Gender Dynamics, Migration Sequencing, and Immigrant Health Selection: A Bi-National Comparison of Disability Rates Among Older Adult Couples*

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Background

- Immigrant health selection
  - In general, immigrants are healthier than their non-migrant counterparts (e.g. Riosmena et al. 2017; Mehta and Elo 2012)
  - This is because migration is a selective process: poor health, lack of education, financial shortage… may all inhibit decisions to migrate
  - And often times, migration decisions are made by an entire **family,** as opposed to an **individual**
- Gaps in the prior literature
  - Studies on immigrant health selectivity: findings based on individual-level analysis, i.e. comparing differences in health outcomes, such as chronic disease conditions, between immigrants and non-migrants/non-Hispanic whites
    - Household characteristics are often overlooked
  - Meanwhile, sociological theory in immigration: migration is a *household* decision
    - Household is often the decision-making unit (e.g. Mincer 1978; Stark 1984)
    - Husbands are often the decision makers; wives have little say in migration decisions (Hondagneu-Sotelo 1994)
      - Thus, their health conditions might well be overlooked when the migration decision was made
  - Numerous studies have investigated the role of family migration decisions in socioeconomic selectivity of immigrants vis-à-vis non-mgirants (e.g. He and Gerber 2019; Lee and Zhou 2015)
    - How about its effect on health outcomes?

Research question

- How does family migration decision affect the health outcomes of Chinese and Mexican immigrants in the U.S.?
  - Gender egalitarian values in household plays an important part: female migrants might be “involuntary” migrants complying with their husband’s migration decisions
  - **Utility of a sociological concept: migration sequencing**
    - Unmarried migrants: migrated before marriage
    - Lead migrants: married before migration; initiated the migration (followed by spouse)
    - Concurrent migrants: married before migration; migrated together with spouse
    - Follower migrants: married before migration; migrated after spouse
  - Migration sequencing captures gender norms in household (He and Gerber 2019)
    - Compared to those who followed their husbands, female migrants who initiated migration/migrated before marriage are less likely to espouse traditional gender norms (He and Gerber 2019)
      - Female follower migrants: made the decision because their husbands cut off contacts/remittances; sometimes cocerced by their husbands to migrate
        - Their health conditions were less likely to be accounted for during migration decision-making
      - Female lead migrants: looking for better educational/job opportunities in the destination country; made the migration decision for themselves
        - However, their breach of gender norms in home country might negatively affect health conditions (He and Gerber 2019)

Data and Methods

- Binational health data
  - The U.S. side: pooled data from the American Community Survey (ACS), 2008-2017
  - The sending-country side: global aging data, including the Mexican Health and Aging Survey (MHAS), 2012, and the China Health and Retirement Survey (CHARLS), 2013
- Study populations:
  - U.S.-born non-Hispanic white couples
  - Immigrant couples in the U.S., both born in China (for Chinese immigrants) / Mexico (for Mexican immigrants)
  - Chinese and Mexican non-migrant couples
  - *Focus on older adults (both aged 50-84)*
- Outcome variables: three measures of disabilities
    - Self-care limitation, Ambulatory limitation (functional limitation) Independent-living limitation (ADL limitation)
- Primary independent variable:
  - Migration sequences of husbands and wives, by examining their records in year of marriage and migration
- Other covariates:
  - Age, gender, educational attainment, immigration status, years in the U.S. (for immigrants), U.S. region of residence (for immigrants and non-Hispanic whites)
- Methods:
  - Logistic regressions and Matching Methods
    - Predicting differences in disability rates across populations
    - Separated analysis for the male and female subjects

Preliminary Findings (Selected)

- **Odds ratios** [95% CI] from logistic regressions predicting differences in limitations between female immigrants and non-Hispanic whites
  - Mexican women
    - Overall less prevalence of disability than white women, but only after controlling for education
    - Follower migrants experience significantly higher rates of independent-living difficulty than unmarried migrants
  - Chinese women
    - Unmarried and follower migrants have significantly lower disability rates than concurrent and lead migrants, as well as white women

Mexican Women	Self-Care Difficulty		Independent Living Difficulty		Ambulatory Difficulty	
	(1)	(2)	(1)	(2)	(1)	(2)
Migration Sequence (ref. = U.S. Born Non-Hispanic Whites)						
Concurrent Migrant	1.793***	0.877	1.497***	0.722***	1.406***	0.651***
	[1.55,2.07]	[0.76,1.02]	[1.34,1.68]	[0.64,0.81]	[1.29,1.54]	[0.59,0.71]
Lead Migrant	1.881***	0.913	1.649***	0.789*	1.267**	0.581***
	[1.45,2.45]	[0.70,1.19]	[1.34,2.03]	[0.64,0.97]	[1.07,1.50]	[0.49,0.69]
Follower Migrant	1.859***	0.867	1.624***[d]	0.747***[d]	1.365***	0.600***
	[1.60,2.16]	[0.74,1.01]	[1.45,1.82]	[0.66,0.84]	[1.25,1.49]	[0.55,0.66]
Unmarried Migrant	1.639***	0.754***	1.394***[c]	0.633***[c]	1.390***	0.605***
	[1.41,1.91]	[0.64,0.88]	[1.24,1.57]	[0.56,0.71]	[1.27,1.52]	[0.55,0.66]

Chinese Women	Self-Care Difficulty		Independent Living Difficulty		Ambulatory Difficulty	
	(1)	(2)	(1)	(2)	(1)	(2)
Migration Sequence (ref. = U.S. Born Non-Hispanic Whites)						
Concurrent Migrant	1.057[c,d]	0.735**[c]	1.275***[b,c,d]	0.894[c,d]	0.717***[c,d]	0.484***[c,d]
	[0.87,1.28]	[0.61,0.89]	[1.13,1.44]	[0.79,1.01]	[0.64,0.81]	[0.43,0.55]
Lead Migrant	0.943[c]	0.768[c]	0.960[a,c,d]	0.779[c]	0.705**[c,d]	0.560***[c,d]
	[0.64,1.38]	[0.52,1.13]	[0.73,1.26]	[0.59,1.03]	[0.55,0.90]	[0.44,0.72]
Follower Migrant	0.414***[a,b]	0.353***[a,b]	0.584***[a,b]	0.492***[a,b]	0.372***[a,b]	0.309***[a,b]
	[0.32,0.54]	[0.27,0.46]	[0.49,0.70]	[0.41,0.59]	[0.31,0.44]	[0.26,0.37]
Unmarried Migrant	0.580***[a]	0.551***	0.588***[a,b]	0.552***[a]	0.392***[a,b]	0.365***[a,b]
	[0.43,0.78]	[0.41,0.75]	[0.47,0.74]	[0.44,0.69]	[0.32,0.48]	[0.30,0.45]

Model (1): age, age squared, citizenship status, and U.S. region of residence. Model (2): Model (1) + educational attainment.

* p < .05; ** p < .01; *** p < .001

[a] The odds ratio is significantly different from concurrent migrants at .05 level.

[b] The odds ratio is significantly different from lead migrants at .05 level.

[c] The odds ratio is significantly different from follower migrants at .05 level.

[d] The odds ratio is significantly different from unmarried migrants at .05 level.

Discussion

- Findings imply the complex role of household migration decisions in immigrant health selection
    - Variations in gender cultures across sending countries (in this study, Mexico vs. China) shape the disability outcomes of female immigrants in differential ways
- Mexican female immigrants: those who followed their husband's migration saw significantly higher rates of independent-living difficulty than those who initiated the migration process
    - Suggesting negative effect of having less agency in migration decisions on their health
- Chinese female immigrants: unmarried (migrated before marriage) and follower (migrated after husband) migrants showed significant health advantage than lead (migrated after marriage, before husband) and concurrent (migrated together with husband) migrants
    - Lead migrants' higher disability rate: suggesting negative health effect of breaching gender norms (once married, women are supposed to stay with their husband)
    - Concurrent migrants' health disadvantage: potentially due to less flexible migration decisions
        - If an entire family decides to migrate together, presumably hard to accommodate one person's health concerns