

Background

- ~1 in 5 Canadians are immigrants (born outside of Canada).
- Immigrant status may be associated with higher anxiety and depression vs non-immigrants due to stressors associated with immigration.
- Chronic liver disease is frequent among immigrants, in part due to higher prevalence of hepatitis B and C infection.
- Liver transplant (LT) is the only definitive treatment for liver failure.
- Immigrant LT recipients (LTRs) may have greater anxiety

Methods

- A cross-sectional cohort of adult prevalent LTRs from a single Canadian transplant centre completed the PROMIS CAT Anxiety and Depression item banks through electronic data capture.
- Immigration status, sociodemographics, and clinical variables were also collected.
- Independent samples t-test was used to compare anxiety and depression scores between immigrants and non-immigrants.
- Information about age at immigration, years in Canada,

Results

- Mean(SD) age of 145 participants was 56(15) years, 70% male, 67% White, 28% immigrant [Table 1].
- Immigrants vs non-immigrants, had lower depression and similar anxiety scores. [Figure 1].
- Upon multivariable adjustment, anxiety and depression scores were similar between groups (b[95%CI] 1.0[-2.6-4.6]; -2.5[-6.0-1.0]).
- Mean(SD) time since immigration was 38(17) years, and mean(SD) age at immigration was 21(15) years. Most immigrants (90%) were landed immigrants.
- Older age at immigration was associated with lower anxiety and depression scores following univariable analysis [Figure 2] [Table 1]
- When adjusted for age and sex, older age at immigration

Objective

- The objective was to assess if immigrant status is associated with self-reported anxiety and depression among LTRs.

Table 1 – Population Demographics

Variable	Total Cohort	Non-Immigrant	Immigrant	p-value
Sample size (n)	145 (100%)	104 (71%)	41 (28%)	
Mean age (±SD)	56 (15)	53 (15)	62 (11)	0.003*
Gender – Male	101 (70%)	70 (67%)	31 (76%)	0.231
Median years since transplant (IQR)	5.4 (1-12)	5.0 (1-12)	7.0 (2-12)	0.562
Ethnicity – White	97 (67%)	80 (77%)	17 (41%)	<0.001*
Education – <12 years	48 (33%)	39 (38%)	9 (22%)	0.075
English as First Language – Native	98 (68%)	90 (87%)	8 (20%)	<0.001*
Employment Status – Employed	70 (48%)	49 (47%)	21 (51%)	0.710
Income – <\$30k	19 (9%)	16 (15%)	3 (7%)	0.435

Figure 1 – Anxiety and Depression by Immigrant Status

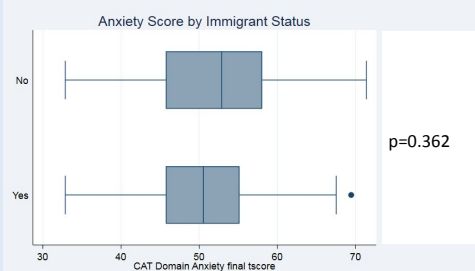


Figure 2 – Anxiety and Depression by Age at Immigration

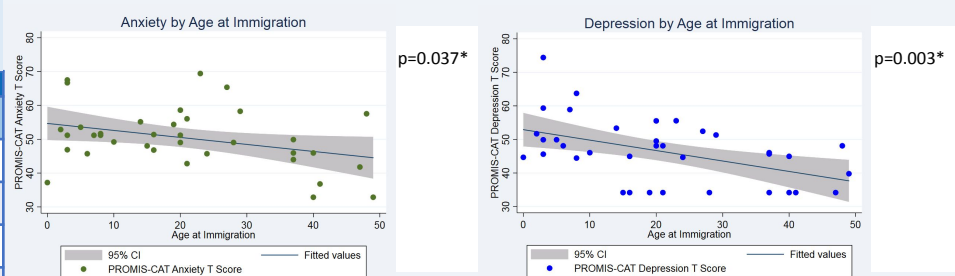


Table 2 – Multivariable Linear Regressions for Anxiety and Depression by Age at Immigration

Outcome	Model	Results		
		b	CI	P-value
Anxiety	1	-0.2	-0.4 to 0	0.037*
	2	-0.2	-0.4 to 0	0.064
Depression	1	-0.3	-0.5 to -0.1	0.003*
	2	-0.3	-0.5 to -0.1	0.005*

Model 1: Univariable analysis

Model 2: Model 1 + age, sex

Discussion and Conclusion

- Immigrant status was not associated with anxiety or depression among LTRs.
- Immigrants who immigrated at an older age had lower depression scores.
- Individuals in this group may have greater personal and economic stability at the time of immigration.
 - This may result in fewer immigration stressors, potentially leading to lower self-reported depression scores.
- Selective immigration policies, favouring healthy and educated immigrants, could also influence this relationship.
- Additionally, immigrants who immigrate at an older age may maintain greater cultural ties as a result of decreased