The role of peers’ background, peers’ school adjustment and peer delinquency in predicting immigrant youths’ school adjustment.

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Abstract

The increased migration in the world is leading to more multi-ethnic societies. These demographic changes result in new challenges for children with immigrant background, who tend to have low academic achievement and poor school adjustment compared to their native peers. Different factors influencing immigrant youths’ academic achievement needs to be understood well to develop strategies to close the gaps. The present study was conducted with cross-sectional data (N=218) to answer how peer characteristics are related to immigrant youths’ school adjustment. Our results showed that peers’ school adjustment predicted concurrent school adjustment of immigrant youth. Specifically, peers’ school liking was positively related to youths’ school liking and negatively related to truancy. On the other hand, peers’ truancy was related to only school liking of immigrant youth. Contrary to our expectations, delinquency of peers was associated to neither school liking nor truancy. In conclusion, the findings suggest that peers school adjustment may play an important role in immigrant youths’ school adjustment, suggesting that peer focused interventions could be developed to help immigrant adolescents who have difficulties in school.

Keywords: Immigrant youth, peer influence, school adjustment, truancy, school liking, delinquency

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Introduction

In recent years migration has increased all over the world. This is due to economic, social, political and environmental reasons as well as globalization. The United Nations reported in 2015 that 244 million people were living in another country than they were born, and that 20 million of these migrants were refugees, which is the largest amount of forced displacements since World War II (Gates, Mokleiv Nygård, Strand & Urdal, 2016; United Nations, 2016). As many as 4.7 million people immigrated to European countries only in 2015, of whom 2.4 million came from non-European countries (Eurostat, 2017). In Sweden, the immigration has resulted in a population that in 2015 consisted of 15% foreign-born citizens (SCB, 2017).

Increasing diversity brings its own challenges. A key to overcome these challenges is to facilitate the integration of these new citizens.

The most important factors for adaptation into a new society are employment and education. There are also clear associations between labor market status and psychological well-being. Being employed generally boosts self-confidence, provides a sense of coherence and reduces financial worries (Flint et al, 2013). In 2016, EU statistics showed that immigrants born outside of the EU have the hardest time to enter the labor market, with 73.1% being employed, compared to 77.9% of the natives and 80.5% of the immigrants born in another EU country (Eurostat, 2017). The number for Sweden is 68.4% of foreign born citizens in labor in comparison to 84.8% of the native population (SCB, 2017). This gap could partially be explained by the fact that many of those registered as unemployed only possess pre-secondary school education (Arbetsförmedlingen, 2016). This is problematic since employers in today's society almost always need their employees to have secondary education and those who does not will most likely face difficulties getting into the labor market (Arbetsförmedlingen, 2016). In sum, immigrants have a lower rate of employment mostly due to lower education. To improve immigrants’ opportunity to establish themselves within the
workforce it is crucial to investigate the factors contributing to academic adjustment especially among youth. By taking these factors in consideration, immigrants' academic achievement might be promoted, which may help future generations' adjustment and integration to society as a whole.

How do immigrant adolescents do in school?

A number of studies highlight the differences between immigrant and native-born adolescents' school adjustment and achievement. Generally, immigrant children and adolescents tend to have lower academic achievement than their native European peers (Azzolini, Schnell, & Palmer, 2012; Health, Rothon & Kilpi, 2008; Jonsson & Rudolphi 2011). These cited studies include data from more than ten Western-European countries, and show that both first and second-generation immigrants tend to have lower and more incomplete grades than their native peers. The most disadvantaged students are those with non-European origin, especially those from North African countries, Pakistan, and Latin American countries (Azzolini, et al., 2012; Health, et al., 2008; Jonsson & Rudolphi 2011). Consistent with these findings, studies have shown that immigrant children in Sweden tend to have lower academic achievement than their native peers and are less likely to follow academic tracks (SCB, 2013; Jonsson & Rudolphi, 2011). Specifically, non-European second-generation immigrants were less likely than European immigrants and their native peers to enroll in upper secondary education according to Jonsson & Rudolphi (2011). The exceptions are immigrants with Indian and Chinese ancestry who tend to outperform their native peers (Health et al., 2008). In conclusion, regardless of these exceptions, native-born European adolescents clearly seem to have an advantage over immigrants in educational context regardless of country of origin.

School adjustment is one of the many factors that has shown to contribute to academic achievement in general (Suárez-Orozco, Rhodes, & Milburn, 2009; Jia, et al., 2009; Wentzel,
Barry & Caldwell, 2004). Primary indicators of school adjustment are school liking, and students’ engagement in problematic behaviors such as delinquency and truancy in school (Suárez-Orozco, Rhodes, & Milburn, 2009; Jia et al., 2009; Wentzel, Barry & Caldwell, 2004). Findings show that students who were disruptive or inattentive in class had lower academic achievement than their more well-behaved peers (Finn, Panozzo & Voelkl, 1995). Another study showed correlation between school liking and academic competence where kindergarteners with positive school perceptions had higher academic achievement in 1st and 2nd grade (Ramey et al., 1998). Further, attendance has generally been shown to predict academic achievement, implicating that truancy would decrease students’ achievement (Conard, 2006; McIlroy et al., 2017).

Clearly there seem to be a relation between school adjustment and school achievement. To be able to understand why immigrant adolescents differ from natives in their academic achievement it could therefore be of interest to look more closely into what factors contribute to their school adjustment.

**Peer influences on school adjustment of adolescents**

Friendship relations may have important implications for different domains of adolescents’ life, including school. Current research shows that friends and peer groups have important influences on adolescents’ academic achievement and school adjustment (Crosnoe & Turley, 2011; Wentzel, Barry & Caldwell, 2004; Berndt, 1999). Several different characteristics of peers and peer relations, such as feeling accepted by peers, having a best friend, number of friends and perceived peer support are positively related to school liking (Boulton, Boulton & Don, 2011). On the other hand, aversive experiences with peers such as being victimized and rejected by peers were shown to be related to higher levels of truancy and low student engagement in school (Buhs & Ladd, 2001; Juvonen, Nishina, & Graham,
2000). Overall, how adolescents are treated by their peers and the features of their relationships have implications for their school adjustment.

Another line of research on peer relations suggest that friends tend to become more similar over time in their academic motivation, engagement and achievement (Shin & Ryan, 2014). This is partly explained by influence effects referring to adolescents shaping each other in their attitudes and behaviors as a consequence of spending a lot of time together (Veenstra & Steglich, 2012). While doing that, adolescents exchange information, act as models to one another and reinforce the norms and values within the peer group (Harris, 1995; Kindermann & Gest, 2009; Shin & Ryan, 2014). In sum adolescents’ choice of friends seem to impact both their school adjustment and achievement in a way that they become more like their friends.

Peers School Adjustment

Earlier in the introduction we have explained that peers may have important influences on each other and that they tend to become more similar over time. Furthermore, there is evidence suggesting that peers school adjustment affects individual's school adjustment. In a study by Shin & Ryan (2014), the results showed that peer-influence had a clear effect on school adjustment and academic achievement. Students with friends who had good grades were more likely to receive good grades, and students with friends who had lower grades were more likely to receive poor grades (Shin & Ryan, 2014). Also having peers who liked school, made an effort and abided to rules influenced individuals to behave in a better manner themselves, whereas the opposite applied to those who had peers that disliked school, gave less effort and behaved worse (Shin & Ryan, 2014). Another study by Berndt (1999) found that friends tended to become more similar over time in several different measures of school adjustment for example grades, involvement and disruption. Rambaran et al (2017) underlined the same findings, but also adds that peers influence each others’ truancy rates. This highlights the fact that peers can have a major influence on adolescents’ school
adjustment which in turn affects their future likelihood of getting into the workforce and adapting successfully into society.

**Peers’ delinquency**

Peer influence on adolescents’ school adjustment may not be limited to the factors related to adjustment in school setting. Peers’ behavioral adjustment may also have implications on how adolescents adjust in school. Research on the association between delinquency and academic performance is very consistent and show that higher delinquency is observed among students with lower academic performance more often. (see Maguin & Loeber, 1996 for a review). In line with the peer influence literature, being friends with delinquent peers has shown to increase the risk of adapting similar behavior and ending up in similar peer groups in the future (Sittner & Hautala, 2016; Hiatt et al., 2017; Berndt, 1999). Sittner & Hautala (2016) found that having delinquent peers in early adolescence predicted higher levels of aggressive delinquency (e.g. attacking or threatening someone, stealing, starting a fire without permission, physical cruelty, bullying, and physical fighting with or without weapons) later in adolescence. Furthermore, Berndt (1999) found that peers have strong and consistent influence on adolescents’ disruptive behavior, and on other aspects of school adjustment in this study defined as teacher rated involvement and grades. To summarize, it is clear that having delinquent peers affects adolescents own delinquent behavior. Due to the connection between delinquency and academic performance it is hence an important factor to understand when investigating adolescents school adjustment.

**Peers’ ethnic background**

Peers clearly seem to have a major impact on the development of adolescents. However, there is relatively little research examining the role of cross-ethnic friendships on school adjustment. Most previous studies tend to focus on the effects of cross-ethnic friendships on either school achievement or on psychosocial outcomes, which is closely
related to school adjustment (Attwood & Croll, 2015). Despite the limited evidence, there are reasons to expect that cross-ethnic friendships may have implications for school adjustment of immigrant adolescents. Prior studies showed that cross-ethnic friendships among adolescents may improve feelings of safety, experiencing less victimization, and feeling less lonely in school (Juvonen, Nishina, & Graham, 2000; Graham, Munniksma & Juvonen, 2014). Given that young people of ethnic minorities are more likely to experience victimization due to their ethnic origin (Navarro, Worthington, Hart & Khairallah, 2009), the benefits of having cross-ethnic friends may be more pronounced for immigrant adolescents. In fact, a recent study conducted in England showed that cross-ethnic friendships improved the psychological well-being and academic outcomes of ethnic minority children (Bagci, et al., 2017). It has been argued that affirmation from a cross-ethnic peer is particularly important for ethnic minority children in a multi-ethnic environment because perceiving support, encouragement, and approval from cross-ethnic friendships may help immigrant adolescents build resilience against ethnic discrimination (Bellmore & Nischina, 2012). It is hence clear that inter-ethnic friendships are profitable for adolescents’ psychosocial well-being and ethnic minorities academic achievement. However, considering the fact that ethnic-minority children are at a higher risk for ethnic harassment and discrimination and its’ implications for their school adjustment it would be reasonable to expect that having a native friend would be of a more crucial weight and of bigger importance for the ethnic minority adolescents’ school-adjustment.

Being discriminated by peers is something that can occur wherever children with different ethnic backgrounds associate. The fact that ethnic minority children are at greater risk for ethnic discrimination has been shown to harm their psychosocial and academic health. They tend to report lower self-esteem (Fisher et al. 2000) and score higher on depressive symptoms (Brody et al, 2006). Furthermore, children and adolescents exposed to ethnic
discrimination achieve worse in school settings, think school is less important and has less motivation compared to their peers who is not victimised (Chavous et al, 2008; Perreira et al. 2010).

Something that has been shown to affect peer ethnic discrimination is whether the school promotes ethnic group status equality and positive cross-ethnic interactions (Green et al. 1988). Students who rated a positive interracial climate within their school liked school better, had better school achievement and perceived themselves as less different to their native peers (Green et al. 1988). The studies on inter-ethnic friendships show that cross-ethnic friendships among adolescents are seen to improve feelings of safety, experiencing less victimization and feeling less lonely in school (Juvonen, Nishina, & Graham, 2000; Graham, Munniksma & Juvonen, 2014). In a recent study conducted in England results showed that cross-ethnic friendships improved the psychological well-being for both children of ethnic minority and majority, as well as academic outcomes of ethnic minority children. For the ethnic minority children, the results were mediated by both self-disclosure and affirmation of the ideal self within the cross-ethnic relationships (Bagci et al, 2017).

Current study

The current literature demonstrates a worldwide increase in migration and a need to facilitate the integration of these new citizens in the host societies. A factor that has shown to contribute to immigrants’ adaptation and integration to their new home country is employment. To get employment in today's society education is essential. However, immigrants tend to do worse than their native peers academically and later in the workforce. Unfortunately, there is little existing research examining what contributes to ethnic minority childrens’ academic achievement. An important factor that contribute to adolescents’ academic achievement in general is their school adjustment. When it comes to school adjustment, research highlights the influence of peers. Adolescents choice of friends seem to
impact both their school adjustment and achievement in a way that they become more like
their friends. Additionally, there is evidence suggesting that cross ethnic relationships lead to
increased psychosocial well-being for both ethnic majority and minority children, as well as
better school achievement for ethnic minority children. Ethnic minority children are more
exposed to ethnic harassment which is linked to their school adjustment. Furthermore cross-
ethnic interactions have seen to protect against that, why one could also hypothesize that
cross-ethnic relationships are of major importance to ethnic minority children.

Considering the fact there is a gap between immigrants and natives school adjustment
and academic achievement, and the evidence of peer influence on such factors, it would be of
interest to investigate the peer constellations of immigrant children. For example, one could
hypothesize that immigrant children with friends that are delinquent, have a higher rate of
truancy, and like school less will have similar tendencies and vice versa. To our knowledge,
such questions have not been examined in prior research.

Therefore, in this study we aim to investigate what features of the immigrant students’
friends are influencing their school adjustment. In the current study, we focus on peers’
school liking, peers’ truancy, peers’ delinquency, and cross-ethnic friendships to understand
school adjustment of immigrant adolescents. As for school adjustment, we focused on how
much they like school and their truancy rates. To investigate whether cross-ethnic friendships
is more important to ethnic minority children due to their higher exposure to peer
victimization, we looked into cross-ethnic relationships as a moderating variable of
adolescents’ school adjustment. Previous studies showed that both ethnic majority and
minority women in Western Europe are performing better than men in school settings within
all subjects besides math (Heath, Rothon & Kilpi, 2008). There is also evidence showing that
boys have significantly higher rates of externalizing behavior problems than girls (Ebanks &
Cornell, 2003) Also truancy rates are something that has been seen to positively correlate with
age (Maynard, Vaughn, Nelson, Salas-Wright, Heyne & Kremer, 2017). Therefore, in the current study, we controlled for the potential effects of age and gender.

To answer our questions, we used data from Youth & Sports (YeS) project which is a three-year longitudinal study with 1600 grade 4 and grade 7 students from Västerås, Sweden. In the current analyses, we used the first wave of the data from grade 7 students.

**Method**

**Participants**

The data is extracted from the first wave of a cohort-sequential study. The participants were grade 7 students with immigrant background from the city of Västerås in Sweden (N=218, Mage=14.18, SD=.50). Västerås was selected because its population and socioeconomic characteristics are very close to the national averages. The total cohort of grade 7 students consisted of 679 students and 218 had immigrant background (54% males and 46% females). Students also rated their perceived family income where 57% of the participants perceived that their family income was equal to their peers, and 78% rated their family income as equal to their peers or more. 61% of the adolescents had a mother who was employed whereas 76% of the fathers were employed. Finally, 68% of the adolescents live in intact families.

**Procedure**

The design of the original study was cohort-sequential longitudinal and the participants were asked to answer the surveys three times over a three-year period. For this specific study, we had a cross-sectional design and used the data only from the first wave of the study (T1). The students’ parents were given a written description of the study and a prepaid envelope/email address which they could respond to if they did not want their child to participate, hence they gave passive consent. No response was interpreted as giving consent to the study. Less than 5% of students declined participation of the study. Students themselves
gave active consent after reading a written description of the study and had the option to participate and quit whenever they wanted to. Anonymity was ensured by placing the participants distant from each other. The participating class was offered 300SEK independent on the number of attendants. Data was collected through a questionnaire during 90 minutes in the presence of trained test-leaders. The study has been reviewed and fully approved by the Regional Ethical Board in Uppsala (Regionala etikprövningsnämnden i Uppsala).

**Measures**

**Outcome variables**

As the school adjustment outcomes of adolescents, we measured two indicators: school liking and truancy.

**School liking.** School adjustment was measured by five questions that tap on how much students like school (Kerr & Stattin, 2000). These questions were “Do you do your best in school?”, “Does school feel like a constraint?”, “Are you satisfied with your school work?”, “How do you like school?” and “How would you describe the relationship between yourself and school?”. The responses were rated on a five-point scale where higher scores indicated more school liking. The inter-item reliability of the measure was .76.

**Truancy.** Truancy rates was measured by asking a single question “Have you cut class this semester? (i.e., been away from school without permission for an entire day).” Students were asked to rate their answer on a scale from 1 to 5, where 1 = No, it has not happened, 2 = Once, 3 = 2 – 3 times, 4 = 4 – 10 times, 5 = More than 10 times.

**Predictor variables**

**Peers’ school liking.** As a measure of peers’ school liking, we computed the school liking score of the adolescents’ best friend (Kerr & Stattin, 2000). Best friends were identified from the peer nominations of the study participants.
Peers delinquency. Delinquent behavior was measured by a total of 13 questions that were originally developed for the IDA study by Magnusson and colleagues (1975), and later revised by Kerr and Stattin (2000). Example items were “Have you taken things from a store, stand, or shop without paying – during the last 6 months?”, “Have you been caught by the police for something you have done- during the last 6 months?”, “Have you carried weapons (e.g., brass knuckles, bat, knife, switchblade, or other weapons) at school or in town – during the last 6 months?” Students ranked their answers on a scale from 1 to 5 ranging from 1 = No, it has not happened, to 5 = More than 10 times. Inter-item reliability of the measure was .84. The delinquency scores of the best friend were computed by estimating the mean of responses to the questionnaire items.

Peers truancy. As a measure of peers’ truancy, we computed the truancy score of the adolescents’ best friend. Truancy rates was measured by asking a single question “Have you cut class this semester? (i.e., been away from school without permission for an entire day).” Students were asked to rate their answer on a scale from 1 to 5, where 1 = No, it has not happened, 2 = Once, 3 = 2 – 3 times, 4 = 4 – 10 times, 5 = More than 10 times.

Moderator variables

Cross-ethnic friendship. Adolescents were asked to indicate if they were born in Sweden, and the birth place of their parents. Ethnic background of the adolescents was identified based on the maternal and paternal birth place. Students indicated their parents’ birth place as 1 = in Sweden, 2 = In Finland, 3 = In Norway, 4 = In Denmark, 5 = In another country. Because of the socio-cultural similarities among the Nordic countries, those who were born in Sweden, Norway, Denmark, or Finland were all considered as “Swedish,” and those who were born in elsewhere were grouped as “immigrant”. This grouping resulted in an ethnic background variable with two categories: 0 = Swedish, and 1 = immigrant. We identified the background of the best friend nominated by the adolescents. If the immigrant
adolescents nominated a best friend with Swedish background, we coded them as 1 = have inter-ethnic friendship. If the best friend was of immigrant background, students were coded as 0 = no inter-ethnic friendship.

**Control variables**

In all analyses, age and gender of the youth were included in the models as control variables. Age and gender were assessed based on adolescents’ self-report.

**Data Analysis**

Descriptives consisting of means, standard deviations, minimum, maximum and bivariate correlations between variables were calculated in SPSS. To answer our research questions, we used multiple linear regression models with hierarchical entry approach in SPSS to analyze our data. In the first step age and gender of youth were entered into the model. In the second step, peers’ school liking, truancy, and delinquency were entered into the model. To test whether peer immigrant background moderated the effect of peers’ characteristics on adolescents’ school adjustment we ran a moderation analysis using the PROCESS Procedure for SPSS (Hayes, 2013). In all analyses, we controlled for age and gender.

**Missing Data Analysis**

There were missing values in the study variables. The amount of missing information for the variables related to adolescents themselves (e.g., age, gender, school liking and truancy) was less than 2%. However, 24% of the adolescents did not respond to the question regarding their best friend which resulted in missing information on all peer characteristics variables. Analysis of variance comparing adolescents who reported their best friends and those who did not report their best friends yielded some significant differences. For example, older adolescents and boys were less likely to nominate their best friends. However, the effect sizes for these differences were minimal ranging between Cohen’s $d = .08$ and $d = .16$. Thus,
we used Expectation Maximisation (EM) method to impute missing data. Expectation Maximisation method provides unbiased Maximum Likelihood (ML) estimations of missing information when missing data pattern is not systematic (Borman, 2004). The algorithm consists of a two-step procedure, with an expectation (E) step, and a maximisation (M) step. In the E-step, regression equations are used to predict the incomplete variables from the observed variables with purpose to input missing values. In the M-step, standard complete-data formulas are applied to the filled-in data to get estimates of the mean vector and the covariance matrix. These steps are then repeated until the elements in the population mean vector and the covariance matrix doesn’t change between the repeated M-steps (Enders, 2010). The method performs best when data is missing at random, as in this case (Enders, 2010). In fact, the Little’s MCAR test was non-significant (Chi-Square = 13.175, df = 10, p = .214) suggesting that EM method could be used to impute data. We also ran the analyses with and without imputed data and saw that the results were consistent.

**Results**

**Descriptive Analysis**

In Table 1, the bivariate correlations, means, and standard deviations of the study variables are presented. There was a negative correlation between adolescents’ school liking and delinquency. The same applied for school liking and truancy, as well as for truancy and delinquency of adolescents. Adolescents’ school liking was positively correlated to peers’ school liking, and negatively correlated to peers’ truancy and delinquency. Adolescents’ delinquency positively correlated with peers’ delinquency. Regarding peers’ characteristics, there was a positive correlation between peers’ delinquency and peers’ truancy, as well as for peer truancy and peer background, and a negative correlation between peers’ delinquency and
Table 1. Means, standard deviations, and bivariate correlations among the study variables

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*p<.05, **p<.01, ***p<.001

¹Gender was coded as 0=females and 1=males. Peer background was coded as 0 = Swedish and 1 = immigrant background.
peers’ school liking. Cross-ethnic friendship referred to as peers’ background was positively correlated with age of the immigrant youth, and peers’ truancy. Gender did not significantly correlate with any of the variables measured.

**Does peer characteristics predict adolescents’ school liking?**

We used multiple regression analysis with hierarchical entry to predict adolescents’ school liking. In the first step, age and gender of youth were entered into the model. In the second step, peers’ school liking, truancy, and delinquency were entered into the model. The overall model explained 13% of the variations in the adolescents' school adjustment, $R^2 = .13$, $F(5, 209) = 10.12$, $p < .001$. In the first step, age and gender did not significantly predict adolescents’ school adjustment, $R^2 = .002$, $F(2, 214) = .25$, $p = .777$. In the second step, peers’ characteristics explained an additional 12% of the variation in adolescents’ school liking above and beyond age and gender, $R^2_{\text{change}} = .12$, $F(3, 211) = 9.97$, $p < .001$. Specifically, peers’ school liking positively predicted youths’ school liking, $\beta = .18$, $p = .03$. That is, adolescents’ whose friends like school were more likely to hold a positive view of being in school. Second, peers’ truancy negatively predicted adolescents school liking, $\beta = -.18$, $p = .02$. That is, adolescents whose friends skip school were less likely to like school. Third, peers’ delinquency did not predict adolescents school liking.

**Table 2. Regression analysis of peer characteristics on adolescents’ school liking**

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<td><strong>Peer characteristics</strong></td>
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<td>Peer school liking</td>
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<td>Peer truancy</td>
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<td>$R^2$</td>
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Does peer characteristics predict adolescents’ truancy?

We used multiple regression analysis with hierarchical entry to predict adolescents’ truancy. In the first step, age and gender of youth were entered into the model. In the second step, peers’ school liking, truancy, and delinquency were entered into the model. The results showed that the overall model explained 7% of the variations in adolescents' truancy, $R^2 = .07$, $F(5, 209) = 5.05, p < .05$. In the first step, age and gender did not significantly predict adolescents’ truancy, $R^2 =.003$, $F(2, 214) = .33, p = .717$. In the second step, peers’ characteristics explained and additional 6% of the variation in adolescents’ truancy, $R^2_{change} = .06$, $F(3, 211) = 4.70, p < .013$, above and beyond age and gender. Specifically, peers’ school liking negatively predicted youths’ truancy, $\beta = -.23, p = .01$. That is, adolescents’ whose friends like school were less likely to skip school. Second, peers’ truancy and peers’ delinquency did not significantly predict adolescents’ truancy rates.

Table 3. Regression analysis of peer characteristics on adolescents’ truancy

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<td><strong>Peer characteristics</strong></td>
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<tr>
<td>Peer school liking</td>
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<td>Peer truancy</td>
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<td>Peer delinquency</td>
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* $p<.05$, ** $p<.01$, *** $p<.001$
The analyses to test the moderating role of peers’ immigrant background were performed separately for each predictor variable. We estimated the moderation effect of peers’ immigrant background on the association between peers’ school liking, peers’ delinquency and peers’ truancy on adolescents’ school liking and truancy. The results suggested that peers’ immigrant background did not significantly moderate the effect of peers’ school liking, peers’ delinquency and peers’ truancy on adolescents’ own school liking and truancy.

**Discussion**

A large number of immigrants tend to have lower academic achievement than their native peers. This gap calls for understanding the potential underlying factors that are related to immigrant youth’s poor school adjustment (Azzolini, Schnell, & Palmer, 2012; Health, Rothon & Kilpi, 2008; Jonsson & Rudolphi 2011). To do so, the present study was conducted to understand the role of peers on immigrant youths’ school adjustment, which may have large implications on academic achievement (Suárez-Orozco, Rhodes, & Milburn, 2009; Jia, et al., 2009; Wentzel, Barry & Caldwell, 2004). Such studies are today relatively sparse, and most previous research has focused on the academic differences between native and immigrant youth. Thus, our approach to focus on the variations within the immigrant youth and the factors that influences their school adjustment may contribute to the current literature.

**Peers’ influence on immigrant adolescents school liking**

Our results showed that peers’ school liking positively predicted youths’ school liking. That is, adolescents’ whose friends like school were more likely to hold a positive view of being in school. Second, peers’ truancy negatively predicted adolescents school liking. That is, adolescents whose friends skip school were less likely to like school. These findings are all in line with evidence showing that peers school adjustment affects individuals’ school adjustment. It adds support to earlier studies by Shin & Ryan (2014)
showing that peers who liked school, made an effort and abided to rules influenced individuals to behave in a better manner themselves, whereas the opposite applied to those who had peers that disliked school, gave less effort and behaved worse. In sum, our findings emphasize already existing evidence showing that peers influences adolescents school liking and adds to it by looking at immigrant adolescents in particular.

The association of youth’s school adjustment and truancy with their peers’ school adjustment and truancy, respectively, could be explained by selection and influence processes. Influence effect refers to a process where adolescents’ attitudes and behaviors tend to be shaped by those who they spend a lot of time with over time. Several studies provided evidence that peer influence could explain adolescents school adjustment and truancy behaviors using longitudinal data (Harris, 1995; Kindermann & Gest, 2009; Rambaran et al., 2017; Shin & Ryan, 2014; Veenstra & Steglich, 2012). However, contributing to these similarities could also be selection effects, the process where people tend to select friends who have similar attitudes and behavioral tendencies. Recent research emphasizes the interaction of influence effects and selection effects as an explanation for the similarities among friends, suggesting that despite similarities from the start of the relationship, friends also become more alike over time (Veenstra & Steglich, 2012). Friends hence become more alike by influencing each other’s school liking, motivation, school engagement as they model, create inter-group norms, and reinforce behaviors and attitudes within the peer group (Harris, 1995; Kindermann & Gest, 2009). Due to the fact that our study was not longitudinal, we are unable to differentiate between selection and influence processes. Longitudinal data is required to differentiate between these two processes. However, a number of earlier studies showed that similarities among friends are better explained by influence effects rather than selection effects (Shin & Ryan, 2014; Berndt, 1999; Rambaran et al., 2017). It is likely that some degree of the similarity that we observed in the current study are due to influence effect,
lending additional support to the literature by suggesting that similar peer processes might work for immigrant youths. Future studies should use longitudinal design to better understand how peers influence immigrant adolescents’ school adjustment.

**Peers’ influence on immigrant adolescents’ truancy**

In the current study, we found that there was a negative association between peers’ school liking and youths’ truancy. That is, adolescents whose friends do not like school were more likely to skip school. This finding is in line with earlier research showing that peers influence each other’s truancy rates (Rambaran et al, 2017), and potentially both selection and influence processes might explain this similarity. In contrast, in our study, peers’ truancy did not significantly predict adolescents’ truancy rates. This finding is inconsistent with earlier studies showing similarities of friends in several different measures of school adjustment such as disruptive behaviors and truancy rates (Berndt, 1999; Rambaran et al, 2017). A potential explanation for this finding might be the practice of transparency and Swedish schools’ method of handling truancy among students. Parents are regularly informed whenever their child skips a class or a school day by the school administrations. This practice might discourage students to skip school. In fact, previous research has shown that parental monitoring might positively affect adolescents school adjustment (see Xia, Wang, Wilson, Bush & Peterson, 2015 for example). When schools share information with parents about students’ truancy, parents may be more likely to monitor their children to ensure that they are not skipping school. In sum, the characteristics of the Swedish school setting may play an important role in to what extend peers’ truancy relate to youth’s own truancy behaviors.

Contrary to our expectation, peers’ delinquency did not predict adolescents’ school liking and truancy. To our knowledge, there are no earlier studies examining these specific associations, making it hard to draw conclusions to explain the current null findings. As previously stated, peers’ bad behaviors negatively influence various indicators of adolescents’
 academic adjustment such as intrinsic value of school work, self-efficacy beliefs, and classroom engagement (Shin & Ryan, 2014). Adolescents’ school liking and truancy might be distinct indicator of school adjustment which may not necessarily be connected to academic adjustment. Some students may like being in school just because this environment may give them opportunity to spend time with their peers, involve in different activities, and a have fun time regardless of whether their peers are well adjusted or their activities are related to academic issues. Future studies need to examine whether delinquency of peers is related to a broader spectrum of school and academic adjustment indicators to develop an understanding of the role of hanging out with problematic peers on immigrant youth’s school adjustment.

**The moderating effect of peers’ ethnic background**

The results suggested that peers’ immigrant background did not significantly moderate the effect of peers’ school liking, peers’ delinquency and peers’ truancy on adolescents’ own school liking and truancy. This implies that the effects of the predictors on adolescents’ school adjustment are equivalent for both immigrants with or without cross ethnic friendships. Earlier studies have showed that adolescents with immigrant background are more likely to experience victimization due to their ethnic origin and that cross-ethnic friendships helps them build resilience against such experiences (Bellmore & Nischina, 2012). Therefore, one could hypothesize that cross ethnic friendships would be of greater importance for immigrants’ school adjustment. However, this assumption was not supported in the current study. A factor that could potentially explain our deviating result could be our broad definition of immigrant background. In the current study, we did not make any distinction among immigrants based on how long they have been in Sweden and their ethnic-cultural background. Some immigrant groups could be better integrated into the society than others. For these youth, they may be equally likely to have immigrant or native friends, and be influenced by their friends in a similar way. However, some other immigrants might be
less well-adjusted, and having cross-ethnic friendship could have a different effect on them. Future studies may need to focus on the ethnic and cultural background and generational status of the immigrant youths to draw better conclusions about the potential role of cross-ethnic friendships.

**Limitations and Strengths**

One major limitation of our study is that we only included one best friend in our analyses. Although adolescents nominated their closest friend, adolescents could be influenced by more than one friend. However, earlier studies have shown that best friend influence tend to be big whereas social crowd influence was minimal when it comes to, for example, cigarette smoking (Urberg, 1992). Also, a study by Hiat et al (2017) found that satisfaction with friendships moderated the influence of friends when it comes to intoxication frequency and truancy. Our study did not include any measures of satisfaction within the relationship. However, one could assume that the person you nominate as your best friend is the friendship of best quality, and therefore the person who exerts the biggest influence on you. Besides this, future research could be expanded involving a larger set of friends, friendship quality measures, and reciprocity of friendships to increase the reliability of cross-ethnic friendships influence on adolescents’ school adjustment. Furthermore, the friendship nominations were limited to students’ classroom. While this is reasonable given that students in elementary school spend a majority of their day in their classroom, it is still likely to miss some of students’ friends from other contexts (e.g., friends in other classes, friends outside school). Therefore, our results cannot be generalized beyond students’ classroom-based friendships.

Another important limitation to be considered is how we defined cross-ethnic friendships. In our study, youth born in Scandinavia were defined as natives and all adolescents of other origin as immigrants. With these definitions, we did not find any
moderating effect of peers’ ethnic background on adolescents’ school adjustment. However, some ethnicities may be more prone to be exposed to discrimination and harassment than others. To overcome this limitation, future studies need to be more specific about where the immigrants came from and investigated potential differences between them, but also to simply have measured their experience of ethnic harassment and discrimination.

Third, in the current study, we did not differentiate immigrant adolescents by their generational status. Both first- and second-generation immigrants were considered as being part of a single group. Furthermore, we did not differentiate immigrant adolescents from one another depending on how long they had lived in Sweden. Both these factors could have implications for their language skills and acclimatization to the Swedish society. Thus, these factors should be controlled for in future studies.

Despite its limitations, our study also has several strengths. The study adds support to the already existing research underlining the influence of peers within a school context and goes beyond it by looking at immigrant adolescents specifically. Also, whereas most earlier studies to our knowledge has compared immigrants to natives, our study adds to the literature by aiming to understand the variations among immigrant youths. We specifically focused on a variety of features that are general (delinquency) and that are related to school (school liking and truancy) and were able to examine the relative importance of these potential predictors in understanding the variations in immigrant youths’ school adjustment. Furthermore, the current study adds to a sparsely investigated field of research by looking at the moderating effect of peers’ ethnic background when it comes to the influence of peers.

**Conclusions**

This study was conducted with the interest of understanding immigrant youths’ school adjustment, and the influence of their peers’ characteristics. Our results underline already existing research highlighting the importance of peer influence on adolescents’ school
adjustment and adds to it by looking at immigrants in particular. Also, it implies that the effects of peers’ characteristics are equivalent for immigrants regardless of their peers’ ethnic background. In sum, this study adds to our understanding of the factors helping immigrant youth adapt to the Swedish school context. This is of crucial weight to help immigrants adapt and integrate in a new country, something that is beneficial for all citizens in an increasingly multi-ethnic society. One way to apply this knowledge would be to stop separating peers within classes by academic tracking, which often leads to ethnic diversion due to their differences in school achievement. Secondly, schools and teachers could facilitate interventions designed to improve peer relationships by mixing adolescents with higher rates of school liking with peers with lower rates of school liking and those who are skipping school. Teachers have a large chance to influence peer relations by deciding seating and work arrangements, setting rules and by clarifying expectations of students’ social behavior towards one another. By doing this, hopefully the adolescents with better school adjustment could influence immigrants school adjustment positively, which in turn would lead to them achieving better in school and adapting better in the society.
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