

# The mediating effect of perceived discrimination and the moderating effect of school climate in the association between migration background and externalizing problem behaviours

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### **Abstract**

European studies tend to find support for the notion that immigrant adolescents have an increased risk for externalizing behaviour, which might be explained by perceived discrimination (PD). Moreover, few studies have assessed whether components of school climate works as a protective factor against this increased risk. The aim of this cross-sectional study was to investigate whether perceived discrimination (PD) explained the association positive between migration background (MG) and externalizing behaviours, and whether higher levels of components of school climate worked as a protective factor in the association between MG and externalizing behaviours. Dutch data of the HBSC study (2018) was used to conduct the analyses ( $N = 8980$ ). The results from linear regressions showed that the impact of MG on externalizing problem behaviours was explained by higher levels of PD, except for the association with hyperactivity. Results from hierarchical multiple linear regressions showed that the components of school climate did not works as a buffer in the association between MG and the externalizing behaviours, except for classmate support, which weakened the association. These findings highlight the importance of addressing perceived discrimination in future school based interventions.

*Keywords: immigration, adolescents, externalizing behaviours, perceived discrimination,, school climate*

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The Netherlands has been ethnically and culturally diverse for a couple of decades, as per January 1<sup>st</sup>, 2020, 24.3% of the population has a migration background (CBS, 2020). A majority of them are people with a non-Western migration background, with the biggest four groups being from Moroccan, Turkish, Suriname, and Antillean descent. In the latest Dutch Health Behaviour in School-aged Children (HBSC) report (Stevens et al., 2018), adolescents with a non-Western migration background report more externalizing problem behaviours, such as aggression, lying, fighting, and stealing, compared to their peers without a migration background. Past research shows evidence of greater engagement in externalizing problem behaviours being related to perceived ethnic discrimination (e.g. Benner et al., 2018; Coker et al., 2009). This association might explain the migration background – externalizing problem behaviours link, considering Dutch adolescents with a non-Western migration background also report higher levels of perceived discrimination (Stevens et al., 2018). However, as adolescents spend a substantial amount of their time at school, it is highly likely school related factors influence externalizing problem behaviours. The school environment has been recognized as, besides being an academic learning context, also a crucial place for social, cognitive, and behavioural development (Cohen, McCabe, Michelli, & Pickeral, 2009; Wilson, 2004). For instance, high quality of interactions between and among the members of the school environment may serve as a protective factor against engaging in violent behaviours (Brookmeyer, 2006). To my knowledge, few empirical works have explored how school related factors such as school climate are associated with the relation between migration background and externalizing behaviours, despite the acknowledgment of the importance of the school context.

Considering externalizing problem behaviours during adolescence can have negative consequences later in life, such as education under attainment, difficulties with works, and greater risk for adult psychopathology (Fergusson & Horwood, 1998; Narusyte, Ropponen, Alexanderson, & Svedberg, 2017; Reef, Van Meurs, Verheulst, & Van der Ende, 2010), it is important to gain more understanding of the mechanism and the conditions, for future interventions to be more effective. Therefore, this study extends existing literature by investigating whether perceived discrimination explains the association between migration background and externalizing problem behaviours, and whether school climate functions as a buffer in the migration background – externalizing problem behaviours link.

### **Immigration and externalizing problem behaviours**

Literature on the relationship between immigration and behavioural problems suggests two perspectives: a risk and resilience perspective. The risk perspective argues that immigrant adolescents are at an increased risk of mental health problems compared to their native peers due to stress caused by different factors. For instance, the migration process, which may include coping with the loss of friend and family, and adapting to a new cultural environment (Guarnaccia & Lopez, 1998), or the experience of discrimination and prejudice in the host country, which can produce heightened stress responses, affecting the mental and physical health (Pascoe & Smart Richman, 2009; Schmitt, Postmes, Branscombe, & Garcia, 2014; Williams & Mohammed, 2009). The resilience perspective on the other hand argues that immigrant adolescents are at a decreased risk of mental health problems, a phenomenon referred to as the ‘immigrant paradox’ (García Coll & Marks, 2012), which might be explained by strong social networks and norms within the ethnic group that disapprove of problem behaviours working as a buffer (Vaughn, Salas-Wright, Delisi, & Maynard, 2014). Yet, this paradox has been more prominent in first-generation immigrants, as evidence suggests second-generation immigrants seem not to have this health advantage (Chun & Mobley, 2014). Unlike many first-generation immigrants, they participate into the host society from the first stages of their lives, in which for instance perceiving discrimination is more psychological distressing than during adulthood (Lee & Ahn, 2013; Schmitt et al., 2014). In general, European studies tend to find support for the notion that immigrant adolescents are at an increased risk for externalizing problem behaviours (Dimitrova, Chasiotis & Van De Vijver, 2016; Duinhof, Smid, Vollebergh, & Stevens, 2020; Stevens et al., 2015).

### **Perceived discrimination and externalizing problem behaviours**

As mentioned before, perceived discrimination is considered a factor that can produce heightened stress responses, perhaps even more during childhood and adolescence. This might be due to the implication that an important part of the identity, in this case being an immigrant, is being rejected (Schmitt & Branscombe, 2002), but that also the fulfilment of the basic need to belong is being undermined (Wirth & Williams, 2009). Theory suggests that these stress responses can be followed by maladaptive coping strategies that lead to for example aggressive behaviour aggression (Clark, Anderson, Clark, & Williams, 1999). For instance, a cross-sectional study by Border and Liang (2011) suggested that the maladaptive

coping strategy angry rumination, which is the tendency to passively linger on negative feelings and problems, partially explained to relation between perceived discrimination and aggressive behaviour. Over time, the link between perceived discrimination and externalizing problem behaviours has become more established (e.g. Brody et al., 2006; Tobler et al., 2013; Simons, Chen, Stewart, & Brody, 2003; Simons et al., 2006). To illustrate, a study by Tobler et al. (2013) showed that even occasionally experiencing ethnic discrimination is associated with an increased risk for behavioural problems such as physical aggression. A longitudinal study by Simons et al. (2003) found causal links between perceived discrimination and delinquent behaviour later in time among a sample of African-American adolescents. So far, studies conducted in a European context has been done less compared to the United States, however findings also suggest similar associations between perceived discrimination and externalizing problem behaviours (e.g. Bayram Özdemir, Özdemir, & Stattin, 2019; Maes, Stevens, & Verkuijden, 2014). Based on the discussed theories and empirical findings, it can be expected that perceived discrimination mediates the relationship between migration background and externalizing problem behaviours.

### **School climate and externalizing problem behaviours**

So far, a factor that has been researched less in relation to immigrant adolescents and externalizing problem behaviours is school climate. It can be defined in four different ways: academic, community, safety, and institutional environment (Wang & Degol, 2016). The academic climate focuses on the quality of the academic atmosphere, community stresses the quality of interpersonal relationships within school, safety refers to the degree of physical and emotional security, and institutional environment indicates the organizational features of the school. The social control theory (Hirschi, 1969) posits that behaviours such as delinquency are inhibited by the strong social bonds one has. Thus, a strong social connection with the school, teachers and fellow peers may decrease the likelihood of problem behaviour. Past research shows evidence of school community functioning as a buffer against externalizing problem behaviours. Schools characterized by supportive student-student relationships and student-teacher relationships are associated with lower levels of aggression and delinquency (Battistich & Hom, 1997; Brookmeyer, 2006; Elsaesser, Gorman-Smith, & Henry, 2013; Henry, Farrell, Schoeny, Tolan, & Dymnicki, 2011; Payne, 2009).

School climate may increase immigrant adolescents' risk or serve as a protective factor (Schachner, Juang, Moffitt, & Van de Vijver, 2018). Among immigrant youngsters,

positive teacher-student relationships have been linked to psychological outcomes such as higher self-esteem (Agirdag, Van Houtte, & Van Avermaet, 2012), more positive attitudes towards the majority group (Thijs & Verkuyten, 2012), and supportive peers relations has been linked to their academic achievement in the US (Lee & Lee, 2016). Studies on the role of the school climate dimension community on immigrant adolescents' externalizing problem behaviours are scarce. For instance, a study conducted by Walsh, Harel-Fisch, & Fogel-Grinvald (2010) in Israel suggested that teacher support might be an important predictor of risky behaviours such as smoking and drinking of immigrant youth. Unfortunately, behaviours such as aggression and bullying were not included in the study. Another cross-sectional study by Titzmann, Raabe, & Silbereisen (2008), which only included male adolescents, showed that school connectedness works as a protective factor against delinquency for immigrant adolescents, however not for newly arrived immigrants. Despite limited empirical evidence, factors such as school connectedness, teacher support and classmate support may work as a protective factor against externalizing problem behaviours based on the theoretical substantiation and related past research.

### **Current study**

This study aimed to examine the mediating effect of perceived discrimination and the moderating effect of school connectedness, teacher support, and classmate support in the relationship between adolescents with a migration background and the following indicators of externalizing problem behaviours: conduct problems, hyperactivity, fighting, and bullying (Figure 1). Based on the existing literature, it is hypothesized that perceived discrimination mediates the positive relationship between migration background and externalizing problem behaviours (H1). In addition, it is hypothesized that school connectedness, teacher support, and classmate support negatively moderate the association between migration background and externalizing problem behaviours (H2).

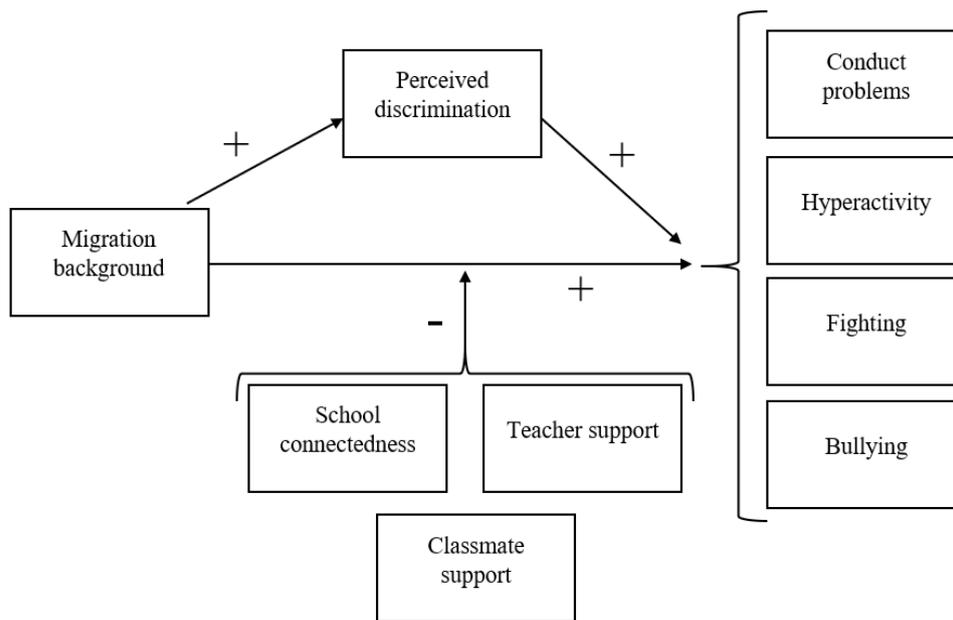


Figure 1. Research model

## Method

### Participants

Dutch data from the 2017 WHO Health Behaviour in School-aged Children (HBSC) cross-national study was used in the current study. The participants in the age group 11 to 16 years from the final grade of primary school, and secondary school were recruited through a two-stage random cluster sampling procedure to ensure a nationally representative sample. A sample of schools all over the Netherlands was randomly drawn, then stratified according to urbanization level. Each participating school was asked to provide a list of all classes, and depending on school size, 3-5 classes were randomly selected. The response rates of primary schools and secondary schools were respectively 39% and 37%, and adolescent response rate was above 92%. The self-report questionnaires were digitally administered in the classroom, and participants were informed about their data being kept anonymous. The sample consisted of 8980 students from primary and secondary schools, with a mean age of 13.62 ( $SD = 1.92$ ), and 48.9% boys and 51.1% girls. Furthermore, the sample consisted of 16.1% students with a non-Western migration background, while the rest were native students. Students with a Western migration background were not included in the data analyses.

### Instruments

*Conduct problems.* The dependent variable conduct problems was measured by the Strengths and Difficulties Questionnaire (Goodman, Meltzer & Bailey, 1998), in which students report about their behaviour and feelings of the last six months. Conduct problems was measured by five statements which students answered to what degree they are true on a 3-point Likert scale, ranging from 1 (not true) till 3 (certainly true). An example of a statement, 'I am often accused of lying or cheating'. The sum of the items gave a score between 0-10. The higher the score, the higher the levels of conduct problems. The scale had a low internal consistency ( $\alpha = .44$ ), which was consistent with past research (Duijnhof, Stevens, van Dorsselaer, Monshouwer, & Vollebergh, 2015)

*Hyperactivity.* The dependent variable hyperactivity was also measured by the SDQ (Goodman, Meltzer & Bailey, 1998). The hyperactivity scale also contained five statement which students answered on a 3-point Likert scale, ranging from 1 (not true) till 3 (certainly true). An example of a statement, 'I am restless, I cannot stay still for long'. The sum of the items give a score between 0-10, the higher the score, the higher the levels of hyperactivity. The scale had an acceptable internal consistency ( $\alpha = .70$ ), which was in line with past research (Duijnhof et al., 2015).

*Fighting.* The dependent variable fighting was measured by the question: 'During the past 12 months, how many times were you in a physical fight?' It was answered on a 5-point Likert scale, ranging from 1 (I have not been in a physical fight in the past 12 months) till 5 (4 times or more). A higher score indicated a higher level of engaging in fighting.

*Bullying.* The dependent variable bullying was measured by the question: 'How often have you taken part in bullying another person(s) at school in the past couple of months?' It was answered on 5-point Likert scale, ranging from 1 ( I have not bullied another person(s) at school on the past couple months) till 5 (several times a week). The higher the score, the more someone engages in bullying.

*Migration background.* Migration background was measured by two questions: 'In which country were you born' and 'In which country were your father and mother born?'. Answer options contained the following: Dutch, Morocco, Turkey, Suriname, Germany, Aruba, Bonaire, Curaçao, Saba, St Eustatius, St Maarten, or another country (fill out). Based on the CBS (2020) criteria, a student has a migration background when at least one of the parents was not born in the Netherlands, regardless of the student's place of birth. In case the student was born in the Netherlands and both parents were born abroad, then the mother's

place of birth determines the exact migration background. In line with this criteria, Dutch students were categorized as native students (coded 0) and Moroccan, Turkish, Surinamese, Antillean, and other non-Western students were categorized as having a non-Western migration background (coded 1). German, other Western, and Western rich were categorized as having a Western migration background, however this category was not included in the analyses as this group was not substantial enough to conduct analyses with.

*School connectedness.* The variable school connectedness was measured by the question: ‘What do you think of school right now?’, with the answer possibilities ranging from 1 (I like it a lot) till 4 (I do not like it at all). After recoding the item, a higher score meant a higher school connectedness.

*Teacher support.* Teacher support was measured by the Teacher and Classmate Support Scale (Torsheim, Wold & Samdal, 2000). The teacher support subscale was composed of three items. An example is ‘I feel that my teachers accept me as I am.’ The answer possibilities ranged from 1 (strongly agree) till 5 (strongly disagree). The subscale score was calculated by taking a mean of all three items. After recoding the items, a higher score indicated higher levels of perceived teacher support. The scale’s internal consistency was satisfactory ( $\alpha = .86$ ), which was in line with previous studies (Stevens, Boer, Titzmann, Cosma, & Walsh, 2020).

*Classmate support.* Classmate support was also measured by the Teacher and Classmate Support Scale (Torsheim, Wold & Samdal, 2000). The classmate support subscale consisted of three items, with answer possibilities ranging from 1 (strongly agree) till 5 (strongly disagree). An example question ‘Other students accept me as I am.’ A mean score of all three items was computed. After recoding the items, a higher score indicated higher perceived classmate support. The Cronbach’s alfa was .81, this was consistent with past research (Stevens et al., 2020)

*Perceived discrimination.* The variable perceived discrimination was measured by the shortened version of the questionnaire developed by Phinney, Madden and Santos (1998). The following question: ‘How often do the following people treat you unfairly or negatively because of where you, your parents or grandparents were born?’ was asked on three items, which could be answered a 5-point Likert scale, ranging from 1 (never) till 5 (very often). The items indicated ‘the following people’, which were teachers, other adults of school, and

pupils at school. A higher score indicated higher levels of perceived discrimination. The scale had a good internal consistency ( $\alpha = .81$ ).

*Control variables.* Age, gender, family affluence, family composition, education level, and urbanization were added as control variables.

### **Data analysis**

Prior to running the analyses in IBM SPSS (version 24), initial data checks were done. Variables beyond the maximum of the scales were inspected with frequency tables. Normal distributions of the dependent variables were deemed acceptable by visual inspection. Outliers were visually inspected with boxplots, but due to the large sample size ( $N = 8980$ ), none of them were removed. To compare means and standard deviations on the study variables of native and non-Western immigrant students, independent *t*-tests were conducted. A correlation matrix with the study control variables was made to inspect associations between control variables and dependent and independent variables.

The mediation analyses were performed as recommended by Baron & Kenny (1986), by first running a regression to predict the dependent variable from migration background, which corresponds to path coefficient *c*. This was followed by running a regression to predict the mediating variable perceived discrimination from migration background, (path coefficient *a*), and finally running a regression to predict the dependent variable from both perceived discrimination (path coefficient *b*) and migration background (path coefficient *c'*). There was mediation when both path coefficient *a* and *b* were significant and path coefficient *c'* became insignificant or smaller in absolute value, but remained significant. In case of (partial) mediation, a Sobel test (1982) was conducted to determine a significant difference between *c* and *c'*. For the moderation analyses, hierarchical multiple linear regressions were conducted. Preliminary data screening did not suggest problems with assumptions of normality and linearity. Interaction terms between migration background and school connectedness, teacher support, and classmate support were created beforehand. At Step 1, migration background entered as a independent variable, followed by the control variables at Step 2. School connectedness, teacher support, and classmate support were entered at Step 3, while the interaction terms were entered at Step 4.

## Results

### Descriptives

As can be seen in Table 1, independent sample *t*-tests showed significant differences between students without a migration background (the native group) and students with a non-Western migration background on all but one variable, which was school connectedness. Native students indicated higher levels of hyperactivity, teacher support, and classmate support, while students with a non-Western migration background indicated higher levels of conduct problems, fighting, bullying, and perceived discrimination.

Table 1

*Means (Standard Deviations) and Independent Samples t-test Results of Study Variables*

Variables	Migration background		Total	Tests of significant differences
	Native	Non-Western		
Conduct problems	1.77 (1.46)	2.13 (1.60)	1.84 (1.49)	$t(1946.08) = -7.77^*$
Hyperactivity	4.19 (2.37)	3.65 (2.27)	4.11 (2.37)	$t(2108.71) = 8.17^*$
Fighting	1.46 (.97)	1.67 (1.14)	1.49 (.99)	$t(1850.90) = -6.46^*$
Bullying	1.08 (.30)	1.14 (.44)	1.09 (.33)	$t(1703.09) = -4.67^*$
Perceived discrimination	1.09 (.37)	1.49 (.76)	1.16 (.48)	$t(1545.40) = -19.37^*$
Teacher support	3.84 (.83)	3.71 (.99)	3.81 (.86)	$t(1834.35) = 4.54^*$
Classmate support	4.06 (.68)	4.01 (.78)	4.04 (.70)	$t(1878.41) = 2.09^*$
School connectedness	3.98 (.82)	3.93 (.91)	4.00 (.84)	$t(1913.81) = 1.87$

*Note.*  $*p < .001$

A correlation analysis was conducted to explore the associations between the dependent, independent, and control variables (see Table 2). In line with the previous, migration background showed significant correlations with almost all of the other variables, except for age. Students with a non-Western migration background indicated lower family affluence, have more often non-intact families, have a lower education level, and live more often in less urbanized areas. As seen in Table 2, there were significant correlations between the dependent variables and control variables. For instance, higher levels of conduct problems, hyperactivity, bullying, and fighting were more related to boys, students from non-

intact families, and students with a lower education level. Perceived discrimination was more often related to older student, girls, students from non-intact families, students with a lower family affluence, and students from less urbanized areas. School connectedness, teacher support and classmate support also showed significant correlations with the control variables (Table 2). Based on these results, all the control variables were kept in further analyses. Lastly, higher levels of dependent variables were associated with lower levels of school connectedness, teacher support, and classmate support, while higher levels of conduct problems, hyperactivity, bullying, and fighting were associated with higher levels of perceived discrimination.

Table 2  
*Pearson and Spearman Correlation Matrix Study Variables and Control Variables*

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Migration background <sup>a</sup>	1.00														
2. SDQ Conduct problems	.09**	1.00													
3. SDQ Hyperactivity	-.09**	.16**	1.00												
4. Bullying	.05**	.25**	.11**	1.00											
5. Fighting	.08**	.34**	.16**	.24**	1.00										
6. Teacher support	-.04**	-.20**	-.21**	-.09**	-.11**	1.00									
7. Classmate support	-.01	-.15**	-.12**	-.06**	-.07**	.45**	1.00								
8. Perceived discrimination	.37**	.24**	.09**	.18**	.19**	-.19**	-.13**	1.00							
9. School connectedness	-.01	-.20**	-.21**	-.10**	-.12**	.39**	.28**	-.14**	1.00						
10. Age	.00	-.04*	.01	-.11*	-.11*	-.26**	-.12**	.03**	-.28**	1.00					
11. Gender <sup>b</sup>	.02*	-.10*	-.02*	-.26*	-.26*	-.01*	-.01	-.06**	.08**	.08**	1.00				
12. Family affluence	-.18*	-.04*	.02*	-.02	.00	.00	.08**	-.07**	-.00	-.02	-.06**	1.00			
13. Family composition <sup>c</sup>	-.08*	-.08**	-.08**	-.04**	-.06**	.05**	.06**	-.07**	.06**	-.05**	-.01	.15**	1.00		
14. Education level	-.07*	-.21*	-.16*	-.11*	-.16*	-.04**	.09**	-.13**	.00	.16**	.02	.22**	.15**	1.00	
15. Urbanization	-.31*	-.04*	.01	-.02*	-.04*	.04**	.04**	-.11**	.02	-.01	-.01	.05**	.06**	-.07**	1.00

Note. \* $p < .05$ , \*\* $p < .001$ . <sup>a</sup>Native students were the reference group. <sup>b</sup>Boys were the reference group. <sup>c</sup>Incomplete families were the reference group.

**The direct effect of migration background on conduct problems, hyperactivity, bullying, and fighting.**

To test whether perceived discrimination mediated the relationship between migration background and externalizing problem behaviours, a series of linear regression analyses were run as recommended by Baron and Kenny (1986). Non-Western immigrant adolescents reported significantly higher levels of conduct problems, bullying, and fighting, but lower levels of hyperactivity compared to native students, as seen in Table 3. Second, non-Western immigrant adolescents reported higher levels of perceived discrimination ( $a = .41, t(6825) = 26.16, p < .001$ ) compared to native students.

Table 3

*Mediation Analysis Results, with Migration background as the IV and Perceived Discrimination as the Mediator*

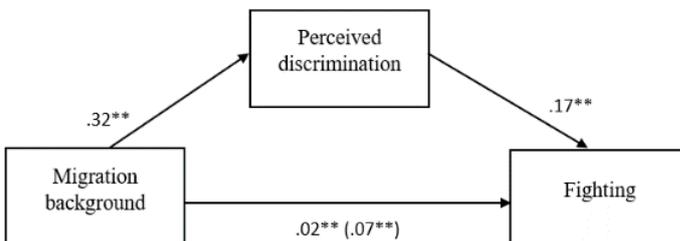
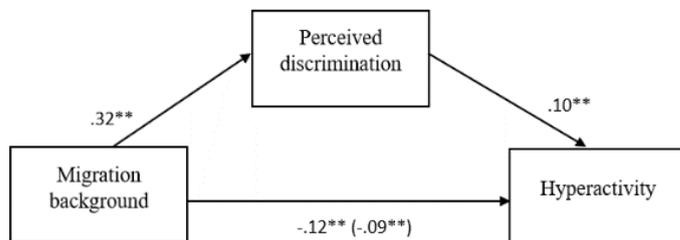
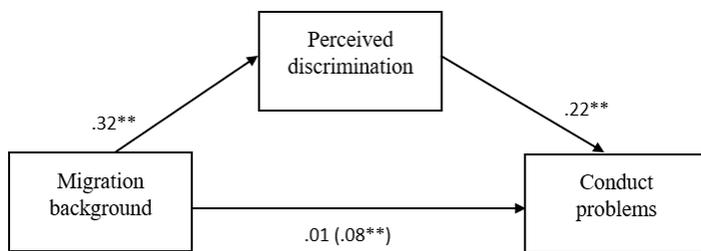
Dependent variable (DV)	Coefficient between IV and DV, without inclusion of the mediator (path <i>c</i> )	Coefficient between the mediator and DV, with inclusion of IV (path <i>b</i> )	Coefficient between IV and DV, with inclusion of mediator (path <i>c'</i> )
Conduct problems	.33*	.70*	.05
Hyperactivity	-.58*	.52*	-.79*
Fighting	.19*	.11*	.00
Bullying	.05*	.36*	.04

*Note.* \* $p < .001$ . IV = independent variable. All reported values are unstandardized coefficients.

### **The indirect effect of migration background on conduct problems, hyperactivity, bullying, and fighting through perceived discrimination.**

As seen in Table 3, higher levels of perceived discrimination was predictive of higher levels of conduct problems when controlling for migration background. The direct effect of migration background became insignificant when controlling for perceived discrimination. This indicated a complete mediation, and a Sobel test (1982) determined a significant difference between the *c* and *c'* ( $z = 13.31, p < .001$ ). Perceived discrimination completely mediated the relationship between migration background and conduct problems. Perceived discrimination was positively predictive of higher levels of hyperactivity when controlling for migration background. The direct negative effect of migration background on hyperactivity remained significant, and even showed a stronger effect, see Figure 2. Perceived discrimination did not mediate the association between migration background and hyperactivity. However, accounting for perceived discrimination led to even lower levels of hyperactivity among non-Western immigrant adolescents. Higher levels of perceived

discrimination was related to higher levels of bullying when controlling for migration background. Simultaneously, the direct effect of migration background on bullying became insignificant, indicating a complete mediation. The Sobel test (1982) confirmed a significant difference between  $c$  and  $c'$  ( $z = 9.69, p < .001$ ). Perceived discrimination completely mediated the relationship between migration background and bullying. Finally, perceived discrimination was positively predictive of fighting and completely mediated the effect of migration background on fighting, as this effect became insignificant. According to the Sobel test (1982), the difference between  $c$  and  $c'$  was significant ( $z = 10.36, p < .001$ ). Perceived discrimination completely mediated the association between migration background and fighting. See Figure 2 for the effect sizes of the regressions.



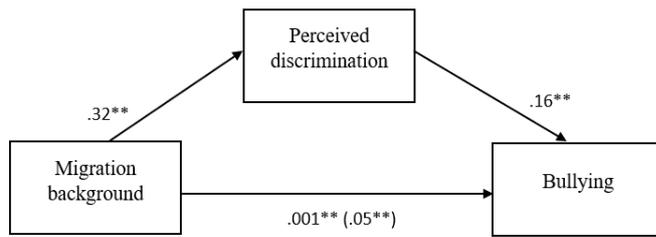


Figure 2. Illustration of mediation models with standardized regression coefficients for the relationship between migration background and conduct problems, hyperactivity, bullying, and fighting as mediated by perceived discrimination.

Note. \* $p < .05$ , \*\* $p < .001$

**The effect of migration background on externalizing problem behaviours moderated by school connectedness, teacher support, and classmate support.**

Hierarchical multiple linear regression was used to assess whether school connectedness, teacher support, and classmate support negatively moderated the relationship between migration background and conduct problems, hyperactivity, fighting, and bullying. Firstly, linear regressions were run for conduct problems (Table 4). In Model 1, non-Western migration background was significantly related to higher levels of conduct problems, and 1% of the variance in conduct problems was explained ( $F(1, 6814) = 63.94, p < .001$ ). The control variables in Model 2 increased the explained variance in conduct problems to 6% ( $R$  squared change = .05,  $F(7, 6808) = 65.08, p < .001$ ). In Model 3, higher levels of school connectedness and teacher support were predictive of lower levels of conduct problems, and explained variance increased to 12.5% ( $R$  squared change = .06,  $F(10, 6805) = 97.08, p < .001$ ). The interaction terms in model 4 were not significant and no additional variance was explained. School connectedness, teacher support, and classmate support did not moderate the association between migration background and conduct problems.

Table 4

Summary of Linear Regression Analysis for Conduct problems as Dependent Variable

Variable	Model 1			Model 2			Model 3			Model 4		
	<i>B</i>	<i>SE</i>	$\beta$									
Migration background <sup>a</sup>	.39	.05	.10**	.33	.05	.08**	.28	.05	.07**	.27	.05	.07**
Age				-.03	.01	-.03*	-.08	.01	-.09**	-.08	.01	-.09**

Gender <sup>b</sup>	-.29	.04	-.10**	-.26	.03	-.09**	-.26	.03	-.09**
Family composition <sup>c</sup>	-.22	.04	-.06**	-.18	.04	-.05**	-.18	.04	-.05**
Education level	-.27	.02	-.19**	-.27	.02	-.19**	-.27	.02	-.19**
Family affluence	.02	.01	.02	.01	.01	.02	.01	.01	.02
Urbanization	-.02	.02	-.02	-.01	.02	-.01	-.01	.02	-.01
School connectedness				-.26	.02	-.15**	-.26	.02	-.15**
Teacher support				-.29	.02	-.16**	-.29	.02	-.16**
Classmate support				-.02	.03	-.01	-.02	.03	-.01
Migration background X school connectedness							-.00	.02	-.00
Migration background X teacher support							-.00	.02	-.00
Migration background X classmate support							-.01	.02	-.01

Note. \* $p < .05$ , \*\* $p < .001$ . <sup>a</sup> Native students were the reference group. <sup>b</sup> Boys were the reference group. <sup>c</sup> Incomplete families were the reference group.

The second linear regression analysis was for hyperactivity (Table 5). Non-Western immigrant youngsters reported lower levels of hyperactivity than native youngsters in Model 1, which also had an explained variance of 1% ( $F(1, 6813) = 40.46, p < .001$ ). In Model 2, the control variables increased the explained variance in hyperactivity to 4% ( $R$  squared change = .04,  $F(7, 6807) = 232.18, p < .001$ ). In Model 3, higher levels of school connectedness and teacher support were predictive of lower levels of hyperactivity, and the explained variance increased to 11%,  $R$  squared change = .08,  $F(11, 6803) = 384.98, p < .001$ . The interaction terms in Model 4 were not significant and did not result into additional explained variance in hyperactivity. School connectedness, teacher support, and classmate support did not moderate the association between migration background and hyperactivity.

Table 5

Summary of Linear Regression Analysis for Hyperactivity as Dependent Variable

Variable	Model 1			Model 2			Model 3			Model 4		
	<i>B</i>	<i>SE</i>	$\beta$									

Migration background <sup>a</sup>	-	.08	-.08**	-.58	.08	-.09**	-.67	.08	-.11**	-.65	.08	-.10**
	.49											
Age				.00	.02	.00	-.08	.02	-.06**	-.08	.02	-.06**
Gender <sup>b</sup>				-.02	.06	-.01	.03	.06	.01	.03	.06	.01
Family composition <sup>c</sup>				-.39	.07	-.07**	-.33	.07	-.06**	-.33	.07	-.06**
Education level				-.39	.03	-.17**	-.39	.03	-.17**	-.39	.03	-.17**
Family affluence				.07	.02	.05**	.06	.02	.05**	-.06	.02	.05**
Urbanization				-.05	.02	-.03*	-.04	.02	-.02	-.04	.02	-.02
School connectedness							-.45	.04	-.16**	-.47	.04	-.16**
Teacher support							-.47	.04	-.17**	-.47	.04	-.17**
Classmate support							-.04	.04	.01	.03	.04	.01
Migration background X school connectedness										-.00	.03	-.00
Migration background X teacher support										.03	.03	.02
Migration background X classmate support										.00	.03	.00

Note. \* $p < .05$ , \*\* $p < .001$ . <sup>a</sup> Native students were the reference group. <sup>b</sup> Boys were the reference group. <sup>c</sup> Incomplete families were the reference group.

A third regression analysis was conducted for fighting (Table 6). In Model 1, non-Western immigrant adolescents reported higher levels of fighting, and 1% of the variance in fighting was explained ( $F(1, 6815) = 35.61, p < .001$ ). In model 2, the control variables increased the explained variance to 10%,  $R$  squared change = .10,  $F(7, 6809) = 112.02, p < .001$ . School connectedness and teacher support were negatively predictive of fighting in Model 3, and the explained variance increased to 13% ( $R$  squared change = .03,  $F(10, 6806) = 102.18, p < .001$ ). As seen in model 4, school connectedness, teacher support, and classmate support did not moderate the relationship between migration background and fighting. Furthermore, no additional variance in fighting was explained.

Table 6

Summary of Linear Regression Analysis for Fighting as Dependent Variable

Variable	Model 1			Model 2			Model 3			Model 4		
	<i>B</i>	<i>SE</i>	$\beta$									
Migration background <sup>a</sup>	.19	.03	.07**	.19	.03	.07**	.16	.03	.06**	.16	.03	.06**
Age				-.05	.01	-.08	-.07	.01	-.11**	-.07	.01	-.11**
Gender <sup>b</sup>				-.50	.02	-.25**	-.48	.02	-.25**	-.48	.02	-.25**
Family composition <sup>c</sup>				-.10	.03	-.04**	-.08	.03	-.04*	-.08	.03	-.04*
Education level				-.13	.01	-.15**	-.14	.01	-.15**	-.14	.01	-.15**
Family affluence				.02	.01	.04**	.02	.01	.04**	.02	.01	.04**
Urbanization				-.02	.01	-.02	-.01	.01	-.02	-.01	.01	-.02
School connectedness							-.10	.02	-.09**	-.10	.02	-.09**
Teacher support							-.14	.02	-.12**	-.15	.02	-.13**
Classmate support							.02	.02	.01	.02	.02	.02
Migration background X school connectedness										-.02	.01	-.02
Migration background X teacher support										.02	.01	.03
Migration background X classmate support										-.02	.01	-.02

Note. \* $p < .05$ , \*\* $p < .001$ . <sup>a</sup> Native students were the reference group. <sup>b</sup> Boys were the reference group. <sup>c</sup> Incomplete families were the reference group.

The final regression analysis was conducted for bullying (Table 7). In Model 1, non-Western immigrant youngsters indicated higher levels of bullying than native student, which also explained 0.3% of the variance in bullying ( $F(1, 6815) = 23.40, p < .001$ ). After adding the control variables, Model 2 explained 2% of the variance in bullying ( $R$  squared change = .02,  $F(7, 6809) = 23.97, p < .001$ ). Similarly to the previous linear regressions, higher levels of school connectedness and teacher support were significantly related to lower levels of bullying in Model 3 ( $R^2 = .04, R$  squared change = .01,  $F(10, 6806) = 26.12, p < .001$ ). In Model 4, no additional variance was explained, however the interaction between migration background and classmate support was significant. Non-Western immigrant students showed a slightly stronger decrease in bullying at higher levels of classmate support compared to native students.

Table 7

*Summary of Linear Regression Analysis for Bullying as Dependent Variable*

Variable	Model 1			Model 2			Model 3			Model 4		
	<i>B</i>	<i>SE</i>	$\beta$									
Migration background <sup>a</sup>	.05	.01	.06**	.05	.01	.05**	.04	.01	-.05**	.04	.01	-.15**
Age				.00	.00	.01	-.00	.00	-.02	-.00	.00	-.02
Gender <sup>b</sup>				-.07	.01	-.10**	-.06	-.09	-.01**	-.06	.01	-.09**
Family composition <sup>c</sup>				-.02	.01	-.02	-.01	.01	-.01	-.01	.01	-.01
Education level				-.03	.01	-.10**	-.03	.00	-.10**	-.03	.00	-.10**
Family affluence				.00	.00	.01	.00	.00	.01	.00	.00	.01
Urbanization				-.00	.00	-.01	-.00	.00	-.01	-.00	.00	-.01
School connectedness							-.03	.01	-.08**	-.03	.01	-.08**
Teacher support							-.03	.01	-.07**	-.03	.01	-.07**
Classmate support							.00	.01	.00	.00	.01	.01
Migration background X school satisfaction										.00	.00	.01
Migration background X teacher support										.01	.00	.02
Migration background X classmate support										-.01	.00	-.04*

*Note.* \* $p < .05$ , \*\* $p < .001$ . <sup>a</sup> Native students were the reference group. <sup>b</sup> Boys were the reference group. <sup>c</sup> Incomplete families were the reference group.

## Discussion

The aim of this study was to examine whether perceived discrimination explained the relationship between migration background and externalizing behaviours, and whether school connectedness, teacher support, and classmate support moderated the migration background – externalizing problem behaviours link. The findings suggested that perceived discrimination completely mediated the positive association between migration background and conduct problems, fighting, and bullying. Notably, immigrant adolescents reported lower levels of hyperactivity compared to native students, and when accounting for perceived discrimination,

the levels of hyperactivity went down even more. The results also suggested that school connectedness, teacher support, and classmate support did not moderate the relationship between migration background and externalizing problem behaviours, apart from higher levels of classmate support was associated with lower levels of bullying among both native and non-Western immigrant adolescents, but the effect was slightly stronger for the latter.

Partly in line with the first hypothesis, the findings suggested that immigrant adolescents perceive more discrimination, which in turn leads to higher rates of conduct problems, fighting, and bullying, but the same mechanism was not found for hyperactivity. It is consistent with notion that immigrant adolescents are at an increased risk for externalizing problem behaviours (Dimitrova et al., 2016; Duinhof, et al, 2020; Stevens et al., 2015), and past research suggesting that perceived discrimination is associated with externalizing problem behaviours (e.g. Brody et al., 2006; Maes, Stevens, & Verkuijten, 2014; Toblet et al. 2013). Perceived discrimination may cause stress responses (Pascoe & Smart Richman, 2009; Schmitt et al., 2014), which in turn may lead to the use of maladaptive coping strategies (Clark, Anderson, Clark, & Williams, 1999; Harrel, 2000). There are different types of coping, active coping, passive coping, support seeking, and distraction coping (Ayers, Sandler, West, & Roosa, 1996; Billings & Moos, 1981; Lazarus & Folkman, 1984). So far, studies have shown mixed results regarding which type of coping mediates between stress related to perceived discrimination and it's outcomes (Alvarez & Juang, 2010; Liang, Alvarez, Juang, & Liang, 2007). Future studies could examine what type of coping strategy mediates the association between perceived discrimination and externalizing problem behaviours for a better overall understanding of immigrant adolescents increased risk for problem behaviours. Notably, non-Western immigrant adolescent reported lower levels of hyperactivity, and this was not mediated by perceived discrimination. While this was not in line with the hypothesis, it has also been found in previous studies (Derluyn, Broekaert, & Schuyten, 2008; Looze et al., 2014). Moreover, lower levels of hyperactivity of non-Western immigrant adolescents compared to native adolescents in the Netherlands have been consistent over time (Duinhof, Stevens, Van Dorsselaer, Monshouwer, & Vollebergh, 2015).

Not in line with the second hypothesis, the findings suggested that school connectedness, teacher support, and classmate support did not moderate the relationship between migration background and externalizing problem behaviours. Only classmate support has been found to work as a buffer in the association between migration background and bullying. The finding is not consistent with past research (e.g. Titzmann, Raabe, &

Silbereisen, 2008). The social control theory (Hirschi, 1969) states that strong social bonds inhibit externalizing behaviours. While the findings were not consistent with this theory, it is possible that other social bonds might inhibit externalizing behaviours more. The social ecological model of Bronfenbrenner (1977) has been often used to conceptualize the influence of contextual variables such as family and school. For instance, the messages parents give their children about aggression is more associated with bullying than school connectedness among ethnic minorities in the US (Vera et al., 2017). Perhaps parental factors are more important than school climate variables in the externalizing behaviours of immigrant youth. Future studies could examine which factor is more influential in immigrant youngsters' engagement in externalizing problem behaviours. The finding that classmate support moderated bullying rates of immigrant adolescents can be explained by that class cohesion may reduce feelings of competition and friction, as bullying often involves power differences between perpetrator and victim (Olweus, 1991).

Some limitations should be highlighted before concluding. This study was cross-sectional of nature, thus causal links cannot be established. While literature has mainly suggested a causal link from perceived discrimination to externalizing behaviours, future studies should be longitudinal of nature when examining the mechanism behind this association. A strength of this study was the use of a big nationally representative sample. This makes it easier to generalize to the adolescent population within the Netherlands, and perhaps even to societies similar in demographics such as other Western-European countries like Belgium and Germany. There were no distinctions made between the different ethnic groups, another limitation that should be considered. Moroccan and Turkish adolescents often have a religious background, which can influence the engagement of problem behaviours (Maes, Stevens, & Verkuijten, 2014).

Notwithstanding the limitations, this study indicates that Dutch immigrant adolescents run an increased risk of externalizing problem behaviours due to perceiving discrimination in their environment. School program interventions should focus on raising the awareness of racism and discrimination, and improving social cohesion among the students, as perceiving discrimination is not only related to increased externalizing problem behaviours, but also negatively affects one's well-being (Schmitt et al., 2014).

## References

- Agirdag, O., Demanet, J., Van Houtte, M., & Van Avermaet, P. (2011). Ethnic school composition and peer victimization: A focus on the interethnic school climate. *International Journal of Intercultural Relations*, *35*, 465–473. <https://doi.org/10.1016/j.ijintrel.2010.09.009>
- Agnew, R. (2001). Building on the foundation of general strain theory: specifying the types of strain most likely to lead to crime and delinquency. *Journal of Research in Crime and Delinquency*, *38*(4), 319–361.
- Alvarez, A. N., & Juang, L. P. (2010). Filipino americans and racism: a multiple mediation model of coping. *Journal of Counseling Psychology*, *57*(2), 167–78. <https://doi-org.proxy.library.uu.nl/10.1037/a0019091>
- Ayers, T. S., Sandler, I. N., West, S. G., & Roosa, M. W. (1996). A dispositional and situational assessment of children's coping: testing alternative models of coping. *Journal of Personality*, *64*(4), 923–58
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173-1182.
- Borders, A., & Liang, C. T. H. (2011). Rumination partially mediates the associations between perceived ethnic discrimination, emotional distress, and aggression. *Cultural Diversity and Ethnic Minority Psychology*, *17*(2), 125–133.
- Battistich, V., & Hom, A. (1997). The relationship between students' sense of their school as a community and their involvement in problem behavior. *American Journal of Public Health*, *87*, 1997–2001.
- Battistich, V., Solomon, D., Kim, D., Watson, M., & Schaps, E. (1995). Schools as Communities, Poverty Levels of Student Populations, and Students' Attitudes, Motives, and Performance: A Multilevel Analysis. *American Educational Research Journal*. <https://doi.org/10.3102/00028312032003627>

- Bayram Özdemir S, Özdemir M, & Stattin, H. (2019). Ethnic harassment and immigrant youth's engagement in violent behaviors: understanding the risk factors. *Child Development, 90*(3), 808–824. <https://doi-org.proxy.library.uu.nl/10.1111/cdev.12975>
- Benner, A. D., Wang, Y., Shen, Y., Boyle, A. E., Polk, R., & Cheng, Y. P. (2018). Racial/ethnic discrimination and well-being during adolescence: A meta-analytic review. *American Psychologist, 73*(1), 1–11. <https://doi.org/10.1037/amp0000204>
- Billings, A. G., & Moos, R. H. (1981). The role of coping responses and social resources in attenuating the stress of life events. *Journal of Behavioral Medicine, 4*(2), 139–157. <https://doi-org.proxy.library.uu.nl/10.1007/BF00844267>
- Brody, G. H., Chen, Y.-F., Murry, V. M. B., Simons, R. L., Ge, X., Gibbons, F. X., ... Cutrona, C. E. (2006). Perceived discrimination and the adjustment of african american youths: a five-year longitudinal analysis with contextual moderation effects. *Child Development, 77*(5), 1170–1189.
- Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist, 32*, 513–531
- Brookmeyer, K. A., Fanti, K. A., & Henrich, C. C. (2006). Schools, parents, and youth violence: A multilevel, ecological analysis. *Journal of Clinical Child and Adolescent Psychology, 35*(4), 504–14. [https://doi.org/10.1207/s15374424jccp3504\\_2](https://doi.org/10.1207/s15374424jccp3504_2)
- Brooks, J. E. (2006). Strengthening resilience in children and youths: Maximizing opportunities through the schools. In *Children and Schools*. <https://doi.org/10.1093/cs/28.2.69>
- CBS. (2020). [Hoeveel mensen met een migratieachtergrond wonen in Nederland?]. Retrieved June 14th from <https://opendata.cbs.nl/#/CBS/nl/dataset/37325/table>. <https://doi.org/10.1007/s00127-019-01821-8>
- Chun, H., & Mobley, M. (2014). The “Immigrant Paradox” Phenomenon: Assessing Problem Behaviors and Risk Factors Among Immigrant and Native Adolescents. *Journal of Primary Prevention, 34*(1), 1–11. <https://doi.org/10.1007/s10935-014-0359-y>

- Clark, R., Anderson, N. B., Clark, V. R., & Williams, D. R. (1999). Racism as a Stressor for African Americans: A Biopsychosocial Model. *American Psychologist*.  
<https://doi.org/10.1037/0003-066X.54.10.805>
- Coker, T. R., Elliott, M. N., Kanouse, D. E., Grunbaum, J. A., Schwebel, D. C., Gilliland, M. J., Tortolero, S. R., Peskin, M. F., & Schuster, M. A. (2009). Perceived racial/ethnic discrimination among fifth-grade students and its association with mental health. *American Journal of Public Health*. <https://doi.org/10.2105/AJPH.2008.144329>
- Currie, C., Molcho, M., Boyce, W., Holstein, B., Torsheim, T., & Richter, M. (2008). Researching health inequalities in adolescents: the development of the health behaviour in school-aged children (hbsc) family affluence scale. *Social Science & Medicine*, 66(6), 1429–1436. <https://doi-org.proxy.library.uu.nl/10.1016/j.socscimed.2007.11.024>
- Derluyn, I., Broekaert, E., & Schuyten, G. (2008). Emotional and behavioural problems in migrant adolescents in Belgium. *European Child & Adolescent Psychiatry*, 17(1), 54–62. <https://doi-org.proxy.library.uu.nl/10.1007/s00787-007-0636-x>
- Dimitrova, R., Chasiotis, A., & Van De Vijver, F. (2016). Adjustment outcomes of immigrant children and youth in Europe: A meta-analysis. *In European Psychologist*.  
<https://doi.org/10.1027/1016-9040/a000246>
- DiPietro, S. M., Slocum, L. A., & Esbensen, F. A. (2015). School Climate and Violence: Does Immigrant Status Matter? *Youth Violence and Juvenile Justice*.  
<https://doi.org/10.1177/1541204014547589>
- Duinhof, E. L., Smid, S. C., Vollebergh, W. A. M., & Stevens, G. W. J. M. (2020b). Immigration background and adolescent mental health problems: the role of family affluence, adolescent educational level and gender. *Social Psychiatry and Psychiatric Epidemiology*.
- Duinhof, E. L., Stevens, G. W. J. M., van Dorsselaer, S., Monshouwer, K., & Vollebergh, W. A. M. (2015). Ten-year trends in adolescents' self-reported emotional and behavioral problems in the netherlands. *European Child & Adolescent Psychiatry*, 24(9).

- Elsaesser, C., Gorman-Smith, D., & Henry, D. (2013). The Role of the School Environment in Relational Aggression and Victimization. *Journal of Youth and Adolescence*. <https://doi.org/10.1007/s10964-012-9839-7>
- García Coll, C., & Marks, A. K. (2012). *The immigrant paradox in children and adolescents: Is becoming American a developmental risk?*. Washington, DC: American Psychological Association
- Guarnaccia, P. J., & Lopez, S. (1998). The mental health and adjustment of immigrant and refugee children. *Child and Adolescent Psychiatric Clinics of North America*. [https://doi.org/10.1016/s1056-4993\(18\)30228-1](https://doi.org/10.1016/s1056-4993(18)30228-1)
- Harrell, S. P. (2000). A multidimensional conceptualization of racism-related stress: implications for the well-being of people of color. *The American Journal of Orthopsychiatry*, 70(1), 42–57.
- Henry, D. B., Farrell, A. D., Schoeny, M. E., Tolan, P. H., & Dymnicki, A. B. (2011). Influence of school-level variables on aggression and associated attitudes of middle school students. *Journal of School Psychology*. <https://doi.org/10.1016/j.jsp.2011.04.007>
- Hirschi, T. (1969). *Causes of delinquency*. Berkeley: University of California Press
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer Publishing.
- Lee, D. L., & Ahn, S. (2013). The relation of racial identity, ethnic identity, and racial socialization to discrimination-distress: A meta-analysis of Black Americans. *Journal of Counseling Psychology*. <https://doi.org/10.1037/a0031275>
- Lee, M., & Lam, B. O.-Y. (2016). The academic achievement of socioeconomically disadvantaged immigrant adolescents: a social capital perspective. *International Review of Sociology*, 26(1), 144–173. <https://doi-org.proxy.library.uu.nl/10.1080/03906701.2016.1112528>

- Liang, C. T. H., Alvarez, A. N., Juang, L. P., & Liang, M. X. (2007). The role of coping in the relationship between perceived racism and racism-related stress for Asian Americans: gender differences. *Journal of Counseling Psychology, 54*(2), 132–141.
- Maes, M., Stevens, G. W. J. M., & Verkuijten, M. (2014). Perceived ethnic discrimination and problem behaviors in muslim immigrant early adolescents : moderating effects of ethnic, religious, and national group identification. *Journal of Early Adolescence, 34*(7).
- Olweus, D. (1991). Bully/victim problems among schoolchildren: Basic facts and effects of a school based intervention program. In D. J. Peplar & K. H. Rubin (Eds.), *The development and treatment of childhood aggression* (pp. 411–448). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Pascoe, E. A., & Smart Richman, L. (2009). Perceived Discrimination and Health: A Meta-Analytic Review. *Psychological Bulletin*. <https://doi.org/10.1037/a0016059>
- Phinney, J. S., Madden, T., & Santos, L. J. (1998). Psychological variables as predictors of perceived ethnic discrimination among minority and immigrant adolescents. *Journal of Applied Social Psychology, 28*(11), 937–953.
- Salas-Wright, C. P., Vaughn, M. G., Schwartz, S. J., & Córdova, D. (2016). An “immigrant paradox” for adolescent externalizing behavior? Evidence from a national sample. *Social Psychiatry and Psychiatric Epidemiology*. <https://doi.org/10.1007/s00127-015-1115-1>
- Schachner, M. K., Juang, L., Moffitt, U., & van de Vijver, F. J. R. (2018). Schools as acculturative and developmental contexts for youth of immigrant and refugee background. *European Psychologist, 23*(1), 44–56. <https://doi-org.proxy.library.uu.nl/10.1027/1016-9040/a000312>
- Schmitt, M. T., & Branscombe, N. R. (2002). The Meaning and Consequences of Perceived Discrimination in Disadvantaged and Privileged Social Groups. *European Review of Social Psychology*. <https://doi.org/10.1080/14792772143000058>
- Schmitt, M. T., Postmes, T., Branscombe, N. R., & Garcia, A. (2014). The consequences of perceived discrimination for psychological well-being: A meta-analytic review. *Psychological Bulletin*. <https://doi.org/10.1037/a0035754>

- Simons, R. L., Chen, Y. F., Stewart, E. A., & Brody, G. H. (2003). Incidents of discrimination and risk for delinquency: A longitudinal test of strain theory with an African American sample. *Justice Quarterly*, 20 (4). <https://doi.org/10.1080/07418820300095711>
- Simons, R. L., Simons, L. G., Burt, C. H., Drummund, H., Stewart, E., Brody, G. H., ... Cutrona, C. (2006). Supportive parenting moderates the effect of discrimination upon anger, hostile view of relationships, and violence among african american boys. *Journal of Health and Social Behavior*, 47(4), 373–389.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In Leinhardt (Ed.), *Sociological methodology* (pp. 290-312). Washington, DC: American Sociological Association.
- Stevens, G. W. J. M., Boer, M., Titzmann, P. F., Cosma, A., & Walsh, S. D. (2020). Immigration status and bullying victimization: associations across national and school contexts. *Journal of Applied Developmental Psychology*, 66. <https://doi-org.proxy.library.uu.nl/10.1016/j.appdev.2019.101075>
- Stevens, G., van Dorsselaer, S., Boer, M., de Roos, S., Duinhof, E., ter Bogt, T., van den Eijnden, R., Kuyper, L., Visser, D., Vollebergh, W., & de Looze, M. (2018). HBSC 2017: Gezondheid en welzijn van jongeren in Nederland. In Sociaal en Cultureel Planbureau.
- Stevens, G. W. J. M., Vollebergh, W. A. M., Pels, T. V. M., & Crijnen, A. A. M. (2005). Predicting externalizing problems in Moroccan immigrant adolescents in the Netherlands. *Social Psychiatry and Psychiatric Epidemiology*, 40(7), 571–579. <https://doi.org/10.1007/s00127-005-0926-x>
- Stevens, G. W. J. M., Walsh, S. D., Huijts, T., Maes, M., Madsen, K. R., Cavallo, F., & Molcho, M. (2015). An internationally comparative study of immigration and adolescent emotional and behavioral problems: Effects of generation and gender. *Journal of Adolescent Health*. <https://doi.org/10.1016/j.jadohealth.2015.07.001>
- Thijs, J., & Verkuyten, M. (2012). Ethnic attitudes of minority students and their contact with majority group teachers. *Journal of Applied Developmental Psychology*, 33, 260–268. <https://doi.org/10.1016/j.appdev.2012.05.004>

- Titzmann, P. F., Raabe, T., & Silbereisen, R. K. (2008). Risk and protective factors for delinquency among male adolescent immigrants at different stages of the acculturation process. *International Journal of Psychology, 43*(1), 19–31. <https://doi-org.proxy.library.uu.nl/10.1080/00207590701804305>
- Tobler, A. L., Maldonado-Molina, M. M., Staras, S. A. S., O'Mara, R. J., Livingston, M. D., & Komro, K. A. (2013). Perceived racial/ethnic discrimination, problem behaviors, and mental health among minority urban youth. *Ethnicity and Health*. <https://doi.org/10.1080/13557858.2012.730609>
- Torsheim, T., Wold, B., & Samdal, O. (2000). The teacher and classmate support scale: factor structure, test-retest reliability and validity in samples of 13- and 15-year-old adolescents. *School Psychology International, 21*(2), 195–212.
- Tummala-Narra, P., & Claudius, M. (2013). Perceived discrimination and depressive symptoms among immigrant-origin adolescents. *Cultural Diversity and Ethnic Minority Psychology*. <https://doi.org/10.1037/a0032960>
- Vaughn, M. G., Salas-Wright, C. P., Delisi, M., & Maynard, B. R. (2014). The immigrant paradox: Immigrants are less antisocial than native-born Americans. *Social Psychiatry and Psychiatric Epidemiology*. <https://doi.org/10.1007/s00127-013-0799-3>
- Vera, E. M., Daskalova, P., Hill, L., Floro, M., Anderson, B., Roche, M., ... Carr, A. (2017). Parental messages, school belonging, social skills, and personal control as predictors of bullying in ethnic minority adolescents. *School Mental Health : A Multidisciplinary Research and Practice Journal, 9*(4), 347–359. <https://doi-org.proxy.library.uu.nl/10.1007/s12310-017-9218-3>
- Walsh, S. D., De Clercq, B., Molcho, M., Harel-Fisch, Y., Davison, C. M., Rich Madsen, K., & Stevens, G. W. J. M. (2016). The relationship between immigrant school composition, classmate support and involvement in physical fighting and bullying among adolescent immigrants and non-immigrants in 11 countries. *Journal of Youth and Adolescence : A Multidisciplinary Research Publication, 45*(1), 1–16. <https://doi-org.proxy.library.uu.nl/10.1007/s10964-015-0367-0>

- Walsh, S. D., Harel-Fisch, Y., & Fogel-Grinvald, H. (2010). Parents, teachers and peer relations as predictors of risk behaviors and mental well-being among immigrant and Israeli born adolescents. *Social Science and Medicine*.  
<https://doi.org/10.1016/j.socscimed.2009.12.010>
- Wang, M. Te, & Degol, J. L. (2016). School Climate: a Review of the Construct, Measurement, and Impact on Student Outcomes. In *Educational Psychology Review*.  
<https://doi.org/10.1007/s10648-015-9319-1>
- Way, N., & Robinson, M. G. (2003). A longitudinal study of the effects of family, friends, and school experiences on the psychological adjustment of ethnic minority, low-SES adolescents. *Journal of Adolescent Research*.  
<https://doi.org/10.1177/0743558403018004001>
- Williams, D. R., & Mohammed, S. A. (2009). Discrimination and racial disparities in health: Evidence and needed research. *Journal of Behavioral Medicine*.  
<https://doi.org/10.1007/s10865-008-9185-0>
- Wilson, D. (2004). The interface of school climate and school connectedness and relationships with aggression and victimization. *Journal of School Health*.  
<https://doi.org/10.1111/j.1746-1561.2004.tb08286.x>
- Wirth, J. H., & Williams, K. D. (2009). "They don't like our kind": Consequences of being ostracized while possessing a group membership. *Group Processes and Intergroup Relations*. <https://doi.org/10.1177/1368430208098780>