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Examining the Academic Achievement-Delinquency Relationship Among Southeast Asian-Americans

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Abstract

The extent to which poor academic achievement is strongly related to delinquency among Southeast Asian Americans (SEAA) remains unclear; reasons are methodological limitations and aggregated findings for Asian Americans, which mask evidence that SEAA have a higher prevalence of criminality and poor academic performance than other Asian American groups. The present study examines the academic achievement - delinquency relationship in a diverse group of 1,214 SEAA using data from Children of Immigrants Longitudinal Study (CILS). Propensity score matching (PSM) was used to make causal inferences and assess whether poor academic achieving SEAA, after being matched with higher academic achieving SEAA, displayed a higher prevalence of delinquency. Findings showed that, even after matching, poor academic achieving SEAA were still more likely to exhibit delinquent behavior than those who performed academically better. Interventions targeting SEAA communities will need to focus more on improving academic achievement to directly prevent and decrease delinquent behavior.

 *Keywords:* delinquency; propensity score matching; longitudinal design; Southeast Asian American; academic achievement

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**Introduction**

Poor academic achievement is known to be strongly linked to delinquency. Studies investigating this relationship have generally found that a low grade point average (GPA) or self-reported grades are indicative of delinquent behavior (Hoffmann, Erickson, & Spence, 2013). In a meta-analysis summarizing the overall strength of this relationship, Maguin and Loeber (1996) found that the odds of delinquency were 2.1 times higher for those with low academic achievement than for those with high academic achievement. In addition, poor academic achievement was also related to the prevalence, onset, escalation, and seriousness of delinquency. This *school to prison pipeline* phenomenon (Sander, Patall, Amoscato, Fisher, & Funk, 2012) is considered a pressing issue, as youth antisocial behaviour produces substantial costs in accessing health, mental health, child welfare, and special education (de Ruiter & Augimeri, 2012).

**The Model Minority Assumption**

The relationship between academic achievement and delinquency may be more pertinent to certain ethnic groups. Specifically, disparities in academic achievement may exist, which suggest that some groups may be at more risk for delinquent involvement than others. One particular group is Southeast Asian Americans (SEAA). Discourse on academic achievement and delinquency among SEAA is limited, and this is because of positive aggregated findings for Asian Americans (Johnson & Betsinger, 2009): Considered the model minority, Asian Americans are assumed to be academically, economically, and socially more successful than other American racial minority groups (Yoo, Burrola, & Steger, 2010). Research corroborates this assumption, showing that Asian Americans have relatively higher average educational attainment, lower rates of poverty and unemployment, and lower representation in crime statistics (Reeves & Bennett, 2004). This creates the veneer that all Asian Americans acquire upward social mobility, increasing wealth, and immunity from crime and mental health problems (Wong & Halgin, 2006). These observations promote the false notion that accessible meritocracy exists for all (Ng, Lee, & Pak, 2007).

Research has shown that differences between Asian American subgroups do exist. Once the category of “Asian American” is disaggregated into sub-ethnic groups, major differences in behavioral outcomes and academic achievement are apparent (Le, Golnoush, & Stockdale, 2005). Compared to East Asian American groups, SEAA have higher rates of arrest, delinquency, and violence, and in some contexts, these rates are higher than other racial groups (Goebert, Le, & Sugimoto-Matsuda, 2013; Le, 2002). SEAA are overrepresented in violence statistics (Chong et al., 2009) and have noticeable gang involvement (Huang & Ida, 2004; Reyes, 2007). Ho (2008), for example, found that over 77% of SEAA youth in her sample had witnessed at least one incident of serious violence. This was significantly higher than that experienced by other racial groups (White [34%], Hispanic [57%], Black [50%]). Research findings direct to two reasons for the overrepresentation of violence and delinquency among SEAA: (1) the breakdown of family and social networks due to war and (2) the resettlement of these SEAA families to inner-city impoverished communities (Chong et al., 2009).

According to segmented assimilation theory (Portes & Zhou, 1993), numerous routes to assimilate into American society exist and are dependent on the reception and context in which immigrant groups arrive, as well as access to human capital and resources; these factors will result in either upward or downward assimilation (Rumbaut & Portes, 2001). Downward assimilation occurs if immigrant youth are exposed to and influenced by their neighborhood risks such as gang membership and dropping out of school (Portes, Fernández-Kelly, & Haller, 2005). One outcome of downward assimilation is that youth may become criminally involved.

 As SEAA tend to be socioeconomically disadvantaged with lower human capital compared to East and South Asian groups (Zhou & Xiong, 2005), they are likely to settle in areas that increase risk for downward assimilation. This would be no surprise because compared to 11.3% of the US population, between 12 to 27% of SEAA groups live below the poverty level (Southeast Asia Resource Center, 2013). Consequently, academic achievement may be considered an important opportunity for upward social mobility and assimilation. SEAA, however, have a lower prevalence of high school, college, and postgraduate degrees compared to other Asian American groups (Kula & Paik, 2016).

Many Southeast Asian Americans never finish high school, and in certain SEAA groups, these rates are comparable, if not lower, than other racial minority groups (Yoo et al., 2010). Although evidence has shown that Vietnamese Americans excel academically (Kim, 2002), a visible portion do poorly. Nationally, over half of Vietnamese-Americans do not attend university, and over 50% have limited English proficiency compared to 8.7% of the US population (Southeast Asia Resource Action Center, 2013). In California, for example, between 40 to 45% of Hmong, Cambodian, and Laotian populations have less than a high school education (Chang et al., 2010).

Explanations as to why poorer academic achievement and higher criminal outcomes exist among this group primarily focus on Vietnamese, Cambodian, and Lao Americans (Xiong, Rettig, & Tuicomepee, 2008), and highlight that this population arrived as refugees because of war and displacement (Ngo & Le, 2007). Subsequent generations of this group may be adversely affected by these circumstances, especially the second-generation, who are able to adapt to the host culture faster than the first-generation, increasing risks for intergenerational conflict between parent and child (Le & Stockdale, 2008) and criminality (Hagan, Levi, & Dinovitzer, 2008). It is worth mentioning that Filipino Americans, who are also categorized as SEAA, have similar noticeability in criminal outcomes, but have received less scholarly interest (Le, 2002). This is possibly because their immigration history is different to recent SEAA, as they have the longest history of contact with America (Bankston & Hidalgo, 2006), so they cannot be easily grouped alongside Vietnamese, Mien, Hmong, Cambodian, and Lao Americans who share similar immigration histories with each other.

**Current Knowledge**

Several studies have contributed to knowledge on academic achievement and delinquency for SEAA, but do not test this relationship directly: In a sample of 329 SEAA (Mien, Laotian, Cambodian, and Vietnamese) and Chinese Americans, Le and colleagues (2005) found that Chinese Americans had the lowest prevalence of delinquency compared to SEAA subgroups; peer delinquency was the strongest predictor for delinquency across all groups, as well as school attachment, but not parental factors. Chang and Le (2005) used the same data and found that school attitudes were directly related to academic achievement for all groups, in that positive school behaviors and educational aspirations were related to higher GPA. Parental factors, however, were weak explanations for academic achievement, which were unexpected for Chinese and Vietnamese groups. This finding suggests that issues specific to this group, such as intergenerational conflict, may render common operational definitions for parental factors inapplicable. Despite similar immigration histories, Kim (2002) found that differences in structural factors, such as type of school and parents’ community ties and class background, accounted for differences in academic achievement among Vietnamese and Cambodian Americans.

Only one study, however, has found that poor academic achievement was strongly related to delinquency among a sample of 206 Hmong youth residing in Minnesota (Xiong & Huang, 2011). The study explored eleven factors thought to be related to delinquency; poor academic achievement, as measured by self-reported GPA, as well as antisocial attitudes and low maternal monitoring were three factors that were most related to Hmong youth’s delinquency. As this study was cross-sectional, temporal ordering and causal inferences were unable to be established.

**Is Academic-Achievement and Delinquency a Causal Relationship?**

The primary limitation of findings linking poor academic achievement to delinquency is that this relationship may be spurious (Felson & Staff, 2006): Theories suggest that the relationship is merely the product of a similar underlying cause and empirical studies often use cross-sectional designs that are unable to determine the direction of this relationship.

The use of longitudinal studies has helped to clarify the direction of this relationship, by establishing that poor academic achievement precedes and predicts delinquency as well as other criminal outcomes such as police arrests (Hoffmann et al., 2013; Yun, Cheong, & Walsh, 2014). Whether poor academic achievement may be a cause of delinquency is uncertain. For example, Felson and Staff (2006) concluded that there was no causal relationship between academic acheivement and delinquency among a nationally representative American sample of 14,282 students over three waves (grades eight, ten, and twelve) using a lagged regression analysis. They concluded that the apparent association was attributed to individual differences in self-control. Lee (2012), however, investigated the direction of poor academic achievement in relation to delinquency among a sample of 3,449 South Korean adolescents over four waves of data collection (grades eight to eleven). In addition to repeated measures, her research also included lagged regression analysis. Unlike Western findings, where it was possible that delinquency could predict poor academic achievement, Lee found that poor academic achievement could only be a predictor for delinquency. Using similar methods, Defoe, Farrington, and Loeber (2013) found that low academic achievement had the most direct influence on delinquency compared to hyperactivity and low socio-economic status over five waves (ages 11 to 15) of data from a sample of 503 American boys living in the city of Pittsburgh. Studying causality is important because it helps to identify what factors, when changed, may directly influence changes in levels of delinquency (Murray, Farrington, & Eisner, 2009).

**Present Study**

Despite links and implications made between poor academic achievement and delinquency among SEAA, the literature has omitted a critical detail – the strength of this relationship. The present study examines the academic achievement - delinquency relationship among Southeast Asian American youth (SEAA). Instead of lagged regression analysis, the study uses propensity score matching (PSM) (Rosenbaum & Rubin, 1983) to investigate the impact of poor academic achievement on physical fighting, one type of delinquent behavior that may lead to more serious violence. PSM is used because it controls for selection effects and it allows for causal inferences, which makes it a stronger method than regression in establishing the strength of relationship (Loughran, Wilson, Nagin, & Piquero, 2015). It is a statistical method that simulates a quasi-experimental design and uses a number of covariates to balance pre-existing differences between two groups; in this case, the two groups would be SEAA with poor academic achievement and SEAA with high academic achievement.

Covariates are used to create a propensity score, which is the probability that the individual will experience one condition, or “treatment”, rather than the other (Jolliffe & Hedderman, 2015) (i.e., poor rather than high academic achievement), based on information gathered from covariates. Individuals in one condition are matched on these propensity scores with individuals in the other condition. As individuals in both conditions are similar in scores, any differences will likely be attributed to differences in academic achievement. In addition, through the use of sensitivity analysis (Rosenbaum, 2002), researchers are able to test if their results are sensitive to “hidden” biases. This is an important feature because it is impossible to control for every influential factor on delinquency. SEAA youth are of interest because, once data on Asian Americans are disaggregated, poor academic achievement and levels of delinquency are relatively higher for SEAA, yet, gaps in the literature have not been addressed.

**Methods**

**Sample**

The study uses data from the Children of Immigrants Longitudinal Study (CILS) (Portes & Rumbaut, 2008). The purpose of the CILS was to gather information about characteristics and adaptation of first and second generation youth located in Miami / Ft. Lauderdale in Florida or in San Diego, California. The study initially interviewed over 5,000 children in 1992 and 1993 when they were, on average, 14 years old. The children were followed up in two more waves: In 1995 and 1996 when they were about 17 years old, and between 2001 and 2003 when they were approximately 24 years old. The present study will only use the first two waves of the CILS, because the measures of interest were collected at those times.

 The sample is further restricted to San Diego, California for two reasons: First, previous research had noted that the “contexts of reception” (Portes & Rumbaut, 2006) needed to be identified in order to understand adaptation among immigrants and their children (see also DiPietro & Bursik, 2012). Second, California has the largest percentage of SEAA, in which about 39% of its entire population reside (Niedzwiecki & Duong, 2004). The first interview of the CILS showed that approximately 99% of the SEAA sample resided in San Diego. The SEAA sample (n = 1,214) composed of the following ethnic groups: 683 Filipino, 272 Vietnamese, 134 Laotian, 81 Cambodian, and 44 Hmong; each subgroup had about equal numbers of males and females (male prevalence range: 49.78% – 52.27%).

**Measures**

Table 1 shows descriptive information of the study variables and covariates, including mean and standard deviation for scale variables, as well as prevalence and frequency for dichotomous variables.

**Outcome variable***.* Delinquent behaviorwas a dichotomous measure of physical fighting from Wave 2 coded those who self-reported never getting into a physical fight at school in the past year as “0” and those who had, one or more times, as “1”.

**Independent variable**. Poor academic achievement was measured by respondents’ grade point average (GPA) in Wave 1. As the treatment variable needed to be dichotomous in PSM, the quartile with the lowest grades were coded “1” to represent poor academic achievement, whereas the remainder was coded “0” to represent higher academic achievement.[[1]](#endnote-1) Those coded “1” had GPAs of 2.5 or lower. Previous research suggested that self-reports of grades were vulnerable to bias, particularly among low achievers and delinquent youth (Hoffmann et al., 2013). Schools, however, provided academic grades for the CILS (Portes & Hao, 2004).

**Propensity score covariates.** The propensity score was developed from 17 background characteristics from Wave 1. These characteristics were from the literature on factors related to either poor academic achievement and / or delinquency among Asian Americans.

***Assimilation*.** Previous research has shown that immigrants from second and subsequent generations are more criminally involved than those from first generation (Hagan et al., 2008). *Second-generation* is a dichotomous measure in which those who identified as being born in the US and having at least one immigrant parent were coded “1”; those who were not, were coded “0”. Those who are more assimilated to the host culture also tend to have a better grasp of the host language (Portes & Zhou, 1993). A four-item measure of *English proficiency* (α = 0.93) was included as a proxy for assimilation, and measured how well respondents write, read, understand, and speak English.

***Family background***. Four measures that represented family circumstances and human capital (DiPietro & Bursik, 2012), which could affect youths’ risk for downward assimilation, were included: *SES* is an index of parents’ socioeconomic status; *biological parents* is a dichotomous measure in which respondents who were coded “1” lived with both biological parents as opposed to another type of household; *family size* was a continuous measure of how many people lived in the same house as the respondent; *political reason* is specific to SEAA, as many arrived as war refugees, and this has shown to affect parent-child relationships and violence risk (Spencer & Le, 2006). This was a dichotomous measure indicating whether at least one parent came to the US because of political reasons.

***Intergenerational conflict*.** Two prior measures of intergenerational conflict are used (Zhou, 2001): *Acculturative dissonance* and *split US ways*. Acculturative dissonance refers to the phenomenon where cultural and generational differences aggravate family conflict. It has been shown to be related to less parental control and poor parent-child bonds (Le, Goebert, & Wallen, 2009). Acculturative dissonance*[[2]](#endnote-2)* is a dichotomous measure derived from four items. Respondents must indicate that they are embarrassed by their parents’ ways *and* they must also either indicate that (1) they often get in trouble because their ways are different from that of their parents, (2) they don’t think their parents like them very much, or (3) their parents are usually uninterested in what they say. Respondents who are positive in item 1 and one of the items from 2 to 4 are coded as “1”, meaning that they experience acculturative dissonance. *Split US ways* refers to respondents who often prefer American ways whereas their parents do not. This dichotomous measure was derived from two items asking respondents how often they, as well as their parents, prefer American ways.

***School*.** Through school, children of immigrants are exposed to American culture and learn their social and cultural role in this society (Peguero, 2009). Inner-city schools and decreased educational aspirations are related to increased risk for downward assimilation (Xie & Greenman, 2011). Peers networks have been shown to relate to delinquency, because those who associate with delinquent peers are likely to be delinquent themselves (Kim & Goto, 2000); further, peers have strong influences on an adolescent’s attitudes and beliefs, especially if SEAA experience intergenerational conflicts and adjustment problems at school (Le et al., 2005). Information on type of school attended is used to measure whether respondent went to an *inner-city* *school* (coded “1”) or suburban school. *Low educational aspirations* is a 5-point scale in which higher scores are given to those who responded that the most education they wanted to achieve was less than high school, whereas the lower scores are given to those who indicated they wanted to finish a graduate degree. *Peer networks* is a continuous measure asking respondents how many close friends they have in school.

***Discrimination*.** Discrimination is considered the single most important predictor for psychological and sociocultural adaptation among immigrant youth (Berry, Phinney, Sam, & Vedder, 2006). A review of 62 empirical studies on the relationship between racial discrimination and poor health among Asian Americans found that most of these studies showed evidence of a positive relationship between the two factors (Gee, Ro, Shariff-Marco, & Chae, 2009). Racism, in particular, has been shown to promote gang involvement among youth of color (Huang & Ida, 2004). *Past experience* of discrimination was adichotomous measure that asked respondents whether they had ever felt discriminated against (“1” = yes).

***Negative attitudes*.** In understanding the formation of Vietnamese- American youth gangs, alienation stemming from racism and a pervasive alienated status increased risk for gang affiliation and a gang lifestyle (Hong, 2010). The significance of these factors is that they may lead to negative attitudes toward the host culture. Longitudinal studies of persistent offending have shown that anti-establishment attitudes were significant predictors (Farrington & Hawkins, 1991; Farrington, Ttofi, & Coid, 2009). Respondents were asked to what extent they agreed with the following three measures: *Superior to foreigners*, which referred to the statement,“Americans generally feel superior to foreigners”, *Weakens family,* which referred to“The American way of life weakens the family”, and *unequal economic opportunities*, which referred to“Non-whites have as many opportunities to get ahead economically as white in the US”. The scales ranged from 1 (disagrees a lot) to 4 (agrees a lot).

***Demographics*.** Measures of each respondent’s gender and age were also included. *Male* indicated whether respondent was male and *age* was a continuous variable measured in years.

**Analysis Plan**

 Assessing the effect of poor academic achievement on delinquent behavior with PSM requires four steps (Barnes, Beaver, & Miller, 2010): First, t-tests were conducted to determine any statistically significant differences in covariates between SEAA who had poor and higher academic achievement. In addition, standardized biases for each covariate were also noted. The use of t-tests and standardized biases help to evaluate matching quality. If matching was done properly, standardized bias should fall below an absolute value of 20 and no statistical significance should exist for the t-tests. Second, estimations of the likelihood that each respondent would have poor academic achievement were derived from a logit model, in which the independent variable (academic achievement) became the outcome and covariates became predictors. From this model, each respondent’s propensity score was created.

To balance the covariates so that PSM was done correctly, one-to-one nearest-neighbor matching was used. Advantages to this type of matching are decreases in potential bias and increases in variance (Jolliffe & Hedderman, 2015). A caliper of 0.05 was also chosen to increase chances of excluding bad matches while accurately identifying good ones. Once matched, the sample resembled an experimental design in that half of the sample was considered “treated” (poor academic achievement) whereas the other half was considered the control (higher academic achievement). Third, t-tests were conducted again between the two groups in the matched sample. If balancing on covariates was achieved, all previous statistically significant t-test findings disappear and the standardized biases fall below 20. Fourth, an odds ratio (OR) was obtained from the matched sample to evaluate the effect of poor academic achievement on fighting. As both independent and outcome variables were dichotomous, the OR provided the strength of relationship between poor academic achievement and delinquent behavior.

**Results**

 Prior to matching, SEAA with poor academic achievement (AA) had nearly triple the odds of engaging in delinquent behavior than SEAA with higher AA (OR= 2.98, 95% CI= 2.14 – 4.13, p < .001 [see Figure 1]). Significant differences in covariates also existed between the two AA conditions: the left side of Table 2 shows that SEAA with poor AA had significantly lower SES, more close friends at school, lower prevalence of parent-child split ways, and higher educational aspirations than SEAA with higher AA. There was also significantly more males (OR = 3.26, 95% CI= 2.48 – 4.29) and the group was slightly older, on average. Standardized biases of each covariate for the unmatched sample were high, ranging from -15.7 to 59.4; the overall standardized bias was 77.6 .

 After the second step, in which SEAA with poor AA were matched with SEAA with high AA based on similar probabilities (propensity score) of obtaining a GPA of 2.5 or lower, all unmatched respondents were removed from the sample. The matched sample composed of 302 SEAA with poor AA and 302 SEAA with high AA.

 To ensure the matching was of quality, t-tests were conducted on each of the covariates for the matched sample. Results are on the right side of Table 2, and they show that previous significant differences were rendered non-significant post-matching. In addition, standardized biases were substantially reduced so that the overall bias was 14.4, below the suggested 20.

 After matching, there was still a significant difference in odds of fighting between AA groups (OR = 1.86, 95% CI = 1.25 – 2.77, p = 0.002). Figure 1 shows the prevalence between the two groups before and after matching. Pre-matching prevalence showed that more than double of those with low AA engaged in fighting compared to those with higher AA (10.6% vs. 26.3%). Post-matching, however, showed that, despite accounting for selection biases and eliminating pre-existing differences between the groups, SEAA with poor AA still had a higher prevalence of fighting, which was by 10%.

 As the relationship between poor AA and delinquent behavior was still significant after PSM, sensitivity analyses were needed to determine the extent to which “hidden biases” may affect the results (Loughran et al. 2015). Hidden biases refer to unobserved variables that were not in the model, but may still influence the results. If such biases exist, that would mean the study’s findings were a reflection of this. One sensitivity analysis used to estimate the level of hidden bias is the gamma statistic or Rosenbaum’s bounds method ( Γ ) (Rosenbaum, 2002). The Γ value refers to the degree to which an uncontrolled variable would need to increase its odds on the outcome (i.e., delinquency) to render the poor AA-delinquency relationship non-significant (Barnes et al., 2010); a Γ value close to 1.0 may indicate that the study is sensitive to hidden bias. Through the statistical program, STATA, the obtained Γ value was 1.4, in which the critical p-value was < 0.06, meaning that an uncontrolled variable would need to increase its odds by 1.4 on poor AA to reduce the difference between poor and higher AA on delinquent behavior to non-significance.

**Discussion**

 In this study, the AA-delinquency relationship is examined among a diverse group of SEAA. This is the first study to examine the AA-delinquency relationship among SEAA using a longitudinal design and analysis that allows for causal inferences. This seems surprising given the strong emphasis on education as a tool for upward social mobility among SEAA (Duong, Badaly, Liu, Schwartz, & Mccarty, 2016), who have the lowest educational outcomes and highest delinquent involvement compared to other Asian American groups (Niedzwiecki & Duong, 2004). Assumptions of the model minority, however, may have warranted no further investigation into this relationship, because educational successes of Asian Americans could be misinterpreted as no problems among this group (Choi, 2007). The current study contributed to knowledge on the AA-delinquency relationship by investigating it in a diverse sample of SEAA using PSM and a longitudinal design, in which factors specific to SEAA were considered.

 Results are categorized into two findings: first, poor AA not only strongly predicted physical fighting for SEAA, it continued to do so even after selection effects were removed. This seems to be a strong relationship, and may indicate that poor AA is a cause of delinquent behavior. Establishing causality, however, will need future research that use longitudinal studies consisting of repeated measures. Prior studies have urged interventions to consider specific cultural and contextual factors for SEAA (e.g., Lai, 2008; Spencer & Le, 2006). Although these factors are important, findings from this study suggest that interventions targeting SEAA communities will need to focus more on improving academic achievement to prevent and decrease delinquency.

Second, through the use of the PSM technique, a couple of background characteristics were related to poor AA: Having low educational aspirations and being male. These characteristics are important because if these risks for poor AA are identified early, they may improve AA and, in turn, prevent future delinquency. The major limitation of this finding, however, is that these background characteristics were measured at the same time as the outcome. Thus, these characteristics may be mere correlates for poor AA. Low educational aspirations may be strongly related to poor AA among SEAA because of parental influences. For example, SEAA parents’ educational aspirations for their children seem to impact children’s educational aspirations (Chang & Le, 2005; Portes & Hao, 2004), and this has been shown to positively affect the child’s self-reported school grades (Sue & Okazaki, 1990). A reason for high educational aspirations from parent and child is the belief that it would help them overcome racism (Tran & Birman, 2010). In preventing youth violence and high-risk behaviors among Asian American and Pacific Islanders communities, Huang and Ida (2004) recommended that communities target school risk factors for youth violence, particularly the disconnection between families and school. Strong parent-school collaborations can help students feel more bonded to school and increase academic success and lower risks for violence.

Although it would be difficult to reduce the effect of being male, the context in which this characteristic is significantly related to poor AA should be considered: Prior studies have suggested that there is a “female advantage” in academic achievement among immigrants (Duong et al., 2016; Portes & Hao, 2004). Thus, the association between being male and poor AA may reflect the broader context where females from recent immigrant backgrounds outperform their male counterparts, and this may be the result of changing gender roles and differences in the way females and males are treated by their parents (Feliciano, 2012). The prevalence of second-generation immigrants in this study, however, was low compared to the prevalence of first-generation immigrants (37% vs. 63%). The significant relationship between being male and poor AA may mean that this “female advantage” may also be generalizable to first-generation immigrants.

Of course, results of this research should be interpreted with caution, particularly as the sensitivity test showed that the results may be sensitive to “hidden” biases. One limitation is the measure of delinquent behavior. This measure did not fully capture delinquency, as it was one-item. Criminal outcomes were not foremost priority for the CILS, as it was more focused on understanding adaptation among children of immigrants in the US. The data, however, is rich in information specific to immigrant groups such as SEAA, something that is lacking in current criminological data (Bersani, Loughran, & Piquero, 2014). Another limitation is the time span of data used for this study. Some may believe that these findings are irrelevant to the present, because they were based on information gathered over 20 years ago. Immigration, however, is increasing. Present day concerns include mass immigration and the successful adaptation of immigrant and refugee groups to the host country. Study of previous groups that underwent similar experiences will contribute to policies that effectively enhance integration and well-being among contemporary refugee and immigrant communities. Future studies will need to replicate this study’s findings using repeated measures and a robust measure of delinquency to establish whether poor academic achievement is causally related.

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|  |  |  |
| --- | --- | --- |
| Variables | M (SD) / % (n) | Range  |
| *Outcome* |  | Min  | Max |
| Delinquent behavior | 14.74 (179) |  |  |
| *Key independent / treatment* |  |  |  |
| Poor academic achievement | 26.03 (316) |  |  |
| *Demographics* |  |  |  |
| Male | 49.01 (595) |  |  |
| Age | 14.22 (0.86) | 12  | 15 |
| *Assimilation* |  |  |  |
| Second-generation | 36.66 (445) |  |  |
| English Proficiency | 14.61 (2.05)  | 4  | 16 |
| *Family background* |  |  |  |
| SES | -0.10 (0.80) | -1.66  | 1.85 |
| Biological parents | 79.08 (960) |  |  |
| Family size | 4.98 (2.02) | 1  | 15 |
| Political reason | 18.70 (227) |  |  |
| *Intergenerational conflict*  |  |  |  |
| Acculturative dissonance | 11.70 (142) |  |  |
| Split US ways | 23.81 (289) |  |  |
| *School* |  |  |  |
| Inner-city school | 30.15 (366) |  |  |
| Peer networks | 14.46 (18.80) | 0  | 98 |
| Educational aspirations | 1.49 (0.81) | 1  | 5 |
| *Discrimination* |  |  |  |
| Past experience | 65.49 (795) |  |  |
| *Negative attitudes of US* |  |  |  |
| Weakens family | 2.35 (0.88) | 1  | 4 |
| Superior to foreigners | 2.90 (0.89) | 1  | 4 |
| Unequal economic opportunities | 2.42 (1.01) | 1  | 4 |
| Note: % and n indicates dichotomous variables and number prevalent is given instead; no range for dichotomous variables as scores are either 0 or 1 |

Table 1. Description of study variables for total sample (n = 1,214)

|  |  |  |
| --- | --- | --- |
|  | Unmatched | Matched |
|  | Poor AA (n = 316)M (SD) / % | Higher AA (n = 898)M (SD) / % | t – score / OR | % bias | Poor AA (n = 302)M (SD) / % | Higher AA (n = 302)M(SD) / % | t – score / OR | % bias |
| Male | 69.94 | 41.65 |  3.26 \*\*\* | 59.4 | 68.54 | 68.54 | 1.00 | 0.0 |
| Age | 14.34 (0.91) | 14.17 (0.84) | 3.06 \*\* | 19.6 | 14.33 (0.91) | 14.32 (0.87) | -0.14 | 1.1 |
| Second - generation | 36.08 | 36.86 | 0.97 | -1.6 | 36.42 | 35.76 | 1.03 | 1.4 |
| English Proficiency | 14.43 (2.14) | 14.67 (2.02) | -1.81 | -11.7 | 14.44 (2.14) | 14.49 (2.04) | -0.33 | -2.7 |
| SES | -0.18 (0.78) | -0.07 (0.80) | -2.14 \* | -14.1 | -0.17 (0.78) | -0.20 (0.84) | 0.45 | 3.8 |
| Biological parents | 78.48 | 79.29 | 0.95 | -2.0 | 79.14 | 78.48 | 1.04 | 1.6 |
| Family size | 5.09 (2.08) | 4.93 (2.00) | 1.21 | 7.8 | 5.08 (2.09) | 5.17 (2.13) | -0.54 | -4.5 |
| Political reason | 17.72  | 19.04 | 0.92 | -3.4 | 18.21 | 15.89 | 1.18 | 6.0 |
| Acculturative dissonance | 11.08 | 11.92 | 0.92 | -2.6 | 11.26 | 10.93 | 1.03 | 1.0 |
| Split US ways | 18.99 | 25.50 | 0.68\* | -15.7 | 18.87 | 20.20 | -0.92 | -3.2 |
| Inner-city school | 32.91 | 29.18 | 1.19 | 8.1 | 32.78 | 34.77 | -0.91 | -4.3 |
| Peer network | 18.08 (24.14) | 13.19 (16.34) | 4.00 \*\*\* | 23.7 | 16.10 (21.19) | 16.15 (20.26) | -0.03 | -0.2 |
| Educational aspirations | 1.79 (1.02) | 1.38 (0.69) | 7.82 \*\*\* | 46.4 | 1.69 (0.91) | 1.69 (0.90) | 0.00 | 0.0 |
| Past discrimination  | 62.66 | 66.48 | 0.85 | -8.0 | 62.91 | 64.24 | -0.94 | -2.8 |
| Weakens family | 2.38 (0.94) | 2.33 (0.85) | 0.82  | 5.2 | 2.35 (0.94) | 2.40 (0.85) | -0.59 | -4.8 |
| Superior to foreigners | 2.87 (0.90) | 2.91 (0.89) | -0.79 | -5.2 | 2.87 (0.90) | 2.86 (0.91) | 0.09 | 0.7 |
| Unequal economic op. | 2.38 (0.99) | 2.43 (1.01) | -0.81 | -5.3 | 2.38 (0.99) | 2.35 (1.06) | 0.40 | 3.3 |
| Note: OR = odds ratio ; \* p < 0.05 , \*\* p < 0.01 , \*\*\* p < 0.001 |

Table 2. Comparisons of variables before and after matching for SE Asian American youth with poor and higher academic achievement (AA)

Before matching: OR= 2.98, 95% CI= 2.14 – 4.13, p < .001

After matching: OR= 1.86, 95% CI = 1.25 – 2.77, p = 0.002

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1. The cut-off was made at 25% because there was a larger increase of prevalence for delinquent behavior from the third to fourth quartile of low academic achievement (24% of the lowest quartile of academic achievement were delinquent vs. 16% in the second lowest quartile and 13% in the third lowest quartile). [↑](#endnote-ref-1)
2. Zhou (2001) had originally referred to this measure as parent-child conflict [↑](#endnote-ref-2)