

Health Status of Refugees Settled in Alberta: Changes Since Arrival

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ABSTRACT

Objective: This paper sought to examine which pre- and post-migration factors might be associated with changes in refugees' health status.

Methods: Using linear regression, the associations between pre- and post-migration factors and changes in self-rated mental and physical health status were examined in 525 refugees from the 1998 Settlement Experiences of Refugees in Alberta study.

Results: Having spent time in a refugee camp and having held professional/managerial jobs in one's home country were associated with a greater decline in mental health status since arrival in Canada. Having completed a university degree in one's home country was associated with a greater decline in physical health status. Being employed was associated with greater improvements in mental health status. Perceived economic hardship was associated with greater declines in physical health status. A higher number of settlement services received during the first year in Canada was associated with greater improvements in both mental and physical health status. Longer residence in Canada was associated with greater declines in physical health status but not in mental health status.

Conclusion: While little can be done to alter refugees' pre-migration experiences, public policies can affect many post-migration experiences in order to mitigate the negative health consequences associated with resettlement. Results of this study point to the need for continued provision of settlement services to assist refugees with job training, labour market access, and credential recognition, as well as counseling for refugees who experienced the trauma of living in a refugee camp.

Key words: Refugees; mental health; physical health; Alberta

La traduction du résumé se trouve à la fin de l'article.

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Health status of refugees is an important aspect of their successful resettlement in Canada.¹ Research on refugee health has traditionally focused on acute post-traumatic response (e.g., post-traumatic stress disorder) to the stresses of war exposure.^{2,3} A recent meta-analysis highlighted that the multiple dimensions of refugees' resettlement cannot be understood without consideration of a wide range of pre- and post-migration stressors beyond those that are acutely post-traumatic.^{4,5} Yet, very little is known about which pre- and post-migration factors are associated with mental or physical health of refugees.^{2,3} Using data on refugees destined to Alberta, this paper sought to identify pre- and post-migration factors that are associated with changes in their health status. Among pre- and post-migration factors, we emphasized the role of risk factors that refugees might have been exposed to prior to migration (e.g., having been to a refugee camp) and following migration to Canada (e.g., discrimination, (un)employment, economic hardship), as well as protective factors (e.g., settlement services utilization during the first year in Canada).

METHODS

The study of Settlement Experiences of Refugees in Alberta was based on a representative target population of 956 individuals systematically selected (every kth name) from a Citizenship and Immigration Canada (CIC) database of 5,208 government- and privately-sponsored refugees destined to Alberta between 1992 and 1997.¹ Excluded were refugees who claimed refugee status on arrival in Canada, who had been sponsored by family members already in Canada, or whose addresses were not available in the government database. Of these, 909 individuals were located. Since many had

left their host communities in Alberta to move to various communities across Canada, 648 individuals (71% of those eligible) were invited to participate and 616 (response proportion 95%) completed hour-long structured interviews between July and October 1998 (525 adults and 91 youth aged 15-21 years). The study was approved by the University of Alberta Research Ethics Board. This paper is limited to information from 525 adult refugees.

Measures

Changes in Health Status

Participants were asked how mentally healthy they felt (very healthy; somewhat healthy; unhealthy; very unhealthy) when they first arrived in Canada and in the month previous to the interview (hereafter called the "previous month"). The same questions were

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repeated for physical health. Changes in mental or physical health status were estimated as the arithmetic difference between respective health status on arrival and in the previous month. Values of '0' represented no change; less than '0' represented a decline in health status; and greater than '0' represented an improvement in health status.

Pre-migration Factors

Pre-migration factors included refugee camp experience (yes/no); highest level of education completed prior to arrival (responses collapsed into 'less than university' and 'university complete'); occupation prior to arrival (responses collapsed into 'blue collar/clerical/sales/service/technical' and 'professional/managerial').⁶

Post-migration Factors

Post-migration factors included unemployment experience (yes/no); current employment status (no job vs. one or more part-time jobs/full-time job); discrimination experience in Canada (yes/no); household income (categories of \$10,000); perceived financial hardship (enough income to cover living costs vs. sometimes have problems/often have problems); settlement services utilization (the sum of 15 services based on a checklist that asked participants to report all services received from agencies in their host communities during the first year in Canada (e.g., language training, job training, help with translation, help finding housing, help with health problems, help with legal matters)). In addition, all models included gender (male/female), age (years), marital status (married vs. common-law/other), and number of years in Canada.

Analysis

To examine which factors are associated with changes in refugees' mental and physical health status, two separate linear regression models that included pre- and post-migration factors were fitted to the data for each of the two continuous dependent variables: changes in mental health status and changes in physical health status.

RESULTS

Almost two thirds of participants (63%) were refugees from former Yugoslavia – a major source country of refugees in the mid-1990s (Table 1).⁷ The remainder came from Middle Eastern countries (17%), Central/South America (9%), Africa (6%), East Asia (3%), and Poland (2%). On average, refugees lived in Canada for 3 years; 18% had been in Canada for 5-6 years, 44% for 3-4 years, and 38% for 1-2 years. One third of participants (32%) spent time in a refugee camp prior to arrival in Canada. About one quarter (27%) completed a university degree prior to arrival in Canada and 39% had been employed in professional or managerial jobs in their home countries.

Since arrival in Canada, 16% of refugees in the study had been unemployed, in contrast to the Alberta unemployment rate of under 6% in 1998.⁸ At the time of the interview, 68% were employed but only 49% were employed full-time. One in four (25%) reported that they had experienced discrimination in Canada. A majority (70%) reported having annual household incomes of less than \$40,000 and 48% acknowledged that they (sometimes or often) had trouble covering their living costs.

Table 1. Characteristics of Refugees (n=525) from the *Settlement Experiences of Refugees in Alberta Study, 1998*

	n	%
Region came from		
Former Yugoslavia	329	62.7
Poland	9	1.7
Middle East	88	16.8
Africa	34	6.5
Central/South America	49	9.3
East Asia	16	3.0
Age (mean, SD)	36.7	7.2
Gender		
Female	265	50.5
Marital status		
Married/common-law	384	73.1
Years in Canada		
1	75	14.3
2	122	23.2
3	128	24.4
4	103	19.6
5	74	14.1
6	23	4.4
Pre-migration factors		
Refugee camp experience		
Been to refugee camp	167	31.8
Education prior to arrival		
University degree	140	26.7
Occupation prior to arrival		
Managerial/professional	168	39.4
Post-migration factors		
Unemployment experience		
Ever been unemployed since arrival	205	39.3
Current employment status		
No job	167	31.9
Part-time (one or more)	99	18.9
Full-time job	258	49.2
Discrimination experience		
Experienced discrimination in Canada	132	25.2
Household income		
<\$10,000	40	8.0
\$10,000-19,999	178	35.5
\$20,000-29,999	112	22.4
\$30,000-39,999	63	12.6
\$40,000-49,999	40	8.0
\$50,000-59,999	30	6.0
≥\$60,000	38	7.6
Perceived economic hardship		
Enough income to cover living costs	271	52.4
Sometimes have problems	160	30.9
Often have problems	86	16.6
Settlement services utilization (mean, SD)	6.84	3.1

Overall, refugees' mental health status improved following arrival in Canada (Table 2). The majority (70%) reported being 'very healthy' in the month prior to the interview, compared to 57% when they first arrived in Canada ($p=0.000$). Physical health status declined following arrival in Canada.

Of pre-migration factors, refugees who spent time in a refugee camp before coming to Canada and those who held professional/managerial jobs in their home country had greater declines in mental health status since arrival in Canada than those who did not (Table 3). Refugees who completed a university degree in their home country had greater declines in physical health status following arrival than those who did not.

Of post-migration factors, being employed in Canada (either part-time or full-time) was associated with greater improvements in refugees' mental health status, while perceived economic hardship was associated with greater declines in physical health status. A higher number of settlement services received during the first year in Canada was associated with greater improvements in both mental and physical health status. Longer residence in Canada was associated with greater declines in physical health status but not in mental health status.

Table 2. Distribution of Self-rated Mental and Physical Health Status on Arrival and in the Previous Month among Refugees (n=525), from the *Settlement Experiences of Refugees in Alberta Study, 1998*

	Mental Health			Physical Health		
	On Arrival n (%)	Previous Month n (%)	p-value*	On Arrival n (%)	Previous Month n (%)	p-value*
Very unhealthy	9 (1.7)	3 (0.6)	0.345	5 (1.0)	8 (1.5)	0.409
Unhealthy	43 (8.2)	20 (3.8)	0.291	25 (4.8)	34 (6.5)	0.152
Somewhat healthy	172 (32.8)	133 (25.5)	0.000	152 (29.0)	121 (23.1)	0.000
Very healthy	300 (57.3)	366 (70.1)	0.000	343 (65.3)	361 (68.9)	0.000

* p-value for the two-sample significance tests of difference between two proportions.

† Previous month = month previous to interview.

Table 3. Pre- and Post-migration Factors Associated with Changes in Mental and Physical Health Status among Refugees (n=525), from the *Settlement Experiences of Refugees in Alberta Study, 1998*

Factors	Mental Health			Physical Health		
	Beta	95% CI	p-value	Beta	95% CI	p-value
Age	0.02	(-0.01, 0.01)	0.772	-0.04	(-0.01, 0.00)	0.395
Gender (female=1)	-0.04	(-0.20, 0.10)	0.497	-0.04	(-0.20, 0.10)	0.486
Marital status (married/common law=1)	0.05	(-0.11, 0.27)	0.397	-0.02	(-0.22, 0.16)	0.734
Years in Canada	-0.04	(-0.08, 0.04)	0.534	-0.13	(-0.12, -0.01)	0.026
Pre-migration factors						
Refugee camp experience (yes=1)	-0.13	(-0.36, -0.03)	0.024	-0.02	(-0.19, 0.14)	0.768
Education prior to arrival	-0.10	(-0.10, 0.01)	0.097	-0.12	(-0.11, -0.01)	0.031
Occupation prior to arrival	-0.11	(-0.18, 0.00)	0.046	0.06	(-0.04, 0.14)	0.265
Post-migration factors						
Unemployment (been unemployed=1)	0.06	(-0.07, 0.23)	0.290	0.04	(-0.09, 0.21)	0.443
Current employment status (employed=1)	0.13	(0.01, 0.19)	0.025	0.09	(-0.02, 0.16)	0.110
Discrimination experience (yes=1)	-0.09	(-0.31, 0.04)	0.120	-0.07	(-0.29, 0.06)	0.187
Household income	0.03	(-0.04, 0.06)	0.687	0.01	(-0.05, 0.05)	0.910
Perceived economic hardship	-0.04	(-0.15, 0.07)	0.492	-0.12	(-0.22, 0.00)	0.042
Use of settlement services	0.11	(0.00, 0.05)	0.046	0.13	(0.01, 0.05)	0.015

DISCUSSION

Refugees' self-rated mental health status improved following arrival in Canada. Refugees often experience considerable trauma while leaving their home countries as a result of war, genocide, or political and economic crises. Their possibly compromised mental health status on arrival may explain the overall improvement in their mental health status in the years immediately following. Previous studies also report that the rates of depression declined substantially among Southeast Asian refugees during the first 10 years in Canada.⁹

Refugees' physical health status declined since arrival in Canada, with longer residence in Canada associated with greater declines in physical health status. This finding replicates previous reports showing that immigrants are in better physical health on arrival in a host country than the native-born population, a phenomenon known as the "healthy immigrant" effect.¹⁰⁻¹³ However, their health status declines and converges with that of the host population after 10 years residing in a host country.¹⁰⁻¹⁸ Few studies reported on changes in physical health in a host country among refugees. The decline in physical health status among refugees in our study was observed even though refugees spent a maximum of six years in Canada, and we may see even stronger evidence of declining physical health status as the time in Canada increases for these refugees.

Of pre-migration factors, having been to a refugee camp was associated with declines in mental health status. This finding points to the need for considering refugees' unique experiences and needs (e.g., the trauma of living in a refugee camp) in the provision of counseling and support services.¹⁹ Previous research found the number of traumatic events and years spent in a refugee camp to be significant predictors of psychological distress among 2,180 Southeast Asian refugees in the United States that extended beyond the initial years of resettlement,²⁰ but we did not have this information in our study. Having better jobs in refugees' home coun-

tries was associated with declines in mental health status, while having higher educational credentials was associated with declines in physical health status. These findings are not surprising since the story of refugee underemployment in Canada is one of substantial occupational downward mobility.⁸ Compared to economic immigrants who encounter significant labour market access problems, refugees face even more severe labour market barriers as a result of credential non-recognition and discrimination.^{6,7} This finding underscores the need for more effective labour market policies (both training and job access) targeting refugees.

Of post-migration factors, being employed was associated with improvements in mental health status, while experiencing economic hardship in Canada was associated with declines in physical health status. Although employment has been linked to higher self-rated health among both immigrants and non-immigrants, immigrants appear to benefit more from being in the labour force.^{12,21} Studies of refugees also report that employment after migration had positive effects on mental distress of 2,180 Southeast Asian refugees in the United States.²⁰ Access to employment opportunities was associated with better mental health status among refugees from Bosnia-Herzegovina settled in Sweden.²² A decline in the unemployment rate was linked to a decline in depression among Southeast Asian refugees during their initial years of resettlement in Canada.⁹ These studies further underscore the need for elimination of structural barriers that lead to high rates of unemployment among refugees to prevent negative health consequences.²³ Finally, utilization of settlement services during refugees' first year in Canada was associated with improvements in both mental and physical health status in our study. This finding is not surprising since social support has been shown to be key to refugees' successful resettlement,^{24,25} and reinforces the importance of providing settlement services (beyond the first year of resettlement) to help refugees settle more successfully in their host communities.

Data on refugee health are scarce and research methodologies are fraught with biases since refugee populations are difficult to access physically, linguistically and culturally.⁴ Our dataset provided a unique opportunity to examine the correlates of changes in refugees' health status. The analyses were constrained by the available measures. Generic self-rated measures of health status may have limited utility but were used because of a concern that translation of more widely-used specific health scales into 11 different languages would compromise their reliability and validity. Assessments of translated versions of existing health scales yielded varying results.²⁶⁻²⁹ Retrospective recall of health status on arrival in Canada has the potential to introduce error, however the validity of recall measures is likely not severely compromised since most refugees in the study had been in Canada for a relatively short time (on average 3 years). Our study sample was drawn from the CIC database which included a complete list of refugees settled in Alberta between 1992 and 1997 and is therefore likely to be representative of refugees arriving in Alberta during the early and mid-1990s. However, since refugees who moved from their host communities in Alberta to other communities across Canada were not invited to participate in the study, it is possible that our study sample was older, more likely to have children or other dependents, and less likely to have relatives in other parts of Canada. Since 88% of study participants resided in Alberta and 64% were refugees from former Yugoslavia, the results may not be generalizable to refugees in other Canadian locations or from other source countries. While the associations of interest may vary by ethnic group, we could not stratify our analyses by ethnicity due to sample size limitations. Previous research has shown that pre-migration trauma and refugee camp experiences were significant predictors of distress regardless of ethnicity and number of years in Canada.²⁰ Indeed, it has been argued that the experiences of pre- and post-migration stresses are culturally invariant.²³

While little can be done to alter refugees' pre-migration experiences, public policies can affect many of the post-migration experiences in order to mitigate the negative health consequences associated with resettlement. While settlement services can facilitate the integration process and lead to improved health status, difficulty in labour market access and poverty-related stress can have the opposite effect. Yet, unemployment, discrimination, and non-recognition of credentials continue to jeopardize/compromise refugee mental and physical well-being.³⁰

REFERENCES

1. Abu-Laban B, Derwing T, Krahn H, Mulder M, Wilkinson L. The Settlement Experiences of Refugees in Alberta. Edmonton, AB: Prairie Centre of Excellence for Research on Immigration and Integration (PCERII), 1999.
2. Miller KE, Rasmussen A. War exposure, daily stressors, and mental health in conflict and post-conflict settings: Bridging the divide between trauma-focused and psychosocial frameworks. *Soc Sci Med* 2010;70(1):7-16.
3. Porter M. Global evidence for a biopsychosocial understanding of refugee adaptation. *Transcult Psychiatry* 2007;44(3):418-39.
4. Porter M, Haslam N. Pre-displacement and post-displacement factors associated with mental health of refugees and internally displaced persons: A meta-analysis. *JAMA* 2005;294(5):602-12.
5. Ringold S, Burke A, Glass RM. JAMA patient page. Refugee mental health. *JAMA* 2005;294(5):646.
6. Krahn H, Derwing T, Mulder M, Wilkinson L. Educated and under-employed: Refugee integration into the Canadian labour market. *J Int Migration Integration* 2000;1(1):59-84.
7. DeVoretz D, Pivnenko S, Beiser M. The Economic Experience of Refugees in Canada. Discussion Paper No. 1088. Bonn, Germany: Institute for the Study of Labour, 2004.
8. Krahn H, Derwing T, Abu-Laban B. The retention of newcomers in second- and third-tier Canadian cities. *Int Migration Rev* 2005;39(4):872-94.
9. Beiser M, Hou F. Language acquisition, unemployment and depressive disorder among Southeast Asian refugees: A 10-year study. *Soc Sci Med* 2001;53(10):1321-34.
10. Newbold KB. Chronic conditions and the healthy immigrant effect: Evidence from Canadian immigrants. *J Ethnic Migration Studies* 2006;32(5):765-84.
11. Newbold KB. Self-rated health within the Canadian immigrant population: Risk and the healthy immigrant effect. *Soc Sci Med* 2005;60(6):1359-70.
12. Newbold KB, Danforth J. Health status and Canada's immigrant population. *Soc Sci Med* 2003;57(10):1981-95.
13. McDonald JT, Kennedy S. Insights into the 'healthy immigrant effect': Health status and health service use of immigrants to Canada. *Soc Sci Med* 2004;59(8):1613-27.
14. Patel JV, Vyas A, Cruickshank JK, Prabhakaran D, Hughes E, Reddy KS. Impact of migration on coronary heart disease risk factors: Comparison of Gujaratis in Britain and their contemporaries in villages of origin in India. *Atherosclerosis* 2006;185(2):297-306.
15. Harding S. Mortality of migrants from the Indian subcontinent to England and Wales: Effect of duration of residence. *Epidemiol* 2003;14(3):287-92.
16. Singh GK, Siahpush M. Ethnic-immigrant differentials in health behaviors, morbidity, and cause-specific mortality in the United States: An analysis of two national data bases. *Human Biology* 2002;74(1):83-109.
17. Singh GK, Hiatt RA. Trends and disparities in socioeconomic and behavioural characteristics, life expectancy, and cause-specific mortality of native-born and foreign-born populations in the United States, 1979-2003. *Int J Epidemiol* 2006;35(4):903-19.
18. Moran A, Roux AVD, Jackson SA, Kramer H, Manolio TA, Shrager S. Acculturation is associated with hypertension in a multiethnic sample. *Am J Hypertension* 2007;20(4):354-63.
19. Watters C. Emerging paradigms in the mental health care of refugees. *Soc Sci Med* 2001;52(11):1709-18.
20. Chung RC, Kagawa-Singer M. Predictors of psychological distress among southeast Asian refugees. *Soc Sci Med* 1993;36(5):631-39.
21. Dunn JR, Dyck I. Social determinants of health in Canada's immigrant population: Results from the National Population Health Survey. *Soc Sci Med* 2000;51(11):1573-93.
22. Blight KJ, Ekblad S, Persson JO, Ekberg J. Mental health, employment and gender. Cross-sectional evidence in a sample of refugees from Bosnia-Herzegovina living in two Swedish regions. *Soc Sci Med* 2006;62(7):1697-709.
23. Beiser M. Resettling refugees and safeguarding their mental health: Lessons learned from the Canadian Refugee Resettlement Project. *Transcultural Psychiatry* 2009;46(4):539-83.
24. Simich L, Beiser M, Mawani FN. Social support and the significance of shared experience in refugee migration and resettlement. *Western J Nurs Res* 2003;25(7):872-91.
25. Lamba N, Krahn H. Social capital and refugee resettlement: The social networks of refugees in Canada. *J Int Migration Integration* 2003;4(3):335-60.
26. Silove D, Steel Z, Bauman A, Chey T, McFarlane A. Trauma, PTSD and the longer-term mental health burden amongst Vietnamese refugees: A comparison with the Australian-born population. *Soc Psychiatry Psychiatric Epidemiol* 2007;42(6):467-76.
27. Silove D, Manicavasagar V, Mollica R, Thai M, Khiek D, Lavelle J. Screening for depression and PTSD in a Cambodian population unaffected by war: Comparing the Hopkins Symptom Checklist and Harvard Trauma Questionnaire with the structured clinical interview. *J Nervous Mental Dis* 2007;195(2):152-57.
28. Noh S, Avison WR, Kaspar V. Depressive symptoms among Korean immigrants: Assessment of a translation of the Centre for Epidemiologic Studies-Depression Scale. *Psychological Assessment* 1992;4(1):84-91.
29. Charney ME, Keane TM. Psychometric analyses of the Clinician-Administered PTSD Scale (CAPS)—Bosnian translation. *Cultural Diversity & Ethnic Minority Psychology* 2007;13(2):161-68.
30. Beiser M. The health of immigrants and refugees in Canada. *Can J Public Health* 2005;96(Suppl 2):S30-S44.

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RÉSUMÉ

Objectif : Déterminer quels facteurs pré- et post-migratoires pourraient être associés aux changements dans l'état de santé des réfugiés.

Méthode : Par régression linéaire à partir de l'étude *Settlement Experiences of Refugees in Alberta* (1998), nous avons examiné les associations entre les facteurs pré- et post-migratoires et les changements dans l'état de santé mentale et physique auto-évalué de 525 réfugiés.

Résultats : Le fait d'avoir vécu dans un camp de réfugiés et d'avoir occupé un emploi professionnel ou un poste de cadre dans son pays

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natal étaient associés à une plus forte dégradation de l'état de santé mentale depuis l'arrivée au Canada. Le fait d'avoir un diplôme universitaire du pays natal était associé à une plus forte dégradation de l'état de santé physique. Le fait d'avoir un emploi était associé à une plus grande amélioration de l'état de santé mentale. Les difficultés économiques perçues étaient associées à une dégradation plus prononcée de l'état de santé physique. Plus les services d'établissement reçus durant la première année au Canada étaient nombreux, plus l'état de santé mentale et physique s'améliorait. Avec le temps, le fait de résider au Canada était associé à une plus forte dégradation de l'état de santé physique, mais pas de l'état de santé mentale.

Conclusion : Il y a peu à faire pour modifier l'expérience pré-migratoire des réfugiés, mais les politiques publiques peuvent influencer sur de nombreuses expériences post-migratoires afin d'atténuer les conséquences négatives pour la santé associées à la réinstallation. Notre étude montre qu'il faut continuer à offrir des services d'établissement pour aider les réfugiés à acquérir une formation professionnelle, à s'insérer sur le marché du travail et à faire reconnaître leurs titres de compétence, ainsi que des services de counseling aux réfugiés qui ont vécu le traumatisme des camps de réfugiés.

Mots clés : réfugiés; santé mentale; santé physique; Alberta

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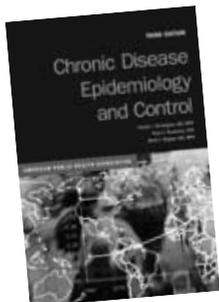
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