

Life Satisfaction between Chinese-Immigrant Adolescents and Their Counterparts in the United States and China

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Abstract

The objective of this study was to compare the life satisfaction (LS) of Chinese-immigrant children in the United States (US) with their counterparts in America and China by using the Students' Life Satisfaction Scale (SLSS). The mean scores of SLSS were examined and compared among three groups. Multivariate linear regression analysis was conducted to identify the differences of LS among comparison groups after adjusting for other potential risk factors. Out of 161 children who completed the surveys, 47 (29%) were Chinese-immigrant children, 81 (50%) were native Chinese children, and 33 (20%) were non-immigrant US children. The results showed that Chinese-immigrant children had higher overall LS than native Chinese children (4.39 ± 0.83 vs 3.79 ± 0.81 ; $p = 0.0001$), but lower overall LS than non-immigrant children in the US (4.39 ± 0.83 vs 4.81 ± 0.69 ; $p = 0.0207$). Systematic investigation on larger populations will be necessary to identify the potential contributing factors.

Keywords

Life Satisfaction, Chinese-Immigrant Children, SLSS, Cross-Cultural

1. Introduction

The objective of this study was to compare the LS of Chinese-immigrant children in the US with their counterparts in America and China. The SLSS is a well-validated instrument to measure LS for children [1]. The psy-

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chometric characteristics of the instrument have been assessed, and their results have bolstered the use of the SLSS for children of ages eight and up [2].

It has been suggested that cross-cultural difference in LS depends upon valid LS measurements [3]. A previous study using the SLSS had a group of black and white children of grades three through five, in which the SLSS did not appear to have different psychometric properties due to racial differences [2].

The young adolescents with lower LS may be in danger of many psychological and social issues like depression, and those with higher LS are more likely to show resilience in the face of stressful incidents [4].

A unique factor that affects the attitude of many immigrant children is decreasing compatibility with their parents, and these acculturation discrepancies have had detrimental effects on Chinese-immigrant children [5]. Some Asian cultures, such as Chinese culture, place high values on firm parental control and education, whereas Western culture tends to focus on personal feelings and interests [6]. Furthermore, lower measures of endorsement of Chinese cultural beliefs typically cause lower LS, accompanied with higher levels of behavioral problems [7].

Primary domains that correspond to global LS vary among cultures as well: the most important domain for US students was satisfaction with the self, yet a robust correlate for LS among Korean students was satisfaction with school [8] [9]. It has shown in recent years that studies of children of Asian descent in the US are increasing; however, there has been no study conducted yet comparing the L.S. of Asian-American students to their counterparts in both the country they reside in and the country their parents grew up in. Therefore, an investigation of LS among Chinese-immigrant children and their counterparts in the US and China will yield information contributing to the promotion of healthy developments in youth.

2. Methods

2.1. Study Population

Chinese-immigrant children refer to students who were born in the US, but both parents were born and raised in China. Native Chinese children refer to those who were born, raised, and currently residing in China, whereas non-immigrant US children consists of White, Latino, and Africa-American students who have had at least two generations of their families born and raised in the US. We randomly selected the participants from the middle and high schools in China or USA, respectively. The socioeconomic status was not assessed due to the Institutional Review Board (IRB)'s restriction, but the schools selected were assumed to have children of similar social economic status (SES) because they were all public middle schools and high schools located near universities.

2.2. Procedure

This cross-sectional two-year study was conducted in Gainesville, Florida and Changsha, China from 2010-2012. Demographic data were collected to identify the factors related to students' LS. The study was approved by the IRB in the Alachua County School Board in Gainesville, Florida.

A well-established instrument, the SLSS was used to assess the life satisfaction among the study participants [1]. It is a seven item self-report scale for students of ages 8 - 18. The reliability and validity of the SLSS have been well evaluated. Results from the use of the SLSS have been correlated with other scales measuring the well-being of life [2]. Cronbach's alpha has been reported as 0.82 [10]. The scores are measured on a six-point system (1—strongly disagree, up to 6—strongly agree). **Table 1** lists all the items of the SLSS. Items 1, 2, and 4 in the SLSS were accompanied with a choice ranging from 1 being strongly disagree to 6 being strongly agree. For items 3 and 4, the scoring was flipped (1 being strongly agree and 6 being strongly disagree) due to the meaning of the question [1].

The process of translating the SLSS into Chinese included the following steps. First, the investigator translated it into Chinese. This person sent it to an outside translator who understands both English and Chinese, who

Table 1. Items of the SLSS [1].

Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7
My life is going well.	My life is just right.	I would like to change many things in my life.	I wish I had a different kind of life.	I have a good life.	I have what I want in life.	My life is better than most kids.

translated it back into English. This translation went back and forth several times until the back translation from Chinese to English was exactly the same as the original SLSS. Three Chinese psychometric experts evaluated and approved the final Chinese version of the SLSS.

All subjects were administered the consent form with a brief information sheet of demographic data attached with the SLSS. Only native Chinese children received the translated Chinese version of the SLSS.

2.3. Statistical Analysis

Categorical variables were compared using Chi-Square test and continuous variables were compared by using the student t-test. The Bonferroni correction adjusted p values to 0.025 to avoid inflation of Type I errors. Multivariate linear regression analysis was conducted to investigate the significant risk factors for LS after controlling for other covariates.

All statistical analyses were conducted using SAS 9.3 (Cary, NC). Significance level was set up at $p = 0.05$ unless otherwise stated.

3. Results

This study includes 161 students in the sixth through twelfth grades from various middle and high schools in both America and China. Total 47 students were Chinese-immigrant, 81 students were native Chinese, and 33 students were non-immigrant (American). Demographic characteristics of all groups are summarized in **Table 2**. The first year of studying non-immigrant children did not include stress levels on the demographic information sheet. Therefore, data was unavailable (**Table 2**).

Native Chinese children and Chinese-immigrant children differed most in the distribution of school grade ($p < 0.0001$) and number of siblings ($p < 0.0001$). This is because most participants for native Chinese students were in grade 9, whereas the most Chinese-immigrant children were over grade 9. Furthermore, due to China's one-child policy, approximately half of native Chinese children did not have siblings, which is greatly different from Chinese-immigrant children, who all but 5 had siblings ($p < 0.0001$). The third disparity between these two groups was stress from extracurricular activities (Mean \pm SD: 4.15 ± 2.92 vs 3.73 ± 3 , $p = 0.0320$). Chinese

Table 2. Baseline characteristics for study participants.

	Total (N = 161)	Native Chinese Children (N = 81)	Chinese-Immigrant Children in US (N = 47)	Non-Immigrant Children in US (N = 33)	p value*	p value**
Age, years old, mean \pm SD	14.48 \pm 1.55	14.75 \pm 1.42	14.98 \pm 1.67	13.12 \pm 0.65	0.4189	<0.0001
School Grade, N (%)						
Less than 9th grade	60 (37.3%)	16 (19.75%)	11 (23.40%)		<0.0001	<0.0001
9th grade	60 (37.3%)	50 (61.73%)	10 (21.28%)			
Over 9th grade	41 (25.4%)	15 (18.52%)	26 (55.32%)	33 (100%)		
Siblings, N (%)						
0 Siblings	49 (30.4%)	40 (49.38%)	5 (10.64%)	4 (12.1%)	<0.0001	0.001
0 < Siblings	112 (69.6%)	41 (50.62%)	42 (89.36%)	29 (87.9%)		
Parental involvement in Extracurr. Activities, Mean \pm SD	5.08 \pm 2.97	4.78 \pm 3.11	4.86 \pm 2.73	6.09 \pm 2.77	0.8939	0.053
Female Gender, N (%)	102 (63.4%)	49 (60.49%)	31 (65.96%)	22 (66.7%)	0.5382	0.947
Stress from school, Mean \pm SD	6.27 \pm 2.65	6.31 \pm 2.64	6.2 \pm 2.68	NA	0.8103	NA
Stress from Extracurr. Activities, Mean \pm SD	4.15 \pm 2.92	3.73 \pm 3	4.87 \pm 2.65	NA	0.0320	NA
Stress of parents' expectations, Mean \pm SD	5.86 \pm 2.9	5.89 \pm 2.99	5.82 \pm 2.77	NA	0.8964	NA

*Compares Chinese-immigrant children to native Chinese children. Significant p value = 0.025. **Compares Chinese-immigrant children to non-immigrant children in US. Significant p value = 0.025.

immigrant children in the US had a considerably higher overall perception of stress based on their extracurricular activities than that of native Chinese children. All other demographics were not significantly different. However, the demographics of Chinese-immigrant children differed much more from those of non-immigrant children in age (14.98 ± 1.67 vs 13.12 ± 0.65 , $p < 0.0001$), school grade ($p < 0.0001$), siblings (89.36% vs 87.9%, $p = 0.001$), and parental involvement in extracurricular activities (4.86 ± 2.73 vs 6.09 ± 2.77 , $p = 0.053$).

Higher mean scores of the SLSS are related to higher LS. Non-immigrant children had the highest LS scores with an average of 4.81 (SD = 0.69) out of a possible total score of 6 (see Figure 1). Chinese-immigrants reported an average of 4.39 (SD = 0.83), and native Chinese children reported an average of 3.79 (SD = 0.81). Overall, the data indicate that there are significant differences between natives and immigrants ($p = 0.0001$) and between immigrants and non-immigrants ($p = 0.0207$). No significant gender effects were shown except female natives versus female Chinese-immigrants, with immigrants having higher scores (mean \pm SD: 3.74 ± 0.82 vs 4.39 ± 0.85 , $p = 0.001$). Once again, the Bonferroni adjustment was applied to avoid inflation of Type I errors.

Figure 2 shows mean scores for each item of the seven items of the SLSS. The items from the SLSS in Table 1 were averaged with respect to immigrant status. Between natives and Chinese-immigrants, the greatest differences were with items 1, 3, 4, 5, and 7, whereas between Chinese-immigrants and non-immigrants, the greatest differences were with items 3, 4, and 6 (see Table 1). Therefore, compared to Chinese-immigrant children, native Chinese children were more likely to disagree with the statements, “My life is going well” (item 1), “I have a good life” (item 5), and “My life is better than most kids” (item 7), and more likely to agree with the statements, “I would like to change many things in my life” (item 3) and “I wish I had a different kind of life” (item 4). Between Chinese-immigrant children and non-immigrant children, Chinese-immigrant children were more likely to agree with the statements, “I would like to change many things in my life” (item 3) and “I wish I had a

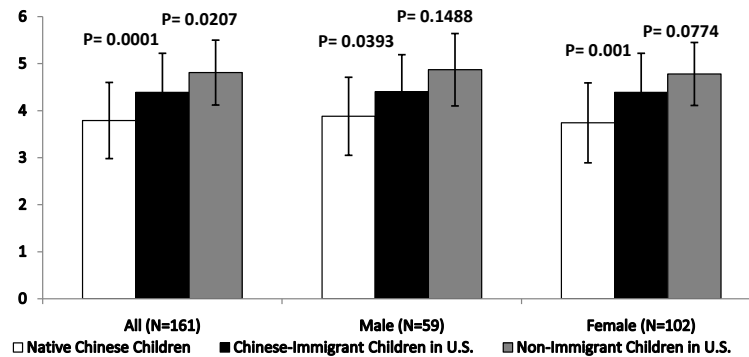


Figure 1. Mean Scores of SLSS Compared Among Native Chinese Children, Chinese-Immigrant Children, and Non-Immigrant Children. Bonferroni adjustment was applied. Significant p value = 0.025.

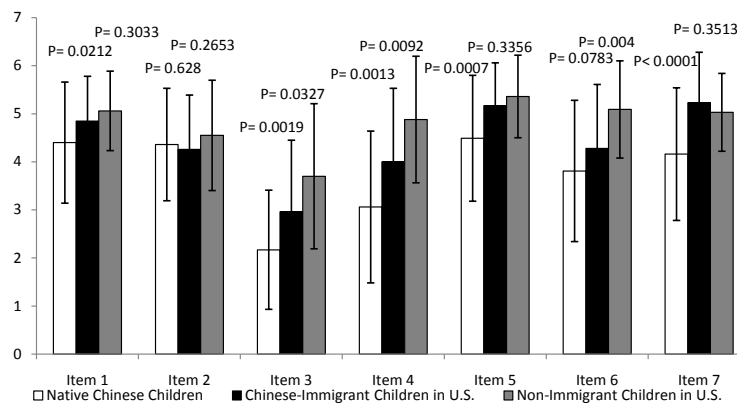


Figure 2. Mean Scores of 7 items in SLSS Compared Among Native Chinese Children, Chinese-Immigrant Children, and Non-Immigrant Children. Bonferroni adjustment was applied. Significant p value = 0.025.

different kind of life” (item 4), while being more likely to disagree with “I have what I want in life” (item 6).

Demographics with significant or borderline p values related to overall mean scores of SLSS include age, stress from extracurricular activities, and stress from parents’ expectations. A multivariate linear regression analysis was conducted to investigate the relationship between students’ life satisfaction and demographics with respect to immigrant status (see **Table 3**). Out of the potential factors predicting LS, immigrant status had the most significant relationship with life satisfaction (Immigrants vs natives: $\beta = 0.80$, $p < 0.0001$. Immigrants vs non-immigrants: $\beta = -0.42$, $p = 0.0125$). With respect to age (school grade), the regression reported that as adolescents entered high school, their life satisfaction was more likely to increase, as well as throughout high school. Gender and stress from extracurricular activities were insignificant factors in predicting LS. Parental involvement in extracurricular activities was found to be borderline significant (Immigrants vs non-immigrants: $\beta = 0.06$, $p = 0.0547$), suggesting that more parental involvement in extracurricular activities was likely to boost LS.

4. Discussion

Our results indicate that several demographic and personal variables were significantly associated with LS scores, which is consistent with findings of previous studies [11]. Research has also shown that demographics moderately predict youth LS through the use of the SLSS and the MSLSS, and another study reported that demographics significantly correlated with youth LS [1] [12] [13].

Furthermore, parenting style and adolescent LS have relationships that are similar in China and in Chinese families in the West [14]. From the current study, Chinese-immigrant children and native Chinese children perceive similar stress levels from their parents’ expectations.

In our multivariate analysis, age (school grade) significantly associates with the LS score. Children’s self-evaluation and viewpoints about the environment vary with age because of changes in cognitive competence and developmental proficiencies [15]. For instance, adolescents concentrate mostly on internal facets of the self, including attitudes and morality, while preadolescents tend to concentrate on actual behaviors in self-concept judgments [16]. Additionally, as children age, their self-perceptions change as well; the value they put on their parents lessens whereas the significance of their peers increases [17] [18]. Thus, their self-assessments generally decrease in early to middle childhood and increase as they approach adulthood, as observed with students from varied cultures. A previous study with high school students from Hong Kong found that higher levels of perceived LS came from younger students [19]. Proposed suggestions say that these transformations could be from the change in children’s optimistic self-perceptions to more realistic ones [20].

LS is the cognitive component of subject well-being as well as a personal evaluation of the quality of an

Table 3. Multivariate linear regression analysis for mean scores of SLSS.

Chinese Immigrants vs Native Chinese Children			
Effects	β Estimate	Standard Error	p value
Chinese Immigrants vs Native Chinese	0.80	0.16	<0.0001
Grade ≤ 9 vs Grade >9	0.32	0.21	0.0589
Gender, Male vs Female	0.06	0.15	0.7018
Parent Involvement in Extracurricular Activities	0.04	0.02	0.1512
Stress from extracurricular activities	-0.04	0.03	0.0946
R Square for the model		0.19	
Chinese-immigrants vs Non-Immigrant Children in US			
Chinese Immigrants vs Non Immigrants	-0.42	0.16	0.0125
Grade ≥ 8 vs Grade <8	0.31	0.19	0.1121
Parental Involvement in Extracurricular Activities	0.06	0.03	0.0547
R Square for the model		0.16	

individual's life [21]. Self-esteem, another psychological construct, is also related to LS, with various connections found between them [10]. A strong predictor for LS includes contentment with family, while academic capability is strongly associated with self-esteem [22]. Disparity in LS is not typically found between genders, which has shown in our study as well [9].

In this study, natives had a lower level of stress in extracurricular activities, which suggests the further investigation on whether it correlates with the lower amount of extracurricular activities and higher stress of school work.

Our study found that Chinese-immigrant children had higher overall LS than native Chinese children, but lower overall LS than non-immigrant children in the US. Although no similar work has been performed, many theoretical supports have been reported by the social scientists. A previous study in the US suggested that discrimination encouraged pressure to acculturate as well as lower LS [23]. Similar findings were reported among studies in Finland, Portugal and France, Israel, and with adults [24]-[27].

Chinese culture accentuates filial piety, moderation, harmony, and conformity [9]. These values may not comply with aspects of Western culture, which is more centered on personal satisfaction and feelings [8]. The pull of children to be Chinese at home and American at school may develop stress as age increases. In China, stress from society and family on academic success comes to its highest point in high school due to the national college entrance exam, which ultimately decides which college the adolescents will attend and which career they will have for the rest of their lives [28]. In Korean students, the variable of school satisfaction to overall well-being decreased, which may result in stress in middle school children, potentially leading to depression or suicide [9]. Therefore, Chinese educators, parents, and health professionals could examine the structure of education and account for the pressure it creates for the youth.

Overall, our study suggests the different satisfactions among native Chinese adolescents, Chinese-immigrant adolescents, and American adolescents. Culture may be an important risk factor. Therefore, further investigation on culture (e.g. measures of acculturation) and more demographic characteristics (e.g. health issues, parental marital status) are needed for verification of the current findings and identification of the risk factors for the disparity in LS among the three groups. To eventually improve LS among these three groups and other adolescents, future studies on how adolescents among these three groups perceive themselves and how they perceive others should be more carefully investigated to compare with their LS and current findings.

Stress levels did not significantly associate with LS in this study due to its small sample size and power deficiency. Furthermore, stress levels were not attained for non-immigrant children.

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Jessica J. Lee initiated the research question, distributed the survey, collected the data, conducted data analysis, and wrote the article. Dr. Carole Kimberlin designed the study, guided Jessica's work, and edited the article.

Conflict of Interest

The authors have no relevant or material financial interests that relate to the research described in this paper.

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