Journal of Aging Studies 50 (2019) 100789

Contents lists available at ScienceDirect

Journal of Aging Studies

journal homepage: www.elsevier.com/locate/jaging

Does migration matter? The case of older Russian speakers receiving long term services and supports

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Introduction

Discrimination based on race has been part of the American experience since before the nation was born. Because of the enduring impact of racism on health, minority status as defined by race or Hispanic origin has often been viewed as a key social determinant of health outcomes in the United States (Anderson, Bulatao, & Cohen, 2004). Concerns about ethnicity and race, not always to the benefit of minority populations, has always been a concern of the American government. Because of that, various attempts at categorizing these groups have been attempted as part of the decennial census (Prewitt, 2005). In 1977 an office of the federal government issued a set of standardized categories that have been used since to identify members of minority groups in American society (White non-Hispanic, Black non-Hispanic, Asian, Latino/Hispanic, and Pacific Islander) (Perlmann & Nevada, 2015). Many assistive programs and services offered at the federal and state levels require the administering agency to track participants using these racial categories to ensure equal treatment of all persons.

These standard categories have been useful in research to highlight disparities between and among minority and non-minority populations. Researchers have used these categories to identify when and where interventions designed to ameliorate health disparities might be most effective. However, the use of these categories in both research and policy have also had the unintended consequence of suppressing differences within each of these larger racial or ethnic minority groups that may play a role in determining health outcomes. For example, in the United States the category referred to as “Hispanic” is made up primarily of persons of Mexican origin (many of whom are migrants) and whom often show better health outcomes than native born populations. However, the second largest Hispanic population is comprised of Puerto Ricans, who are U.S. citizens but often show poorer health outcomes than the general population. Due to these differences among populations within the broader Hispanic or Latino ethnic category, it becomes easy for interventions designed using one sub-group to be less effective with others (Thomson, Nuru-Jeter, Richardson, Raza, & Minkler, 2013).

While migration history and/or country of origin represent one aspect of the diversity that exists within these larger categories, they play a particularly important role in the health of older adults. The experience of migration can affect health outcomes in several ways. Details such as cultural differences, reasons for migration, initial experiences in the United States, age at the time of migration, and family status all have the potential to impact both general health and individual decisions regarding the use of Long Term Services and Supports (LTSS) for older adults. For some, migration seems to have a protective effect (as in the case of Mexican Americans), and thus some migrants are healthier than the native born population. However, migration status can also have a negative effect on health due to linguistic or cultural isolation, or living in geographically segregated neighborhoods (Williams & Sternthal, 2010).

Mental health can also be influenced by migration status. Migrants who were forced to leave their country of origin may show greater emotional stress due to the circumstances that drove them to leave and the dislocation of family members. This may be especially true of those who migrated amidst traumatic events. Migration status can also be a source of resilience, as migrants who share a common origin or culture may provide mutual support and a strong sense of community for one another (blinded for review).

Migration status also has the potential to influence the ways in which older adults access services and make decisions regarding the use of community based LTSS. Language, cultural norms, the use of informal informational networks among peers, and past experiences with formal care systems in their native countries (often under government sponsorship) can all play a part in the way different older adult populations do or do not make use of the services available to them.

In addition, the persons providing services and conducting assessments may or may not come from the same ethnic group or speak the same language as the older adult receiving care, or may otherwise be insensitive to the issues that they face. At the same time some migrants may feel they are restricted to utilizing service providers from their own racial/ethnic/linguistic community even though they may not be the most appropriate provider to treat their illness (Ponce, Hays, & Cunningham, 2006).

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https://doi.org/10.1016/j.jaging.2019.100789
Received 25 June 2019; Accepted 27 June 2019
Available online 05 July 2019
0890-4065/

If characteristics such as language and culture play a large part in defining the interaction between older adults and the LTSS system, then it follows that neither minority status nor migration history alone would reliably predict outcomes related to the formal long-term care system. Instead, in order to see how disadvantage and resilience are expressed in the lives of these older adults, we would need to examine each migrant community individually and on its own merit. It would also be important to understand the diversity that exists within larger migrant group categories/places of origin (for example, if several waves of migrants from a particular country arrived in the U.S. over an extended period of time, cohort of migration may become more important to examine).

We therefore hypothesized that differences in LTSS use would be associated with characteristics of specific sub-groups within the population, and not systematically different by minority status or migration history. Our hypothesis is built on the literature focusing on Hispanic migrants that we believe can be more broadly applied (Clayman, Manganello, Viswanath, Hesse, & Arora, 2010; Menzel & Shrestha, 2012).

Data and methods

To test our hypothesis, we compared members of a non-minority foreign born group (white, Russian speaking) to 1) a native born non-minority group (white, English speaking); 2) a foreign born minority group (Chinese origin, Chinese speaking), and 3) a native born minority group (black, English speaking). If we are correct in our hypothesis than each of the four groups should be different in relation to the outcome measures. We selected the Russian speakers because they are not considered a minority group by American standards, and because there is significant previous research on this group (Hofmann, 2012; Mehta & Elo, 2012) including previous research by the first author (blinded for review). As a non-minority population their experience in LTSS should be like other non-minority elders if minority status is by itself a predictor of outcome. On the other hand, if foreign born status is by itself a major predictor of outcome, then outcomes for the Russian speakers should resemble those of the Chinese speaking elders in the study (Table 1, 3-7).

One alternative hypothesis is that there should be no systematic differences between the four groups (non-minority native born; minority native-born; non-minority foreign born; minority foreign born) because each of these groups enter the program based on the same eligibility requirements and services are assigned based on the same set of criteria. However, if the four groups enter the program with systematically different experiences, knowledge, and expectations then we can expect different outcomes.

We selected white, Russian speaking older adults enrolled in a LTSS program as our base group and compared them to 1) white, non-Hispanic English speakers and 2) Chinese speaking older adults. We also selected 3) Black, non-Hispanic English speakers to complete the comparison with a minority native born population.

The data used in our analyses is composed of client records and assessment data from the Pennsylvania Medicaid Older Adult Waiver program administered by Philadelphia Corporation for Aging (PCA). The file contains records for Waiver enrollees for the years 2005–2009. The Aging Waiver program provides in-home services to people who are 60 or older and are assessed as needing the level of care provided by a nursing home. It offers services not otherwise offered by Medical Assistance (Medicaid). PCA administers this Waiver Program in the City/County of Philadelphia, and prospective applicants must meet both financial and functional eligibility requirements to be enrolled. Financial eligibility requirements include monthly incomes less than $2094 in 2012, and less than $8000 in financial resources such as saving accounts and investments. Functionally, one must be certified by a physician as needing regular care with non-medical activities such as bathing and dressing, or skilled needs such as nursing, physical therapy or occupational therapy. The services available from the Aging Waiver program include: Personal assistance services (help at home with activities of daily living such as bathing, dressing, toileting, medication reminders, meal preparation and some cleaning), home delivered meals, home health services, non-medical transportation, respite care, personal emergency response system counseling services, accessibility adaptations, equipment, technology and medical Supplies, and adult day care.

Each record in our database contains information on the use of each service listed above, as well as demographic characteristics including living arrangements, health conditions (eyes, ears, nose, etc. including diagnosed illnesses such as cancer), current treatment for alcohol or drug abuse, functional health measures (ADL/IADL and mobility), cognitive function, emotional behavior, physical environment, financial resources, and information on formal health care use including days spent in hospital, number of medications, and ability to manage medications.

The data set used does not include a question about country of origin. However, primary language of the older adult is included to help determine whether translation services will be needed. Using the 2012 American Community Survey 5-year file (covering some of the same years as the LTSS file), we discovered that among adults age 60 and older, 97% of the white, English speaking persons and 97% of the Black elders were American born, and 97% of the Russian speaking white respondents and 99% of the Chinese speaking Asian respondents were born outside the United States. For this reason, we decided language and race together made a good proxy for foreign born vs. native born.

Results

To begin we examined the referral sources that brought the older adult into the system. While family were the most commonly identified sources for referral for both English speaking groups, the Chinese and Russian speakers cited formal providers as the most common source for LTSS referrals. However, there was a significant difference between the Chinese and Russian speakers. About half of the Russian speakers (54%) received their referral from the LTSS provider (PCA). 21% of whites, 24% of Blacks and only 17% of Chinese speakers received their referral from the LTSS provider. So from the beginning the Russian speakers were more “tied in” to the formal system.

We selected two outcome measures to test our hypothesis. These are dichotomous measures that identify whether the older adult 1) was in the hospital in the 12 months prior to evaluation and 2) whether the older adult spent time in a nursing facility in the 12 months prior to the evaluation. We selected these outcome measures because the primary stated goal of LTSS is to keep older adults healthy in their homes and communities. The outcomes chosen are negative outcomes- they suggest that the older adult is experiencing either acute or chronic illness not properly managed at home.

For the predictors we identified six variables that were significantly

Table 1
The final sample (n = 9640)

	Native born	Foreign born
Ethnic/minority	Black English speaking (n = 5612)	Chinese speaking (n = 145)
Not Ethnic/minority	White English speaking (n = 2147)	Russian speaking (n = 1736)

Table 2
Use of Health Services

Percentage of group who was admitted to hospital in previous 12 months			
		Chi-Square	Sig Different from Russian speaking
Russian Speaking	31.6%		
White English Speaking	56.8%	245.3233	0.000
Black English Speaking	55.8%	309.0125	0.000
Chinese speaking	35.2%		n.s.

Percentage of group who was admitted to nursing facility in previous 12 months			
		Chi-Square	Sig different from Russian speaking
Russian Speaking	3.9%		
White English Speaking	23.5%	291.3698	0.000
Black English Speaking	19.4%	238.4203	0.000
Chinese speaking	6.3%		n.s.

and independently associated with an overnight hospital stay.

These items included 4 health measures: 1) the length of time the person has suffered from an IADL impairment; 2) the length of time the person had suffered from an ADL impairment; 3) the number of health conditions (from a list of #); 4) having experienced a recent fall; and two socio-demographic measures; 1) income and 2) whether the older adult was married or not (which often would be a proxy for living alone). The same variables, excluding having experienced a recent fall, were used to predict whether the older adult had spent time in a nursing facility.

We began with two-group comparisons, running X^2 statistics for each pair of groups (Russian speaking vs. White English Speaking, Black English speaking, and Chinese) by each of the variables listed below. Russian speakers ("Russians" for short) were significantly less likely to have been admitted to either a hospital or nursing facility in the 12 months prior to the interview than either white or Black English speakers. However, there were no significant differences on either measure when the Russian speakers were compared to the Chinese speakers (see Table 2).

We then turned to comparisons on each of the six variables listed above. We compared the Russian sample to the three other samples using cross tabulations for some items and One-Way ANOVAs for others. Starting with the health measures, we tested for differences in the average (mean) length of time each had an ADL impairment. The average for ADL impairment for the Russian group was five years or less, significantly higher than for the other three groups (the mean for all other groups was one year or less, for the Russian group it was 5 years or less). The same holds true for an IADL impairment. The Russian group also showed a significantly higher number of health conditions than any of the other three groups.

We tested for differences in recent falls using a series of X^2 statistics running each of the three groups against the Russians. White English speakers were less likely to have a recent fall than the Russian group while Black English speakers were more likely. There were no significant differences between the Chinese and Russian groups in regard to recent falls.

Table 3
Percentage of Members of Each Group Who Reported a Fall

Percentage of group who reported a recent fall			
		Chi-square	Sig different from Russian speaking
Russian Speaking	35.5%		
White English Speaking	39.5%	6.7315	0.000
Black English Speaking	30.5%	15.3493	0.000
Chinese speaking	37.2%		n.s

In regard to the two socio-demographic variables, the Russian group had the lowest mean income which was significantly lower than the mean income of the two native born groups. However, the mean income of the Russian group was not significantly different from the Chinese group. The Russian group was also more likely to be married than either of the two English speaking groups but there were no significant differences with the Chinese group on percentage married.

We completed a series of logistic regressions with the dichotomous variables (hospital and nursing home) as dependent and the six variables above as predictors. We then repeated those logistic regressions four times for each dependent variable, each time adding a dummy variable for one of the four groups identified above coded as "yes/no". We removed the "number of health conditions" variable because the number of cases with a response was lower than for the full sample. The purpose of these regressions was to determine whether group membership was independently associated with either of the outcomes. We began by running the sample as a whole and discovered that each of the five items was an independent predictor of hospitalization. All but a recent fall were also independent predictors of spending time in a nursing facility.

When we entered the Russian group into the regression we discovered that whether or not a respondent was Russian speaking was an independent significant predictor of both hospitalization and nursing home placement. In both cases the association was negative – that is, being Russian speaking was associated with fewer hospitalizations and nursing home placements compared to the rest of the sample. In addition, being married was not associated with either outcome once the Russian variable was entered into the analysis.

We then completed the same analyses with the three other groups. The analyses with the white English speaking group showed that members of this group were more likely to have been in a hospital or nursing facility than other groups. As with the Russian speakers, married was no longer an independent significant predictor of outcome once this group was added to the analyses. Black English speakers were also more likely than the rest of the sample to have been admitted to a hospital and married was no longer an independent predictor once this group was added to the analysis.

Being black was not independently associated with nursing home placement

Discussion

The Russian speaking group was distinctive in that although they had a higher rate of health problems and disabilities, they had lower rates of hospital and nursing facility use. Further, whether or not a respondent spoke Russian was a predictor of hospitalization and nursing facilities independent of the health and socio-economic measures

Table 4
Health Measures

	Mean Number of health conditions	Significant difference from Russian speakers
Russian Speaking	9.06	
White English Speaking	7.8	0.000
Black English Speaking	7.11	0.000
Chinese speaking	7.2	0.012
	Average Time with ADL Impairment	Significant Difference from Russian Speakers
Russian Speaking	Five Years or Less	
White English Speaking	One Year or Less	0.000
Black English Speaking	One Year or Less	0.000
Chinese speaking	One Year or Less	0.000
	Average Time with IADL Impairment	Significant Difference from Russian Speakers
Russian Speaking	Five Years or Less	
White English Speaking	One Year or Less	0.000
Black English Speaking	One Year or Less	0.000
Chinese speaking	One Year or Less	0.000

Table 5
Socio-Economic Status

Percentage of group who reported being married			
		Chi-Square	Sig Different from Russian speaking
Russian Speaking	36.4%		
White English Speaking	16.5%	199.9698	0.000
Black English Speaking	9.5%	714.0976	0.000
Chinese speaking	32.4%		n.s.
	Mean Income	Significantly Different from Russian Group	
Russian Speaking	6701.9		
White English Speaking	11,025.24		0.000
Black English Speaking	9816.78		0.000
Chinese speaking	7094.95		n.s.

Table 6
All respondents.

Hospital	Coef.	Std. Err.	z	P > |z|	[95% Conf. Interval]	
iadlhowlong	−0.227357	0.0320453	−7.09	0.000	−0.29016	−0.16455
adlhowlong	−0.4447228	0.0315752	−14.08	0.000	−0.50661	−0.38284
income	0.00000267	0.0000025	1.07	0.285	−2.2E-06	7.56E-06
recent fall	0.4694983	0.0454159	10.34	0.000	0.380485	0.558512
married	−0.218526	0.0576115	−3.79	0.000	−0.33144	−0.10561
_cons	2.416331	0.1237174	19.53	0.000	2.173849	2.658812
Nursing Facility	Coef.	Std. Err.	z	P > |z|	[95% Conf. Interval]	
iadlhowlong	−0.256893	0.0368075	−6.98	0.000	−0.32903	−0.18475
adlhowlong	−0.3138026	0.0368814	−8.51	0.000	−0.38609	−0.24152
income	0.00000948	0.00000312	3.04	0.002	3.37E-06	1.56E-05
married	−0.2614091	0.077825	−3.36	0.001	−0.41394	−0.10887
_cons	0.7604366	0.1034383	7.35	0.000	0.557701	0.963172

in the analyses.

Health problems among older Russian speakers have been reported in the literature so the higher rates of such problems in this data set are not surprising. What is surprising is that these health problems are not associated with greater use of hospitals and nursing homes. One hint at a possible explanation can be found in the data reported above on how the older adult was referred to the LTSS system. The Russian speakers were more likely to have been previously linked to the formal network and that existing relationship, often associated with higher rates of service use, may also have a protective effect in relation to acute health episodes that require short term or long-term facility placement. We did look at which respondents were currently receiving formal services and found that 95% of the Russian speakers, 85% of the white English speakers, 80% of the Black English speakers, and 76% of the Chinese were receiving such services. While greater disability (as reported by the Russian speakers) is an obvious reason for being a recipient of services, receiving more services is associated with both hospitalization and nursing home placement in the overall older adult population. We also recognize that patterns of health and use of health services emerge over time and are often rooted in the experience of migrants in their countries of origin. Previous research on migrants from the former Soviet Union tied another health concern into their decision to depart for the United States, especially among the older adults- a fear that the long-term effects of the Chornobyl nuclear disaster had the potential to harm their grandchildren (blinded for review). In order to discover the specific reasons for the general associations found in this study, we would need to look deeper (probably using qualitative methods) into the ways in which Russian speakers use formal services.

Conclusion

We conclude that to fully understand the experience and use of LTSS

Table 7
Russian speaking vs. other respondents.

Hospital	Coef.	Std. Err.	z	P > |z|	[95% Conf. Interval]	
Russian	−0.8938992	0.0620638	−14.4	0.000	−1.01554	−0.77226
iadlhowlong	−0.2103177	0.0323377	−6.5	0.000	−0.2737	−0.14694
adlhowlong	−0.4315412	0.0318566	−13.55	0.000	−0.49398	−0.3691
Income	−0.000000386	0.00000166	−0.23	0.816	−3.6E-06	2.86E-06
Recent fall	0.5043768	0.0461108	10.94	0.000	0.414001	0.594752
Married	−0.0092447	0.0604695	−0.15	0.878	−0.12776	0.109273
_cons	2.375266	0.1227184	19.36	0.000	2.134743	2.61579
Nursing Facility	Coef.	Std. Err.	z	P > |z|	[95% Conf. Interval]	
Russian	−1.667872	0.131182	−12.71	0.000	−1.92498	−1.41076
iadlhowlong	−0.2459002	0.0373352	−6.59	0.000	−0.31908	−0.17272
adlhowlong	−0.2993302	0.0373645	−8.01	0.000	−0.37256	−0.2261
Income	0.00000459	0.00000253	1.81	0.070	−3.7E-07	9.54E-06
Married	0.0044643	0.0805774	0.06	0.956	−0.15346	0.162393
_cons	0.8206499	0.103392	7.94	0.000	0.618005	1.023295

by older Russian speakers, it is important to note that neither majority/minority status nor migration status alone accounts for their lack of use of the two outcome variables in our analyses. Rather, it is their specific experience, both in their home country and in the United States that needs to be understood if we are to fully interpret the findings from these analyses.

Our conclusion applies not only to Russian speaking migrants to the United States but more broadly to the general topic of this set of articles – the globalization of migration and population aging. Persons who grow old in countries other than their country of birth is becoming a more common phenomena in the twenty-first century. The patterns shown here – especially the greater number of health conditions among Russian speakers and at the same time fewer hospitalizations goes against what might otherwise be assumed (and perhaps true) in larger, national studies). That is, diversity does not only speak to differences in culture, race and language; diversity also speaks to differences in the experience of aging, health and illness that have significant implications for the elders, their families, and the formal systems established to serve this population. This is especially important when considering the formal LTSS systems that exist across the globe. While much research focused on interaction with the health system many of those events are acute and short in duration. Being served in a formal LTSS system can continue for years, sometimes more than one decade, and intrudes on the most personal of environments – the older adult's home. For these reasons, studies of older adults and especially those not born in the country where they receive LTSS services is critical for understanding how the globalization of migration and the growth of population aging impact individuals, communities and nations.

While both minority status and migration status will continue to influence health outcomes for older adults, a richer, more nuanced understanding of the diversity within these larger categories is needed to explain the interaction between older persons and the formal LTSS system.

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