived mental health status from the Canadian-population.

Unlike the studies carried out by Ali⁹ and Wu and Schimmele,²² Lou and Beaujot did not include host nation or ethnicity in their analyses.¹⁹ Nor did they further categorize their years since immigration variable beyond the two categories of recent immigrant (0-9 years) and long-term immigrant (10+ years). It may be because of these omissions the evidence presented by Lou and Beaujot largely confirms the existence of the “healthy immigrant effect” as a whole and the deterioration of this health advantage after 10 years or more of residence in Canada.¹⁹ When prevalence rates were examined, however, immigrants as a whole did not self-rate their mental health as fair-poor (6%) at a significantly lower rate than the Canadian-born population (7%). When prevalence rates were considered, the “healthy immigrant effect” only appeared for recent immigrants (0-9 years).

Bergeron, Auger, and Hamel¹⁸ carried out an analysis of the 2005 CCHS Cycle 3.1 to examine the same outcome of self-rated mental health status as Lou and Beaujot.¹⁹ Multiple logistic regression analysis revealed that recent immigrants (0-9 years in Canada) were significantly less likely to self-report fair-poor mental health status (OR 0.65, 95% CI 0.45-0.94) compared to the non-immigrant population, while long-term immigrants (10+ years in Canada) did not significantly differ from the non-immigrant population, providing evidence for the duration effect. Moreover, visible minority recent

immigrants were also significantly less likely to report fair-poor mental health status (OR 0.64, 95% CI 0.43-0.96) compared to the non-immigrant population. In addition, visible minority long-term immigrant (10+ years) and well as non-visible minority long-term immigrants did not significantly differ in likelihood from the non-immigrant population.

This study does not provide evidence for the “healthy immigrant effect” because it omitted carrying out an analysis comparing immigrants to non-immigrants or the Canadian-born population. Rather, Bergeron, Auger and Hamel provide evidence that it may be the interaction of factors associated with recent migration and visible minority status that confers the mental health advantage.¹⁸ While visible minority immigrants did not significantly differ in self-reported mental health status compared to non-immigrants, when length of stay in Canada was considered, it was found that visible minority recent immigrant (0-9 years in Canada) reported significantly better levels of mental health status compared to non-immigrants.

Aglipay, Colman, and Chen carried out the most recent study examining the “healthy immigrant effect” for mental health.²⁷ This study specifically looked at anxiety disorders using the 2007-2008 CCHS database. This paper omitted the comparison between the immigrant and Canadian-born population. The authors, however, did examine the duration effect by comparing the Canadian-born population to recent immigrants (0-9 years) and longer-term immigrants (10+ years in Canada). About 6.44% of the Canadian-born population had an anxiety disorder compared to 1.85% of recent immigrants and 3.95% of longer-term immigrants. Age-stratified logistic regression modeling revealed that in comparison to the Canadian-born population, recent immigrants were at decreased odds of having an anxiety disorder for the 18-39 and 40-59 age groups. Interestingly, immigrants had a higher risk of anxiety disorders in the 60+ years old age bracket. In contrast, longer-term immigrants were at decreased odds of having an anxiety disorder compared to the Canadian-born population across all three age groups.

Summary of Evidence

To summarize, findings from the current body of literature examining the “healthy immigrant effect” for mental health in Canada are diverse and varied. Taken at its most basic level, the “healthy immigrant effect” implies that *all* immigrant populations enjoy better levels of mental health compared to their Canadian-born counterparts. However, the current body of evidence does not support this. Evidence for the existence of the “healthy immigrant effect” for mental health was provided by only three out of seven studies in this literature review.^{9, 21-22} While the other four papers either presented evidence contrary to the “healthy immigrant effect,”²² evidence that only worked in certain cases (during the multivariate logistic regression analysis) but not in others (prevalence rates),¹⁹ or omitted the comparison between immigrants and the Canadian-born population altogether.^{18, 27}

The “duration effect,” also known as “years since migration effect,” is a corollary phenomenon to the “healthy immigrant effect.” The majority of papers in this review found

evidence to suggest that the “healthy immigrant effect” experiences a decline with years of residence in Canada,^{9,18-20} Two papers omitted this analysis.^{22, 26} Ali reported that experience of MDE converges to Canadian-born levels after 10+ years and converges in 30+ years for alcohol dependence.⁹ However, there was inconsistency noted with the rebounding of the “healthy immigrant effect” at 15-19 years of residence, so it may be more likely that immigrant rates of MDE converge to Canadian-born levels only after 20+ years in Canada. Wu and Schimmele demonstrated the non-linear trajectory of the “healthy immigrant effect,” where immigrant risk of depression continued to increase until 40+ years of residence and then plateaued.²¹ No comparison was made to the Canadian-born population, so it is difficult to determine the point of convergence. Both Lou and Beaujot¹⁹ and Bergeron, Auger and Hamel¹⁸ found that self-reported mental health status converged to national-born levels after 10+ years of residence in Canada. Aglipay, Colman, and Chen²⁷ did not find evidence to support convergence to Canadian-born levels after 10+ years in Canada for anxiety disorders. Rather, longer-term immigrants continued to enjoy a mental health advantage and lower risk of anxiety disorders (3.95%) compared to the Canadian-born population (6.44%) even after 10 or more years of residence. Additionally, the multivariate logistic regression results also corroborated the perpetuation of the “healthy immigrant effect” for anxiety disorders with longer-term immigrants having lower risk of anxiety disorders across all age groupings examined. The findings for the healthy immigrant effect and duration effect are summarized in Table 1.

Strengths and Limitations of the Current Body of Literature

The use of nation-wide social surveys to study the “healthy immigrant effect” for mental health in Canada is both a boon and a bane. While these surveys offer population-level data, large sample sizes, and a wide selection of variables, these surveys collect data at one point in time. The “healthy immigrant effect” is a time-sensitive phenomenon, so this type of cross-sectional data is not the ideal data source. Ali analyzed the limitations of cross-sectional survey data, saying that circumstances for long-term immigrants may not necessarily apply to recently arrived immigrants.⁹ A better comparison can be made with longitudinal data, where the same group can be followed over time through the progressive stages of migration. Ali also added that the area of settlement is very important for immigrant health, but cannot be studied due to the limitations of the survey data.⁹ Furthermore, the majority of the current analyses on the “healthy immigrant effect” for mental health use outdated data almost a decade old. The use of multivariate regression modeling to examine mental health, beyond prevalence rates and crude odds ratios, is a good starting point for the current body of literature, but leaves room for more sophisticated levels of analysis (structural equation modeling, multi-level modeling etc.). Moreover, it was found that much of the analyses undertaken in these studies were incomplete, omitting analyses of the duration effect,^{22, 26} failing to examine ethnicity or origin country,¹⁹ and failing to break years since immigration into finer categories.^{18, 19}

Table 1. Summary of Evidence for the “Healthy Immigrant Effect” and “Duration Effect” for Mental Health

Study	Data source	Outcome variable(s)	Supportive evidence found for existence of “healthy immigrant effect” for mental health?	Supporting evidence for “duration effect” found? If so, when does convergence to Canadian-born levels occur?	Important variables uncovered that may confound the effect of immigrant status
Ali (2002)	CCHS 2000	MDE Alcohol dependence	Yes	Yes 10+ years* 30+ years	<ul style="list-style-type: none"> • Wave of immigration • Country of origin
Malenfant (2004)	Canadian Vital Statistics Database and Census 1995-1997	Suicide mortality rates	Yes	No Omitted analysis	<ul style="list-style-type: none"> • Wave of immigration • Country of origin
Kliewer & Ward (1988)	Statistics Canada death records 1969-1973	Standardized mortality ratios	Contrary evidence (immigrants unhealthier than Canadian-born)	No Omitted analysis	<ul style="list-style-type: none"> • Wave of immigration • Country of origin
Wu & Schimmele (2005)	NPHS 1996-1997	# of depressive symptoms MDE	Yes (for multivariate logistic regression analysis), but no difference between immigrants and Canadian-born when prevalence rates were examined	No comparison to Canadian-born population	
Lou & Beaujot (2005)	CCHS 2002	Self-reported mental health status	Yes	Yes 10+ years	
Bergeron, Auger & Hamel (2009)	CCHS 2005	Self-reported mental health status	Omitted analysis	Yes 10+ years	<ul style="list-style-type: none"> • Visible minority status
Aglipay, Colman & Chen (2012)	CCHS 2007-2008	Anxiety disorders	Omitted analysis	No, contrary evidence. Longer-term immigrants (10+ years) maintained a mental health advantage relative to the Canadian-born population	

Note. *The “healthy immigrant effect” rebounded at 15-19 years of residence, therefore it may be more prudent to state convergence to Canadian-born levels after 20+ years of residence in Canada.

Moreover, research into mental health outcomes beyond depression, anxiety disorders, alcohol dependence, suicide mortality, and self-reported mental health status is needed. For example, there are currently no studies examining suicidal ideation or attempted suicide. Mental health encompasses more than mental illness and disorder. There is a dearth of research examining mental health and well-being, including positive measures of mental health like resilience. Circumstances of migration are another important factor that has not been examined in the present body of literature. Immigrants falling under the various categories, refugees, and non-status people all face different stressors in the migration and resettlement process. Unfortunately, because of limitations of the nation-wide survey datasets, it has not been possible to examine these differences in migration circumstance.

In Hansson et al.'s critique of Canadian literature on rates of mental illness and suicide in immigrant, refugee, ethnocultural, and racialized (IRER) groups, they was found that the prevalence rates reported varied greatly between groups depending on national origin groupings, age, and status in Canada.²⁸ The majority of the literature focused only on the provinces of Ontario, Quebec, and British Columbia and the major cities within these provinces, Toronto, Montreal, and Vancouver. There was also a lack of research on a potential comparison group of culturally diverse, non-immigrant populations.

Ng and Omariba²⁰ carried out a literature review of research on the “healthy immigrant effect” for mental health in Canada. The review noted that there was general support for the “healthy immigrant effect” and its deterioration over time; however, there were certain counterpoints when ethnicity and visible minority status were considered.^{18, 21} Ng and Omariba²⁰ identified the cross-sectional nature of the data, the lack of delineation of refugee status and immigrant class, the combining of immigrants and non-immigrants in analyses, the self-reported nature of the survey data, and the lack of stratification by age as major limitations of the literature.

Moving Beyond the “Healthy Immigrant Effect”

The “healthy immigrant effect” implies that immigrants enjoy a mental health advantage afforded simply because of immigrant status. This is misleading because as the present body of evidence suggests, there are a myriad of other health determinants at play beyond immigrant status. More research is needed to examine the clouding effects of visible minority status, country of origin, wave of immigration, race, and ethnicity and their interaction with immigrant status. Studies looking at the intersections of migration and income, education, gender, and age are also very important. Similar to Algipay, Colman and Chen's²⁷ findings, Gee, Kobayashi and Prus²⁹ stratified their study of the “healthy immigrant effect” for physical health by age and found that while the “healthy immigrant effect” holds for middle aged immigrants (45-64 years old), it does not hold for older adult immigrants (65+ years old). Age-stratified analyses of the “healthy immigrant effect” for mental health across different mental health outcomes would be an important addition to the body of literature.

Country of origin, visible minority status, and wave of immigration emerged as important correlates of mental health. These factors are all associated as well with immigrant status, making it difficult to delineate their impact upon mental health. Returning to the contradictory findings for the “healthy immigrant effect” for suicide, it is likely that Kliewer and Ward²⁶ found evidence for an “unhealthy” immigrant effect with higher suicide rates amongst immigrants because they examined a much older wave of immigration (1969-1973) compared to Malenfant,²² which examined 1995-1997 immigrant data. From 1961-1970, immigration to Canada was largely dominated by immigrants from Europe (69%).³⁰ The 1970's heralded a major break in immigration policy for Canada with the opening up of immigration to origin countries beyond Europe. Immigration from Europe decreased to 36%, while immigrants from Asia increased from 12% to 33%.²⁹ Malenfant²² examined mid-90's data, during which Canada had even further decreased the proportion of immigrants coming from Europe (19%) and increased those coming from Asia (57%).³⁰ Kliewer and Ward's²⁶ analysis of 1969-1973 data had a higher proportion of immigrants from Europe, originating from countries with higher suicide mortality rates, which is likely the explanation for the higher immigrant suicide rate found in this study compared to the Canadian-born population. In contrast, Malenfant²² analyzed immigrant data from 1995-1997, which was likely dominated by Asian immigrants originating from countries with comparatively lower suicide mortality rates than Canada. Although Malenfant²² noted that European immigrants also had lower suicide mortality rates overall compared to the Canadian-born populations, the historical and political situations in these European origin countries were likely very different in the 1970s compared to the 1990s. This difference in historical context and immigrant population makeup by origin country may explain why Kliewer and Ward²⁶ found evidence against the “healthy immigrant effect” for suicide mortality, while Malenfant²² found the opposite.

The majority of the studies in the current body of research used post-1970's immigrant data, which may explain why most of the current research has found evidence for a “healthy immigrant effect.” Contrasting the contradictory findings reported by Kliewer and Ward²⁶ and Malenfant²² highlights that the “healthy immigrant effect” really may actually depend on the immigrant wave being analyzed. Rather than there being a “healthy immigrant effect” per se, this effect may actually have more to do with country of origin and circumstances of migration than with immigrant status. Ali⁹ also corroborated this for the “healthy immigrant effect” for depression when they found that immigrants originating from countries not associated with the post-1970's immigration wave (Mexico, USA, and Europe) did not have lower levels of depression compared to the Canadian-born population.

Immigrant country of origin is associated not only with immigrant status, but also with visible minority status, race/ethnicity, and length of stay in Canada. Following the opening up of immigration in the 1970's, more and more people of visible minority status have entered Canada. Moreover, it is difficult to determine what it is about the origin country that

may be affording this mental health advantage. It could be factors associated with the cultural/religious traditions and practices, history, social makeup, and/or factors related to race or ethnicity.

The robust support for the duration effect also falls in line with the importance of country of origin as a determinant of mental health. There was consistent evidence across all papers in this review for a “healthy *recent* immigrant effect” (with the exceptions of Malenfant²² and Kliewer & Ward²⁶ who omitted this analysis). Recent immigrants (0-9 years in Canada) have consistently been shown to have better levels of health than Canadian-born population. However, the length of stay in Canada may be confounded with country of origin, since recent immigrants are more likely to originate from certain countries (e.g. in Asia), while longer-term immigrants are more likely to have come from Europe. The potentially important variables that may confound the effect of immigrant status on mental health uncovered by the papers in this review are summarized in Table 1.

Future Outlook

Further investigation of the “healthy immigrant effect” is needed. Analyses of multiple mental health outcome measures compared across immigration waves needs to be undertaken. The factors of immigrant status, country of origin, visible minority status, race/ethnicity, culture/religion, and length of stay in Canada need to be examined independently as well as via multivariate regression modeling to determine their impact upon mental health. Because of the stigmatized nature of mental illness, self-reported data is not ideal. Analyses of psychiatric medical records and hospital admissions may also be illuminating.

It is possible that the “healthy immigrant effect” is an artifact of cross-sectional data analysis. Longitudinal studies following a group of recent immigrants over time and comparing their mental health at different intervals after immigration may be a better means of studying the “healthy immigrant effect.” Moreover, the current body of literature has largely focused on population studies that compare recent immigrants, non-recent immigrants, and Canadian-born populations, while failing to examine origin country data and generational differences.^{7, 12} Furthermore, the present body of literature is dominated by quantitative studies. Qualitative and mixed-methods research would add greatly to the understanding of context and immigrant mental health. Dean and Wilson³¹ carried out one of the few qualitative studies examining the “healthy immigrant effect” in Canada and found that despite the statistical evidence for the decline of the “healthy immigrant effect,” 70% of participants believed that their health status had actually remained steady or had improved with years of residence in Canada. The few who believed their health had gotten worse upon arrival in Canada cited reasons such as the stressors associated with migration and resettlement and the aging process.

Conclusions

Do immigrants in Canada enjoy better levels of mental health compared to the Canadian-born population? The

answer really depends on the factors being examined. The term “healthy immigrant effect” may be misleading, placing too much emphasis on immigrant status as a protective factor of mental health. It has been demonstrated that the “healthy immigrant effect” for suicide mortality and depression may actually be dependent upon the origin country or wave of immigration.^{9, 26} Immigrants from certain countries either do not differ in mental health status from their Canadian-born counterparts⁹ or actually face an “unhealthy immigrant effect” with lower levels of mental health compared to the Canadian-born population.²⁶ Moreover, recentness of immigration, visible minority status,¹⁸ and race/ethnicity²¹ have also been shown to be important. Evidence suggests that our current immigration wave, dominated by immigrants coming from diverse countries in Asia, who are of visible minority status, and have better levels of mental health in their origin countries, do indeed enjoy better levels of mental health compared to the Canadian-born population. A myriad of contextual factors beyond immigrant status, such as country of origin, culture, traditional practices, race/ethnicity, and visible minority status, impact mental health. Moreover, the “healthy immigrant effect” is a time-sensitive phenomenon, and the factors of length of stay in Canada, wave of immigration, historical context, and age at time of immigration need to be considered as well. The term “healthy immigrant effect” fails to encompass the important contribution of these factors, and oversimplifies the nuanced construct of immigrant health.

The emphasis on the “healthy immigrant effect” also deflects attention away from the root of the problem. Taken at face value, one may assume that the “healthy immigrant effect” implies that immigrants are healthy and there is no need to focus healthcare dollars on this population. However, this does a disservice to immigrant populations because evidence has consistently demonstrated a “duration effect,” where immigrants’ health deteriorates upon arrival to Canada. The term “healthy immigrant effect” fails to encompass the temporary nature of this health advantage: rather than focusing on the “healthy immigrant effect,” the decline in immigrant health status that should be emphasized.

Studies should be undertaken that advance the field of migrant mental health beyond the overly simplistic “healthy immigrant effect.” Longitudinal studies, qualitative research, mixed methods studies, and studies comparing origin and host country data is required to move the body of research forward. Migrant mental health is a complex phenomenon. An intersectional approach³² to the study of immigrant mental health needs to be taken, contextualizing the intersections of migration, gender, income, race/ethnicity and other risk factors with mental health. We hope further research will help to address the knowledge gap in migrant mental health identified by Canada’s Mental Health Strategy.²⁵ Investigation into the decline of the “healthy immigrant effect” is needed in order to inform the development of preventative programs to stymie the decline of immigrant health. Such research can be used to generate and enact policy to better tailor the delivery of mental healthcare in Canada to be accessible for all.

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