Association between Parental Behaviors, Drunkenness, and Depression: Differences According to Immigrant Status

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Abstract

The purpose of this study was to examine drunkenness status among immigrants and non-immigrants youths. The other purpose was also to investigate the relation between depression and parenting behaviors with drunkenness among immigrant and Swedish adolescents. The participants in this study were 508 students, 262 boys (51.6%) and 246 girls (48.4%), and their age varied between 12-15 years (Grade 7 and Grade 9). 62.4% (N = 309) of the participants were non-immigrant, and 32.1% (N = 159) were immigrant. T-test and linear regression analyses were performed in SPSS. The results in general suggest that immigrants and non-immigrants youths get drunk approximately similar. Results also showed drunkenness at T1 did no predicted depression at T2 in both ethnic groups. Gender and depression variables have significant relation with depression at T2 and these variables can predict depression among adolescents in 8th grade. In addition, the relation between parenting behaviors with drunkenness was not significant for both ethnicity groups. In conclusion ethnicity did not impact drunkenness and depression status among adolescents.
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Underage drinking and alcohol use among adolescents is one of the most important public health problems and this problem can be classified as a serious public health concern (Corte & Zucker, 2008; Mason & Spoth, 2011). Alcohol use among adolescents and its consequences extend widely because this problem exists broadly throughout the world. In America 86% of adolescents in the 12th grade have consumed alcohol. Around 55% of the American adolescents were actually current drinkers with a minimum of one drink per month. In North America one-third of the adolescents have experienced drunkenness two times or more (Lee, Rose, Engel-Rebitzer, Selya, & Dierker, 2011; Müller, Piontek, Pabst, & Kraus, 2011). About half of Canadian teenagers had tried drinking alcohol at the age of 14 and 28% of teenagers who drink alcohol had been binge drinking (Archiea, Kazemib, & Akhtar-Danesh, 2012). Furthermore, in Europe around 50% of adolescents aged 15 have been drunk at least one time (Müller et al., 2011). In Sweden 67% of girls in grade 9 have already consumed alcohol compared with 61% of boys in 2007 (Swedish National Institute of Public Health, 2012). Finally, in 2005 four Swedish boys in the age group 0-19 years died because of alcohol-related problem (Swedish National Institute of Public Health, 2012).

Alcohol use has many negative effects on adolescents' health. Many previous longitudinal studies showed that alcohol use among adolescents has been associated with many acute and chronic diseases such as cardiovascular diseases, cancers, liver damage, and psychiatric conditions. Studies have shown the negative effects of alcohol use may have negative effects on brain development (Kabiru, Beguy, Crichton, & Ezeh, 2010; Llorens, Barrio, Sánchez, Suelves, & ESTUDES Working Group, 2011). Alcohol use and drunkenness is also the main risk factor that causes increase of mortality among adolescents and this is due to accidental death, suicide, and homicide (Müller et al., 2011; Mason & Spoth, 2011). Finally, alcohol drunkenness has been associated with unprotected sex or risky sexual behavior and having sex with multiple partners.
which in turn may be associated with sexually transmitted diseases (Kabiru et al., 2010). To sum up, the consume of alcohol in early ages affects directly and indirectly teenager health over a long term.

In addition, alcohol abuse is associated with social maladjustment. Studies have showed a link between alcohol abuse and the development of both internalizing and externalizing problems. Regarding internalizing problems, there is clear evidence that alcohol use and drunkenness are associated with internalizing problems such as depression. Adolescents who drink alcohol are indeed more likely to have depression and depressive symptoms compared with those who do not have drunkenness experience (Meririnne et al., 2010). Some studies suggest that binge drinking may contribute to severe depression because of the physiological changes caused by alcohol in the serotonin levels in the brain. It should be noted that serotonin plays an important role in mood. Alcohol will cause a change in serotonin levels and this change will lead to difference in the mood states (Archiea et al., 2012). Regarding externalizing problems, previous studies showed that drunkenness and alcohol drinking at early ages will increase the risk of antisocial behavior, delinquency, and aggressive behaviors in adolescents (Peleg-Oren, Saint-Jean, Cardenas, Tammara, & Pierre, 2009). Previous studies also showed that there is a negative association between drinking and life satisfaction (Mason & Spoth, 2011). In sum, alcohol abuse has clear association with internalizing and externalizing behavior problems among adolescents.

The effect of drunkenness seems to be different depending on ethnicity. According to previous studies there are differences in alcohol use based on race and ethnicity. For example the African American adolescents have lower levels of heavy alcohol drinking than American Hispanics and American Whites adolescents. The White adolescents have higher quantities and frequencies of alcohol use and drunkenness than African American and American Hispanics adolescents (Nielsen, 1999; Finlay, White, Mun, Cronley, & Lee, 2012). The differences between males in alcohol use according to their race will impact alcohol peak time and alcohol persistence. The African American adolescents have alcohol peak later than the Whites adolescents and the same goes for alcohol persistence because the African American group have persisted alcohol
longer than their Whites peers (Finlay et al., 2012). In spite of these differences in consumption in general there is still a lack of information about how drunkenness affects immigrant adolescents' well-being. In particularly, there is a lack of studies that show whether alcohol use has different impact in the development of internalizing problems in immigrant and native youths. Thus, the first goal of this study was to see if the immigrants get drunk more frequently than non-immigrant. The second goal was to investigate the relation between drunkenness and internalizing behavior and if this relation is different among immigrant group compared with non-immigrant group.

There are many factors that influence alcohol consumption among adolescents, and one of the most important factors is family. For instance, there is a strong association between parental monitoring, permissiveness/disapproval for drinking, and youth drunkenness. In addition, parent–adolescent communication is one of the most important protective factors against drinking in adolescence (Abar, Fernandez, & Wood, 2011; Ennett, Bauman, Foshee, Pemberton, & Hicks, 2001). According to Fairlie et al. (2012) parental monitoring/knowledge is associated with a reduction or lower levels of alcohol use in adolescence. Parental support, parental monitoring, and parental ability to set up clear rules reduce the opportunities of engagement in alcohol use and drunkenness in adolescents (Llorens et al., 2011), and in adulthood (Abar, 2012), and reduce the impact of peers who drink alcohol (Kelly et al., 2011). In addition, parent-adolescents communication and parental warmth are protecting factors in adolescents' development, as a positive communication with parents is associated with fewer adolescents' problems (Abar et al., 2011; Piko & Balázs, 2012). Furthermore, previous studies have proved that a good parental-adolescent relationship will play a very important role in preventing adolescents' substance use (Kuntsche & Silbereisen, 2004). On the other hand, the lack of parental emotional warmth and lack of communication is related to an increase of adolescents' behavioral problem and of alcohol use problems (Piko & Balázs, 2012). In spite of the clear association between parenting, internalizing problems and drunkenness there is lack of information about this association in immigrant adolescents. Thus, a further aim of the current study is to examine the association between
parenting behaviors (parents' coldness/rejection, parents' bad reactions to disclosure, and parent's management of peer relationships) can and drunkenness in immigrant and non-immigrant adolescents.

**The Present Study**

In sum, this study aimed at investigating if there is a difference between immigrant and non-immigrant groups in alcohol use. We aimed also at knowing if the adolescents’ drunkenness levels predict internalizing behavior (depression) in both immigrant and non-immigrant youth. The last goal was to know if the parenting behaviors (parent's coldness/rejection, bad reactions to disclosure, and management of peer relationships) impact drunkenness and if this association will be different according to ethnic groups. In another word, the research questions are the followings:

1) Do immigrants get drunk more frequently than non-immigrants?
2) Do drunkenness predict depression in both ethnic groups?
3) Do parenting behavior predict changes in drunkenness in both ethnic groups?

**Method**

**Participants**

Overall, the number of participants who were taking part in the current study was 508 students, 262 boys (51.6%) and 246 girls (48.4%). The age of the participants varied from 12 to 15 years (Grades 7 through Grades 9). Parents’ participants had a different ethnic background, and they were divided into two groups, namely Swedish and immigrants, according to the place of parents birth. Totally 309 (62.4%) of the parents were born in Sweden or in a Nordic country, and 159 (32.1%) of the parents were born outside Sweden/Nordic country.

**Measures**

**Immigrant Status.** The participants were asked about the birth place of their parents. The response options included 1) Sweden, 2) another Nordic country, and 3) outside of Sweden or in a Nordic country. The same question was asked to both mothers and fathers. The youths whose parents were born in Sweden or a Nordic country were coded as Swedish. Youths whose parents
were born outside of Sweden or a Nordic country were coded as immigrant. All youths whose only one parent was immigrant were excluded from all of the analyses.

**Drunkenness Status.** Drunkenness status was assessed using one item: have you had so much beer, liquor, or wine that you got drunk – during the past year? The response options were no, one, 2-3 times, 4-10 times, more than 10 times.

**Depression.** Depression was assessed using the sixteen items CES-D scale (Radloff, 1977). Examples of items were: "I was bothered things that usually do not bother me; I did not feel like eating/ I was not very hungry; I was not able to feel happy, even when my family or friends tried to help me feel better; I felt like I could not pay attention to what I was doing". The items were coded from 1-4, 1 meaning not at all to 4 meaning often. The alpha reliability for the depression scale was .91 for the T1, and .94 for T2.

**Parental Behaviors.** Parenting behaviors were assessed using three different behaviors scales (Tilton-Weaver et al., 2010).

**Parents' coldness/rejection.** This behavior was assessed using six items in order to answer the following question (How do your parents react when you’ve done something that they really do not like?). The answer items were: "I Ignores you if you try to explain; does not talk to you until after a long while; Is silent and cold towards you". The items were coded from 1-3, 1 meaning never to 3 meaning most often. The alpha reliability for the coldness/rejection scale was .69 for the T1, and .75 for T2.

**Parents' bad reactions to disclosure.** This behavior was assessed using six items. Examples of items were: "Have you ever told your parents things and later regretted that you did; How often have you regretted that you told your parents too much about yourself, your friends, and your free time; Have you been punished for something that you spontaneously told your parents". The items were coded from 1-4, 1 meaning has never happened to 4 which meaning pretty often. The alpha reliability for the bad reactions to disclosure scale was .83 for the T1, and .88 for T2.
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Parent's management of peer relationships. This behavior was assessed using four items. Examples of items were: "Your parents have told you that they didn't like some of your friends; Your parents have talked to you about who they think you should keep as friends; Your parents have asked you to avoid certain friends, because they have disliked what those friends have been up to; Your parents have told you not to go to certain place, because they want you to avoid the youths that hang out there". The items were coded from 1-4, 1 meaning do not agree at all to 4 that’s meaning agree completely. The alpha reliability for the parents peer management scale was .81 for the T1, and .83 for T2.

Plan for Analyses

In the present study we used data from longitudinal study which called the Seven Schools Project at Örebro University. Every year, over totally five years, this project has collected information about a wide variety of issues, dealing with adolescents’ internalizing and externalizing problems. The original data contain four times (waves), but in the present study the first and fourth time were excluded (T1, T4). In the current study we used only two times/waves (T2, T3) with the note that there is a year between them. For the sake of clarity, we called T2 as T1, and T3 as T2. The data were analyzed to see first if the immigrants get drunk more frequently than non-immigrants. We used the SPSS program. Through the T-test we can see the differences of drunkenness for immigrants and non-immigrants groups (T-test for equality of means) at grade 7th and 8th. The second analyses investigated whether there was an association between parenting behaviors, depression, and drunkenness. First we examined whether drunkenness predicted depression in both groups. Secondly, we investigated whether drunkenness was predicted by parenting behaviors in both groups. We used linear regression and we controlled for gender effects.

Results

Immigrant Status and Drunkenness

First of all, in the above table (Table 1) we compared the mean of drunkenness of Swedish/Nordic youths and those of immigrant youths in different grades (Grades 7th, 8th).
Table 1. Summary statistics, results from the T-test, the association between drunkenness and immigrant status.

<table>
<thead>
<tr>
<th></th>
<th>Swedish/Nordic</th>
<th>Immigrant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (Sd)</td>
<td>Mean (Sd)</td>
</tr>
<tr>
<td>T1</td>
<td>1.31 (.82)</td>
<td>1.26 (.77)</td>
</tr>
<tr>
<td>T2</td>
<td>1.40 (.95)</td>
<td>1.41 (.92)</td>
</tr>
</tbody>
</table>

Results indicated no significant difference in drunkenness rates in grade 7th between Swedish/Nordic youths ($M = 1.31, SD = .82$); $t (452) = .57, p = .57$), and immigrant youth ($M = 1.26, SD = .77$). This means that there is no difference in the mean level for students in grade 7th in these two different ethnic groups. No difference was found in number of drunkenness episodes between Swedish/Nordic youth ($M = 1.40, SD = .95$); $t (401) = -.09, p = .93$) and immigrants youths ($M = 1.41, SD = .92$) in grade 8th as well.

**Does drunkenness and depression at T1 predict depression at T2?**

To answer to our second question, we used a linear regression and we entered depression and drunkenness at grade 7th (T1) as predictors and internalizing behavior problems (depression) at grade 8th (T2) as dependent variable (Table 2).

Table 2. The association between drunkenness at T1 and depression at T2.

<table>
<thead>
<tr>
<th>Immigrant status</th>
<th>Predictors variable</th>
<th>β</th>
<th>Sig. (2-tailed)</th>
<th>F (df)</th>
<th>R Square (R²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swedish/Nordic</td>
<td>DrunkT1</td>
<td>.05</td>
<td>.32</td>
<td>24.69(272)</td>
<td>.21</td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>.13</td>
<td>.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Depression T1</td>
<td>.40</td>
<td>p&lt;.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immigrants</td>
<td>DrunkT1</td>
<td>-.08</td>
<td>.36</td>
<td>10.38(116)</td>
<td>.21</td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>.19</td>
<td>.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Depression T1</td>
<td>.34</td>
<td>p&lt;.001</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results showed no significant relation between drunkenness and depression in both Swedish/Nordic youths ($\beta = .05, p = .32$) and immigrants youths ($\beta = -.08, p = .36$) (see table 2). Association was found between gender and depression in both Swedish/Nordic youths ($\beta = .13,$
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$p=.03$) and immigrants youths ($\beta=.19, p=.04$), indicating higher levels of depression for girls in both samples. Significant and positive relation was also found between depression at T1 with depression at T2 in both ethnic groups Swedish/Nordic youths ($\beta=.40, p<.001$) and immigrants youths ($\beta=.34, p<.001$).

**Does parenting behaviors at T1 predict changes in drunkenness at T2?**

In this step, the goal was to assess whether there was a relation between parenting behaviors (parents’ coldness/rejection, parents’ bad reactions to disclosure, and parent’s management of peer relationships) at T1 and adolescents’ drunkenness at T2, controlling for gender and drunkenness at T1. Results show that gender, parental coldness/rejection, negative parental reaction to disclosure behavior, parents peer manage behaviors were not related to the number of youth drunkenness episodes both in the Swedish/Nordic and in immigrant group (see table 3). Finally, number of drunkenness episodes at T1 was the only predictor of number of drunkenness episodes at T2 both for Swedish/Nordic youth ($\beta=.63, p<.001$), and immigrants youth ($\beta=.35, p<.001$).

**Table 3.** The association between parenting behaviors, early drinking, gender, and drunkenness.

<table>
<thead>
<tr>
<th>Immigrant status</th>
<th>Predictors variable</th>
<th>$\beta$</th>
<th>Sig. (2-tailed)</th>
<th>F (df)</th>
<th>R Square ($R^2$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swedish/Nordic group</td>
<td>Gender</td>
<td>.01</td>
<td>.77</td>
<td>38.15(237)</td>
<td>.45</td>
</tr>
<tr>
<td></td>
<td>DrunkT1</td>
<td>.63</td>
<td>$p&lt;.001$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ColdrejectT1</td>
<td>.06</td>
<td>.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PeermanageT1</td>
<td>.03</td>
<td>.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ReactdisclosureT1</td>
<td>.05</td>
<td>.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immigrants group</td>
<td>Gender</td>
<td>-.07</td>
<td>.43</td>
<td>5.18(103)</td>
<td>.20</td>
</tr>
<tr>
<td></td>
<td>DrunkT1</td>
<td>.35</td>
<td>$p&lt;.001$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ColdrejectT1</td>
<td>-.14</td>
<td>.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PeermanageT1</td>
<td>.02</td>
<td>.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ReactdisclosureT1</td>
<td>.20</td>
<td>.07</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Discussion**

The first goal of this paper was to investigate the association between immigrant status (immigrant and non-immigrant) and drunkenness. The other goal was to investigate if drunkenness at T1 can predict depression at T2 in both ethnicity groups. Finally, we wanted to investigate the longitudinal association between parenting behaviors and drunkenness in both groups.
The results in general suggested that there was no different in drunkenness status between immigrants and non-immigrants youths and the mean drunkenness level was approximately similar in both ethnic groups. Regarding the relation between drunkenness and depression at T1 with internalizing problems (depression) at T2 a significant association was found only between depressions at T1 with depression at T2. Moreover, gender also was associated with an increase of depression in both ethnic groups. Specifically, drunkenness at grade 7th was not associated with depression level at 8th grade for both ethnic groups. Finally, all parenting behaviors were not associated with drunkenness levels in both immigrants and non-immigrants groups.

Despite, ethnicity was associated with drunkenness among adolescents (Finlay et al., 2012), in our study we found there is no difference in alcohol consumption among adolescents in both groups and this was not in line with literature. Alcohol use in general was somewhat higher among older adolescents (grade 8th). The result in both groups was not significant, which means ethnicity does not play any role in the increase of drunkenness levels at least in our groups. The lack of differences among these two groups could be due to the low consumption of alcohol at this age that makes difficult to find statistic results. Indeed, during this age parents may hold more restrictive attitude toward adolescents’ alcohol use than during late adolescence. Indeed, Piko & Balázs (2012) found out that the parental control behavior change overtime and it is stricter in early adolescence (middle school students) compared with late adolescence (high school students). This difference in parents’ attitude is maybe the reason of low episodes of drunkenness in our sample.

In addition, drunkenness is not associated with internalizing behavior problems in both groups. This results is unexpected if we consider that studies have found that alcohol can cause a change in serotonin levels and this change will lead to differences in the mood states (Archiea et al., 2012), as we said in the introduction. A reason for the lack of the link between drunkenness and internalizing behavior problems in our sample might be that biological mechanisms need time to develop and the students of this study are too young to have been affected by alcohol abuse. Studies that investigate this relation across adolescence and adulthood are needed.
Regarding the association between parenting behaviors and drunkenness, our results demonstrated no significant association. Parenting behaviors did not predict changes in drunkenness in the two ethnic groups. This result in general in present study not in line with what has been proved in previous studies. This gives us the impression that this issue needs more focus in future studies.

This study has both strengths and weaknesses. Regarding weaknesses, because the participants in the immigrant group come from many different countries, we have not been able to divide the immigrants into separate ethnic groups. This leaves open the question whether our results would be different in the different ethnic groups. Another limitation is low variability in behaviors analyzed, which make difficult to find significant associations among the concepts we are interested in. Further studies need to involve and differentiate between different ethnic groups and using older adolescents. Regarding strengths of this study, we have a good number of participants for both immigrant and non-immigrant groups which allows us to analyze the data for both groups. Moreover, we used longitudinal data. To conclude, our study shows no differences among early immigrant and no immigrant adolescents when it comes to alcohol abuse and effects of alcohol.
References


