

The Effect of Acculturation on the Health of New Immigrants to Canada between 2001 and 2005

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Introduction

Immigrant's health: Area of concern in the development of policies for population health. 60% of the Canadian's population growth is due to immigration.

Foreign-born health advantage, also known as the "healthy migrant effect". Pattern of worsening health with increased length of residency and as immigrants adjust to their new homeland

Acculturation of Western norms: potent explanation mechanism

Background

Acculturation measure in large sample surveys remains a challenge (Salant et Lauderdale, 2003).

Few studies links immigrant's mental health in Canada with acculturation (Ballantyne and al., 2013) or with acculturation strategies (Pan and Wong, 2011)

Objective

Analyze predictive effect of acculturation strategies on mental health of immigrants.

Data and method

Data source : Longitudinal Survey of Immigration to Canada (LSIC, Statistics Canada)

Longitudinally designed: One arrival cohort of 20322 immigrants who had landed in Canada. LSIC dataset used contains cohort of 7716 landed immigrants: **3819 men and 3897 women**

Three waves of data collection: 2001, 2003 and 2005

Variables and analysis

Outcome : Having emotional or mental health problem since arrival (yes or no)

Acculturation variable : Four-scale variable based on Berry's (1997) 2X2 typology

Acculturation strategies	Is it considered to be of value to maintain one's identity and characteristics?	
	Yes	No
Is it considered to be of value to maintain relationships with larger society?		
Yes	Integration	Assimilation
No	Separation	Marginalization

Logistic regressions taking advantage of the longitudinal design of LSIC, characteristics at wave 1 on mental health status at wave 3

Testing effect modifiers with interaction variables between:

- Acculturation and education
- Acculturation and financial status

Models

- Models 0: Unadjusted estimates
- Models 1-5: Nested models with controls
- Models 3-5: include interactions

Effects of acculturation on mental health (wave 3). Odds Ratio are reported.

Variables	Model 0 Unadjusted estimates	Model 1 Pre-migration variables	Model 2 Pre&post migration
Intercept	0.403***(0.012)	0.179***(0.018)	0.081*** (0.015)
Acculturation strategy (Integration)			
Assimilation	1.001 (0.071)	1.041 (0.076)	1.076 (0.080)
Separation	0.960 (0.011)	0.933 (0.114)	0.977 (0.120)
Marginalization	1.083 (0.160)	1.119 (0.173)	1.192 (0.187)
Place of birth (NorthAmerica&Europe)			
Asia and Oceania		1.449*** (0.195)	1.563*** (0.214)
Middle East		1.820** (0.314)	1.860*** (0.325)
Africa		1.720*** (0.235)	1.976*** (0.278)
Other Americas		1.794*** (0.281)	2.088*** (0.335)
Level of education (Other)			
University		1.194*** (0.070)	1.101 (0.068)
Province (Quebec)			
Ontario			1.529*** (0.133)
British Columbia			0.972 (0.101)
Other			1.445*** (0.147)
Marital status (Not married)			
Married			0.958 (0.071)
Age (15-24)			
25 - 34			1.215* (0.113)
35 - 44			1.144 (0.116)
45 - 54			1.341** (0.1530)
55 - 64			0.8340 (0.130)
65+			1.0581 (0.204)
Financial status (More than enough)			
Just enough money			1.322** (0.141)
Not enough money			1.750*** (0.195)
N	7598	7598	7598
Log-likelihood		-4450.654	-4390.924
LR-Test		209.93***	119.46***

Interaction effects of Educational level and Financial status with Acculturation on Mental Health, LSIC, 2005 (Wave 3). Odds Ratio (OR) reported.

Variables	Model 3 Education Interaction	Model 4 Financial status Interaction	Model 5 Both fin.&educ. interactions
Intercept	0.082***(0.015)	0.078***(0.015)	0.080***(0.016)
Acculturation strategy (Integration)			
Assimilation	0.911 (0.096)	1.006 (0.252)	0.826 (0.220)
Separation	0.942 (0.143)	0.839 (0.433)	0.795 (0.427)
Marginalization	1.123 (0.224)	3.729** (1.590)	3.594** (0.634)
Level of education (Other)			
University	1.039 (0.070)	1.102 (0.068)	1.042 (0.071)
Financial status (More than enough)			
Just enough money	1.327** (0.142)	1.400** (0.177)	1.393** (0.176)
Not enough money	1.756*** (0.195)	1.778*** (0.232)	1.772*** (0.231)
Interactions			
Acculturation strategy*University			
Assimilation*University	1.396* (0.206)		1.394* (0.207)
Separation*University	1.085 (0.279)		1.094 (0.284)
Marginalization*University	1.151 (0.369)		1.065 (0.344)
Acculturation strategy*Financial status			
Assimilation*Just enough money		0.960 (0.259)	0.997 (0.270)
Assimilation*Not enough money		1.263 (0.349)	1.299 (0.360)
Separation*Just enough money		1.183 (0.638)	1.203 (0.653)
Separation*Not enough money		1.149 (0.639)	1.168 (0.655)
Marginalization*Just enough money		0.268** (0.127)	0.270** (0.128)
Marginalization*Not enough money		0.281* (0.144)	0.283* (0.146)
N	7598	7598	7598
Log-likelihood	-4388.329	-4385.320	-4382.811
LR-Test	5.19	11.21	16.22

*p<0.05 **p<0.01 ***p<0.001; Standard errors in brackets ; OR adjusted for immigration class, place of birth, visible minority status, language spoken at home, province, sex, age, marital status, family/friends in Canada)

Discussion and conclusion

- Similar effect modification of SES on the relationship between acculturation and health of immigrants was underlined by Salant and Lauderdale (2003)
- Acculturation alone isn't direct mechanism affecting the health of all immigrants similarly as very mentioned in the literature. Conversely, its predicting effect on health differs by specific group of immigrants.

Acknowledgements:

We thank the Quebec Interuniversity Centre for Social Statistics where the analysis presented in this poster were conducted as well as its financial and technical partners SSHRC, the CIHR, the CFI, Statistics Canada, the FRQSC and the Quebec universities.