Impacts of Language Use, Family, School, and Neighborhood on Mental Distress:
Analyzing Data on Immigrant Youth in California

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This study aims to identify experiences of immigration and mental health related characteristics of non U.S.-born adolescents and to examine predictors related to mental distress within a social ecological perspective. Secondary data of 348 non U.S.-born adolescents from the CHIS 2011-2012 Adolescents Survey were used for this study. Impacts of individual, family, school, and community factors on mental distress of non U.S.-born adolescents were examined using hierarchical multiple regression. The average age of the adolescents was 14.5 years (SD = 1.7), and more than half were girls (53.4%). Of the participants, 31.6% were interviewed in a language other than English and 72.7% did not use English at home. Nearly half have been living in the U.S. for over 10 years (48.6%). Approximately 2% had a score of 13 or over indicating serious mental distress. Being interviewed in a language other than English, speaking English at home, having higher levels of school support and neighborhood cohesion, and not being threatened by peers were associated with current lower levels of mental distress in non U.S.-born adolescents. The findings of this study contribute to the literature and theory focusing on impacts of acculturation, school, and neighborhood on mental health of immigrant adolescents. Schools and communities may be the channels to help immigrant adolescents' acculturation process and ultimately to reduce their mental distress.

Keywords: Mental Distress, Non US-born Adolescent, Language Use, Social Ecology

Ⅰ. Introduction

In 2011, there were 39.9 million immigrants, which is the highest number recorded in U.S. history (Passel & Cohn, 2012). By 2020, 33% of children will be children of immigrants (Mather, 2009). Children in immigrant families adjust to the host country's language and culture more quickly than adults who have been fully socialized into their original culture (American Psychological Association, 2012). However, adolescents who experience additional challenges with schools and friends in the new social context could experience more distress than younger children (American Psychological Association, 2012).

More than one in five U.S. adolescents had mental disorders in 2010 (Merikangas et al., 2010), and about half of all adult mental disorders emerge in teenage years (Jones, 2013). Likewise, adolescence is an important transitional period between childhood and adulthood that is associated with a heightened risk of mental health problems for both immigrant and non-immigrant adolescents (Hoare, Skouteris, Fuller-Tyszkiewicz, Millar, & Allender, 2014). Furthermore, immigrant adolescents have to cope with distress produced while they are making efforts to be socialized to the new culture, which is conceptualized as acculturation (Kim & Abreu, 2001). In addition, during this acculturation process, they are often exposed to stressful circumstances that adolescents in the general population do not experience at their ages; for example, many of them take on their parents' roles and responsibilities in daily living due to the limited English proficiency of their parents (Kao, 1999). Therefore, immigrant adolescents may be even more vulnerable to mental health problems than those in the general population.

In fact, there has been an agreement that acculturating process may cause an increased risk of health behaviors among immigrant adolescents (Unger, Gallaher, Shakib, Ritt-Olson, Palmer, & Johnson, 2002). Studies also have found that acculturative stress was significantly associated with internalizing symptoms such as anxiety, depression, and somatic pains among immigrant adolescents (Alegría,

Mulvaney-Day, Torres, Polo, Cao, & Canino, 2007; Katsiaficas, Suárez-Orozco, Sirin, & Gupta, 2013; Kim, Cain, & McCubbin, 2006; Mendoza, Javier, & Burgos, 2007). Furthermore, non U.S.-born immigrant adolescents experience greater acculturative stress and mental health problem symptoms than those born in U.S. (Sirin, Ryce, Gupta, & Rogers-Sirin, 2013) because migration causes significant mental distress for adolescent immigrants (Torres & Wallace, 2013). Non U.S.-born adolescents have to maneuver norms between the origin culture and the host culture, and the bicultural stress may negatively influence mental well-being for immigrant adolescents (Romero, Carvajal, Valle, & Orduña, 2007). To assist immigrant adolescents who are new to the U.S. culture, it is important to investigate the mental health status of non U.S.-born adolescents and to know what contributes to their mental health problems.

II. Literature Review

According to Bronfenbrenner's (1979) social ecological model individuals are influenced by intrapersonal, interpersonal, and community level factors. Immigrant adolescents have to adapt to the new U.S. culture, negotiating risk and protective factors at all of these levels. At the individual level, age may be associated with mental health symptoms; older Asian immigrant adolescents reported higher levels of general mental health symptoms (Yeh, 2003). Different types of stress related to acculturation were also significantly associated with high risk of mental health problems in different studies (Katsiaficas, Suaréz-Orozco, Sirin, & Gupta, 2013; Potochnick & Perreira, 2010; Sirin et al., 2013). Increased acculturative stress predicted higher levels of internalizing behavior problems among immigrant adolescents (Katsiaficas et al., 2013; Sirin et al., 2013). Migration stressors, among Latino immigrant adolescents, were associated with increased risk of depressive

symptoms and anxiety (Potochnick & Perreira, 2010). In addition, when immigrant youth became more familiar with U.S. culture, they tend to have fewer mental health problems. For example, greater identification with American culture is associated with fewer symptoms of depression and anxiety (Yeh, 2013) and longer stay in the U.S. is associated with reduced risk for anxiety and depression (Potochnick & Perreira, 2010). However, when gender and age are controlled, stay in the U.S. becomes marginally significant (Potochnick & Perreira, 2010).

Resources at the family level also impact mental health among immigrant adolescents. Support from one's family decreased the risk of depressive symptoms and anxiety (Potochnick & Perreira, 2010; Yeh, 2003). Higher levels of family-based acculturation stress was associated with higher level of depression among Latino immigrant adolescents (Kam & Lazarevic, 2013). Although primary language (English) spoken is considered to be a reliable proxy measure of acculturation for foreign born minorities (Lee, Nguyen, & Tsui, 2011), Yu and colleagues (2003) found that when immigrant adolescents used English as a primary language at home rather than other languages, they demonstrated lower risk for psychosocial development problems such as alienation from classmates and being bullied.

As a school level factor, support from teacher is associated with lower levels of depressive symptoms and anxiety (Potochnick & Perreira, 2010). Additionally, emotional support and academic support from significant others were each related to lower levels of internalizing behavior symptoms (Katsiaficas et al., 2013). Furthermore, although higher levels of acculturative stress were associated with higher levels of internalizing behavior problems, the relationship was moderated by both emotional and academic supports. The finding indicates that social supports may play a critical role during the process of acculturation (Katsiaficas et al., 2013).

In sum, previous studies on immigrant adolescents have found different factors contributing to their mental health problems. However, the studies mostly have focused on the relationships between acculturative factors and mental health problems. Although there were some studies that investigated the relationships

between one or more specific social environmental factors and mental health problems (Katsiaficas et al., 2013; Potochnick & Perreira, 2010), there has been no study that examined multiple factors related to mental health problems with ecologically based approach. Acculturation occurs through contacts with various social and environmental sources, for example, parents, peers, formal education, and even exposure to media (Gfroerer & Tan, 2003); therefore, it is important to investigate factors of mental health problems with a social ecological perspective. In addition, few studies have focused on mental problems of non U.S.-born immigrant adolescents despite the fact that acculturation experiences between those who were born in the U.S. and those who were born outside U.S. are significantly different. Therefore, utilizing Bronfenbrenner's (1979) social ecological model, this study examined individual, social, and environmental factors of mental distress, being defined as a wide range of mental health problems from a disturbing or unpleasant emotional state to chronic and severe mental disorders (www.change.org), focusing on non U.S.-born immigrant adolescents.

Ⅲ. Method

This secondary data analysis used data from the 2011-2012 California Health Interview Adolescent survey (CHIS 2011-2012); 2,799 adolescents aged 12 to 17 were recruited using random-digit dial telephone survey and interviewed in one of five languages: English, Spanish, Chinese (Mandarin and Cantonese dialects), Vietnamese, and Korean. An analysis of the 2000 Census data identified the interview languages that might cover the largest number of residents with limited English speaking skills in the CHIS sample. To encourage participation, an advance letter in five languages explaining the survey process with a $2 bill was mailed to participants. For the Adolescent Survey, the completion rate was reported as 42.5%,

and the average time of the interview was 21.5 minutes. Detailed information is available elsewhere (http://healthpolicy.ucla.edu/Pages/home.aspx).

1. Sample

Three inclusion criteria from the CHIS Adolescents survey data were used for study sample selection: 1) adolescents aged 12 to 17 years, 2) non-U.S. born, and 3) attending school last year. Based on these criteria, 350 non-U.S. born adolescents were selected from a total of 2,799 respondents. After listwise deletion of cases with missing data, 348 cases (99.4% of those meeting inclusion criteria) with complete data were used for data analyses. The average age of the participants was 14.5 (SD = 1.7); approximately half (n = 186, 53.4%) the sample was female, more than half identified as Latino or Latina (n = 192, 55.2%) and one-fifth (n = 73, 21.0%) were Asians. This study was reviewed by the university Institutional Review Board and determined to be non-human subject research because the data were de-identified.

2. Measures

Mental distress. The Kessler-6 (K6) scale (Kessler et al., 2003) is used to screen for psychological distress and measure treatment outcomes related to mental disorders in the past month, and is composed of six items: nervous, hopeless, restless or fidgety, depressed, tough (everything was as effort), and worthless. A 5-point Likert scale ranging from 0 (*none of the time*) to 4 (*all the time*) is used, with total scores ranging from 0 to 24 (Andrews & Slade, 2001). A score of 13 is used as a cut point to indicate serious mental distress (Kessler & Üstün, 2004). Green, Gruber, Sampson, Zaslavsky, and Kessler (2010) found that the K6 was a fairly good tool to assess serious emotional disturbance for U.S. adolescents as well as adults (Cronbach's α = .78). For this study sample, the scale had a low internal consistency reliability (α = .673) and results should be interpreted with caution pending replication.

Individual level factors. Demographic characteristics, age and years lived in U.S., of non U.S.-born adolescents were included as individual level factors. In addition to age (in years) and gender (0 = *male* and 1 = *female*), years lived in U.S., and interview language were included as individual level factors. Years lived in U.S. was coded into 5 categories (1 = *less than 2 years*, 2 = *2-4 years*, 3 = *5-9 years*, 4 = *10-14 years*, and 5 = *over 15 years*). Interview language was recoded as 0 = *English* and 1 = *non-English*.

Family level factors. Adult supervision was measured by a question "About how often is there an adult around during your after-school hours?" coded as 1 (*never*) to 5 (*always*). Languages spoken at home was coded as 0 = *English* and 1 = *non-English*, combining all other languages.

School level factors. The school support scale is one subscale of the resilience and youth development module (RYDM) (Hanson & Kim, 2007). It is composed of 6 items about supports from a teacher or some other adult at school: (1) care about me, (2) notice when absent, (3) listen to me, (4) praise good work, (5) want me to do my best, and (6) notice my bad mood. Students were asked to respond using a 4-point Likert scale (1 = *not at all true*, 2 = *a little true*, 3 = *pretty much true*, and 4 = *very much true*). Scores range from 6 to 24 and higher scores represent higher perceived school support. For secondary school students, the scale demonstrates high internal consistency (α = .90) (Hanson & Kim, 2007); for this study, a good internal consistency (α = .80) was calculated. Peer threatening was measured for peer relationship at the school level by asking "in the past 12 months, did someone about your age threaten to hurt you or threaten to beat you up?" (coded 0 = *no* and 1 = *yes*).

Community level factor. Neighborhood cohesion was adapted from Sampson and colleagues (1997) and is calculated by combining three items regarding perceptions about the neighborhood: (1) willingness to help each other, (2) being trusted, and (3) watching out that children are safe and don't get in trouble. Each question has four answer options from 1 (*strongly disagree*) to 4 (*strongly agree*); responses are summed, ranging from 3 to 12 with higher scores indicating more neighborhood cohesion.

3. Data Analysis

SPSS 19 was used for data analyses. Internal consistency was determined using Cronbach's alpha, and descriptive information for study variables was examined. The assumptions for the regression analysis were tested and adequately met (Cohen, Cohen, West, & Aiken, 2003). Hierarchical multiple regression analysis was used to examine predictors of mental distress (K6 total scores) among non-U.S. born adolescents based on the social ecological model. Study variables for individual, family, school, and community levels entered the equation in four blocks. Age, gender, interview language, years lived in U.S. entered in Model 1; adult supervision and home language entered in Model 2; school support and peer threatening entered in Model 3; and neighborhood cohesion entered in Model 4.

Ⅳ. Results

With regard to language use, 238 (68.4%) of non U.S.-born adolescents were interviewed in English, but only 95 (27.3%) reported that they spoke English at home (See Table 1). Approximately half (48.6%) have been living in the U.S. for more than 10 years. The adolescents reported that they rarely have adult supervision after school hours ($M = 1.8$, $SD = 1.0$); but they felt relatively high levels of support or care from teachers or adults in school ($M = 19.4$, SD = 3.7). Moreover, one in 10 students ($n = 34$, 9.8%) had experience of peer threatening in school. Adolescents also reported average scores of 8.8 for neighborhood cohesion indicating relatively positive feeling about their neighborhood. Among the non U.S.-born adolescents, the average K6 score was 3.8 ($SD = 3.2$), and compared to the average mental distress scores ($M = 4.0$, $SD = 3.6$) for the U.S.-born adolescents in the 2011-2012 CHIS Adolescent survey, the level of mental distress of non-U.S. born adolescents was not significantly different

from that of U.S.-born adolescents ($t = .892$, $p = .372$). Also, there was no difference in terms of the proportion of having clinical mental distress, as indicated by scores of 13 or greater on the K6, between the U.S.-born ($n = 83$, 3.4%) and the non U.S.-born adolescents ($n = 7$, 2.0%), $\chi^2(1, N = 2799) = 1.899$, $p = .168$.

Table 1. Description of Study Variables for Non-US Born Adolescents (N = 348)

Variables	n (%)	M (SD)	Range	Skewness	Kurtosis
Age		14.5 (1.7)	12 - 17	.06	-1.28
Gender					
Male	162 (46.6)				
Female	186 (53.4)				
Interview language					
English	238 (68.4)				
Non-English	110 (31.6)				
Home language					
English	27 (7.8)				
English & other	68 (19.5)				
Non-English	253 (72.7)				
Years lived in US					
Less than 1 year	17 (4.9)				
2 - 4 years	48 (13.8)				
5 - 9 years	114 (32.8)				
10 - 14 years	146 (42.0)				
Over 15 years	23 (6.6)				
Peer threatening experience					
Yes	34 (9.8)				
No	314 (90.2)				
Adult supervision		1.8 (1.0)	1 - 5	-1.45	1.67
School support		19.4 (3.7)	6 - 24	-.81	.52
Neighborhood cohesion		8.8 (1.6)	3 - 12	-.52	1.86
Mental distress (continuous)		3.8 (3.2)	0 - 16	1.12	1.37
Mental distress (categorical)[1]					
Without mental distress	228 (65.5)				
With moderate mental distress	113 (32.5)				
With serious mental distress	7 (2.0)				

Note: Higher scores indicate that the characteristics of the variables are stronger.
   1) Mental distress scores were categorized into three: without mental distress(0-4), with moderate mental distress(5-12), and with serious mental distress(13-24).

Table 2. Correlations between Study Variables for Non-US Born Adolescents (N=348)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
[1] Mental distress	-									
[2] Age	.044	-								
[3] Gender (female)	-.006	-.054	-							
[4] Interview language (Non-English)	-.073	.065	-.035	-						
[5] Years lived in US	-.041	.195***	-.028	-.413***	-					
[6] Home language (English & other)	-.018	.064	-.005	-.132*	-.112*	-				
[7] Home language (Non-English)	.093	-.047	-.003	.236***	-.005	-.804***	-			
[8] Adult supervision	.043	.157**	-.069	.017	.038	.039	-.072	-		
[9] School support	-.261***	.024	.072	-.214***	.142**	-.005	-.081	-.126*	-	
[10] Peer threatening (no)	-.164**	.033	.178**	-.026	.054	.040	-.071	.045	.043	-
[11] Neighborhood cohesion	-.204***	-.092	.052	-.025	-.016*	-.007	-.132*	-.061	.309***	.068

Note: Pearson correlation and Spearman correlation

A hierarchical multiple regression was run to examine predictors in each level related to mental distress among non U.S.-born adolescents (See Table 3) for full details on each regression model). Models 1 and 2, with the individual and family predictors were not significant; however, Model 3 was significant ($F = 6.15$, $p < .001$) when the school predictors were entered and Model 4 remained significant when the community predictor was added ($F = 5.90$, $p < .001$; see Table 3). The final model accounted for 15% (adjusted $R^2 = .12$) of the variance in mental distress. As shown in Table 3, the school level predictors accounted for the largest percentage of variance in mental distress(10.1%).

Table 3. Factors Influencing Mental Distress among Non U.S.-Born Adolescents

Independent Variables	Mental distress											
	Model 1			Model 2			Model 3			Model 4		
	B	SE	β	B	SE	β	B	SE	β	B	SE	β
Constant	3.77*	1.73		2.26	1.82		5.30*	2.12		7.02**	2.29	
Individual level												
Age	.13	.11	.07	.15	.11	.08	.19	.10	.10	.17	.10	.09
Gender (female)	.11	.34	.02	.11	.34	.02	.36	.33	.06	.36	.33	.06
Interview language (Non-English)	-.78	.41	-.11	-1.09*	.42	-.16	-1.48***	.41	-.22	-1.42**	.41	-.21
Years lived in US	-.30	.20	-.09	-.38	.20	-.11	-.33	.19	-.10	-.33	.19	-.10
Family level												
Adult supervision				.10	.17	.03	-.03	.16	-.01	-.04	.16	-.01
Home language (Non-English)				1.00*	.40	.14	.81*	.38	.11	.72*	.38	.10
School level												
School support							-.25***	.05	-.29	-.23***	.05	-.26
Peer threatening (yes)							1.72**	.55	.16	1.68**	.55	.16
Community level												
Neighborhood cohesion										-.21*	.11	-.11
R²	.015			.033			.138			.148		
F	1.29			2.00			6.78***			6.51***		
ΔR²	.015			.018			.105			.010		
ΔF	1.29			3.25*			20.59***			3.91*		

Note. N = 348, * p < .06, ** p < .01, *** p < .001

In the final model (Model 4) including all predictors at individual, family, school, and community levels, interview language, home language, school support, peer threatening, and neighborhood cohesion were significantly related to mental distress among non U.S.-born adolescents. At the individual level, those who completed the interview in a language other than English ($\beta = -.21$, $p = .001$) had lower mental distress scores than those who completed the interview in English. Other individual level predictors were not significantly associated with mental distress. At the family level, using English at home ($\beta = .10$, $p = .057$) was related to lower mental distress scores. At the school level, youth with more school support ($\beta = -.26$, $p < .001$) and those who had not experienced peer threatening ($\beta = .16$, $p = .003$) had lower mental distress scores. Last, at the community level, adolescents who perceived higher levels of neighborhood cohesion ($\beta = -.11$, $p = .049$) were related to lower levels of mental distress.

V. Discussion

We identified experiences regarding immigration and mental distress among a sample of non U.S.-born adolescents. Although more than two-thirds of the sample completed the interview in English, only one-quarter indicated they spoke English at home. This gap has been found in previous research and might be due to the fact that non U.S.-born adolescents learn English faster than their parents and may be in transition to using English as their primary language, whereas their parents may need to or prefer to use their first language rather than English at home (Kao, 1999; Mather, 2009). Over 90% of English interviewees in this study have been living in the U.S. for more than 5 years, which is consistent with findings that language acquisition is related to length of exposure to a new culture (Kharkhurin, 2008; Whatley & Batalova, 2013).

In addition, profiles of non U.S.-born adolescents were not different from those of U.S.-born adolescents. These findings are inconsistent with prior studies that found that immigrant adolescents are often disadvantaged (Escobar, Nervi, & Gara, 2000, Gupta, Rogers-Sirin, Okazaki, Ryce, & Sirin, 2014; Stolk, Kaplan, & Szwarc, 2014). However, Feliciano (2001) suggested that non U.S.-born adolescents might have benefits and resources from both the immigrant community and mainstream society in U.S. Thus, these findings provide an explanation that non U.S.-born adolescents might have benefits and resources regarding mental health as well as increased mental health problems due to bicultural stress. It is also possible that the sample in this study had stayed longer and were more acculturated than others in previous studies that found significant difference on mental health status between U.S.-born and non U.S.-born adolescents studies (e.g., Sirin et al., 2013). For further study, length of stay in the U.S., other socioeconomic aspects, and substance abuse need to be considered to examine their effects on mental health of non U.S.-born adolescents.

Five predictors related to increased mental distress emerged; English interview language at the individual level, non-English home language at the family level, lower support and experience being threatened by peers at the school level, and lower neighborhood cohesion at the community level were associated with high levels of metal distress. Interestingly, language use as an important acculturation factor had different influences in mental distress at the individual and family levels. There were possible explanations for this difference. First, non U.S.-born adolescents selecting English as an interview language may have more benefits than those selecting non-English. In this study, interview language was significantly related to years lived in U.S., but home language was not. Over 90% of those selecting English as an interview language had been living in U.S. more than five years. In this period that foreign-born adolescents learn English, they might have more attention and support from family or school and lower levels of expectations for academic success (Yeh, 2003); thus, this can cause a reduced mental distress.

An alternative explanation might be because of bicultural stress. Children need less time to adjust in mainstream society than parents (Lau, McCabe, Yeh, Garland, Wood, & Hough, 2005; Portes & Rumbaut, 2001); this acculturation gap leads to family conflict or poor mental health (Kim & Park, 2011). Acculturation is important at the family level as well as at the individual level because of effects on the relationship between adolescents and parents (Schwartz et al., 2013). Family cultural conflict or intergenerational conflict may trigger or aggravate mental disorders among immigrant adolescents (Cook, Alegria, Lin, Guo, 2009; Wu & Chao, 2011).

Given the study findings, this study suggests that acculturation at the individual and family levels might be important for non U.S.-born adolescents' mental distress. For example, it may be helpful for parents to speak English or mixed languages at home so that they will better understand their children. On the other hand, if parents do not know English, they may be stressed by learning and using English as a primary language and they might want to maintain their children's knowledge of the language of the country of origin. Consequently, parents may need support learning and using English in comfortable environments such as their home. Furthermore, as previous studies examined (Gonzales, Deardorff, Formoso, Barr, & Barrera, 2006), parent-adolescent communication may promote the mental health among non U.S.-born adolescents. Therefore, it is meaningful to examine specific language brokering or bicultural gap in family to mental distress among non U.S.-born adolescents for future study using moderate and mediate analyses.

The findings of this study suggest that factors at the school and community levels are associated with mental distress for non U.S.-born adolescents. First, highlighted factors in the school environment or climate for immigrant adolescents are consistent with previous studies. These factors include perceived discrimination, relationship with or support from teachers, alienation from or being bullied by peers (Walsh, Harel-Fisch, & Fogel-Grinvald, 2010), school safety, and belonging and engagement (McNeely & Falci, 2004). The findings suggest that school level factors might have greater impact on mental health outcomes among non U.S.-born adolescents than

any other level factor. Also, this implies that teachers can improve non U.S.-born adolescents' mental health by paying attention to them. In addition, supporting building positive peer-relationships can reduce mental distress among foreign-born adolescents under less familiar school environments compared to U.S.-born counterparts. For future research, examinations of the association between acculturation and school supports or bullying should be conducted, and intervention research using relevant school services and programs will be meaningful for immigrant adolescents' mental health.

Second, better perceptions of neighborhood cohesion were associated with higher levels of mental distress for non U.S.-born adolescents in this study. This finding is consistent with previous studies that higher levels of neighborhood cohesion are associated with better mental health outcomes among immigrant adolescents because they might have better networks, supports, and resources in communities to cope with conditions that generate mental health problems (Curtis, Dooley, & Phipps, 2004; Leventhal & Brooks-Gunn, 2000). This study suggests that perceptions about neighborhood cohesion might be important for immigrant adolescents' mental health. Future studies on collaboration to promote mental health of immigrant adolescents among their families, schools, and communities as a part of a complex environmental system should be considered.

In spite of expanded knowledge and explanations about acculturation and environmental factors influencing the mental distress of non U.S.-born adolescents, the current study has several limitations to be acknowledged. First, the study sample is geographically limited to California. Also, combining all different ethnic groups into non U.S.-born adolescents can cause a generalized bias by ignoring differences among minorities. In future studies, the different ethnic groups within non U.S.-born adolescents should be examined. Second, the findings are based on cross-sectional survey data and therefore causal relationships cannot be tested. In addition, the findings of this study may not reflect up-to-date characteristics of immigrant youth due to use of 2011-2012 CHIS data. Thus, longitudinal data or intervention research

should be conducted to discover causes of mental disorders among immigrant adolescents. Lastly, because of secondary data analyses, this study has a limited ability to explain acculturation using proxy measures such as interview language, home language, and length of stay in the U.S. Considering the finding that about 50% of the sample stayed in the U.S. for more than 10 years, developmental factors of individuals such as self-esteem, school performance, and issues related to dating may influence mental distress of the youth. However, this study also was not able to include developmental factors due to use of secondary data.

In conclusion, based upon the findings, this study has enriched the existing body of knowledge and theory. Specifically, it explicitly highlighted language is an important acculturation indicator. Acculturation gaps in family may cause communication difficulties among family members and have a negative impact on mental health status of non U.S.-born adolescents. Also, this study provided insight into how support from school and neighborhood are important for non U.S.-born adolescents using the ecological model. Schools and communities may be the channels to help immigrant adolescents' acculturation process and ultimately to reduce their mental distress. Based on the findings and implications of this study, various service intervention studies should be conducted in the future and treatments to reduce the mental health problems of immigrant youth at the family, school, and community levels should be considered for practice.

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이민 청소년들의 심리적 피로감에 영향을 미치는 요인:

생태체계모델을 적용하여

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   본 연구는 미국내의 이민 청소년들의 정신 건강적 특징과 이민 경험을 파악하고, 이들의 심리적 피로감에 영향을 미치는 요인을 생태체계적 관점에서 분석하는 것이다. 캘리포니아 헬스 인터뷰 서베이(CHIS)로부터 미국에서 태어나지 않은 이민청소년 348명에 대한 데이터 정보를 분석에 사용하였다. 이민 청소년들의 심리적 피로감에 영향을 미칠 수 있는 개인 특성(나이, 성별, 인터뷰 언어, 미국 거주 기간), 가정(어른의 보살핌, 가정에서 사용하는 언어), 학교(학교에서의 지지, 또래 괴롭힘 유무), 그리고 지역사회 수준의 변수(이웃간 응집도)들을 위계적 다중 회귀모형을 통하여 분석하였다. 이민청소년들의 평균연령은 14.5세(표준편차 = 1.7)이고 여성이 53.4%를 차지하였다. 응답자들 가운데 31.6%가 인터뷰 언어로 영어가 아닌 다른 언어를 사용하였고, 72.7%가 집에서 영어를 사용하지 않는 것으로 나타났다. 또한 대상자의 거의 절반에 가까운 48.6%가 미국에서 10년이상 거주하는 것으로 보고하였고, Kessler 등(2004)이 제시한 기준을 적용하면, 약 2%의 이민 청소년들이 심리적 피로감 검사에서 점수 13점 이상의 심각한 심리적 피로감을 가지고 있는 것으로 나타났다. 인터뷰 언어로 영어가 아닌 다른 언어를 사용했을 경우, 집에서는 영어를 사용하는 경우, 학교에서 지지와 지원이 높은 수준일 경우, 또래 괴롭힘을 당한 경험이 없는 경우, 그리고 이웃간의 응집도가 높은 수준일 경우 이민청소년들은 심리적 피로감이 낮게 나타났다. 본 연구의 결과들은 이민청소년들의 정신건강에 영향을 미치는 사용 언어, 그리고 학교와 이웃관련 요인들을 다룬 선행 연구와 이론에 함의를 제공한다. 또한 학교와 지역사회의 실천현장에서 이민청소년의 새로운 환경에 대한 적응 과정에서 겪게 되는 심리적 피로감을 감소시키기 위한 효과적인 프로그램과 서비스 개발의 필요성 또한 강조한다.

주요 용어: 심리적 피로감, 이민청소년, 언어사용, 사회환경모형