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Associations of Sociodemographic Factors with Health-Related Social Networks Among Pre-Migration Filipinos

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Abstract

Social networks provide health information that is useful to prevent illness, promote health, and facilitate treatment for health problems. One understudied facet is which people in social networks provide health information. The present article fills a critical gap in the empirical literature by identifying which social networks are reported based on a pre-migrant's sociodemographic status that operate as their source of health information. Data was analyzed from the Health of the Philippine Emigrants Study (HoPES) (n=829) migrant sample. Findings indicated having high English proficiency and educational attainment reduces the likelihood of reporting no one in their network as a source of health information. Those who reported family/relatives are less likely to be younger and those who reported friends are also less likely to be living-in with a partner. This article informs social work researchers and practitioners in implementing interventions among pre-migration immigrants to help increase and broaden their social networks.

Keywords

Filipino; pre-migration; immigrants; help-seeking; health information

INTRODUCTION

It is well-established that immigrants are less likely to seek preventive health services or health care for their health problems than U.S.-born residents (Sue & McKinney, 1975; Yoo

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et al., 2015). Research on the topic has been constrained by several factors. First, studies tend to conceptualize access to care as a dichotomous decision: the use or non-use of a particular health care option (Pescosolido, 1991, 1992). Second, the decision to not seek care is also seen as an individual decision from the dominant perspective of the rational-choice-theory (Pescosolido, 1992, 2006). However, empirical studies show that access to care is embedded in a more expansive set of help-seeking options that may better explain the final decision to seek help from health professionals (Pescosolido, 2006). Research also shows that the individual is also enmeshed within a social network that facilitates the decision to seek health care (Perry & Pescosolido, 2015). More conspicuously, the cost of health insurance in the U.S. is expensive that deter immigrants from seeking health services (Saechao et al., 2012).

This article addresses these limitations by investigating a seldom-investigated feature of the help-seeking process: sources of health-related information. High-quality information has the potential to provide speedy and appropriate responses to symptoms and health emergencies, enable people to participate more in health decisions in the medical setting or clinic, and provides more self-management resources for preventive care (Perry & Pescosolido, 2015). What is less known is which person in the social network provides this health information. Even when people are reliant on the internet for health information, they may also use their social networks to help adjudicate among divergent types of information (Rickwood et al., 2015). The sources of information can be an important point of intervention because they can be targeted with appropriate messages that can help facilitate health decision-making. This article takes advantage of a new and unique study of people from the Philippines before they emigrate, the Health of Philippine Emigrants Study (HoPES). The purpose of the present article is to examine the prevalence of health-related social networks among pre-migration migrants and identify the sociodemographic factors associated with these sources. Asian Americans are the fastest growing immigrant population in the U.S. and Filipinos remain in the top three largest ethnic sub-groups (Hoeffel et al., 2012).

Much of the work on immigrants and health care have been conducted on immigrants after they arrive in the U.S. (Mendoza et al., 2017). This overlooks prior attitudes, values, and preferences about health that immigrants have which can inform health seeking once they arrive in their new host country. More importantly, as of November 2019, the Trump administration began requiring immigrants moving to the U.S. to show proof of U.S. health insurance within 30 days of arriving in the country, thus, many might need to make decisions about their healthcare in advance (Cooke & Rosenberg, 2019; Reddy et al., 2019). Certainly, such gap in the research can perhaps be attributed to lack of available data or study feasibility issues. It is imperative to assess what social networks exist among pre-migration individuals to potentially mitigate the negative health outcomes of having limited social networks.

Background

Social networks have been viewed as a protective factor in facilitating better health outcomes (Perry & Pescosolido, 2015). The types of formal and informal networks that

individuals reach out to vary depending on their needs. The most common forms of networks that individuals seek help from are family members, friends, religious communities, and health professionals (Barney et al., 2009; Lagman et al., 2014; Lindsey et al., 2010), while some may have limited networks due to social isolation (Hurtado-de-Mendoza et al., 2014). Others are also finding support online (Francisco-Menchavez, 2018) and traditional healers (Figueroa & Calvo, 2018). These networks provide emotional assistance, material support, encouragement, and informational knowledge (Shepherd et al., 2016). However, other studies found large support networks deter individuals from seeking health services because they perceive their network as an alternative to mental health services (Pescosolido, Wright, Alegría, & Vera, 1998). Furthermore, other deterrents include factors such as geographic locations, social environment, stigma, and gendered norms (Hahm et al., 2017; Maglalang et al., 2015; Pisani et al., 2012; Roy et al., 2014).

The Network Episode Model (NEM) delineates how individuals navigate their health decision-making process (Pescosolido, 1991, 2006). This model suggests that health decision-making is a dynamic and non-individualistic process that involves individuals consulting their formal and informal networks. Before any decisions are made, the individual's social context or episode base that includes their sociodemographic factors and geographical locations, personal health background, and illness characteristics are analyzed that will inform the entire illness career and the influence of social networks (Pescosolido, 2006). The illness career pertains to the key entrances, exits, timing, and sequencing of activating social networks. These components identify roles, whether as the focal patient or the caregiver: the completion of the help-seeking process and the order that individuals decide in mobilizing their social networks that provides the type of support and information that they need (Pescosolido, 2006).

Research studies have explored the sociodemographic characteristics that engender or impede individuals from help-seeking within their social networks. Being young, identifying as a woman, and not being single have been associated with higher likelihood of help-seeking (Bonin et al., 2007; Weinstock et al., 2011). Furthermore, high English proficiency and educational attainment have shown similar findings (Gupta, Szymanski, & Leong, 2011; O'Mahony & Donnelly, 2010). High English proficiency can mitigate potential help-seeking barriers like comprehending health information and resources presented in English and destigmatizing certain health services (Bauer et al., 2010). English proficiency has been found as a significant predictor in understanding one's health needs and condition (Gee et al., 2010). Persons with college degrees tend to have a wider social network that comes with the privileges that educational institutions and companies provide. For this reason, sociodemographic characteristics and status play a crucial part, depending on the context, in seeking help within social networks.

This study will assess specific sociodemographic factors to determine which groups within the respondent's social network will be reported as potential sources of health-related information. As shown in existing literature and the NEM model: age, gender, English proficiency, educational attainment, and marital status are influential variables for this topic.

METHODS

Participants

The Health of Philippine Emigrants Study (HoPES) study is an NIH-funded study of immigrant health (Gee et al., 2015, 2018). Contrary to the vast majority of studies that samples immigrants after they have arrived in the United States, HoPES is unique in that it samples Filipino migrants, in their country or origin, immediately before they migrate. Filipino migrants destined for permanent residence in the U.S. were recruited from February 2017 through October 2017 in partnership with the Commission on Filipino Overseas (CFO). After acquiring their visas and securing clearances from both the U.S. and the Philippines, the last step that an emigrant must take is to attend a mandatory Pre-Departure Orientation Seminar (PDOS). After attending this seminar, migrants receive a stamp which then allows them to board airplanes to the U.S. Migrants who do not have these stamps are referred back to the CFO by airport officials. HoPES recruited study participants from those attending the PDOS, allowing for a rare opportunity to sample migrants immediately prior to departure. The present study used the baseline sample of the migrant cohort pre-migration to the U.S. (n=829). Inclusion criteria for the study included having a U.S. bound visa and plans to emigrate within the next 3 months. Approximately 99% of the participants had plans to leave for the U.S. within 2 months of attending the PDOS.

Measures

Data were collected by interviewer-administered survey. Participants self-reported their responses to survey questions and instruments.

Health-related social network (dependent variable): The outcome variable is the individual/group whom the respondent reported that they can potentially ask health-related information from. Participants were asked if they know someone who knows a lot about health. Respondents can only report one group. Categorical responses were recoded as “0 = No one (reference), 1 = Family/Relatives, 2 = Friends, and 3 = Oneself.”

Independent variables: Age in years was modeled as a categorical variable: “0 = 18–24 (reference), 1 = 25–34, 2 = 35–44, 3 = 45–54 and 4 = 55 – 65+.”

Gender was a binary variable, with male as the reference.

English Proficiency was assessed by the question, “How well do you speak English? Categorical responses were “0 = Not Very Good (reference), 1 = Good, and 2 = Very Good.”

Educational Attainment was modeled as “0 = High School or Less (reference), 1 = Some College, and 2 = College/Post-Graduate.”

Marital Status was coded as “0 = Married (reference), 1 = Living-in, 2 = Widowed/ Separated/Divorced, and 3 = Never Married.”

Statistical Analysis

Descriptive analysis was conducted to analyze the frequency of social network and the distribution of the independent variables used in the model. Chi-square tests were performed to examine the associations between the dependent and independent variables. Multinomial logistic regression was used to determine sociodemographic factors associated with groups within the participant's social network reported as sources of health-related information. This statistical method is appropriate for this analysis because it predicts the probability of likelihood for more than two nominal categories. Relative risk ratios (RRR) and 95% confidence intervals (CI) are reported. The study used weighted samples, thus, the `svy` command with Stata software version 15 was used for the analysis. The purpose of the weights is to improve the generalizability of the results to the population of recent Filipino immigrants to the U.S. HoPES employs post-stratification weights that are designed to align the sample with age, sex, and education distribution of recent Filipino immigrants to the U.S. based on the 2015 American Community Survey.

RESULTS

Table 1 shows selected sample characteristics. Over half of the sample were under the age of 35 years before they migrated (21.4% were 18–24 years old and 31.5% were 25–34 years old; and identified as female (65.9%). Most reported as never being married (47.7%) or married (35.2%). Approximately half of the participants have a college or post-graduate degree (53%) and reported having good English proficiency (52.8%). For the dependent variable, health-related social network category, most reported family/relatives (36.3%), followed by friends (31.1%), oneself (16.3%), and no one (13.3%).

Table 2 provides the adjusted results from the multinomial logistic regression analysis. The reference category for the nominal outcome is “no one.” In addition, Figures 1 and 2 provides a discrete-change plot of the results to facilitate interpretation (Long & Freese, 2014). In these figures, results are viewed horizontally, within a “row.” Non-significant contrasts are connected with a line whereas significantly different contrasts have no connecting lines. For example, consider education. Having some college versus a high school degree (or less) does not predict whether a participant has no one to ask for health-related information or whether that information comes from their family/relatives, friends, or oneself. This is seen in the non-significant estimates (RRR=1.21, RRR=1.37, or RRR=1.37 for family/relatives, friends, or oneself, respectively) in the table, as well as in Figure 2, which shows that the estimates for R (family/relative) are close to one and the baseline category of N (No one). However, having a college degree (versus less than a high school degree) makes participants more likely to report having family/relatives (RRR=2.19), friends (RRR=2.52), and oneself (RRR=2.22) compared to having no one to ask for health information. In Figure 2, we see that there is no line connecting N to F, O or R, indicating statistically significant associations.

The data further indicate that gender is not associated with the social networks. For age, there is some indication that being young (age 25–34) is associated with a decreased likelihood of having family/relatives provide health information relative to having no one (RRR=0.48). For marital status, having a live-in partner compared to being married is

associated with a lower likelihood of friends being a source of health information relative to oneself (RRR=.41).

The most striking results are for English proficiency. Compared to persons with poor English, those with good English are more likely to have family (RRR=2.37) and friends (RRR=2.26) who can provide health information. Further, when considering those with very good English proficiency, the likelihood rises dramatically for having family (RRR=14.29), friends (RRR=14.75), and oneself (RRR=16.06) who can provide health information.

DISCUSSION

The objective of this article is to distinguish among pre-migration Filipinos the sociodemographic characteristics associated in reporting groups in their social networks for health-related information. Our findings show that high English proficiency and educational attainment are associated with greater likelihood of reporting family/relatives, friends, and oneself as the primary source of health-related information compared to having no one to ask. Being younger is associated with reduced likelihood of reporting family/relatives while having a live-in partner is also associated with reduced likelihood of reporting friends.

These results demonstrate that having high English proficiency and educational attainment can aid as protective factors in having a limited social network. Findings are consistent with existing literature where these factors facilitate higher likelihood of help-seeking (Gupta et al., 2011; O'Mahony & Donnelly, 2010). Such skills allow individuals to navigate healthcare systems and information that caters to their ability and knowledge. Moreover, having adequate English proficiency can be beneficial among pre-migration and recently arrived immigrants who are more equipped to seek health information and services in the U.S. where English is the primary language. High English proficiency among Filipinos in the Philippines are residues of the country being a U.S. colony for over 40 years post Philippine-American War of 1902. Through "benevolent assimilation," Filipinos in major cities, were instructed to learn the English language (Ocampo, 2016). The Philippine government took advantage of the lasting effects of U.S. colonization and enacted policies that made English proficiency a form of social and economic capital for Filipinos, making the Philippines one of the major hubs of Information and Communications Technology (ICT) in the global South, as hosts of call centers of international companies because of the high English proficiency of Filipinos (Martin, 2010).

Higher educational attainment also provides individuals with cultural capital and social mobility (Scherger & Savage, 2010) that can expand their social networks which can aid them in their help-seeking process. It is important to note, however, that English proficiency and educational attainment are associated with individuals who are more likely to have middle to upper class socioeconomic status (SES) which presumably places at risk those who are in lower SES levels. The SES of the migrants may potentially shift once they immigrate to the U.S. which calls for further investigation.

Prior research shows that age status is not a consistent predictor of help-seeking. Some studies found that younger individuals are more receptive to help-seeking (Bonin et al.,

2007) while other studies found similar findings but for older individuals (Shea & Yeh, 2008). It was statistically significant within the 25–34 years old age group that they are less likely to report family/relatives. It is possible that younger adults may feel more independent and think that they may not necessarily need to ask their social networks for advice. Studies found that younger adults under the age of 35 years old are less likely to purchase health insurance because they deem that they are invincible from illnesses and would prefer to spend their money on other things (Levine & Mulligan, 2017).

In examining marital status, respondents who are living-in with a partner are less likely to report friends as a source for health-related information. Contrary to extant research, studies have found that those who are cohabitating, compared to those who are single, are more likely to seek mental health-related services from formal sources (Weinstock et al., 2011). Individuals who are living-in with a partner may feel that they do not need to seek the help of their friends because they have each other for support. Interestingly, within the Filipino community, being family-oriented and cultural values such as *kapwa* or being one with others and *pakikisama* or getting along with others are respected which encourage a sense of cooperation and community that may promote help-seeking (David et al., 2017).

Limitations

While HoPES is longitudinal research project, data used for this study is cross-sectional because only wave 1 was available at the time of this analysis. Nevertheless, this study provides useful baseline data for future studies that examine similar factors. The NEM suggests that individuals can report a combination of different groups in their social networks, however, respondents in the study were only allowed to report one of the categories which limits our understanding of the possible assortments of groups within their social networks that they can ask help from. Finally, the study is not necessarily generalizable to other countries with pre-migration immigrants since the sample is entirely Filipino. However, the sociodemographic characteristics explored may provide some insights in informing other studies that examine pre-migration immigrants.

CONCLUSION

Understanding the sociodemographic characteristics that influence potential sources of health-related information within the social networks of pre-migration immigrants is a crucial gap in the literature of help-seeking and social networks for this population. Pre-migration immigrants are vulnerable to a double disadvantage of not only the potential of being socially isolated but may also lack educational and language skills that can mitigate some of the barriers of accessing information and services. This study underscores the importance of factors such as higher levels of English proficiency and educational attainment as influential aspects of having a broader network that can potentially provide health-related information. Despite the study involving pre-migration immigrants who are about to settle in another country, technology allows for individuals to maintain their connection to their social networks which can be used for potential help-seeking. Findings from this study can help reduce the risk of recently arrived immigrants from having no form of social network with health-related knowledge that can aid in activities like navigating a

foreign healthcare system and assisting them in their health decisions and processes that is different from their native language. Since HoPES is longitudinal endeavor, future studies should compare the difference between pre-migration and post-migration within this population.

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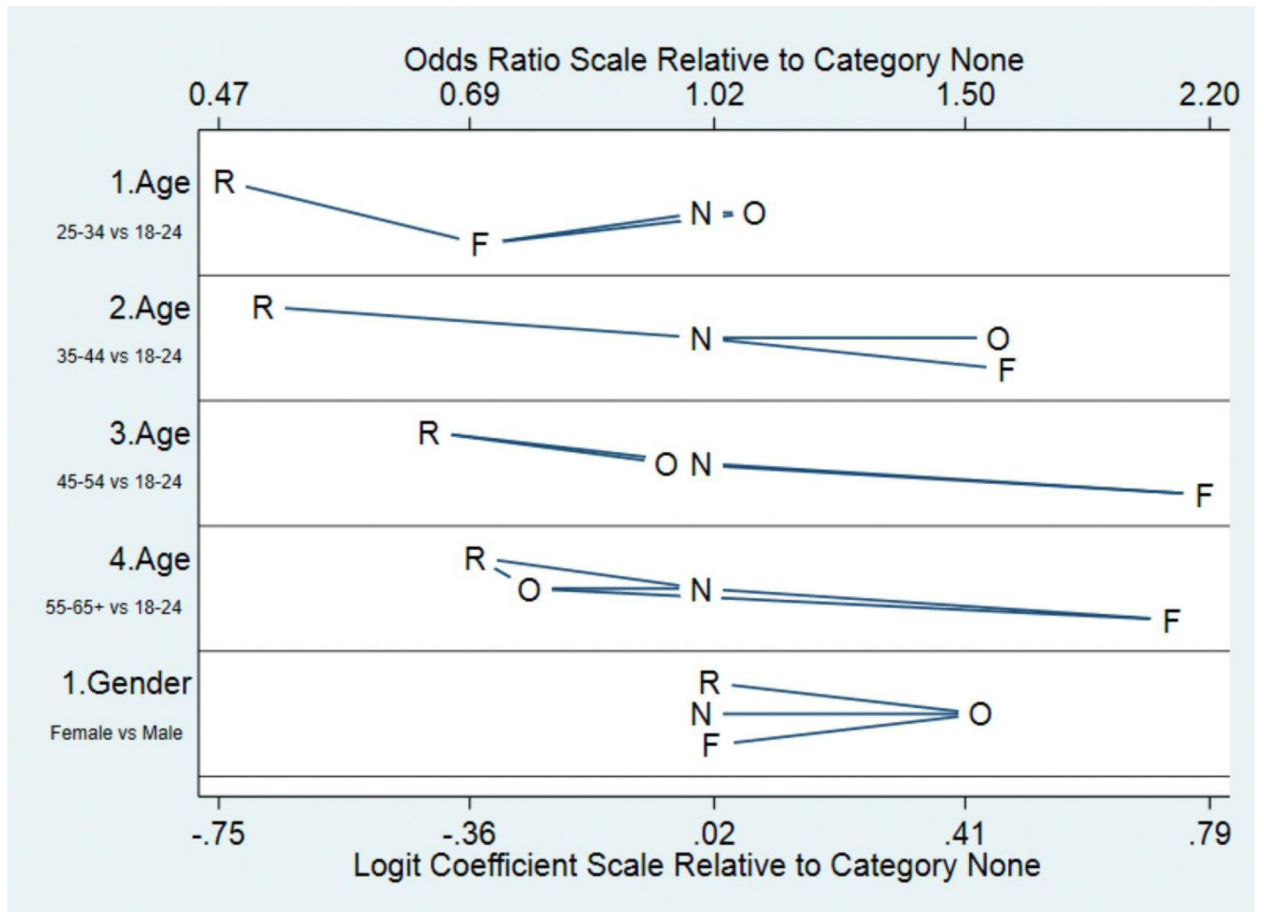


Figure 1. Multinomial Logistic Regression Plot for Age and Gender Variables. N = No One, R = Family/Relatives, F1 = Friends, O = Oneself

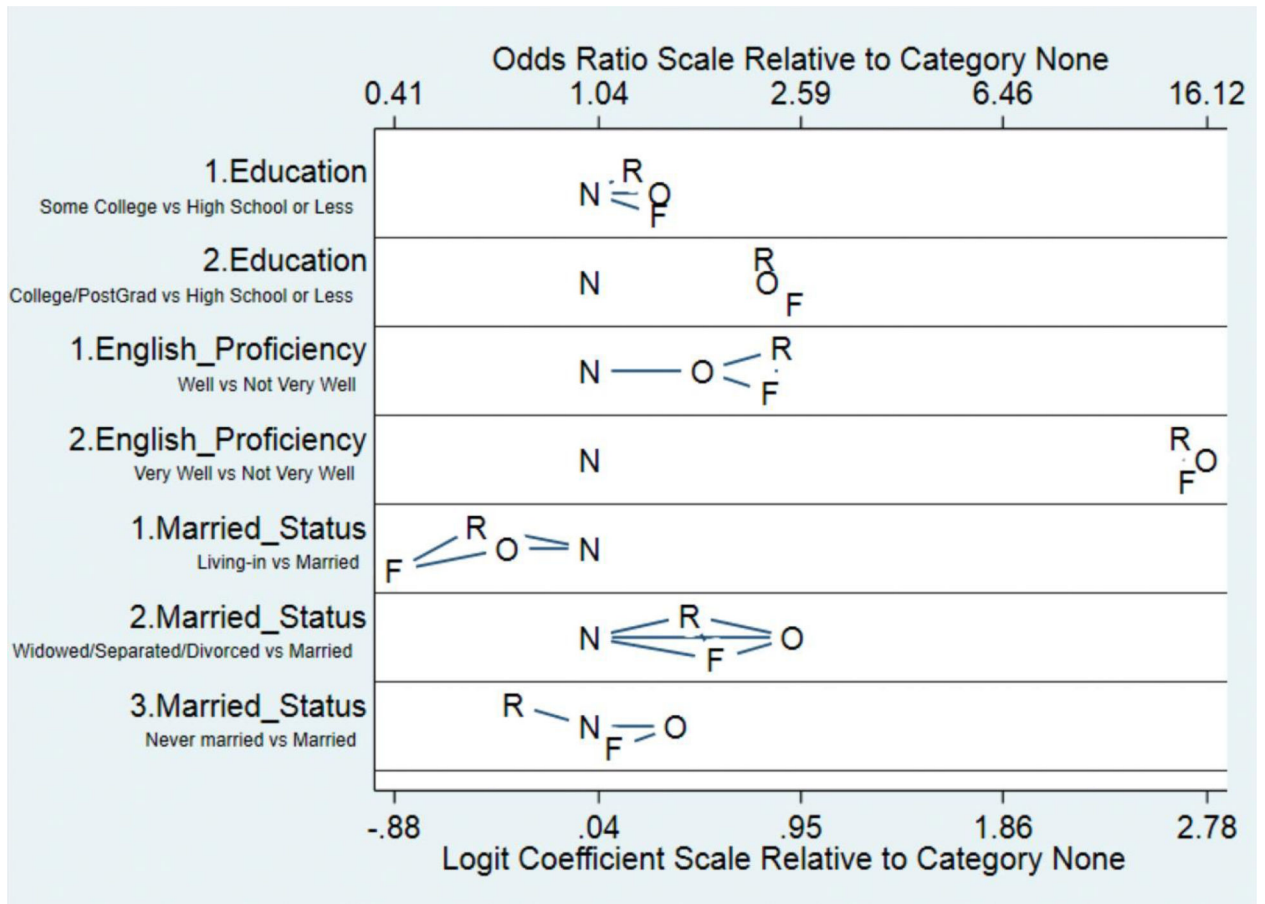


Figure 2. Multinomial Logistic Regression Plot for Educational Attainment, English Proficiency, and Marital Status.
 N = No One, R = Family/Relatives, F = Friends, O = Oneself

Table 1.

Descriptive Statistics of Migrant Cohort Sample (n=829).

| Variables | Observations (%) | P-Value ^a |
|-------------------------------|------------------|----------------------|
| Health-Related Social Network | | |
| No One | 110 (13.27) | |
| Family/Relatives | 301 (36.31) | |
| Friends | 283 (31.14) | |
| Oneself | 135 (16.28) | |
| Age | | .002 ^{**} |
| 18–24 | 177 (21.35) | |
| 25–34 | 261 (31.48) | |
| 35–44 | 194 (23.40) | |
| 45–54 | 124 (14.96) | |
| 55–65+ | 73 (8.81) | |
| Gender | | .026 [*] |
| Male | 283 (34.14) | |
| Female | 546 (65.86) | |
| English Proficiency | | .001 ^{***} |
| Not Very Good | 319 (38.48) | |
| Good | 438 (52.83) | |
| Very Good | 72 (8.69) | |
| Educational Attainment | | .001 ^{***} |
| High School or Less | 234 (28.23) | |
| Some College | 156 (18.82) | |
| College/Post-Graduate | 439 (52.96) | |
| Marital Status | | .106 |
| Married | 292 (35.22) | |
| Living-in | 84 (10.13) | |
| Widowed/Separated/Divorced | 58 (7.00) | |
| Never Married | 395 (47.65) | |

^a Chi-square test^{*} p < .05,^{**} p < .01,^{***} p < .001

Table 2.

Weighted Multinomial Logistic Regression of Sociodemographic Characteristics on Health-Related Social Network Categories (n=829).

| Characteristics | Social Network | | | |
|----------------------------|------------------------------------|---------------------------------|----------------------------------|----------------------------------|
| | No One | Family/Relatives, RRR (95% CI) | Friends, RRR (95% CI) | Oneself, RRR (95% CI) |
| Age | (reference is 18–24) | | | |
| 25–34 | Reference | .48(.24–.94) [*] | .71(.35–1.45) | 1.09(.48–2.44) |
| 35–44 | Reference | .51(.23–1.13) | 1.61(.70–3.69) | 1.59(.62–4.04) |
| 45–54 | Reference | .65(.28–1.53) | 2.19(.92–5.18) | .95(.32–2.80) |
| 55–65+ | Reference | .70(.25–1.99) | 2.08(.72–6.00) | .77(.19–3.06) |
| Gender | (reference is male) | | | |
| Female | Reference | 1.01(.63–1.63) | 1.02(.63–1.65) | 1.54(.86–2.76) |
| English Proficiency | (reference is not very good) | | | |
| Good | Reference | 2.37(1.37–4.12) ^{**} | 2.26(1.28–3.97) ^{**} | 1.66(.88–3.15) |
| Very Good | Reference | 14.29(1.85–110.23) [*] | 14.75(1.89–115.31) ^{**} | 16.06(2.01–128.51) ^{**} |
| Educational Attainment | (reference is high school or less) | | | |
| Some College | Reference | 1.21(.63–2.33) | 1.37(.70–2.65) | 1.37(.62–3.01) |
| College/Post-Graduate | Reference | 2.19(1.21–3.98) ^{**} | 2.52(1.39–4.57) ^{**} | 2.22(1.15–4.32) [*] |
| Marital Status | (reference is married) | | | |
| Living-in | Reference | .60(.28–1.28) | .41(.19–.92) [*] | .69(.28–1.72) |
| Widowed/Separated/Divorced | Reference | 1.57(.54–4.57) | 1.76(.60–5.17) | 2.49(.73–8.48) |
| Never Married | Reference | .71(.39–1.29) | 1.12(.61–2.03) | 1.47(.73–2.97) |

* p < .05,

** p < .01,

*** p < .001