

Depressive Symptoms in Chinese Immigrant Mothers: Relations With Perceptions of Social Status and Interpersonal Support

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Objectives: The present study examined how English proficiency, aspects of social status (education, income, and shifts in subjective social status), and interpersonal support were directly and indirectly associated with variations in depressive symptoms among Chinese immigrant mothers. **Method:** Individual semistructured interviews and questionnaires were administered to 257 first-generation Chinese immigrant mothers in the United States ($M_{\text{age}} = 37.87$ years). Participants reported on their English proficiency, perceived shifts in subjective social status, income, education, and levels of interpersonal support. Depressive symptoms were assessed through semistructured individual interviews using a measure previously developed and validated with Chinese American immigrant adults. **Results:** Path analyses indicated that participants' perceived upward shifts in subjective social status, higher levels of interpersonal support, and higher annual household income were associated with fewer depressive symptoms. Associations between English proficiency and participants' depressive symptoms were mediated by shifts in subjective social status, income, and interpersonal support. **Conclusion:** Chinese immigrant mothers' perceptions of postmigration changes in subjective social status and the availability of interpersonal support play important roles in their mental health, even accounting for objective indicators of socioeconomic status.

Public Significance Statement

Immigrants' perceptions of their social status relative to others in their host country can differ dramatically from their perceived status in their countries of origin. Results from the present study indicated that downward shifts in perceived social status are associated with more symptoms of depression among Chinese immigrant mothers, even after accounting for their levels of income and education and their access to interpersonal support.

Keywords: acculturation, perceived social status, depression, immigrant mothers

An estimated 10% of mothers in the United States meet criteria for major depressive episodes (Ertel, Rich-Edwards, & Koenen, 2011). Maternal depression can compromise mothers' caregiving behaviors (Kuckertz, Mitchell, & Wiggins, 2018) and emotional interactions with their children (Lovejoy, Grac-

zyk, O'Hare, & Neuman, 2000), and accordingly, is a central construct in models of intergenerational risk and prevention (Goodman et al., 2011). The effects of maternal depression may be particularly detrimental to the long-term health and adaptation of immigrants in the United States, who utilize mental

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health services at substantially lower rates than nonimmigrants (Abe-Kim et al., 2007; Derr, 2016).

Chinese immigrants are among the largest, fastest-growing, and most socioeconomically diverse immigrant groups in the United States (López, Cilluffo, & Patten, 2017). Previous research has documented higher rates of depression among Chinese Americans compared to other Asian American ethnic groups (H. J. Kim, Park, Storr, Tran, & Juon, 2015) and a higher prevalence of depressive symptoms among Chinese immigrant mothers compared to United States -born Chinese mothers (Huang, Wong, Ronzio, & Yu, 2007). However, investigations of maternal depression in this population has focused primarily on postpartum depression or comparisons of major depressive episodes between Chinese Americans and other ethnic or immigrant groups (Goyal, Wang, Shen, Wong, & Palaniappan, 2012; Liu & Tronick, 2013). As such, there is a pressing need to identify factors associated with depressive symptoms in this population beyond the postpartum period and prior to the onset of a major depressive episode.

Though limited largely to qualitative investigations, a growing body of research indicates that inequalities in education, income, and other metrics of social status may contribute to variations in psychological adjustment among Chinese immigrant mothers (Leung, Zhu, Peng, & Tsang, 2019; Man, 2004; Salaff & Greve, 2007; Zhou, 2000). In particular, perceived shifts in relative social standing, changes in social support networks, and limitations in opportunities for acquiring proficiency in the mainstream language have been identified as salient factors in Chinese immigrant mothers' postmigration experiences (Leung et al., 2019; Salaff & Greve, 2003; Zhou, 2000); and have been linked to Chinese immigrant mothers' reports of isolation, powerlessness, and other indicators of psychological well-being (Man, 2004; Zhou, 2000). The present study extends this body of qualitative research to a large quantitative investigation of Chinese American immigrant mothers and examines how English proficiency, social status (education, income, and shifts in relative social status), and interpersonal support are both directly and indirectly associated with variations in depressive symptoms.

English Proficiency and Immigrant Mental Health

For ethnic minorities and immigrants, acculturation has been defined as a process of cultural socialization to the mainstream society (Berry, 1997; B. S. K. Kim & Abreu, 2001; Yoon, Lee, & Goh, 2008), and a central component of this acculturation process is the acquisition of the mainstream society's dominant language (B. S. K. Kim & Abreu, 2001). An extensive body of literature further indicates that immigrants with limited proficiency in the mainstream language experience difficulties with mental health. In a meta-analysis of 325 studies examining relations between acculturation and mental health across racial and ethnic groups, Yoon and colleagues (2013) found that mainstream language proficiency was negatively associated with depression and other indicators of poor mental health. For Asian Americans in particular, limited English proficiency has been consistently associated with poorer mental health outcomes above and beyond other factors related to socioeconomic status (SES), discrimination, and immigration (Gee & Ponce, 2010; John, de Castro, Martin, Duran, & Takeuchi, 2012; Leong, Park, & Kalibatseva, 2013; Takeuchi et al., 2007; Zhang, Hong, Takeuchi, & Mossakowski, 2012).

Variations in English proficiency may contribute to divergent patterns of mental health and well-being among Asian American immigrant mothers. Asian American immigrant mothers with limited English proficiency are limited to low-wage and low-skilled work and assume the bulk of childcare and other household responsibilities (Leung et al., 2019; Zhou, 2000); these childcare responsibilities, in turn, limit mothers' opportunities for achieving English proficiency (Zhou, 2000). By contrast, some evidence suggests that Asian American immigrant mothers who obtain English proficiency are able to invest in both childcare and professional pursuits (Balan, 2009). Though these social and professional challenges may be expected to serve as risk factors for poor mental health, to our knowledge, no previous research with Asian American immigrant mothers has specifically examined relations of English proficiency on depressive symptoms, or tested potential mediators between these associations.

Social Status and Immigrant Mental Health

Social status is a multifaceted construct that incorporates individuals' material resources (e.g., income, assets), social resources (e.g., occupational class, social networks), and educational attainment (Cundiff & Smith, 2017; Kraus, Piff, & Keltner, 2011). A number of these components of social status are central to the experiences of ethnic minority immigrants in the United States. Compared to native-born mothers, immigrant mothers in the United States are more likely to live in poverty and, on average, have completed fewer years of formal education (Pew Research Center, 2016). For immigrant parents who are ethnic or racial minorities, experiences of racism or discrimination can further contribute to experiences of lower social status (Ornelas & Pereira, 2011). While the protective effects of income and education on immigrant mental health have been well-documented in the literature (Leong et al., 2013; Zhang & Ta, 2009), a growing body of research indicates that immigrants' subjective social status (SSS)—their perceived relative position in a social hierarchy—may play a significant role in their well-being, even controlling for income, education, and other objective markers of SES (Gong, Xu, & Takeuchi, 2012; A. S. Lau et al., 2013).

Largely absent from the existing research on social status and immigrant mental health is a consideration of relative social mobility—namely, how immigrants' perceptions of their relative social status may change following migration. Though theories of segmented assimilation have long-emphasized immigrants' pre- and postmigration contexts as key factors in social mobility (Portes & Zhou, 1993; Zhou & Xiong, 2005), few investigations have compared immigrants' perceptions of their SSS in their host countries with those in their countries of origin, or tested associations between these shifts in SSS and mental health. Within this limited literature, a recent investigation of Latino immigrants in the United States found associations between perceived shifts in SSS and major depressive episodes, even controlling for effects of SES (Alcántara, Chen, & Alegría, 2014). Similarly, Nicklett and Burgard (2009) found that Asian American immigrants who had experienced large downward shifts in SSS were at increased risk of experiencing major depressive episodes.

Chinese immigrant mothers who have higher levels of income or educational attainment in their countries of origin may be at particular risk for downward shifts in SSS following migration. In

what has been described as a postmigration “de-skilling,” highly skilled and well-educated Chinese immigrant women are often constrained to lower skilled jobs or unemployment following immigration, due to immigration policies that designate women as dependents of their husbands (Man, 2004), cross-cultural differences in gender representation in occupational fields (Salaff & Greve, 2003), and traditional expectations for women to serve as primary caregivers (Zhou, 2000). Similar investigations with middle-to-upper class Chinese immigrant mothers underscored mothers’ unwilling shifts from full-time employment outside the home in China to the role of a primary caregiver in the United States; these perceived downward shifts in social status were associated with mothers’ feelings of powerlessness and social isolation (Zhou, 2000).

Interpersonal Support and Immigrant Mental Health

For immigrants, the process of migration often involves the disruption of existing social support networks (Sluzki, 1992). Separation from these networks can be a source of psychological distress that is further compounded by the challenges of navigating new social structures in the host country (Stewart et al., 2008). Accordingly, acculturative processes can be facilitated by the establishment of new social support systems in the host country (Berry, 1997). These interpersonal relationships can provide immigrants with social resources across a number of domains, including appraisal (e.g., advice or guidance), belonging (e.g., provision of acceptance or concern), and tangible support (e.g., material or financial aid; Cohen, Mermelstein, Kamarck, & Hoberman, 1985).

Of note, previous research with immigrant populations indicates that interpersonal support can have beneficial effects not only when it is actually used, but even when it is perceived to be available. A number of investigations of perceived interpersonal support among Latino immigrants have documented its positive effects on mental health. For example, higher perceived interpersonal support has been associated with lower depression among Mexican migrant workers in the United States (Hovey, 2000) and Latino immigrant parents (Ornelas & Perreira, 2011). Higher interpersonal support was also associated with lower stress reactivity in a primarily immigrant Latino sample (Campos, Yim, & Busse, 2018), and also mitigated effects of prenatal stress on postpartum depression in a sample of primarily immigrant Latina mothers (Coburn, Gonzales, Luecken, & Crnic, 2016).

For Asian American immigrants, perceived, rather than actual, interpersonal support may especially relevant to mental health outcomes, as concerns about relational ramifications make them less likely than European Americans to actually seek out social support (H. S. Kim, Sherman, & Taylor, 2008). Indeed, though limited, previous research with Chinese immigrants to the United States and Canada indicates that perceived availability of interpersonal support is linked to diminished physiological stress responses (Lee, Suchday, & Wylie-Rosett, 2012) and lower reports of daily parenting stress (Short & Johnston, 1997).

Limitations of Previous Research

In sum, the research to date suggests that English proficiency, social status, and interpersonal support are key factors in the

mental health of Chinese immigrant mothers. However, the unique, direct, and indirect mechanisms through which these factors may contribute to depressive symptoms in this population remain largely unknown. Though only a few investigations have examined the psychological impact of limited language proficiency specifically among Asian American immigrant mothers, findings suggest that the effects of limited English proficiency on mental health outcomes may be partly mediated by experiences of social status and social isolation. For example, limitations in English proficiency may contribute to feelings of devaluation and disempowerment (Chun, Lipsitz, & Shin, 2013), and may also contribute to perceptions of lower relative status across professional, social, and family domains (Yoon, Lee, Koo, & Yoo, 2010). Likewise, language barriers that prevent integration into the mainstream community may contribute to immigrant parents’ experiences of social isolation (Alegria, Alvarez, & DiMarzio, 2017; Hovey, 2000). In a qualitative investigation, limited English proficiency was identified as a shared struggle among Korean immigrant mothers in the United States that served as a barrier for social opportunities (Yoon et al., 2010). More broadly, research by Yoon, Hacker, Hewitt, Abrams, and Cleary (2012) provided support for a model in which perceptions of social connectedness mediated effects of Asian Americans’ acculturation on their subjective well-being. Though this investigation was conducted with Asian American undergraduates and utilized a multidimensional measure of acculturation, its results suggest that the effects of mainstream language proficiency on mental health may be partly explained by its role in building social connections and broadening immigrants’ sense of available social support.

In addition to these limitations, previous investigations with Asian American immigrants have primarily utilized measures based on *Diagnostic and Statistical Manual of Mental Disorders* (Fifth ed.; American Psychiatric Association, 2013) criteria or Western conceptualizations of depression, which may underestimate risks of mental health problems in this population (John et al., 2012; Takeuchi et al., 2007). Though interdependent views of the self and somatic symptoms are frequently cited as culture-specific features of depression among Asian Americans (Cheung & Park, 2010; Kleinman, 2004; Yeung et al., 2004), few investigations with Asian Americans have used measures of depression that fully account for these presentations of mental illness (Wong, 2009). As such, researchers have called for investigations of depression among Asian Americans to consider depression as a multidimensional construct that includes somatic and interpersonal domains (Kalibatseva & Leong, 2011).

The Present Study

To address these gaps in the literature, the present study incorporated three key conceptual and methodological approaches to identify the contemporaneous associations between English proficiency, social status, interpersonal support and depressive symptoms in Chinese immigrant mothers. First, in contrast to previous research assessing only immigrants’ current SSS, we examined how shifts in immigrant mothers’ premigration and current SSS were associated with their depressive symptoms. Second, in consideration of cross-cultural variations in the expression of depressive symptoms, we used a measure of depression that was developed and validated specifically with Chinese American immigrants, and

which integrated both interpersonal and somatic aspects of mental health (Wong, 2009; Wong, Wu, Guo, Lam, & Snowden, 2012). Third, in contrast to previous between-group comparisons of depression in immigrant and United States-born Asian Americans, the present study utilized a within-group approach to examine how variations in English proficiency, social status, and interpersonal support were associated with varying levels of depressive symptoms among Chinese immigrant mothers.

In line with previous research on social status and interpersonal support, we expected that English proficiency, upward shifts in SSS, higher SES, and higher interpersonal support would each be negatively associated with Chinese American mothers' reports of depressive symptoms. Though data for the present study were collected cross-sectionally, we reasoned that immigrants' perceptions of social standing, interpersonal support, levels of income, and opportunities for higher education may increase as a function of higher English proficiency. As such, we expected that upward shifts in SSS, SES, and interpersonal support would mediate effects of immigrant mothers' English proficiency on their depressive symptoms.

Method

Participants

Participants were 257 Chinese immigrant mothers between the ages of 24 and 51 years old ($M = 37.87$ years; $SD = 5.87$). Participants had between one and four children ($M = 1.89$; $SD = 0.67$) between 0.14 and 18.9 years of age ($M = 7.02$, $SD = 3.95$). All participants were first-generation immigrants (i.e., born outside of the United States) and almost all were born in mainland China, with the exception of two participants who were born in Taiwan and one who was born in Hong Kong. Participants had been in the United States for an average of 9.41 years ($SD = 6.92$). The average age of immigration to the United States was 28.5 years (range = 7.67–47.55 years; $SD = 6.5$), and almost all participants (97%) immigrated to the United States as adults. Participants were recruited from a major United States metropolitan area and surrounding suburban neighborhoods through community centers, participant referrals, and social media. Almost all participants reported that they were married and/or coresiding together with a partner (94.2%). Of the remaining participants, 3.8% were residing in a multigenerational home (i.e., with their children's grandparents), and 2.7% were single parents. The majority of participants were employed full-time (40.1%), part-time (20.6%), or were

stay-at-home parents (20.6%). A minority of participants (8.9%) reported that they were looking for work. Other demographic characteristics are indicated in Table 1.

Procedure

All research procedures were approved by the Institutional Review Board at Wellesley College. As part of a larger research study on Chinese American immigrant families, each participant participated in a 60- to 90-min research assessment at a college research laboratory or Chinatown community center. Following informed consent procedures, each participant was interviewed individually in Mandarin, Cantonese, or English by bilingual researchers and completed Chinese versions (98% of participants) or English versions (2% of participants) of questionnaires. All measures that had not been used previously with Chinese-speaking participants were forward and back-translated by bilingual researchers.

Measures

English proficiency. English proficiency was measured as a continuous variable, with participants rating their spoken English proficiency on a scale from 1 (Extremely poor) to 5 (Very good). Scores of spoken English proficiency demonstrated good convergent validity with participants' reports of their English aural comprehension ($r = .91$; $p = .000$), English reading proficiency ($r = .81$; $p = .000$), and English writing proficiency ($r = .69$; $p = .000$).

SES. SES was measured by two separate indicators: total annual household income and participants' level of education. Each participant provided estimates of their total household income over the past 12 months (including welfare, disability benefits, and child support) and their years of formal education.

Shifts in SSS. Shifts in SSS were measured following previous procedures used with Asian American immigrant groups (Nicklett & Burgard, 2009), with a measure of SSS adapted from Adler, Epel, Castellazzo, and Ickovics (2000). Participants were shown a numbered 10-rung ladder, with the top rung (10) representing people with the most money, the most education, and the most respected jobs, and the bottom rung (1) representing those with the least money, the least education, and the least respected jobs or no job. Participants were asked to provide past and current estimates of their SSS: past estimates indicated their SSS relative to others in their home country, prior to immigrating to the United States; while current estimates indicated their current SSS relative to others in the United States. Shifts in SSS were calculated by subtracting their past SSS from their current SSS.

Table 1

Descriptive Statistics of Main Variables

Variables	<i>N</i>	Min	Max	<i>M</i>	<i>SD</i>	Skew	Kurtosis
Years in the United States	257	0.25	33	9.41	6.92	0.78	0.42
Level of English proficiency	256	1	5	2.67	1.05	0.18	-0.51
Years of education	255	3	20	13.52	3.72	-0.07	-0.49
Estimated annual household income	249	\$1,700	\$400,000	\$65,193	\$80,365	1.88	2.70
Shifts in subjective social status (SSS)	257	-8	5.5	-1.15	2.28	0.32	0.11
Interpersonal support	252	20	48	36.62	6.23	-0.12	-0.65
Depressive symptoms	256	0	23	4.95	3.92	1.263	2.53

Note. Positive values for shifts in SSS indicate perceptions of upward social mobility; negative values indicate perceptions of downward social mobility.

Interpersonal support. Participants completed the Interpersonal Support Evaluation List 12 (ISEL-12; Cohen et al., 1985), a 12-item scale assessing the perceived availability of social support. The ISEL-12 has been used previously in Chinese and Chinese American immigrant samples (Y. Lau, 2011; Luk & Tsoh, 2010) and demonstrated good internal consistency in the present sample ($\alpha = .83$).

Depressive symptoms. Participants' depressive symptoms were assessed using the Chinese American Depression Scale (CADS-9; Wong et al., 2012), a nine-item self-report instrument developed specifically as a screening scale of depression for Chinese American immigrants. The CADS-9 assesses culturally based social and somatic symptoms (e.g., "You don't want to have contact with people, socialize, or go out at all"; "You are very afraid that you have health problems"), and has been rated as having higher content validity for Chinese American immigrants than more widely used measures of depression (Wong et al., 2012). The CADS-9 has demonstrated good internal consistency, convergent validity with measures of acculturative stress, and concurrent validity in clinical and community samples of Chinese American immigrant adults (Wong et al., 2012). Participants reported the frequency and intensity with which they experienced depressive symptoms over the past two weeks (0 = *not at all/no days*; 3 = *extremely/nearly every day*). The CADS-9 demonstrated good internal consistency in the present sample ($\alpha = .83$).

Results

Descriptive statistics for main study variables are reported in Table 1. All variables were screened for normality prior to analyses and were found to be normally distributed, with no variables exceeding recommended cutoffs of two and seven for skewness and kurtosis, respectively (West, Finch, & Curran, 1995).

Zero-Order Correlations

Zero-order correlations were conducted to examine associations between main variables (Table 2). Consistent with hypotheses, higher household income, upward shifts in SSS, and higher interpersonal support were all associated with fewer depressive symptoms; however, participants' English proficiency and years of education were not significantly associated with their reports of depressive symptoms. Participants' years in the United States were positively associated with their English proficiency, years of edu-

cation, household income, upward shifts in SSS, and interpersonal support. Other demographic variables (parents' current age, their age at immigration, employment, marital status, or their number of children) were not associated with their depressive symptoms ($ps > .05$).

Path Analysis

Path analysis was conducted to test the direct and mediated associations between indicators of participants' English proficiency, indicators of social status (income, education, and shifts in SSS), interpersonal support, and their depressive symptoms. In this model, English proficiency, income, education, upward shifts in SSS, and interpersonal support were each hypothesized to be directly associated with fewer depressive symptoms. Income, education, upward shifts in SSS, and interpersonal support were also hypothesized to mediate the associations between participants' English proficiency and their depressive symptoms. Covariances between all indicators of social status were included in the model. As previous research on SSS shifts among immigrant groups controlled for years of residency in the host country (Nicklett & Burgard, 2009), and given significant zero-order correlations between participants' years in the United States and the main study variables, participants' years in the United States were also included as a covariate in the model (Figure 1).

The model was estimated with Mplus 8.3 (Muthén & Muthén, 1998–2015) using full-information maximum likelihood to handle missing data. The raw data were analyzed. Using cutoffs of ≥ 0.95 for the comparative fit index (CFI), ≤ 0.06 for the root-mean-square error of approximation (RMSEA), and ≤ 0.08 for the standardized root-mean-square residual (SRMR; Hu & Bentler, 1999), the model fit the data well, $\chi^2(df = 4, N = 257) = 4.05, p = .40$, CFI = 1.00, RMSEA = .007, SRMR = .024. Consistent with hypotheses, participants' level of English proficiency was positively associated with income ($\beta = 0.44; p = .000$), education ($\beta = 0.63; p = .000$), shifts in SSS ($\beta = 0.21; p = .001$), and interpersonal support ($\beta = 0.28; p = .000$); but was not directly associated with their depressive symptoms after accounting for other factors in the model. Also consistent with hypotheses, participants' income, upward shifts in SSS, and interpersonal support were negatively associated with their depressive symptoms ($\beta_s = -0.17, -0.22, \text{ and } -0.29; ps = 0.04, 0.02, \text{ and } 0.000$, respectively). Participants' education was positively associated with their depressive symptoms, although this association was only

Table 2
Zero-Order Correlations of Main Study Variables

Variables	1	2	3	4	5	6	7
1. Years in the United States		0.54***	0.38***	0.53***	0.54***	0.26***	-0.12 [†]
2. English proficiency			0.63***	0.59***	0.44***	0.32***	-0.08
3. Years of education				0.69***	0.20**	0.26***	0.02
4. Estimated annual household income					0.36***	0.25***	-0.13*
5. Shifts in SSS						0.26***	-0.26***
6. Interpersonal support							-0.29***
7. Depressive symptoms							

Note. Positive values for shifts in subjective social status (SSS) indicate perceptions of upward social mobility; negative values indicate perceptions of downward social mobility.

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

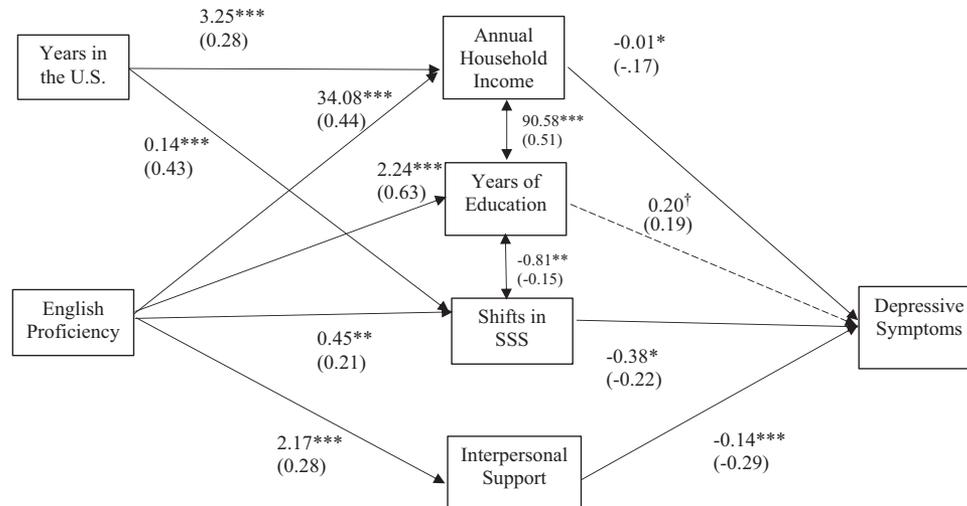


Figure 1. The path-analytic model predicting mothers' depressive symptoms from English proficiency, social status, and social support. Numbers within parentheses represent standardized path coefficients. Only significant paths are shown. SSS = subjective social status. † $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

marginally significant ($\beta = .19$; $p = .08$). R-square estimates indicated predicted paths accounted for 40% of the variance in education, 41% of the variance in income, 32% of the variance in shifts in SSS, 8% of the variance in interpersonal support, and 15% of the variance in depressive symptoms.

Indirect effects were tested using the bias-corrected bootstrap confidence interval (CI) approach (MacKinnon, Lockwood, & Williams, 2004). Consistent with hypotheses, income, shifts in SSS, and interpersonal support were found to mediate the associations between participants' English proficiency and their depressive symptoms (95% CIs $[-0.57, -0.03]$, $[-0.71, -0.04]$, $[-0.51, -0.17]$, respectively). Inconsistent with hypotheses, education level did not mediate the association between participants' English proficiency and their depressive symptoms (95% CI $[-0.04, 0.98]$).¹ To examine possible outlier effects, analyses of the full model were rerun after excluding cases that were three standard deviations above or below the mean values for household income ($n = 2$) and depressive symptoms ($n = 3$). Direct and indirect paths in the full model remained largely unchanged; however, the path from annual household income to depressive symptoms and the indirect path from English proficiency to depressive symptoms via income were marginally significant ($p = .09$; 90% CI $[-0.45, -0.02]$).

Discussion

Despite significant strides in our understanding of depression among ethnic minority and immigrant groups, relatively little is known regarding the specific ways in which social and acculturative factors may be associated with depressive symptoms among immigrant mothers. Though previous qualitative research indicates that aspects of acculturation, social status, and social support are central to the mental health of Asian American immigrant mothers, few quantitative investigations have examined their unique, direct, and indirect relations with mothers' depressive symptoms. More broadly, few investigations have directly assessed discrepancies between immigrants' perceptions of their relative social standing

in their host countries and their countries of origin, and how these discrepancies may be associated with mental health outcomes. Using a measure of depression risk specifically validated with Chinese American immigrant adults, the present study addressed these gaps in the literature by identifying associations between Chinese immigrant mothers' English proficiency, social status, interpersonal support, and their depressive symptoms.

English Proficiency, Social Status, Interpersonal Support, and Mental Health

Consistent with our hypotheses, aspects of participants' social status and levels of interpersonal support were directly and uniquely associated with fewer depressive symptoms. Although we had hypothesized that participants' limited English proficiency would also be associated with more depressive symptoms, these associations were primarily mediated through aspects of their social status. These findings both confirm and extend previous research highlighting the positive effects of acculturation on immigrant mental health (Yoon et al., 2013) by indicating that English proficiency may be associated with immigrants' perceived and actual social status and their perceived social support, which, in turn, are associated with better mental health outcomes.

In highlighting these associations, our results also draw attention to what has been conceptualized as an "immigrant paradox" in mental health: though Asian American immigrants report lower English proficiency and other acculturative indices than Asian Americans born in the United States, they also report lower rates of depression and other psychiatric disorders (Breslau & Chang, 2006; A. S. Lau et al., 2013; Takeuchi et al., 2007). Taken together

¹ Though not specified in our hypotheses, an alternative model testing English proficiency as a mediator of the effects of parental education on depressive symptoms was also tested; however, this model indicated a poor fit with the data, $\chi^2(df = 8, N = 257) = 192.86$, $p = 0.000$, CFI = 0.13, RMSEA = 0.30, SRMR = 0.19).

with results from the present study, these findings suggest that the relations between English proficiency and mental health may vary between United States-born and immigrant Asian American groups. For example, for Asian Americans born in the United States, their English fluency may situate them in social and work contexts where they are visible racial minorities, and as a result, they may encounter racial stereotypes and discrimination (Lai, 2013; Lai & Babcock, 2013). Indeed, reported experiences of discrimination have been found to be higher among native-born Asian American women than among immigrant Asian American women, but were associated with incidents of major depression in both groups (A. S. Lau et al., 2013).

A similar mechanism may explain the mixed associations between income, education, and depressive symptoms in the present sample. Though education and income are commonly operationalized as a composite measure of SES, in the current sample, participants' estimated household income was negatively associated with depressive symptoms, while their years of education were positively associated with depressive symptoms. Though the latter association was significant only at trend levels, other investigations have also documented mixed findings in associations between indices of SES and depression in Asian American samples (see Salant & Lauderdale, 2003, for a review). Highly-educated immigrants from ethnic and racial minority groups may be able to obtain high-status jobs; however, their status as visible minorities may expose them to workplace discrimination, which, in turn, can have adverse effects on their mental health (De Castro, Rue, & Takeuchi, 2010). These workplace stressors may be particularly salient for Asian American women, as their paths to leadership positions in the workplace require confronting both gender and racial stereotypes (Eagly & Chin, 2010; Kawahara, Esnil, & Hsu, 2007; Sanchez-Hucles & Davis, 2010). As discrimination and similar experiences were not assessed in our study, it remains to be seen whether first-generation Asian American immigrants become increasingly exposed to or aware of these stressors over time and whether they are associated with increases in depressive symptoms.

Limitations and Future Directions

Other methodological and theoretical limitations to the present study highlight future directions for research. On a methodological level, the study is limited by its cross-sectional design. In one way, there is conceptual justification for the temporal sequence of our constructs: immigrant mothers' increasing English proficiency may contribute to increases in social status over time, and the lack of interpersonal support and socioeconomic resources are well-established risk factors for the development of depression. At the same time, the directionality of these associations cannot be established with cross-sectional data. The study is also limited by its reliance on participants' self-reported data. The use of a culturally validated measure of depressive symptoms with our present sample and its emphasis on somatic symptoms of depression may have alleviated some of the societal stigma associated with endorsing psychiatric symptoms. However, behavioral observations or reports from other family members would provide additional support for assessment of depressive symptoms in the present study.

On a theoretical level, by identifying how individual variations in English proficiency, social status, and interpersonal support

were associated with Chinese immigrant mothers' depressive symptoms, our results align well with a core tenet of intersectional frameworks—namely, that inequalities of power, resources, and opportunities can contribute to divergent outcomes and experiences, even within a sociocultural group (Cole, 2009; Mahalingam, Balan, & Haritatos, 2008). At the same time, a more comprehensive application of intersectional frameworks would also consider the effects of gender- and institutional-level factors on mental health. Previous qualitative research with Chinese immigrant families indicates that mothers are more likely than fathers to experience postmigration shifts in perceptions of relative social status, shrinking networks of social support, and steeper drops in occupational status (Leung et al., 2019; Salaff & Greve, 2003, 2007). Though our data indicated a wide variation in work status among the participants in our sample, we did not specifically assess participants' satisfaction with their current work status, nor their experiences with institutional-level barriers in employment. Likewise, while gendered expectations in childcare responsibilities are a central issue in social mobility among Asian American immigrant mothers (Leung et al., 2019; Zhou, 2000), the present study did not examine how these responsibilities were distributed among the parents in our sample. Of note, though almost all of the participants in our sample were married and living with a partner, future research can also examine how single-parent or multigenerational Chinese immigrant families navigate the distribution of childcare responsibilities, and test their relations to mothers' mental health. As suggested by previous research (Conn, Marks, & Coyne, 2013), grandparents in multigenerational Chinese immigrant households may take active roles as caregivers, particularly for younger children. Future research can identify specific ways in which multigenerational household structures may serve as protective factors for maternal mental health.

Conclusions and Implications

Despite these limitations, results from the present study hold broader implications for considerations of social mobility and mental health in the United States. The present study's focus on depressive symptoms and their correlates allowed us to identify factors that may be associated with elevated risk for depression, prior to the onset of a major depressive episode. Early intervention and promotion are especially critical for this population, as Asian American immigrants have been found to underutilize formal mental health services (Le Meyer, Zane, Cho, & Takeuchi, 2009) and tend instead to seek informal mental health support from family and friends (Kung, 2003; Ying, 1990). Our findings confirm that for the Chinese American immigrant mothers in our sample, perceived interpersonal support from family and friends—often in the form of tangible, everyday assistance—is central to mental health. Indeed, a longitudinal investigation of first-onset depression found increased risk for a first major depressive episode among Chinese Americans who reported low or decreased levels of interpersonal support (Hwang, Myers, & Takeuchi, 2000). Of note, within the present sample, perceived interpersonal support was positively associated with English proficiency. As limited proficiency in the host language can hinder initiation of social relationships, community service providers or other cultural organizations can help to fill these gaps in social support and provide preferred-language resources addressing barriers to mental

health treatment, such as social stigma regarding mental health and culture-specific beliefs of mental illness (Chaudhry & Chen, 2019; Kung, 2004)

Our findings suggest that perceptions of relative social mobility play a critical role in the mental health of immigrant women and mothers, above and beyond more tangible measures of acculturation and SES. Given the importance of SSS, an important goal for future research is to identify the specific factors and indicators used by immigrants to assess their relative social status, both in the United States and in their countries of origin. For example, highly educated mothers in our sample may report lower SSS in the United States relative to China if their professional positions are not perceived as being commensurate with their qualifications. Similarly, women who worked outside the home in China, but who took on the role of primary caregivers in the United States may perceive downward shifts in occupational prestige. Indeed, although occupational prestige was included as one of the indicators of SSS, it was not assessed as one of the objective SES measures. This limitation of the present study can be addressed in future research that includes objective measurements of occupational prestige and assesses the extent to which participants consider occupational prestige in their ratings of SSS. More broadly, identifying factors used to determine SSS may be particularly critical for understanding how race, social status, and gender expectations intersect to influence the mental health of Asian American immigrant mothers.

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