



Trauma, Discrimination, and Psychological Distress Across Vietnamese Refugees and Immigrants: A Life Course Perspective

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Abstract

Vietnamese Americans are a heterogeneous group with varied migration histories. The life course perspective (LCP) suggests that different migration histories (immigrant vs. refugee) may affect their psychological health. Using Vietnamese refugee ($n = 291$) and immigrant ($n = 211$) subsamples from the National Latino and Asian American Study, selected LCP factors relevant to foreign-born Vietnamese were examined for their associations with psychological distress. Two separate regressions were conducted to examine differential factors across the subgroups. Results showed that sex, age at immigration, and pre- and post-migration traumas were significant factors for refugees. Among immigrants, only racial discrimination was significant factor. The results suggest that applying LCP among Vietnamese Americans helps to discern factors associated with their psychological distress outcomes depending on their initial immigration status. The results also indicate that healthcare professionals should consider the migration background of foreign-born Vietnamese in screening for potential psychological issues, particularly around their trauma history and discriminatory experiences.

Keywords Life course perspective · Vietnamese Americans · Refugees · Immigrants · Psychological distress

Introduction

Past research on Vietnamese in the United States have generated numerous studies on the concerns of war-related trauma and its impact on psychological outcomes, such as posttraumatic stress disorder (Birman and Tran 2008; Han et al. 2015). Due to the historical events related to fleeing Vietnam, Vietnamese Americans are often considered only as refugees, who were forced out of their country. However, the Vietnamese American community consists of persons with a wide range of complex individual experiences that include different reasons for coming to the United States. Distinct migratory experiences before, during, and after their arrival in the United States may have significant implications in their mental health outcomes, and the generalization of the population as refugees would be an inaccurate representation of this heterogeneous group. The U.S. Immigration and Naturalization Services accepted Vietnamese as refugees until 1994, rendering those who came afterward as

falling into different entry visa categories (U.S. Immigration and Naturalization Service 1997). Because of the common practice of identifying all Vietnamese Americans as refugees, the literature is limited in examining the differences (and similarities) in mental health outcomes among refugees and those who came as non-refugees. The purpose of this study is to examine factors that are differentially associated with the level of psychological distress between foreign-born Vietnamese who were forced to leave without a viable alternative (i.e., refugee), and those who had a much greater degree of agency in making the life-changing decision to leave their home country (i.e., immigrant).

Life Course Perspective

The life course perspective (LCP) takes a person's entire life experience into consideration by focusing on how historical timing and ecological systems impact the way an individual goes through various life events (Elder 1994; Hutchison 2015). That is, the timing of an event in a person's life and the socio-environmental context in which it occurs can shape a person's life path differently. Within the LCP literature, trajectories are defined as the series of experiences that individuals go through in their lives, which are made up of

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transitions in life roles and can impact behavioral stability (Elder et al. 2003). The LCP thus allows for a unique analysis of how similar experiences of war, trauma, migration, and discrimination can be perceived differently for different people, depending on the timing of major life events/transitions and the significant role changes that follow.

Migration considerably influences peoples' trajectory in life. This transition would impact their development and future life experiences (Clark et al. 2009; Jasso 2003; Wingens et al. 2011). However, according to the LCP, people who experience the same transition do not necessarily respond in the same way. For example, although the Vietnam War and ensuing political instability have largely contributed to reasons for migration among Vietnamese people, it is also important to understand how historical timing and ecological systems have affected the well-being of foreign-born Vietnamese. In addition, legal immigration status (i.e., refugee vs. immigrant) can produce different cohorts that alter experiences before, during, and after their migration. Refugee resettlement practices do not typically allow for refugees to choose when, where, and how they are resettled for themselves, while immigrants have relatively more freedom to weigh in on these important migratory decisions. Given that the migratory context itself can influence people differently, the factors that lead up to that migration, along with different life events that occur throughout the migration process, can also impact their mental health outcomes. Applying concepts from the LCP, we explore how sociodemographic, historical, and ecological life events are associated with psychological distress across Vietnamese refugees and immigrants.

Trauma

By 2014, nearly 1.3 million foreign-born Vietnamese were living in the United States (Zong and Batalova 2016). Of those, approximately 708,000 were foreign-born Vietnamese who had arrived as refugees between 1975 and 1995 (Niedzwiecki and Duong 2004). Along with this massive influx of Vietnamese refugees, there were also a continuous influx of non-refugees coming to the United States, mainly through the Orderly Departure Program that was coordinated by the United Nations High Commissioner for Refugees (UNHCR) and the U.S. government. While Vietnamese refugees and immigrants came from the same country, affected by war and political instability, the lived experiences of the Vietnamese people differed, depending on where in the country they came from, and what time period they were living there. These factors may converge to affect the amount of human agency a migrant has in deciding when and how to leave their homeland.

The literature on Vietnamese immigrant experiences has grown along with the population. Much of this literature,

however, has focused mainly on experiences of pre-migration trauma (Birman and Tran 2008; Shapiro et al. 1999; Tran 1993). The attention to trauma in refugee communities is important as refugees, by definition, are more likely to have experienced war-related violence, political persecution, and torture. Indeed, refugee patients at a U.S. psychiatry clinic had reported multiple traumatic experiences prior to their U.S. arrival (Mollica et al. 1987).

The association between pre-migration trauma and mental health, such as PTSD and psychological distress, is well documented (Birman and Tran 2008; Chung and Kagawa-Singer 1993; Mollica et al. 1987; Tran 1993). However, emerging literature has started to recognize that pre-migration trauma is not the only indicator of refugee mental health (Kim 2016; Knipscheer et al. 2015), and highlights the importance of post-migration factors contributing to a variety of mental health outcomes. Furthermore, the vast majority of studies on Vietnamese trauma is narrowly focused on refugees' experiences, as opposed to the greater population of immigrants that came in droves, separate from refugees.

Discrimination

Transitions to a place with a different culture and language can open an opportunity for various experiences with discrimination. Viewed through the LCP, discrimination is not an isolated act, but is a function of age, time, and social context. Incidences and frequency of discrimination, and responses to discrimination can change over an individual's life course (Gee et al. 2012). Vietnamese Americans are susceptible to experiencing various types of discrimination in the United States, related to such characteristics as race/ethnicity, limited English language proficiency, cultural differences, and low economic status. Within Vietnamese Americans, discrimination is associated with a higher level of psychological distress (Mereish et al. 2012) and other mental health problems (Gee et al. 2007; Kim et al. 2012).

Discrimination can be experienced in multiple forms, where race may be just one of many sources of discrimination. Discrimination within Asian Americans groups has been significantly associated with various mental health outcomes (Gee et al. 2009; Yip et al. 2008). However, major studies on discrimination experiences tend to address Asian Americans as an aggregate group without utilizing immigration type (e.g., refugees vs. immigrants) as a variable (Chan et al. 2012; Gee et al. 2009; Mereish et al. 2012; Yamane 2012). Thus, while multiple studies have compared the experiences of different ethnic refugee groups to each other (Chung and Kagawa-Singer 1993; Kim 2016; Mollica et al. 1987), as well as across immigrant groups (Chan et al. 2012; Mereish et al. 2012), there is a shortage of empirical studies comparing refugee and non-refugee groups from the same country of origin.

Human Agency and Migration Type

Human agency is a key principle in the LCP, and emphasizes the choices that individuals make, which are contingent on their social and historical context (Elder et al. 2003). In addition to social environment, individual differences are significant factors. The ability to exercise human agency during migration (i.e. having multiple or strong reasons for migration, and the ability to fully plan and prepare for migration) have impacted post-migration mental health conditions, including psychological distress (Gong et al. 2011). There is a growing desire to understand the effects that migration-related factors can have on immigrants' mental health. Migration can alter a person's opportunities in regards to language acquisition, educational attainment, and job opportunity (Rumbaut 2005). It can also affect a person's social status, which can lead to further psychological stress. While migration is commonly perceived to influence life experiences, migration type may also have further implications on life experiences.

The distinction between refugee and immigrant is crucial as they fall under different legal statuses, and are consequently afforded different resources as they resettle in the United States. To obtain refugee status, a person is evaluated by the UNHCR to assess whether or not their experiences qualify them for protection under the international definition of refugees (Brown and Schribner 2014). This pre-resettlement questioning, along with the additional time spent waiting for resettlement, can add additional stress. Immigrants, on the other hand, are not subjected to the same intense interview, nor are they made to live in camps before they are allowed to immigrate (Espiritu 2014; Ong 2003). Refugees are provided with resettlement assistance, including financial assistance and Medicare, from the U.S. government, while immigrants are not (Brown and Schribner 2014). Another crucial difference between refugees and immigrants is that refugees are unable to go back to their country of origin due to a fear of persecution (or even death), while immigrants are free to return to their home country if they wish, and are often financially able to do so (Cortes 2004). There is little information on how refugees and immigrants may differ in their adjustment processes and outcomes in the United States, despite their different migration and resettlement experiences.

Study Questions/Hypothesis

Applying concepts from the LCP, this study aims to look at the following: (1) identify sociodemographic, as well as trauma-related, differences; (2) examine the differential impact of trauma on psychological distress; and (3) examine the differential impact of discrimination on psychological distress between Vietnamese refugees and immigrants.

Method

Sample

This study obtained and analyzed the secondary data set, the National Latino and Asian American Study (NLAAS). The NLAAS is a nationally representative household survey that targeted non-institutionalized Latino and Asian adults 18 years or older. The NLAAS protocol, sampling design, and data collection procedures are reported in detail elsewhere (see Heeringa et al. 2004; Pennell et al. 2004). The use of the restricted NLAAS data was granted through the Interuniversity Consortium for Political and Social Research at the University of Michigan. The Institutional Review Board at the authors' institution has approved the use of the restricted NLAAS dataset as an exempted status.

For this study, we selected respondents who self-identified as foreign-born Vietnamese ($N = 502$). A response to the question "were you ever a refugee—that is, did you ever flee from your home to a foreign country or place to escape danger or persecution?" was used to identify foreign-born respondents with either refugee ($n = 291$) or immigrant ($n = 211$) backgrounds. All of the LCP-related variables were derived from existing NLAAS variables.

Measures

Outcome Measure

Psychological distress was assessed using the 10-item Kessler Psychological Distress Scale (Kessler et al. 2002). Respondents were asked to indicate their level of depressive and anxiety symptoms in the previous 30 days, ranging from 0 "none of the time" to 5 "all of the time." The scale had previously been used in surveys that included other ethnic minorities (Zhang et al. 2012). The internal consistency (α) score was 0.88 for the overall study sample.

Control Factors

Reporting bias measured possible response biases due to respondents' desire to conform to sociocultural norms ($\alpha = 0.73$). *Self-rated physical health (SRPH)* was measured using a single question, "How would you rate your overall physical health—excellent, very good, good, fair, or poor?" with the scale ranging from 'poor' (1) to 'excellent' (5).

Sociodemographic Factors

Age was a continuous variable in years (18–95). *Sex* was a binary variable, with female coded as 1. *Education* was a

binary variable, with more than high school education coded as 1. *Age at immigration* was a continuous variable in years (1–67). *Limited English proficiency (LEP)* was reported using a four-point scale, ranging from ‘poor’ (1) to ‘excellent’ (4), which was transformed into a binary variable with ‘poor/fair’ coded as 1 ($\alpha=0.97$).

Experiences with Trauma

Pre-resettlement and post-resettlement traumatic experiences were both continuous variables, counting the number of traumatic events (e.g., combat, physical assault, and seeing atrocities and carnage) experienced before and after their U.S. resettlement, respectively (range 0–14).

Experiences with Discrimination

Racial discrimination was a continuous variable assessed with a 3-item measure (Vega et al. 1993). The three items are: “How often do people dislike you because you are [self-identified race/ethnicity]?” “How often do people treat you unfairly because you are [self-identified race/ethnicity]?” and “How often have you seen friends treated unfairly because they are [self-identified race/ethnicity]?” The respondents responded using a four-point scale, ranging from ‘often’ (1) to ‘never’ (4). The scale was reverse-coded, so that a high score indicated greater experience with race- or ethnic-related discrimination ($\alpha=0.90$). *Everyday discrimination* was a continuous variable assessed with a 9-item measure (Williams et al. 1997). The sample items from the measure are: “You are treated with less courtesy than other people,” “People act as if they think you are not smart,” and “You are called names or insulted.” The measure used a six-point scale, ranging from ‘almost every day’ (1) to ‘never’ (6). The score was reverse-coded to indicate that the higher the score, the more discrimination experienced ($\alpha=0.92$).

Analyses

All statistical analyses were conducted with Stata statistical software, version 12.1 (Statacorp 2011). Both descriptive and inferential statistics have accounted for the NLAAS study’s complex survey design methodology. A set of weights were applied to the data in order to account for the multistage, non-random selection of respondents. Multicollinearity test results (tolerance=0.64/0.65; variance inflation factor score=2.07/2.19) for Vietnamese refugee and immigrant subgroups, respectively, indicated that there was little concern of a collinearity problem. Therefore, the multivariate regression analyses were conducted as planned. A linear regression technique was used to model the psychological distress outcome.

Results

Sample Characteristics

Table 1 shows weighted sample characteristics among foreign-born Vietnamese Americans in the NLAAS. Vietnamese refugees constituted 58.0 percent of the foreign-born Vietnamese in the study (not shown in the table). Statistical differences between Vietnamese refugees ($n=291$) and immigrants ($n=211$) were tested using the Rao-Scott χ^2 test, which accounted for survey weights. In comparison with Vietnamese immigrants, the tests indicated that Vietnamese refugees were older [$\chi^2(21)=38.32$, $p<0.001$]; consisted of fewer females [$\chi^2(28)=10.16$, $p<0.01$]; had more individuals with a high school education or higher [$\chi^2(28)=7.81$, $p<0.01$]; and had been in the United States longer [$\chi^2(21)=56.74$, $p<0.001$]. Vietnamese refugees also reported significantly more psychological distress [$\chi^2(21)=7.22$, $p<0.05$]; worse self-rated physical health [$\chi^2(21)=5.57$, $p<0.05$]; more pre-migration trauma

Table 1 Weighted sample characteristics among Vietnamese refugees and immigrants: NLAAS, 2002–2003 (N=502)

Variables	Refugees (n=291)		Immigrants (n=211)	
	Mean/%	SE	Mean/%	SE
Outcome measure				
Psychological distress*	1.42	(0.05)	1.24	(0.04)
Control variables				
Reporting bias	2.26	(0.15)	2.41	(0.17)
Self-rated physical health*	3.25	(0.08)	3.45	(0.06)
Sociodemographic factors				
Age, in years***	45.6	(1.08)	37.7	(0.85)
Sex (female = 1)**	44.2%		61.6%	
Education, more than HS**	52.9%		39.4%	
LEP (fair/poor = 1)	62.6%		74.5%	
Age at immigration	28.7	(1.23)	28.1	(0.92)
Years in the U.S.***	16.8	(0.86)	9.7	(0.75)
Trauma factors				
Pre-migration trauma experience***	1.86	(0.14)	0.85	(0.12)
Post-migration trauma experience**	0.55	(0.07)	0.29	(0.05)
Discrimination factors				
Racial discrimination (1–4)***	1.71	(0.06)	1.47	(0.04)
Everyday discrimination (1–6)	1.50	(0.04)	1.40	(0.05)

LEP Limited English proficiency, M/% mean or proportion

Standard errors in parentheses. Asterisk next to variable names indicates statistically significant differences (using Rao-Scott χ^2 to account for weighted survey samples) between subgroups: *** $p<0.001$; ** $p<0.01$

experiences [$\chi^2(21) = 33.25, p < 0.001$]; more post-migration trauma experiences [$\chi^2(21) = 10.32, p < 0.01$]; and more racial discrimination [$\chi^2(21) = 16.97, p < 0.001$]. Table 2 shows a bivariate correlation matrix among the study variables for Vietnamese refugees and immigrants.

Multivariate Regression Outcomes

Table 3 shows the results from the multivariate linear regression examining the LCP factors associated with psychological distress as an outcome variable. For Vietnamese refugees, being female ($b = 0.14, p < 0.05$), an older age at immigration ($b = -0.01, p < 0.05$), pre- ($b = 0.08, p < 0.01$) and post- ($b = 0.10, p < 0.05$) migration trauma experiences were significantly associated with an increase in the level of psychological distress. Among Vietnamese immigrants, only the racial discrimination variable was significantly associated ($b = 0.09, p < 0.05$) with the outcome variable, whereby an increased racial discrimination score predicted a higher level of psychological distress.

Discussion

The results from our study help to unpack previously unexamined groups within foreign-born Vietnamese who deserve a different approach to understanding their experience than the traditional “refugee lens.” Utilizing the life course perspective, we were able to assess how historical timing and ecological systems impacted Vietnamese Americans’ life trajectories differently. This study has examined the predictors of psychological distress among foreign-born Vietnamese living in the United States using the LCP, and found

Table 3 Associations between psychological distress and life course factors among Vietnamese refugees and immigrants: NLAAS, 2002–2003 (N = 502)

Variables	Vietnamese refugees (n = 291)		Vietnamese immigrants (n = 211)	
	b	SE	b	SE
Sociodemographic factors				
Age, in years	0.01	0.00	0.00	0.01
Sex (female = 1)	0.14*	0.05	0.07	0.07
Education, more than HS	-0.14	0.08	0.08	0.08
Age at immigration	-0.01*	0.00	-0.01	0.01
LEP	-0.04	0.11	-0.08	0.10
Trauma factors				
Pre-migration trauma	0.08**	0.02	0.03	0.02
Post-migration trauma	0.10*	0.04	-0.03	0.02
Discrimination factors				
Racial discrimination	-0.02	0.07	0.09*	0.04
Everyday discrimination	0.17	0.09	0.04	0.02
Constant	1.77***	0.31	1.40***	0.26
R ²	0.27		0.19	

Analyses controlled for self-rated physical health and reporting bias
 *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

significant differences between Vietnamese refugees and immigrants.

Among Vietnamese refugees, sex, age at immigration, and pre- and post-migration trauma experiences were all associated with psychological distress. Women were more likely than men to report symptoms associated with psychological problems. Thus, it is not surprising that we found sex to be the significant predictor of psychological distress for

Table 2 Bivariate correlation matrix among study variables for Vietnamese refugees and immigrants, NLAAS, 2002–2003 (N = 502)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) Psychological distress	–	-0.01	-0.41	0.12	0.04	-0.05	0.11	0.15	0.19	0.17	0.05	0.18
(2) Reporting bias	-0.04	–	-0.20	0.25	0.11	-0.25	0.27	0.13	0.04	-0.11	-0.09	-0.11
(3) Self-rated physical health	-0.21	-0.05	–	-0.36	-0.01	0.11	-0.39	-0.34	-0.14	-0.07	0.03	-0.04
(4) Age	-0.13	0.26	-0.25	–	0.03	-0.25	0.86	0.39	0.23	-0.07	-0.09	-0.26
(5) Sex	0.04	-0.01	-0.13	0.06	–	-0.25	0.07	0.16	-0.25	-0.01	-0.01	-0.14
(6) Education	0.16	-0.18	0.04	-0.36	-0.02	–	-0.38	-0.47	0.00	0.15	0.10	0.18
(7) Age at immigration	-0.14	0.28	-0.28	0.89	0.08	-0.39	–	0.48	0.30	-0.18	-0.14	-0.28
(8) LEP	-0.13	0.17	-0.18	0.41	0.15	-0.46	0.53	–	0.17	-0.14	-0.04	-0.11
(9) Pre-migration trauma	0.10	0.05	-0.12	0.26	-0.22	-0.03	0.25	0.08	–	-0.03	0.16	0.06
(10) Post-migration trauma	0.05	-0.06	-0.05	-0.11	-0.07	0.09	-0.27	-0.31	0.02	–	0.04	0.07
(11) Racial discrimination	0.33	-0.20	0.01	-0.33	-0.05	0.26	-0.35	-0.26	0.00	0.05	–	0.50
(12) Everyday discrimination	0.22	-0.12	0.00	-0.28	-0.19	0.19	-0.36	-0.36	-0.07	0.32	0.42	–

Bivariate correlation coefficients for immigrants are presented below the diagonal in the lower left triangle area, coefficients for refugees are presented above the diagonal in the upper right triangle area

this group. However, being female was not predictive of psychological distress among Vietnamese immigrants. As previously noted, Vietnamese immigrants were mostly female, further highlighting the differences between the two groups based on entry status. Immigration can impact family roles, and the different mode of entry, along with the lived experiences that accompany those modes of entry, can exacerbate that impact (Clark et al. 2009). Female refugees may have experienced greater incidents of pre-migration trauma, along with trauma during the escape, than female immigrants.

Additionally, an older age at immigration was associated with a higher level of psychological distress among Vietnamese refugees. The LCP suggests that age and timing of events will have differential influences on an individual's life course. Elder et al. (2003) describe a *cohort effect* when historical events impact birth cohorts differently. Older age during the war, and thus older age at immigration, can have a greater impact on psychological distress, perhaps because of a lesser ability to adjust and adapt to a new situation. Social roles and expectations differ across the course of a life, and are dependent on social constructions of age (Elder 1994). Transitions from adolescents to adulthood also include expectations of transitions towards marriage and parenthood and, to a certain extent, toward greater stability. Older age at immigration can transform life courses in a way that disrupts ideals regarding stability and social roles. Takeuchi et al. (1998) found that age at immigration was strongly associated with major depressive episodes for Chinese immigrants. This also supports previous studies that identified greater risks for depression among older Vietnamese immigrants and refugees (Buchwald et al. 1993; Hinton et al. 1997; Nguyen and Goel 2015). What is interesting, however, is the fact that the age of immigration for immigrant subgroup was not statistically significant for this study, which is contrary to what LCP suggests. Age at immigration was actually similar for both refugee (28.7 years) and immigrant (28.1 years) subgroups, the difference being that refugees had arrived in the US 7 years earlier on average (16.8 years vs. 9.7) at the time of the survey. The contrasting findings may suggest that, in addition to age at immigration, the time of immigration and its sociocultural and sociopolitical influences may also be important factor to consider when addressing risk factors for depression among resettling refugees.

Finally, both pre- and post-migration trauma experiences were found to be associated with refugees' psychological distress. Given their refugee status, it is likely that refugees were directly exposed to active war situations, which may explain pre-migration trauma as a risk factor for subsequent psychological distress. Refugees are also more susceptible to secondary traumatization, not only because of their prior trauma, but also because of the socio-environmental situation in which they have been resettled in the United States. Many of the Vietnamese refugees were resettled in poor

urban cities with fewer resources and greater social problems already in place. With higher crime rates and unsafe conditions, secondary traumatization is not uncommon for the Vietnamese refugees. The LCP allows for a better understanding of Vietnamese refugees' experiences of multiple traumas and subsequent stress proliferation (Pearlin et al. 2005). Exposure to transitional events and repeated changes in roles are stressors themselves, but also can contribute to future stress and distress.

The group comparison showed different levels of trauma across immigrant and refugee groups, both before and after their arrival in the United States. This result highlighted the fact that foreign-born Vietnamese Americans are indeed a heterogeneous group with uniquely different trauma-related histories. Differences in sociodemographic characteristics further highlight heterogeneity among foreign-born Vietnamese. For example, Vietnamese refugees were, on average, 8 years older, probably reflecting an earlier era of refugee resettlement, with more high school graduates. With a greater proportion of females, Vietnamese immigrants may partly represent the family reunification process that came after the massive wave of refugee resettlement (Rumbaut 1996).

We found that the factors associated with psychological distress were dependent on whether respondents were categorized as refugees or immigrants. Despite the fact that Vietnamese refugees reported a significantly higher racial discrimination score than Vietnamese immigrants, racial discrimination was only significantly associated with immigrants' psychological distress, not with that of Vietnamese refugees. Racial discrimination has been linked to psychological distress, in that more experiences of race-based discrimination were related to a higher level of psychological distress among nationally representative Asian Americans (Yip et al. 2008). Among foreign-born Asians, more years lived in the United States was associated with poor mental health for more acculturated immigrants (Gee et al. 2008). However, considering that Vietnamese immigrants are more recent arrivals, compared with their refugee counterparts, there may be more factors at play than the length of the U.S. stay and the level of acculturation when predicting individuals whose experiences of racial discrimination would be associated with a psychological distress outcome.

This result underscores the differences between these two subgroups of Vietnamese Americans. Given that the traumas experienced as refugees overshadow racially-based discrimination, racial discrimination may not be perceived as distressful, even though it is keenly recognized. A majority of the Vietnamese immigrants who came to the U.S. after the 1980s did so through the Orderly Departure Program, which brought Amerasian children and those placed at reeducation camps over in a safe, systematic manner (Center for Disease Control and Prevention 2008; Hung and Haines 1997).

These later immigrants not only had longer experiences of severe discrimination in their home country, they were also targets of the periodic U.S. anti-immigrant sentiment (Hung and Haines 1997). In addition, the Vietnamese immigrants' discriminatory experiences in the pre-migration period may have developed their ability to pick up nuances of race-based discrimination practiced in the United States, which in turn compromised their psychological well-being.

Though Vietnamese Americans are at a high risk for mental health problems, their utilization of services is not representative of the need (Han et al. 2015). There can be a variety of reasons for Vietnamese Americans not utilizing mental health services, such as language barriers, stigma, and the lack of culturally appropriate services (Luu et al. 2009). The results of this study add to this complexity by highlighting a lack of awareness on the part of healthcare professionals about the varying pre- and post-migration experiences of this diverse community, whether or not they have refugee-related experiences.

Limitations and Conclusion

The findings of this study should be considered with its limitations. First, this is a cross-sectional study, so causality cannot be established. Second, given that refugee and immigrant status was self-reported, the different groups examined for this study may not align exactly with the legal definitions at the federal and/or international level, especially with regards to refugees. Third, considering the fact that variances in the outcome variable (psychological distress) accounted for by the regression model for the refugee and immigrant subgroups were 0.27 and 0.19, respectively, it may be that the group of factors examined in this study are more relevant to Vietnamese refugees than they are to their immigrant counterparts. In addition, there may be other factors associated with the LCP that could have been examined but were not, due to the limits associated with analyzing an existing dataset. Despite these limitations, the results from the present study can be extended to understand Vietnamese refugees and immigrants in general because the dataset is designed to represent Vietnamese Americans across the United States.

Vietnamese Americans have almost always been portrayed as refugees, and thus rendered as a homogenous group with a singular war trauma history. While trauma experiences are crucial to understanding the experiences of Vietnamese refugees, it may limit how we gain an understanding of the experiences of Vietnamese immigrants. As the Vietnamese population continues to grow, the impact of post-migration challenges, such as post-migration trauma and racial discrimination, should not be ignored. The differences among Vietnamese refugees and immigrants began in Vietnam and continue in the United States. The application of the LCP gives us a useful theoretical framework for

systematically examining and articulating both the unique and similar challenges that Vietnamese refugees and immigrants face, in terms of their mental health outcomes. Thus, the distinctive patterns found across Vietnamese refugee and immigrant subgroups warrant future studies to further examine what factors should be considered for potential mental health screening and intervention, given their different profiles. This also has implications for other immigrant groups with varying migration experiences.

Compliance with Ethical Standards

Conflict of interest All authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Institutional Review Board at the corresponding author's institution had reviewed and approved the use of the restricted NLAAS dataset, a secondary data obtained from the ICPSR at the University of Michigan, as an exempted status.

Informed Consent For this type of study, formal consent is not required.

References

- Birman, D., & Tran, N. (2008). Psychological distress and adjustment of Vietnamese refugees in the United States: Association with pre- and postmigration factors. *American Journal of Orthopsychiatry*, 78(1), 109–120. <https://doi.org/10.1037/0002-9432.78.1.109>.
- Brown, A., & Schribner, T. (2014). Unfulfilled promises, future possibilities: The refugee resettlement system in the United States. *Journal on Migration and Human Security*, 78(1), 101–120. <https://doi.org/10.14240/jmhs.v2i2.27>.
- Buchwald, D., Manson, S. M., Dinges, N. G., Keane, E. M., & Kinzie, J. D. (1993). Prevalence of depressive symptoms among established Vietnamese refugees in the United States. *Journal of General Internal Medicine*, 8(2), 76–81. <https://doi.org/10.1007/bf02599987>.
- Center for Disease Control and Prevention. (2008). *Promoting cultural sensitivity: A practical guide for tuberculosis programs that provide services to persons from Vietnam*. Atlanta, GA: U.S. Department of Health and Human Services.
- Chan, K. T.-K., Tran, T. V., & Nguyen, T.-N. (2012). Cross-cultural equivalence of a measure of perceived discrimination between Chinese-Americans and Vietnamese-Americans. *Journal of Ethnic & Cultural Diversity in Social Work: Innovation in Theory, Research & Practice*, 21(1), 20–36. <https://doi.org/10.1080/15313204.2011.647348>.
- Chung, R. C.-Y., & Kagawa-Singer, M. (1993). Predictors of psychological distress among southeast Asian refugees. *Social Science & Medicine*, 36(5), 631–639. [https://doi.org/10.1016/0272-9536\(93\)90060-H](https://doi.org/10.1016/0272-9536(93)90060-H).
- Clark, R. L., Glick, J. E., & Bures, R. M. (2009). Immigrant families over the life course: Research directions and needs. *Journal of Family Issues*, 30(6), 852–872. <https://doi.org/10.1177/0192513X09332162>.

- Cortes, K. E. (2004). Are refugees different from economic immigrants? Some empirical evidence on the heterogeneity of immigrant groups in the United States. *Review of Economics and Statistics*, 86(2), 465–480.
- Elder, G. H. Jr. (1994). Time, human agency, and social change: Perspectives on the life course. *Social Psychology Quarterly*, 57(1), 4–15.
- Elder, G. H. Jr., Johnson, M. K., & Crosnoe, R. (2003). *The emergence and development of life course theory*. In J. T. Mortimer & M. J. Shanahan (Eds.), (pp. 3–19). New York: Kluwer.
- Espiritu, Y. L. (2014). *Body counts: The Vietnam war and militarized refugees*. Berkeley, CA: University of California Press.
- Gee, G. C., Ro, A., Gavin, A., & Takeuchi, D. T. (2008). Disentangling the effects of racial and weight discrimination on body mass index and obesity among Asian Americans. *American Journal of Public Health*, 98(3), 493–500.
- Gee, G. C., Ro, A., Shariff-Marco, S., & Chae, D. H. (2009). Racial discrimination and health among Asian Americans: Evidence, assessment, and directions for future research. *Epidemiological Reviews*, 31(1), 130–151. <https://doi.org/10.1093/epirev/mxp009>.
- Gee, G. C., Spencer, M. S., Chen, J., Yip, T., & Takeuchi, D. T. (2007). The association between self-reported racial discrimination and 12-month DSM-IV mental disorders among Asian Americans nationwide. *Social Science & Medicine*, 64(10), 1984–1996.
- Gee, G. C., Walsemann, K. M., & Brondolo, E. (2012). A life course perspective on how racism may be related to health inequities. *American Journal of Public Health*, 102, 967–974. <https://doi.org/10.2105/AJPH.2012.300666>.
- Gong, F., Xu, J., Fujishiro, K., & Takeuchi, D. T. (2011). A life course perspective on migration and mental health among Asian immigrants: The role of human agency. *Social Science & Medicine*, 73, 1618–1626. <https://doi.org/10.1016/j.socscimed.2011.09.014>.
- Han, M., Cao, L., & Anton, K. (2015). Exploring the role of ethnic media and the community readiness to combat stigma attached to mental illness among Vietnamese immigrants: The pilot project Tam an (inner peace in Vietnamese). *Community Mental Health Journal*, 51(1), 63–70. <https://doi.org/10.1007/s10597-014-9745-4>.
- Heeringa, S. G., Wagner, J., Torres, M., Duan, N., Adams, T., & Berglund, P. (2004). Sample designs and sampling methods for the Collaborative Psychiatric Epidemiology Studies (CPES). *International Journal of Methods in Psychiatric Research*, 13(4), 221–240. <https://doi.org/10.1002/mpr.179>.
- Hinton, W. L., Tiet, Q., Tran, C. G., & Chesney, M. (1997). Predictors of depression among refugees from Vietnam: A longitudinal study of new arrivals. *Journal of Nervous and Mental Disease*, 185(1), 39–45.
- Hung, N. M., & Haines, D. W. (1997). Vietnamese. In D. W. Haines (Ed.), *Case studies in diversity: Refugees in America in the 1990s* (pp. 34–56). Westport, CT: Praeger.
- Hutchison, E. D. (2015). *A life course perspective* (5th edn., pp. 1–39). Thousand Oaks, CA: Sage.
- Jasso, G. (2003). *Migration, human development, and the life course*. In J. T. Mortimer & M. J. Shanahan (Eds.), (pp. 331–368). New York: Kluwer.
- Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand, S.-L. T., Zaslavsky, A. M. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, 32(06), 959–976. <https://doi.org/10.1017/S0033291702006074>.
- Kim, I. (2016). Beyond trauma: Post-resettlement factors and mental health outcomes among Latino and Asian refugees in the United States. *Journal of Immigrant and Minority Health*, 18(4), 740–748. <https://doi.org/10.1007/s10903-015-0251-8>.
- Kim, I., Chen, J., & Spencer, M. S. (2012). Social determinants of health and mental health among Asian Americans in the United States. *Journal of the Society for Social Work and Research*, 3, 346–361. <https://doi.org/10.5243/jsswr.2012.21>.
- Knipscheer, J. W., Sleijpen, M., Mooren, T., ter Heide, F. J. J., & van der Aa, N. (2015). Trauma exposure and refugee status as predictors of mental health outcomes in treatment-seeking refugees. *BJPsyche Bulletin*, 39(4), 178–182. <https://doi.org/10.1192/pb.bp.114.047951>.
- Luu, T. D., Leung, P., & Nash, S. G. (2009). Help-seeking attitudes among Vietnamese Americans: The impact of acculturation, cultural barriers, and spiritual beliefs. *Social Work in Mental Health*, 7(5), 476–493. <https://doi.org/10.1080/15332980802467456>.
- Mereish, E. H., Liu, M. M., & Helms, J. E. (2012). Effects of discrimination on Chinese, Filipino, and Vietnamese Americans' mental and physical health. *Asian American Journal of Psychology*, 3(2), 91–103. <https://doi.org/10.1037/a0025876>.
- Mollica, R. F., Wyshak, G., & Lavelle, J. (1987). The psychosocial impact of war trauma and torture on Southeast Asian refugees. *American Journal of Psychiatry*, 144(12), 1567–1987.
- Nguyen, D., & Goel, M. (2015). Social determinants and the psychological distress of Vietnamese immigrants. *International Journal of Culture and Mental Health*, 8(1), 22–33. <https://doi.org/10.1080/17542863.2014.892518>.
- Niedzwiecki, M., & Duong, T. C. (2004). *Southeast Asian American statistical profile*. Washington, D.C.: Southeast Asia Resource Action Center (SEARAC).
- Ong, A. (2003). *Buddha is hiding: Refugees, citizenship, the new America*. Berkeley, CA: University of California Press.
- Pearlin, L. I., Schieman, S., Fazio, E. M., & Meersman, S. C. (2005). Stress, health, and the life course: Some conceptual perspectives. *Journal of Health and Social Behavior*, 46, 205–219. <https://doi.org/10.1177/002214650504600206>.
- Pennell, B.-E., Bowers, A., Carr, D., Chardoul, S., Cheung, G., Dinkelmann, K., Torres, M. (2004). The development and implementation of the National Comorbidity Survey replication, the National Survey of American Life, and the National Latino and Asian American Survey. *International Journal of Methods in Psychiatric Research*, 13(4), 241–269. <https://doi.org/10.1002/mpr.180>.
- Rumbaut, R. G. (1996). A legacy of war: Refugees from Vietnam, Laos and Cambodia. In S. Pedraza & R. G. Rumbaut (Eds.), *Origins and destinies: Immigration, race, and ethnicity in America* (pp. 315–333). Belmont, CA: Wadsworth.
- Rumbaut, R. G. (2005). Turning points in the transition to adulthood: Determinants of educational attainment, incarceration, and early childbearing among children of immigrants. *Ethnic and Racial Studies*, 28(6), 1041–1086. <https://doi.org/10.1080/0141987050224349>.
- Shapiro, J., Douglas, K., & de la Rocha, O. (1999). Generational differences in psychosocial adaptation and predictors of psychological distress in a population of recent Vietnamese immigrants. *Journal of Community Health*, 24(2), 95–113. <https://doi.org/10.1023/A:1018702323648>.
- Statacorp. (2011). *Stata Statistical Software: Release 12*. College Station, TX: StataCorp, LP.
- Takeuchi, D. T., Chung, R. C.-Y., Lin, K.-M., Shen, H., Kurasaki, K., Chun, C.-A., & Sue, S. (1998). Lifetime and twelve-month prevalence rates of major depressive episodes and dysthymia among Chinese Americans in Los Angeles. *American Journal of Psychiatry*, 155(10), 1407–1414. <https://doi.org/10.1176/ajp.155>.
- Tran, T. V. (1993). Psychological traumas and depression in a sample of Vietnamese people in the United States. *Health and Social Work*, 18(3), 184–194.
- U.S. Immigration, and Naturalization Service. (1997). *Statistical Yearbook of the Immigration and Naturalization Service, 1995*. Washington, D.C.: U.S. Government Printing Office.

- Vega, W. A., Gil, A. G., Warheit, G. J., Zimmerman, R. S., & Apospori, E. (1993). Acculturation and delinquent behavior among Cuban American Adolescents: Toward an empirical model. *American Journal of Community Psychology*, 21(1), 113–125. <https://doi.org/10.1007/BF00938210>.
- Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: Socio-economic status, stress and discrimination. *Journal of Health Psychology*, 2(3), 335–351.
- Wingens, M., de Valk, H., Windzio, M., & Aybek, C. (2011). *The sociological life course approach and research on migration and integration*. In M. Wingens, M. Windzio, H. de Valk & C. Aybek (Eds.), (pp. 1–26). New York: Springer.
- Yamane, L. (2012). Labor market discrimination: Vietnamese immigrants. *Journal of Southeast Asian American Education and Advancement*. <https://doi.org/10.7771/2153-8999.1046>.
- 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. *Developmental Psychology*, 44(3), 787–800.
- Zhang, W., Hong, S., Takeuchi, D. T., & Mossakowski, K. N. (2012). Limited English proficiency and psychological distress among Latinos and Asian Americans. *Social Science & Medicine*, 75(6), 1006–1014. <https://doi.org/10.1016/j.socscimed.2012.05.012>.
- Zong, J., & Batalova, J. (2016). Vietnamese immigrants in the United States. *Migration Policy Institute*. Retrieved October 18, 2016, from <http://www.migrationpolicy.org/article/vietnamese-immigrants-united-states>.