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ARTICLE

Diminished Health Returns of Own and Parental Education for Immigrants in the United States

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ABSTRACT

Background: Educational attainment is a strong social determinant of health. Marginalization-related Diminished Returns (MDRs), however, refer to smaller health effects of socioeconomic status, particularly educational attainment for marginalized groups compared to mainstream populations. While multiple studies have documented MDRs of educational attainment for racial, ethnic, and sexual minorities, there are no previous studies on MDRs of education among immigrants. **Aims:** To understand if the MDRs phenomenon also applies to immigrants, we compared immigrant and non-immigrant American adults for the effects of their own and parental educational attainment on subjective health. **Methods:** This study used a cross-sectional design and borrowed data from the General Social Survey (1972-2018). GSS is a series of nationally representative surveys in the U.S. Our analytical sample included 38,399 adults who were either non-immigrants (n = 34903; 90.9%) or immigrants (n = 3496; 9.1%). The main independent variables were own and parental educational attainment measured as four-level categorical variables. The dependent variable (DV) was poor subjective health, measured using a single item. Age, sex, marital status, and year of the survey were the covariates. Immigration status was the moderator. **Results:** Overall, individuals with higher educational attainment of own and parents reported better subjective health. We, however, found significant interactions between immigration status and both own and parental educational attainment on subjective health, which was suggestive of weaker protective effects of own and parental educational attainment against poor subjective health in immigrants than non-immigrant individuals. **Conclusions:** In the United States, immigrant adults experience poor subjective health disproportionate to their own and their parents educational attainment. That means we may observe worse than expected health of immigrants across all educational levels and social classes. Public policies should go beyond equal access to education by empowering marginalized people to leverage their education and secure better outcomes.

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1. Background

A large body of review [1] and empirical [2] research has shown different health statuses of immigrants compared to non-immigrants. Healthy immigrant effects [3-6] is suggestive that immigrants experience better health than non-immigrants because immigrants are a selected group of motivated and educated individuals who leave their country to pursue a better life condition in the destination country [7,8]. One major example of this phenomenon is the Hispanic Paradox [9-13]. According to the Hispanic Paradox [14-16], despite a lower socioeconomic status, Hispanics live longer than Whites in the U.S. [13,15,17]. On the opposite end, immigrants may experience additional adversities and may be at risk for a variety of undesired health outcomes [18,19]. At least some of the research on disparities have attributed these differences to lower education and poverty [20-22]. Very few studies, however, have ever tested if education differently impacts the health and well-being of immigrants and non-immigrants.

Education has protective effects on health through multiple mechanisms [23,24]. Each additional year of schooling enhances the sense of control, coping, and mastery, and reduces stress [25,26]. It also improves behaviors [27-31] and cognitive abilities [32-34], and reduces risky behaviors [35-37] that can deteriorate health. Education also enhances life conditions, reduces stress, and increases access to materialistic and non-materialistic resources such as a more powerful social network [25,26,28]. All these effects suggest that each additional year of schooling reduces the likelihood of many health risks [25,38,39]. While the health effects of education are not limited to one aspect of health, higher years of education and high educational credentials are associated with better subjective health [40-44], which is a robust indicator of the health of populations and individuals inside and outside clinical settings [45-47].

According to the Marginalization - related Minorities' Diminished Returns (MDRs) theory, [48-50], members of minority groups report worse health even when they have access to socioeconomic resources such as education [48-50]. The MDRs phenomenon is supported by an extensive body of empirical research for various health outcomes including but not limited to subjective health [51]. In the case of subjective health, MDRs literature has shown that subjective health remains poor in marginalized people such as middle-class racial [51,52] and ethnic [53,54] minorities as well as sexual minorities [55]. The MDRs framework proposes that: (a) social inequalities in subjective health and other health outcomes are not all due to low SES (e.g., low education) of marginalized social groups, but at least some of these inequalities are due to smaller marginal returns (i.e., health effects) of available SES indicators for the member of the marginalized social groups (i.e., MDRs). Given that the gradient/slope of the effect of years of education of oneself [51] and parents [56] on health outcomes such as subjective health [51,53,57] are systematically weaker in marginalized compared to non-marginalized groups, the gap between the subjective health between the two widens, rather than narrows, as SES (years of education) increases. In this view, quite contrary to traditional views, SES (e.g., education) may become a source rather than a solution to inequalities [58-61], unless policies are in place that can equalize not only education but also gains from education for social groups. That means we would need policy solutions to eliminate inequalities that go beyond requiring access to SES by addressing structural and societal stressors and barriers that have historically influenced communities of color and marginalized people [48-50].

Although MDRs are documented for subjective health [51,53,62] of middle-class Blacks [63], Hispanics [64], Native Americans, Asian Americans, and lesbian, gay, bisexual, and transgender (LGBT) individuals[36,55,66], we are not aware of any literature on MDRs that goes beyond race, ethnicity, and sexual orientation and tests the relevance of MDRs to immigrants. Similar to the racial, ethnic, and sexual minorities, immigrants are marginalized and discriminated against. Immigrants also experience economic and social adversities. Some immigrants even experience high levels of prejudices and hate crimes [67-71]. Immigrants are also more likely to live in poor urban areas with a concentration of poverty and sometimes ethnic enclaves [67,72]. These immigrants are systematically excluded from the labor market [73-77], and their education may not generate the same outcomes [74,75,78-81]. Similarly, immigrants face environmental stressors and exposures that can potentially reduce the gain of their resources. As in theory, immigrants are a minority and marginalized group in society (social status), and as the MDRs framework applies to all marginalized groups, broadly defined [82,83], more research is needed on the relevance of MDRs for immigrant people.

Aims

To better understand the mechanisms by which health inequalities impact immigrants, and are informed by the MDRs theory [82,83], we compared immigrants and non-immigrants to assess the association between educational

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attainment and subjective health in U.S. adults. Built on a national sample of Americans, we hypothesized that the protective effect of each additional year of schooling (educational attainment) on subjective health would be smaller for the immigrants compared to non-immigrant people. If MDRs are relevant to immigrants as well, we would expect poor subjective health in highly educated immigrant people, a pattern very different than highly educated non-immigrants.

2. Methods

2.1 Design and Setting

In a cross-sectional study, we used the General Social Survey (GSS; 1972-2016) data. Since 1972, the GSS has been conducted by the University of Chicago to monitor the social trends in the U.S. over time.

2.2 General Social Survey (GSS)

The GSS has gathered data on contemporary American society over more than four decades and monitored trends in attitudes, behaviors, and beliefs of Americans. The GSS sheds light on how the structure and function of the U.S. society are changing, overall, and across social groups (e.g., race, class, sex, and immigration status). The data also provides an excellent opportunity to run a time series and compare U.S. subgroups. Finally, the data gives us the opportunity to compare the United States to its peer industrial countries [87].

2.3 Analytical Sample

The current study included 38,399 adults who were either non-immigrants (n = 34903; 90.9%) or immigrants (n = 3496; 9.1%).

2.4 Ethics

The GSS study protocol was approved by the University of Chicago Institutional Review Board (IRB). All GSS participants provided informed consent. The study was funded by the National Science Foundation (NSF).

2.5 Study Measures

Study variables included immigration status, race/ethnicity, age, sex, own educational attainment, parental educational attainment, employment status, marital status, year of survey, and subjective health.

Own Educational Attainment. Own educational attainment was measured as years of schooling that the individual had completed. This variable was a continuous measure varying from 0 to 22. It was treated as an interval measure (a higher score reflecting higher educational attainment/ years of schooling).

Parental Educational Attainment. Educational attainment of the parents was measured as years of schooling of the mothers and fathers, varying from 0 to 22. It was treated as a continuous measure (a higher score reflecting higher educational attainment/ years of schooling).

Subjective health. Participants reported their subjective health using the conventional single-item measure (self-rated health / SRH). The item was, "Would you say your own health, in general, is excellent, good, fair, or poor?" Responses were excellent, good, fair, or poor. We dichotomized the outcomes with poor as one and all other responses as 0. Idler and others have shown that subjective health is a valid predictor of mortality risk in the general population [45,47].

Demographic Variables. Sex, age (years), and year of the survey were the study covariates. Age was a continuous variable in years. Sex was 0 for males (reference group) and 1 for females.

Study Year. The year of the survey was operationalized as a continuous variable with a range from 0 to 40.

Socioeconomic Status. Two SES covariates in this study were employment [84,85]and marital status [86,87]. Employment was measured as an ordinal variable, with categories: "(1) Working Full-time, (2) Working Part-time, (3) Temporarily Not Working, (4) Unemployed, Laid Off, (5) Retired, 6) School, 7) Keeping House, and 8) Other". Working Full-time was coded as 1 and all other statuses as the reference group. Marital status was also assessed as a nominal variable with two categories: (1) Married, (2) non-Married. Married was coded as 1 and all other statuses as the referent category.

Race/ethnicity. Self-identified race and ethnicity were the focal moderating variable, with three categories. Race/ethnicity was treated as a variable with non-Hispanic Whites as the reference group =0, Blacks as 1, and other race/ethnic groups as 2.

2.6 Statistical Analysis

Data were analyzed using Stata 15.0. Only participants with available data on immigration and subjective health were eligible for this analysis. No missing data were present. We reported frequency (%) and mean (standard error; S.E.) to describe our participants overall and by race. For multivariable analysis, logistic regressions were used because our outcome was dichotomous, and SRH is commonly treated as a dichotomous outcome. We also ruled out collinearity between our study variables. We used four logistic regressions, two models in the

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pooled sample (*Model 1* and *Model 2*) and two models specific to our nativity groups (*Model 3* and *Model 4*). In all models, poor subjective health (1 poor health, 0 any other health status) was the primary outcome (dependent variable), own and parental educational attainment (years of education) as the primary predictors (independent variables), and age, sex, employment status, marital status, and year of the survey as covariates. *Model 1* only had the study variables without any interaction terms. *Model 2* also included the race by educational attainment interaction term. Finally, *Model 3* and *Model 4* estimated the effects of own and parental educational attainment on poor subjective health in non-immigrants and immigrants, respectively. Although models 3 and 4 had different statistical power, our main model is Model 2, which is not affected by the imbalanced sample size of immigrant and non-immigrant populations. Odds Ratio (OR), S.E., 95% CI, and p values were reported.

3. Results

3.1 Descriptive Statistics

The current study included 38,399 adults who were either non-immigrants (n = 34903; 90.9%) or immigrants (n = 3496; 9.1%). These participants were recruited between 1977 and 2018. Participants were between 18 and 88 years old. Participants were 45.99 years old on average (SD = 17.30). On average, immigrants were younger than non-immigrants. Immigrants reported better subjective health compared to non-immigrants. Immigrants had higher educational attainment of own and parents compared to non-immigrants. Table 1 described the sample overall and by immigration status.

3.2 Multivariable Models in the Pooled Sample

In Table 2 we see the summary of the results of two logistic regression models with own and parental

Table 1. Descriptive statistics in the overall sample

	All		Non-Immigrants		Immigrants	
	N	%	N	%	N	%
Immigration						
No	34903	90.9	34903	100.0	-	-
Yes	3496	9.1	-	-	3496	100.0
Race*a						
White	30336	79.0	28408	81.4	1928	55.1
Black	5740	14.9	5317	15.2	423	12.1
Others	2323	6.0	1178	3.4	1145	32.8
Sex*a						
Women	16822	43.8	15240	43.7	1582	45.3
Men	21577	56.2	19663	56.3	1914	54.7
Marital Status*a						
Others	19189	50.0	17611	50.5	1578	45.1
Married	19210	50.0	17292	49.5	1918	54.9
Own Educational Attainment *a						
0-11	22380	58.3	20271	58.1	2109	60.3
12	8203	21.4	7618	21.8	585	16.7
13-15	3004	7.8	2761	7.9	243	7.0
16+	4812	12.5	4253	12.2	559	16.0
Parental Educational Attainment*a						
0-11	6508	16.9	5653	16.2	855	24.5
12	11314	29.5	10582	30.3	732	20.9
13-15	9532	24.8	8797	25.2	735	21.0
16+	11045	28.8	9871	28.3	1174	33.6
subjective health*a						
Other	36249	94.4	32909	94.3	3340	95.5
Poor	2150	5.6	1994	5.7	156	4.5
	Mean	SD	Mean	SD	Mean	SD
Age (Years)*b	45.99	17.30	46.19	17.42	44.04	16.00

Notes:
** $p < 0.05$ for comparison of non-immigrants and immigrants*
a: Chi Square test
b: independent samples t test

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Table 2. Summary of logistic regressions on subjective health in the pooled sample

	Model 1 Main Effects						Model 4 M1 + Interactions					
	b	SE	OR	95% CI		p	b	SE	OR	95% CI		p
Immigrants	-0.32	0.09	0.72	0.60	0.87	.001	-0.65	0.14	0.52	0.39	0.69	.000
Race/Ethnicity												
White			1						1			
Blacks	0.22	0.06	1.25	1.11	1.41	.000	0.21	0.06	1.23	1.09	1.39	.001
Other race ethnic groups	0.25	0.11	1.28	1.04	1.59	.020	0.25	0.11	1.28	1.04	1.58	.022
Sex (female)	-0.01	0.05	0.99	0.90	1.09	.847	-0.01	0.05	0.99	0.90	1.09	.851
Age (Years)	0.03	0.00	1.03	1.03	1.04	.000	0.03	0.00	1.03	1.03	1.04	.000
Marital Status (Married)	-0.44	0.05	0.64	0.58	0.71	.000	-0.44	0.05	0.64	0.59	0.71	.000
Own Educational Attainment						.003						.001
<12 Years												
12 Years	-0.20	0.07	0.82	0.71	0.94	.005	-0.24	0.07	0.78	0.68	0.91	.001
13_15 Years	-0.36	0.13	0.70	0.54	0.90	.006	-0.36	0.13	0.70	0.53	0.91	.007
16+ Years	-0.19	0.11	0.83	0.66	1.03	.085	-0.27	0.12	0.76	0.60	0.96	.022
Parental Educational Attainment						.000						.000
<12 Years												
12 Years	-0.79	0.06	0.45	0.40	0.51	.000	-0.83	0.06	0.43	0.38	0.49	.000
13_15 Years	-1.04	0.07	0.35	0.31	0.40	.000	-1.08	0.07	0.34	0.29	0.39	.000
16+ Years	-1.44	0.08	0.24	0.20	0.28	.000	-1.46	0.09	0.23	0.20	0.28	.000
Time (0_20)	0.01	0.00	1.01	1.00	1.01	.001	0.01	0.00	1.01	1.00	1.01	.000
Immigration × Own Educational Attainment												.083
<12 Years	-	-	-	-	-	-						
12 Years	-	-	-	-	-	-	0.51	0.26	1.66	1.00	2.75	.049
13_15 Years	-	-	-	-	-	-	0.01	0.55	1.01	0.35	2.97	.980
16+ Years	-	-	-	-	-	-	0.70	0.34	2.01	1.03	3.91	.040
Immigration × Parental Educational Attainment												.123
<12 Years	-	-	-	-	-	-						
12 Years	-	-	-	-	-	-	0.53	0.23	1.70	1.08	2.66	.022
13_15 Years	-	-	-	-	-	-	0.36	0.27	1.43	0.84	2.43	.183
16+ Years	-	-	-	-	-	-	0.15	0.30	1.16	0.64	2.10	.620
Intercept	-3.67	0.11	0.03			.000	-3.63	0.11	0.03			.000

Notes:
CI: Confidence Interval; S.E.: Standard Error; OR: Odds Ratio

educational attainment as the independent variables and poor subjective health as the dependent variable. Both models run in the pooled / total / overall sample. *Model 1* only entered the main effect of own and parental educational attainment, immigration status, and covariates. *Model 2*, however, also added two interactions between immigration status and own and parental educational attainment. Based on *Model 1*, high own and parental educational attainment were associated with lower odds of poor subjective health. *Model 2* showed statistically significant interactions between immigration status and own and parental educational attainment on poor subjective health, suggesting that high educational attainment of own and parents have diminished effects subjective health of immigrants than non-immigrant individuals (Table 2).

3.3 Multivariable Models in Immigrant and Non-immigrant Individuals

Table 3 presents the results of two other logistic regression models with own and parental educational attainment as the independent variables and poor subjective health as the dependent variable. *Model 3* and *Model 4* were estimated in non-immigrants and immigrants, respectively. Based on *Model 3,* high educational attainment of own and parents were associated with better subjective health in non-immigrant individuals. *Model 4* showed that parental education attainment but not own educational attainment is associated with higher odds of better subjective health in immigrant individuals (Table 3).

4. Discussion

High own and parental educational attainment was

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Table 3. Summary of logistic regression models on subjective health by immigration status

	Model 3 Non-Immigrants						Model 4 Immigrants					
	b	SE	OR	95% CI		p	b	SE	OR	95% CI		p
Race/Ethnicity												
White			1.00						1.00			
Blacks	0.19	0.06	1.21	1.07	1.37	.003	0.63	0.26	1.87	1.12	3.12	.016
Other race ethnic groups	0.27	0.13	1.32	1.02	1.69	.032	0.48	0.22	1.62	1.06	2.48	.025
Sex (female)	-0.02	0.05	0.98	0.89	1.08	.720	0.17	0.18	1.18	0.83	1.68	.349
Age (Years)	0.03	0.00	1.03	1.03	1.03	.000	0.05	0.01	1.05	1.04	1.06	.000
Marital Status (Married)	-0.41	0.05	0.66	0.60	0.73	.000	-0.70	0.18	0.50	0.35	0.71	.000
Own Educational Attainment						.000						.203
<12 Years			1.00						1.00			
12 Years	-0.26	0.07	0.77	0.67	0.89	.001	0.28	0.25	1.32	0.81	2.16	.267
13_15 Years	-0.38	0.13	0.68	0.52	0.89	.005	-0.20	0.54	0.82	0.29	2.35	.715
16+ Years	-0.29	0.12	0.75	0.59	0.94	.014	0.62	0.33	1.86	0.98	3.53	.059
Parental Educational Attainment						.000						.001
<12 Years			1.00						1.00			
12 Years	-0.85	0.06	0.43	0.38	0.48	.000	-0.22	0.23	0.80	0.51	1.26	.340
13-15 Years	-1.10	0.07	0.33	0.29	0.38	.000	-0.61	0.27	0.54	0.32	0.92	.023
16+ Years	-1.48	0.09	0.23	0.19	0.27	.000	-1.17	0.30	0.31	0.17	0.55	.000
Time (0-20)	0.01	0.00	1.01	1.00	1.01	.000	0.00	0.01	1.00	0.98	1.01	.648
Intercept	-3.56	0.11	0.03			.000	-5.26	0.45	0.01			.000

Notes:
CI: Confidence Interval; S.E.: Standard Error; OR: Odds Ratio

associated with better subjective health. However, these effects were both weaker for immigrants than non-immigrants. In line with MDRs, high educational attainment of oneself and parents seemed to have diminished effects on boosting the subjective health of immigrant people than non-immigrant individuals.

Similar to our recent findings, Ferraro showed that the slope of the effect of education on subjective health is weaker in Black than White adults [46]. In a previous study using data from HINTS with a national sample of American adults, a weaker effect of education on subjective health was found for Blacks than Whites [51]. In this study, income mediated this differential return of education, suggesting that labor market discrimination may have a role in explaining the MDRs of education by race [51]. In another study in a local sample of Michigan residents, income generated more mental subjective health for White than Black adults [62]0. In another study, parental income at birth generated less subjective health for Black than White 15-year-old youth [52]. In another study, parental SES generated more oral subjective health for Hispanic than non-Hispanic adults [53]. Another study showed diminished returns of SES on the subjective health of Hispanic than non-Hispanic older adults [54]. Finally, LGBT individuals with high SES reported worse subjective health than their non-LGBT counterparts [55]. All of these suggest that racial, ethnic, and sexual minority people report poor subjective health even when they have access to education and income. The major contribution of this paper is to extend this literature to immigrants suggesting that immigrants also experience MDRs of education similar to Blacks, Hispanics, and sexual minority people.

An extensive body of research on MDRs has shown that high educational attainment has smaller health effects on marginalized people compared to the mainstream people [56,63,64,66]. As a result, people show worse than expected outcomes even when they have access to SES if they do not belong to the mainstream and privileged groups. Marginalized people do not report poor health merely because they have low access to resources. They also report poor health because their resources generate less economic and health outcomes.

This study was on the education - subjective health link. Immigrants are less likely than non-immigrants to report any suffering from chronic health issues and delay their use of health care, contributing to lower self-reported health and mental status. MDRs, however, are neither limited to education nor to subjective health [82, 83]. Similar patterns of MDRs are shown for education [51], income [88], employment [89], and marital status [90]. Various outcomes such as obesity [91], depression [92], anxiety [90], self-rated health [51], and chronic disease [93] also show MDRs. That is, regardless of the SES indicator and outcome, and

regardless of the type of marginalization (race, ethnicity, sexual orientation, or immigration), SES generates less tangible health outcomes for marginalized groups.

Marginalization, broadly defined, reduces the marginal return of SES, particularly education. This applies to LGBT people [66], Blacks [62], Hispanics [64,94], and Native Americans [65]. This is, however, one of the first studies on MDRs of educational attainment for immigrants. The next step is to study why we observe MDRs for education on the subjective health of immigrants. We also need to study if the same pattern can be seen for chronic disease and other objective measures of health, such as disability. Further studies should examine the effect of SES factors, including education, and its relationship with immigration-related variables, such as country of origin, migration history, and length of immigration residency to fully understand the complex effect of immigration and immigrant status on overall health.

Universal MDRs are due to structural and contextual rather than behavioral and cultural factors. We, however, need to study mechanisms that can potentially explain why educational attainment and other SES indicators lose some of their protective effects for marginalized people in general and immigrants in particular. Underlying mechanisms of MDRs in populations may be stigmatization, marginalization, segregation, prejudice, and discrimination. These social processes increase stress and reduce opportunities to leverage available resources. In such contexts, it is difficult to translate available resources and mobilize human capital to secure outcomes [66]. For immigrants as well as racial and ethnic minority groups labor market discrimination is a well-known mechanism [51]. Under unequal treatment, educational attainment does not lead to equal outcomes across groups of individuals. So, marginalized people still suffer poor health even when they are highly educated. The same pattern is shown for undesired behaviors [48,50,95], mental health [62], and physical health [91,96].

4.1 Implications

According to the results of this study, to eliminate health disparities in marginalized groups such as immigrants, there is a need for public rather than health policies. Such policies should go beyond merely focusing on equalizing access to addressing barriers that reduce societal problems in the daily life of marginalized people, such as the marginal return on education for them. It should be a strategic priority for the U.S. government and local states to reduce inequalities in the returns of education. Under the current social structure, education serves the most privileged groups, most and the least privileged groups least. Unless we equalize how groups are treated by society, we cannot expect the very same education to generate the same outcome. Thus, we can infer that the reason for some health disparities goes beyond a gap in access to resources. We argue that while efforts should be made to equalize access, there is a need for specific policies aimed at ensuring that access to the same resources will generate comparable outcomes for groups. This requires equal access to job opportunities, societal resources, education, health insurance, as well as public transportation. The focus of such policies should be to eliminate or reduce social stratification, colorism, segregation, prejudice, and societal exclusion of marginalized groups. Such policies may generate equitable outcomes across various social groups with access to identical resources such as education.

4.2 Limitations

This study has a few methodological limitations. Similar to most other papers on MDRs, cross-sectional design and data do not allow any causal inferences. The sample size was imbalanced, with most participants being non-immigrants. As a result, our *Model 3* had higher statistical power than *Model 4*. We, however, did not exclusively rely on *Model 3* and *Model 4*, as our interaction effect in *Model 2* was not affected by statistical power and imbalanced sample size across groups. We did not include income, occupation, details of health data, chronic disease, as well as area-level SES. Although immigrant and non-immigrant people differed in age, we controlled for age. Neighborhood characteristics may partially explain why MDRs exist. Despite these limitations, this study extends what we already know about MDRs and marginalization. For the first time, we observed that MDRs also apply to immigrant populations. GSS is also a robust study with a large and generalizable sample.

4.3 Conclusion

In the United States, the magnitude of the association between own and parental educational attainment and subjective health is unequal between immigrant and non-immigrant people, and immigrants seem to be at a relative disadvantage compared to non-immigrants. That means, highly educated immigrants still experience poor subjective health to a level that is disproportionate to their SES. Health equity is not achievable unless we equalize the health and economic returns of resources across populations. True equality is not just equality in access to education but similar opportunities to translate resources such as education into tangible outcomes. We should

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empower immigrants and other socially marginalized groups to better translate their resources to health.

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Conflicts of Interest

The authors declare no conflict of interest.

Author Contributions

S.A. conceptualized the study, analyzed the data, prepared the first draft of the paper, and acquired the funding. A.C. contributed to the conceptualization of the paper and revised the paper. Both authors approved the final draft.

Appendix: Year of the Survey Overall and by Nativity

	All		Non-Immigrants		Immigrants	
Year	n	%	n	%	n	%
1977	1526	4.0	1422	4.1	104	3.0
1980	1464	3.8	1360	3.9	104	3.0
1982	1855	4.8	1754	5.0	101	2.9
1984	1455	3.8	1368	3.9	87	2.5
1985	1529	4.0	1435	4.1	94	2.7
1987	1806	4.7	1704	4.9	102	2.9
1988	976	2.5	910	2.6	66	1.9
1989	1026	2.7	950	2.7	76	2.2
1990	906	2.4	850	2.4	56	1.6
1991	980	2.6	918	2.6	62	1.8
1993	1069	2.8	992	2.8	77	2.2
1994	1970	5.1	1827	5.2	143	4.1
1996	2416	6.3	2219	6.4	197	5.6
1998	2809	7.3	2567	7.4	242	6.9
2000	2318	6.0	2092	6.0	226	6.5
2002	1845	4.8	1676	4.8	169	4.8
2004	1355	3.5	1230	3.5	125	3.6
2006	2000	5.2	1734	5.0	266	7.6
2008	1351	3.5	1165	3.3	186	5.3
2010	1277	3.3	1121	3.2	156	4.5
2012	1305	3.4	1124	3.2	181	5.2
2014	1710	4.5	1463	4.2	247	7.1
2016	1883	4.9	1645	4.7	238	6.8
2018	1568	4.1	1377	3.9	191	5.5

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