Does loneliness drive emigration? Prospective evidence from Sweden

Introduction

It is well-established that migrants tend to be lonelier than their counterparts without a migration background in the country of settlement. Loneliness is the unpleasant experience of perceiving one's network of social relationships as inadequate, in either a quantitative or a qualitative sense.

The relatively high levels of loneliness consistently noted among migrants are typically ascribed to challenges that come with migration. As recently stated by Barjaková and Garnero (2022), "[migrating] to another country is inevitably linked to a disruption in an individual's social network in their country of origin and a necessity to form new social connections in the country of arrival. This may be difficult, for example due to language or culture barriers, and result in feeling lonely" (p. 12).

Without aiming to dismiss the notion that migration can be an independent risk factor for loneliness, the premise of the current study is that the consistently high levels of loneliness found among migrants may, in part, also reflect selection of lonely people into migration. This hypothesis will be tested using Swedish survey data from a population-based sample enriched with administrative population register data on emigration.

Data and methods

Data are from 7,074 people aged 18-60 who participated in the the first wave of the Swedish version of the Generations and Gender Survey. The survey data were enriched with information on emigration between Wave 1 data collection and 31 December 2016. These data were derived from administrative registers. The outcome variable of interest is whether the respondent had migrated out of Sweden by the end of 2016. A dichotomous variable derived from Swedish population register data was used that distinguished between respondents who emigrated between Wave1 data collection and 31 December 2016 and their counterparts who did not emigrate. The main explanatory variable is loneliness. This variable was measured with the six-item version of the De Jong Gierveld loneliness scale (De Jong Gierveld & Van Tilburg, 1999, 2006). As prescribed in the manual of the scale, people with a score of 2+ on the scale were coded as being lonely. Within the group of people coded as lonely, a further distinction can be made between

people who are somewhat lonely (indicated by scores between 2 and 4) and people who are severely lonely (indicated by a score of 5 or 6).

Logistic regression analyses of emigration were performed. In a first model, emigration between Wave 1 data collection and 31 December 2016 was regressed on whether or not respondents reported being lonely (as indicated by a 2+ score on the short De Jong Gierveld loneliness scale), whereby the range of control variables listed above were adjusted for. In a second model, a further distinction was made between people who were somewhat lonely (as indicated by a score between 2 and 4 on the short De Jong Gierveld loneliness scale), and people who were severely lonely (as indicated by a 5+ score on the short De Jong Gierveld loneliness scale). All models were adjusted for a range of background characteristics known to be associated with both loneliness and migration or migration intentions. Multiple imputation with chained equations was used to deal with missing information.

Results

Results of the logistic regression analyses are presented in Table 1. In addition to coefficient estimates and 95% confidence intervals, odds ratios, i.e., exponentiated coefficients, are presented. Given the low probabilities of emigration over the time period considered (See Table 1; cf. Statistics Sweden, 2021), the odds ratios can be interpreted as close approximations of relative risk ratios (Liberman, 2005). As hypothesized, Model 1 suggests that lonely persons were approximately 2.6 times more likely to emigrate than their non-lonely counterparts. The model furthermore shows that people born outside Sweden were much more likely to emigrate than people born in Sweden. Younger people and people with tertiary education were more likely to leave Sweden than their older and lower educated counterparts. No systematic differences in the likelihood of emigration by gender, employment status, partner status, parenthood status, number of siblings, having lived with both parents in childhood or health status were found.

In Model 2, a distinction was made between people who were somewhat lonely (indicated by scores between 2 and 4 on the short De Jong Gierveld loneliness scale) and people who were severely lonely (indicated by a score of 5 or 6 on the short De Jong Gierveld loneliness scale). People in both categories were more likely than their non-lonely counterparts to leave Sweden. However, the coefficient estimates of being somewhat lonely and of being severely lonely did not differ significantly (Δb = 0.271; 95% CI: -0.482,

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1.024; p = .48). No evidence was thus found that being severely lonely as opposed to merely somewhat lonely was associated with an elevated likelihood of emigration. To facilitate a more intuitive interpretation of the magnitude of the estimated effect of loneliness on the likelihood of emigration, adjusted predictions are presented in Figure 1. The adjusted predictions shown depict the weighted average predicted probability of emigration in the total sample if loneliness state was set to "not lonely", "somewhat lonely" and "severely lonely", respectively, with all other explanatory variables included in the model taken as observed.

Discussion

The well-established finding that migrants tend to be lonelier than their counterparts without a migration background in the country of settlement is typically ascribed to challenges that come with migration. The premise of the current study was that high levels of loneliness among migrants may, in part, also reflect selection. Research consistently shows that migrants are positively selected with regard to education and health. The latter type of selection has been referred to as the "healthy migrant effect". The findings presented here provide initial evidence of a "lonely migrant effect", i.e., selection of lonely people into migration. When interpreting loneliness differences between migrants and non-migrants, scholars should consider that relatively many migrants may already have been lonely prior to migration.
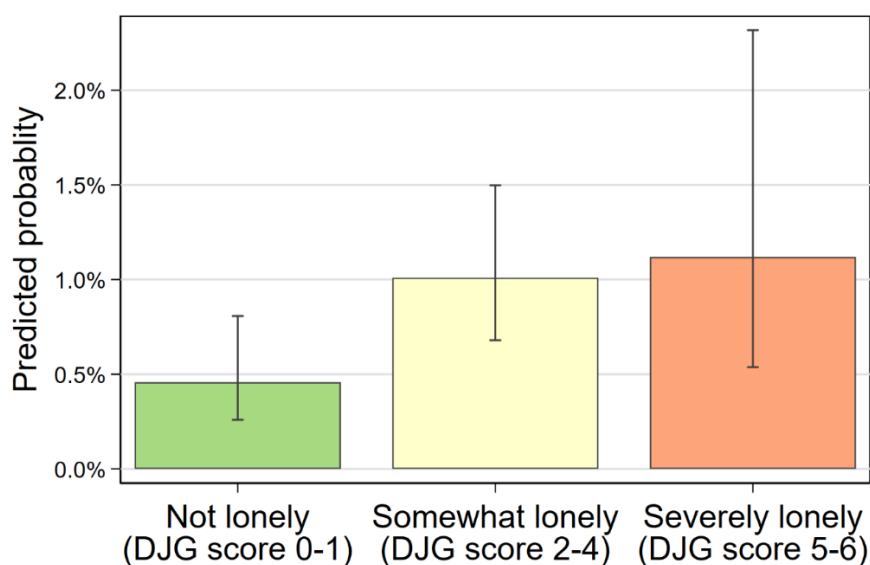

Figure 1. Predicted probability of emigration from Sweden by level of loneliness.

Table 1. Results of logistic regression analyses predicting emigration (n=7,074); Coefficient estimates with 95% confidence intervals and odds ratios.

	Model 1			Model 2		
	Coefficient	[95% CI]	Odds ratio	Coefficient	[95% CI]	Odds ratio
Lonely (DJG-score 2-6)	0.974*	[0.206,1.743]	2.649			
Loneliness by severity:						
Somewhat lonely (DJG-score: 2-4)				0.896*	[0.050,1.741]	2.449
Severely lonely (DJG-score: 5-6)				1.167**	[0.325,2.008]	3.212
Female	0.004	[-0.477,0.486]	1.004	0.001	[-0.481,0.484]	1.001
Age [a]	-0.052**	[-0.083,-0.021]	0.949	-0.052**	[-0.083,-0.021]	0.949
Age [a] squared	0.002	[-0.001,0.004]	1.002	0.002	[-0.001,0.004]	1.002
Educational attainment:						
High (ISCED 5-6)	Ref.			Ref.		
Intermediate (ISCED 3-4)	-0.821**	[-1.439,-0.203]	0.440	-0.822**	[-1.440,-0.204]	0.439
Low (ISCED 0-2)	-1.383**	[-2.312,-0.454]	0.251	-1.374**	[-2.304,-0.444]	0.253
In paid employment	-0.034	[-0.633,0.565]	0.967	-0.027	[-0.625,0.572]	0.974
Not born in Sweden	1.256***	[0.741,1.771]	3.512	1.247***	[0.732,1.761]	3.479
Lives with partner	-0.320	[-0.863,0.223]	0.726	-0.314	[-0.857,0.229]	0.731
Has children	0.185	[-0.553,0.924]	1.204	0.193	[-0.545,0.932]	1.213
Sibship size [b]	-0.313	[-0.836,0.210]	0.731	-0.313	[-0.835,0.209]	0.731
Lived w/ both parents in childhood	-0.257	[-0.845,0.331]	0.773	-0.249	[-0.838,0.340]	0.779
Less than good self-rated health	-0.565	[-1.322,0.191]	0.568	-0.605	[-1.373,0.163]	0.546
Long-standing illness	0.045	[-0.534,0.625]	1.046	0.041	[-0.537,0.619]	1.042
Health-related disability	-0.269	[-1.556,1.017]	0.764	-0.283	[-1.567,1.002]	0.754
Intercept	-4.554***	[-6.089,-3.018]		-4.566***	[-6.093,-3.040]	

Notes: Data are from Wave 1 of the Swedish Generations and Gender Survey; Information on emigration behavior derived from Swedish population registers; Data are weighted; Multiple imputation using chained equations was used to deal with missing information; [a] Centered on weighted grand mean (m=38.2); [b] Log transformed;
* p < .05, ** p < .01, *** p < .001