



Perceived discrimination, psychosocial resources, and mental distress in Vietnamese Americans

Trang Nguyen^{a,b}, Yong Ju Cho^c, Yuri Jang^{c,*}

^a Center for Studies of Displaced Populations, School of Public Health and Tropical Medicine, Tulane University, United States

^b Department of Social Work, University of Social Sciences and Humanities, Vietnam National University, Hanoi, Vietnam

^c Edward R. Roybal Institute on Aging, Suzanne Dworak-Peck School of Social Work, University of Southern California, 669 West 34th Street, Los Angeles, CA 90089-0411, United States



ARTICLE INFO

Keywords:

Racial/ethnic discrimination
Immigrants
Mental distress
Social network
Acculturation
Vietnamese Americans

ABSTRACT

This study examines how the mental health of Vietnamese Americans is influenced by a life stressor (perceived discrimination) and psychosocial resources (social network, religiosity, and acculturation). Data came from 513 Vietnamese Americans who were subsample of the Asian American Quality of Life (AAQoL) survey (total $N = 2,614$). The AAQoL survey was conducted with self-identified Asian Americans aged 18 or older in Central Texas in 2015. More than 32% of the Vietnamese sample reported perceived discrimination. A higher level of mental distress was associated with younger age, unmarried status, unmet financial status, poorer ratings of health, fewer years of stay in the U.S., perceived discrimination, smaller social network, and lower levels of acculturation and religiosity. In a multivariate analysis, the experience of discrimination ($\beta = 0.16, p < .01$), smaller social network ($\beta = -.10, p < .05$), and lower acculturation ($\beta = -.17, p < .05$) were found to be significant predictors to mental distress. No significant interaction was found. These identified risks and resources should be addressed in developing and implementing culturally sensitive mental health interventions targeted to Vietnamese American communities.

Background

Despite social movements to recognize cultural diversities and promote social equalities, discrimination continues to be a persistent social challenge (Brown, 2019). According to the 2015 Stress in America Survey, about 6 in 10 adults in the United States experience day-to-day types of discrimination (American Psychological Association [APA], 2016), and this rate is not different from the 61% reported in the Midlife Development in the United States (MIDUS) survey over two decades ago (Kessler et al., 1999). Race and ethnicity are major sources of discrimination (APA, 2016; Kessler et al., 1999), and Asian Americans are one of the groups prone to such experiences (Lee et al., 2019).

Previous literature on Asian Americans shows that the experience of discrimination is associated with increased symptoms of depression and anxiety (Chau et al., 2018; Lee and Ahn, 2011; Yip et al., 2008), suicidal ideation (Cheng et al., 2010; Hwang and Goto, 2008), and psychological distress (Huynh et al., 2014; Syed and Juan, 2012). A meta-analysis of 23 studies with Asian Americans (Lee and Ahn, 2011) summarizes that the overall impact of perceived discrimination on adverse mental health is statistically significant, identifying the discriminatory experience as a critical life stressor across diverse groups of Asian Americans.

Given the ethnic diversities in Asian Americans, the present investigation focuses on Vietnamese Americans. The selection of the target group was based on the facts that they are the fifth largest Asian American subgroup but understudied (Salo and Birman, 2015; Fu and VanLandingham, 2012) and that they have shown to be vulnerable to mental health risks (Birman and Tran, 2008; Chung et al., 2000; Fu and VanLandingham, 2012; Jang et al., 2019; Leung et al., 2010). Ranging from 30 to 50%, the prevalence of probable depression or psychological distress of Vietnamese Americans is up to three times higher than that of the general U.S. population (Center for Behavioral Health Statistics and Quality, 2016) and ranked the highest among diverse groups of Asian Americans (Cheung et al., 2017; Jang et al., 2019; Leung et al., 2010). The unique history and contexts of Vietnamese' U.S. immigration that involve with a War and refugee settlement call attention to their mental well-being and psychological adaptation. Vietnamese migration started from the War in Indochina, and the U.S. allies helped those escaping from Vietnam resettle across the United States (Fu and VanLandingham, 2012; Matsuoka, 1990). The traumatic experiences during the War and evacuation, along with sudden and unprepared resettlement processes, pose mental health risks to Vietnamese migrants (Cheung et al., 2017; Jang et al., 2019; Leung et al., 2010).

Building upon the literature, the present study seeks to explore factors associated with mental distress in Vietnamese Americans, focusing

* Corresponding author.

E-mail address: yurij@usc.edu (Y. Jang).

on the role of perceived discrimination as a life stressor. Moving beyond the effect of perceived discrimination on mental health, we also consider the underlying mechanism associated with psychosocial resources. Social network and religiosity are widely known to promote the health and well-being (Pascoe and Richman, 2009; Szaflarski and Bauldry, 2019). Acculturation, the extent to which immigrants are familiar with the language and culture of the host society, is also known to be a critical resource for immigrant populations (Leung et al., 2010; Pascoe and Richman, 2009; Yip et al., 2008). Such psychosocial resources would not only directly enhance mental health but also would modify the mental health consequences associated with perceived discrimination. Individuals with larger social networks and higher levels of religiosity and acculturation might be empowered to fare better in mental health even in the experience of discrimination. The stress-buffering roles of social network and religiosity (e.g., Pascoe and Richman, 2009; Szaflarski and Bauldry, 2019) and acculturation (e.g., Leung et al., 2010; Pascoe and Richman, 2009; Yip et al., 2008) have been found in various forms of stressful life situations among diverse populations, and we seek to examine if this moderating role would apply to dealing with perceived discrimination among Vietnamese Americans.

Based on the review, the present investigation examines how the mental health of Vietnamese Americans is influenced by a life stressor (perceived discrimination) and psychosocial resources (social network, religiosity, and acculturation). We hypothesize that (1) perceived discrimination will have a direct negative impact on mental health, (2) psychosocial resources will have a direct positive impact on mental health, and (3) the negative impact of perceived discrimination on mental health will be modified by psychosocial resources. Exploration of psychological mechanisms underlying the association between discrimination and mental health and identification of risk-promoting or risk-reducing factors would be helpful for developing targeted intervention strategies.

Methods

Data

The study sample included Vietnamese participants from the 2015 Asian American Quality of Life (AAQoL) project (City of Austin, 2017), which was a part of Austin's initiative to respond to the rapid growth of the Asian American population in the area. It is worth noting that the city of Austin is one of the metropolitan areas with a high concentration of Vietnamese Americans (approximately from 17,160 to 17,940) (Hoeffel et al., 2012) and that Vietnamese are the 3rd largest Asian subgroup in the area (City of Austin, 2017). The AAQoL project conducted needs assessment surveys with self-identified Asian Americans aged 18 or above living in the Austin area. An English version of the AAQoL survey questionnaire was translated into six Asian languages (Chinese, Korean, Vietnamese, Hindi, Gujarati, and Tagalog). Selection of AAQoL study sites was guided by the development of the Austin Asian Community Resource Database (AACRD), which included a list of health and social services, religious organizations, educational institutions, businesses, and amenities in Asian communities in Austin. Using the AACRD along with input from community advisors, AAQoL project selected 76 survey sites based on the potential of reaching to diverse members of Asian American communities.

From August to December 2015, the AAQoL project conducted a paper-and-pencil formatted surveys in each participant's preferred language among the options available. At each site, trained bilingual and bicultural survey assistants were available for those who needed assistance. The 10-page survey took about 20 min to complete, and participants were each paid U.S. \$10 for their time and effort. The project was approved by a university's Institutional Review Board (IRB), and informed consent was obtained from each participant. More information on the AAQoL survey procedures and sample characteristics is available elsewhere (City of Austin, 2017). Among a total of 2614 participants,

20% identified themselves as Vietnamese. None of them had missing information on more than 10% of the variables used in the present investigation, and all 513 participants were included in the present investigation.

Measures

Mental distress. Using the Kessler Psychological Distress Scale 6 (Kessler et al., 2002), mental health was assessed on a 5-point scale from 0 (*none of the time*) to 4 (*all of the time*). Each item regards on the frequency of feeling nervous, hopeless, restless, depressed, worthless, and everything was an effort. Total scores ranged from 0 to 24, and the internal consistency of the scale was high ($\alpha = 0.89$).

Perceived discrimination. Participants were asked if they had ever experienced being treated unfairly due to their race or ethnicity. Their responses were coded in a binary format (0 = *no*, 1 = *yes*).

Psychosocial resources. Social network, religiosity, and acculturation were included. Social network was measured with the Lubben's Social Network Scale-6 (LSNS-6; Lubben et al., 2006). Participants were requested to respond to questions about interpersonal ties with family members as well as friends. Indicated on a 6-point scale from 0 (*none*) to 5 (*9 or more*), participants answered the number of times they hear, talk about private matters, and are comfortable enough to call for help from family and friends. Total scores could range from 0 to 30, higher scores indicating larger social networks. Internal consistency of the scale in the present sample was high ($\alpha = 0.85$).

Religiosity was assessed with two items: frequency of religious attendance (1 = *never/seldom*, 2 = *a few times a year*, 3 = *once or twice a month*, 4 = *once a week/more than once a week*) and perceived importance of religion (1 = *not at all important*, 2 = *not very important*, 3 = *somewhat important*, 4 = *very important*). Total scores could range from 2 to 8, higher scores indicating greater levels of religiosity. The items showed a high internal consistency ($\alpha = 0.71$).

Acculturation was measured with two items: English speaking ability (1 = *not at all*, 2 = *not well*, 3 = *well*, 4 = *very well*) and familiarity with the mainstream culture (1 = *very low*, 2 = *low*, 3 = *high*, 4 = *very high*). Total scores could range from 2 to 8, higher scores indicating greater levels of acculturation. Internal consistency was found to be high ($\alpha = 0.76$).

Background characteristics. Sociodemographic variables such as age (as a continuous variable), gender (0 = *male*, 1 = *female*), marital status (0 = *married*, 1 = *not married*), education (0 = \geq *high school graduation*, 1 = *<high school graduation*), and financial needs (0 = *met*, 1 = *unmet*) were included. Self-rated health was measured on a 5-point scale, ranging from 0 (*excellent*) to 4 (*poor*). Length of stay in the United States was coded in years.

Analytic strategy

In addition to descriptive and correlation analyses, a series of linear regression analyses was performed on mental distress. The entry order of predictors was (1) background variables (age, gender, marital status, education, financial needs, self-rated health, and years in the United States), (2) a life stressor (perceived discrimination), (3) psychosocial resources (social network, religiosity, and acculturation), and (4) interactions between perceived discrimination and psychological resources. All analyses were conducted using Stata/MP 15.1. The statistical significance level was identified at 0.05.

Results

Sample characteristics

Table 1 describes sample characteristics. The average age of the sample was 44.3 ($SD = 16.7$), with a range from 18 to 85. More than half were women (57.5%), and about 42% were not married. About 36% of participants had less than high school education, and 15% reported

Table 1
Descriptive characteristics of the sample ($N = 513$).

	%	$M \pm SD$	Range	α
Background variable				
Age		44.3 \pm 16.7	18–85	
Gender (female)	57.5			
Marital status (not married)	41.7			
Education (< high school graduation)	36.3			
Unmet financial needs	14.6			
Self-rated health		2.28 \pm 0.86	1 – 5	
Years in the U.S.		19.3 \pm 11.9	0.50–42	
Life stressor				
Perceived discrimination	32.4			
Psychosocial resource				
Social network		14.9 \pm 6.30	0 – 30	.85
Religiosity		5.76 \pm 1.94	2 – 8	.71
Acculturation		5.77 \pm 1.49	2 – 8	.76
Outcome variable				
Mental distress		6.42 \pm 4.66	0 – 24	.89

financial difficulties in making the ends meet. Self-rating of health averaged at 2.28 ($SD = 0.86$). On average, participants had stayed in the United States for about 19.3 years, with a range from 6 months to 42 years. The overall characteristics of the present sample in terms of age, marital status, education, and financial status were similar to those reported in the national statistics on Vietnamese Americans (Pew Research Center, 2017).

More than 32% of participants reported that they had experiences of perceived discrimination. In terms of psychosocial resources, the mean scores of social network, religiosity, and acculturation were 14.9 ($SD = 6.30$), 5.76 ($SD = 1.94$), and 5.77 ($SD = 1.49$), respectively. The average score of mental distress was 6.42 ($SD = 4.66$). Using the suggested cutoff score ($K6 \geq 6$, Kessler et al., 2002), approximately 55% fell into the category of psychological distress.

Bivariate correlations among study variables

Table 2 presents bivariate correlations among study variables. A higher level of mental distress was associated with younger age, unmarried status, unmet financial status, poorer ratings of health, and fewer years of stay in the United States. The association between perceived discrimination and mental distress was positive and significant ($r = 0.17$, $p < .001$). Lack of psychosocial resources, indicated by low levels of social network, religiosity, and acculturation was significantly associated with increased mental distress. The highest correlation coefficient was found between education and acculturation, and all correlation coefficients were lower than 0.50, indicating no concerns about collinearity.

Multivariate model of mental distress

Table 3 summarizes multivariate models of mental distress. In the initial model, background variables explained 18% of the variance of mental distress. Younger age, unmet financial needs, and poorer ratings of health were significant predictor of mental distress. After controlling for background variables, perceived discrimination was found to have a direct effect on mental distress, accounting for an additional 3% of the variance. The subsequent entry of psychosocial resources added 2% of the explained variance to the model and identified smaller social networks and lower levels of acculturation as significant predictors of mental distress. A total of 23% of the variance was explained by the direct effect model. The entry of the interaction terms made no contribution to the model, and no term was found to be significant.

Discussion

Responding to the fact that Vietnamese Americans are an emerging immigrant population in the U.S. that is prone to discrimination and

mental health problems (Birman and Tran, 2008; Chung et al., 2000; Fu and VanLandingham, 2012; Jang et al., 2019; Leung et al., 2010; Salo and Birman, 2015), this study investigated the direct and interactive effects of a life stressor (perceived discrimination) and psychological resources (social network, religiosity, and acculturation) on mental distress. Analyses with a sample of 513 Vietnamese Americans provided partial support for the proposed hypotheses.

Consistent with the literature (e.g., Cheung et al., 2017; Jang et al., 2019; Leung et al., 2010), mental health risks of the present sample of Vietnamese Americans were notably high. It is striking that one in two Vietnamese Americans is in the category of psychological distress ($K6 \geq 6$, Kessler et al., 2002). Approximately 32% of the sample reported having an experience of perceived discrimination. This prevalence is close to the 38% reported in Chau et al. (2018) study with Vietnamese Americans. Perceived discrimination was associated with younger age, lower education, lower religiosity, and higher acculturation. It is plausible that those who are younger and acculturated tend to have a broader spectrum of social encounters, which may make them prone to discriminatory experiences. The negative associations of perceived discrimination with education and religiosity may reflect a high susceptibility to discriminatory experiences among those with limited personal resources.

We conceptualized perceived discrimination as a factor that would pose a risk to mental distress, and the hypothesis was supported in the direct effect model. The experience of discrimination was associated with increased mental distress, even when demographic, health, and immigration-related characteristics were controlled. In line with previous studies in diverse populations (APA, 2016; Chau et al., 2018; Lee and Ahn, 2011; Yip et al., 2008), our finding confirmed the role of perceived discrimination as a critical life stressor.

Our findings also demonstrate the direct benefits of psychosocial resources. At a bivariate level, all three psychological resources considered (social network, religiosity, and acculturation) were significantly associated with mental distress. In multivariate analyses, social network and acculturation were identified as significant predictors of mental distress whereas religiosity lost its significance. Individuals who were socially connected and familiarized with the language and culture of the host society fared better in mental health. These findings are in line with previous studies highlighting the importance of social network and acculturation as personal assets that promote immigrants' health and well-being (Leung et al., 2010; Pascoe and Richman, 2009; Szaflarski and Bauldry, 2019; Yip et al., 2008). The larger the social network, the easier Vietnamese Americans navigate support within their families, friend circles, and communities (Fu and VanLandingham, 2012; Salo and Birman, 2015). Acculturation also plays an important role in Vietnamese Americans' mental health. As being more acculturated, immigrants may feel more accepted and less alienated in social realms, which may lead to the enhanced mental well-being.

Although our findings confirmed the direct benefits of social network and acculturation, the hypothesis on the moderating effect was not supported. It seems that the positive impact of psychosocial resources is independent of the experience of discrimination. However, the interaction between perceived discrimination and psychosocial resources needs to be revisited with a larger sample. Given the rise of anti-Asian stigma and targeted discrimination during the COVID-19 pandemic, further attention is warranted to the issues of discriminatory experiences and mental health among marginalized populations (Lee and Waters, 2020).

This study has several limitations. First, the study used a convenience sampling method in a geographically defined area, which restricts the generalizability of study results. Second, the independent variable of perceived discrimination was indexed with a single-item question. In future studies, it is highly recommended to employ psychometrically validated multi-item measures such as the everyday and major discrimination scales adapted for Asian Americans (Chau et al., 2018). Acculturation was also indicated by two questions on language proficiency and cultural familiarity. Other domains of Vietnamese's acculturation, such as beliefs, attitudes, and behaviors, should also be considered. Al-

Table 2
Correlations among study variables.

	1	2	3	4	5	6	7	8	9	10	11	12
1. Age	–											
2. Female	–.09	–										
3. Not married	–.37***	.04	–									
4. <High school graduation	.30***	.06	.01	–								
5. Unmet financial needs	.16**	–.03	.00	.07	–							
6. Self-rated health	.22***	.02	–.02	.19***	.19***	–						
7. Length of stay in the U.S.	.39***	–.07	–.18***	–.14**	–.03	.01	–					
8. Perceived discrimination	–.09*	.01	–.01	–.14**	.01	.01	.06	–				
9. Social network	–.19***	.01	.07	–.18***	–.12*	–.12**	.14**	–.00	–			
10. Religiosity	.28***	.02	–.15**	.07	–.02	.07	.13**	–.10*	.07	–		
11. Acculturation	–.36***	–.04	.13**	–.48***	–.15**	–.27***	.43***	.15**	.26***	–.12**	–	
12. Mental distress	–.25***	.05	.20***	–.04	.21***	.19***	–.17***	.17***	–.11*	–.13**	–.06*	–

* $p < .05$.
 ** $p < .01$.
 *** $p < .001$.

Table 3
Linear regression models of mental distress.

	Standardized coefficient (β)			
	Model 1	Model 2	Model 3	Model 4
Background variable				
Age	–.27***	–.25***	–.34***	–.34***
Gender (female)	.03	.03	.03	.03
Marital status (not married)	.09	.09	.11	.11
Education (< high school graduation)	.01	.02	–.01	–.02
Unmet financial needs	.19***	.19***	.18***	.17**
Self-rated health	.23***	.22***	.20***	.19***
Years in the U.S.	–.06	–.07	.05	.05
Life stressor				
Perceived discrimination		.16**	.16*	.16**
Psychosocial resource				
Social network			–.10*	–.11
Religiosity			–.03	–.02
Acculturation			–.17*	–.16*
Interaction between Stressor and Resource				
Discrimination \times Social network				.00
Discrimination \times Religiosity				.08
Discrimination \times Acculturation				.04
Summary statistic				
R ²	.18***	.21***	.23***	.24***
Δ R ²	.18***	.03**	.02*	.01

* $p < .05$.
 ** $p < .01$.
 *** $p < .001$.

though the proposed study accounted for a significant amount of the variance of mental distress, there were unexplained variances. Future studies need to include various types of life stressors and psychosocial resources and revisit the potential stress-buffering hypothesis.

Despite these limitations, this study contributes to the scant literature on Vietnamese Americans by exploring the impact of perceived discrimination and key psychological resources, such as social network and acculturation, on mental health outcome of this population. The study results call for special attention from scholars, policy makers, and healthcare and social service providers, to the long-lasting problems of discrimination and mental health among Vietnamese immigrants. These identified risks and resources should be addressed in developing and implementing culturally sensitive interventions and mental health services targeting Vietnamese American communities. For example, Vietnamese with mental health needs should receive adequate care for coping with their discriminatory experiences and enhancing psychosocial resources. Community outreach would potentially be an appropriate approach as Vietnamese Americans prefer to seek for support within their networks of family, friend, and community. In addition, hiring bilingual and bi-cultural healthcare and social service professionals, as well as providing staff training in culturally sensitive communication, may help addressing the needs of Vietnamese Americans.

Declaration of Competing Interest

The authors report no conflicts of interest.

Funding

The support for data collection was provided by the City of Austin’s Asian American Quality of Life initiative (Contract No. 26-8275-39, PI–Yuri Jang, Ph.D.).

References

American Psychological Association. (2016). Stress in America: the impact of discrimination. Retrieved from <https://www.apa.org/news/press/releases/stress/2015/impact-of-discrimination.pdf>

Birman, D., Tran, N., 2008. Psychological distress and adjustment of Vietnamese refugees in the United States: association with pre- and post-migration factors. *Am. J. Orthopsychiatry* 78 (1), 109–120. doi:10.1037/0002-9432.78.1.109.

Brown, A., 2019. Key Findings on Americans’ Views of Race in 2019. Pew Research Center Retrieved from <https://www.pewresearch.org/fact-tank/>.

Center for Behavioral Health Statistics and Quality, 2016. Key Substance use and Mental Health Indicators in the United States: Results from the 2015 National Survey on Drug use and Health. HHS Publication No. SMA 16-4984, NSDUH Series H-51Retrieved from <https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR>.

- Chau, V., Bowie, J.V., Juon, H.S., 2018. The association of perceived discrimination and depressive symptoms among Chinese, Korean, and Vietnamese Americans. *Cultur. Divers. Ethnic Minor. Psychol.* 24 (3), 389–399. doi:10.1037/cdp0000183.
- Cheng, J.K.Y., Fancher, T.L., Ratanasen, M., Conner, K.R., Duberstein, P.R., Sue, S., Takeuchi, D., 2010. Lifetime suicidal ideation and suicide attempts in Asian Americans. *Asian Am. J. Psychol.* 1 (1), 18–30. doi:10.1037/a0018799.
- Cheung, M., Leung, P., Nguyen, P.V., 2017. City size matters: Vietnamese immigrants having depressive symptoms. *Soc. Work Ment. Health* 15 (4), 457–468. doi:10.1080/15332985.2016.1231156.
- Chung, R.C.Y., Bemak, F., Wong, S., 2000. Vietnamese refugees' levels of distress, social support, and acculturation: implications for mental health counseling. *J. Ment. Health Couns.* 22 (2), 150–161.
- City of Austin. (2017). Asian Americans in Austin: final report of the Asian American quality of life (AAQoL) survey. Retrieved from http://austintexas.gov/sites/default/files/files/Communications/4.2_FINAL_AA_in_Austin_report_from_UT.pdf
- Fu, H., VanLandingham, M.J., 2012. Mental health consequences of international migration for Vietnamese Americans and the mediating effects of physical health and social networks: results from a natural experiment approach. *Demography* 49 (2), 393–424. doi:10.1007/s13524-011-0088-2.
- Hoeffel, E., Rastogi, S., Kim, M.O., Shahid, H., 2012. The Asian Population: 2010. U.S. Census Bureau Retrieved from <https://www.census.gov/prod/cen2010/briefs/c2010br-11.pdf>.
- Huynh, Q.L., Devos, T., Goldberg, R., 2014. The role of ethnic and national identifications in perceived discrimination for Asian Americans: toward a better understanding of the buffering effect of group identifications on psychological distress. *Asian Am. J. Psychol.* 5 (3), 161–171. doi:10.1037/a0031601.
- Hwang, W.C., Goto, S., 2008. The impact of perceived racial discrimination on the mental health of Asian American and Latino college students. *Cultur. Divers. Ethnic Minor. Psychol.* 14 (4), 326–335. doi:10.1037/1099-9809.14.4.326.
- Jang, Y., Yoon, H., Park, N.S., Rhee, M.K., Chiriboga, D.A., 2019. Mental health service use and perceived unmet needs for mental health care in Asian Americans. *Commun. Ment. Health J.* 55 (2), 241–248. doi:10.1007/s10597-018-0348-3.
- Kessler, R.C., Andrews, G., Colpe, L.J., Hiripi, E., Mroczek, D.K., Normand, S.L.T., Walters, E.E., Zaslavsky, A.M., 2002. Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychol. Med.* 32 (6), 959–976. doi:10.1017/s0033291702006074.
- Kessler, R.C., Mickelson, K.D., Williams, D.R., 1999. The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *J. Health Soc. Behav.* 40 (3), 208–230. doi:10.2307/2676349.
- Lee, D.L., Ahn, S., 2011. Racial discrimination and Asian mental health: a meta analysis. *Couns. Psychol.* 39 (3), 463–489. doi:10.1177/0011000010381791.
- Lee, R.T., Perez, A.D., Boykin, C.M., Mendoza-Denton, R., 2019. On the prevalence of racial discrimination in the United States. *PLoS ONE* 14 (1), e0210698. doi:10.1371/journal.pone.0210698.
- Lee, S., Waters, S.F., 2020. Asians and Asian Americans' experiences of racial discrimination during the COVID-19 pandemic: impacts on health outcomes and the buffering role of social support. *Stigma Health* doi:10.1037/sah0000275.
- Leung, P., Cheung, M., Cheung, A., 2010. Vietnamese Americans and depression: a health and mental health concern. *Soc. Work Ment. Health* 8 (6), 526–542. doi:10.1080/15332985.2010.485092.
- Lubben, J., Blozik, E., Gillmann, G., Iliffe, S., von Renteln Kruse, W., Beck, J.C., Stuck, A.E., 2006. Performance of an abbreviated version of the Lubben Social network scale among three European community-dwelling older adult populations. *Gerontologist* 46 (4), 503–513. doi:10.1093/geront/46.4.503.
- Matsuoka, J.K., 1990. Differential acculturation among Vietnamese refugees. *Soc. Work* 35 (4), 341–345. doi:10.1093/sw/35.4.341.
- Pascoe, E.A., Richman, L.S., 2009. Perceived discrimination and health: a meta-analytic review. *Psychol. Bull.* 135 (4), 531–554. doi:10.1037/a0016059.
- Pew Research Center. (2017). Vietnamese in the U.S. Fact sheet. <https://www.pewsocialtrends.org/fact-sheet/asian-americans-vietnamese-in-the-u-s-fact-sheet/>
- Salo, C.D., Birman, D., 2015. Acculturation and psychological adjustment of Vietnamese refugees: an ecological acculturation framework. *Am. J. Commun. Psychol.* 56 (3), 395–407. doi:10.1007/s10464-015-9760-9.
- Syed, M., Juan, M.J.D., 2012. Discrimination and psychological distress: examining the moderating role of social context in a nationally representative sample of Asian American adults. *Asian Am. J. Psychol.* 3 (2), 104–120. doi:10.1037/a0025275.
- Szafarski, M., Bauldry, S., 2019. The effects of perceived discrimination on immigrant and refugee physical and mental health. *Adv. Med. Sociol.* 19, 173–204. doi:10.1108/S1057-629020190000019009.
- Yip, T., Gee, G.C., Takeuchi, D.T., 2008. Racial discrimination and psychological distress: the impact of ethnic identity and age among immigrant and United States-born Asian adults. *Dev. Psychol.* 44 (3), 787–800. doi:10.1037/0012-1649.44.3.787.