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# Ethno-religious discrimination and adjustment among Muslim adolescents: the promotive and protective roles of ethnic and religious identification

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## ABSTRACT

Due to rising Islamophobia in Europe today, Muslim ethnic minority adolescents are at great risk of experiencing identity-based harassment at school. We extend previous research on ethnic discrimination by focusing on religious discrimination of Muslim adolescents and its effect on their psychological (i.e., depressive symptoms and self-esteem) and behavioural adjustment (i.e., disruptive behaviour at school). Further, we consider Muslim adolescents' ethnic and religious identification as two factors that may promote adolescents' adjustment and protect them from the negative consequences of discrimination. We used data from  $N = 105$  Muslim ethnic minority adolescents ( $M_{\text{age}} = 13.30$ ,  $SD = 0.75$ , 45% female). Factor analysis revealed that adolescents did not differentiate between ethnic and religious discrimination. Results show that higher perceived ethno-religious discrimination (PERD) was related to more depressive symptoms. While higher ethnic identification was associated with greater self-esteem, higher religious identification was related to fewer depressive symptoms. Contrary to our expectation, Muslim adolescents who were highly identified with their ethnic group reported more depressive symptoms when experiencing more PERD. Their self-esteem was negatively affected by higher PERD when possessing high religious identification, while for low religious identification a positive effect of higher PERD on self-esteem emerged. Results highlight the importance of developing evidence-based intervention programmes for schools to tackle identity-based harassment.

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**KEYWORDS** Perceived ethno-religious discrimination; ethnic identification; religious identification; Muslim ethnic minority adolescents; psychological & behavioural adjustment

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## Introduction

Following the terrorist attacks on 11 September 2001 in the US, Anti-Muslim and islamophobic sentiments have also increased in Europe (Bayrakli & Hafez, 2022), resulting in a rising number of threats and attacks against Muslims and mosques in Germany (Bundesinnenministerium, 2021). As negative feelings and fears towards Islam and its followers tend to be already present in adolescence (Kaddor et al., 2018), Muslim ethnic minority adolescents<sup>1</sup> are at great risk of experiencing discrimination at school. Indeed, evidence from Germany shows that particularly youth who are Muslim or who are perceived by others to be Muslim often face discrimination at school by peers and teachers (SVR-Forschungsbereich, 2018). Yet, it is unclear if this discrimination is mostly on ethnic or religious grounds or both. So far studies have focused on ethnic discrimination but did not include religious discrimination of (Muslim) adolescents and its impact on their adjustment over and above ethnic discrimination (e.g., Benner et al., 2018; Maes et al., 2014).

When studying the influence of perceived ethnic discrimination (PED) and perceived religious discrimination (PRD) on adolescents' psychological and behavioural adjustment, a risk and resilience framework offers an appropriate lens to identify risk and protective factors and how they work in concert and influence adolescents' adjustment. Resilience can be described as the adolescents' ability to do well in forms of positive patterns of adjustment or development, during or following risk factors that threaten their adaptive function and future development (Masten, 2014; Motti-Stefanidi et al., 2021). While examining PED and PRD as potential risk factors for Muslim adolescents' adjustment, it is also important to identify factors that protect the adolescents from the potential negative consequences of PED and PRD and promote their adjustment. Feeling a strong sense of connection to one's social groups may play a key role in maintaining psychological well-being as well as managing different forms of social identity-based devaluation (Lou et al., 2023). Research has yet to examine the potential protective role of religious identification over and above ethnic identification in the association between ethnic and religious discrimination and adjustment.

In this study, we specifically explore the roles of PED and PRD at school by teachers and peers on Muslim ethnic minority adolescents' adjustment

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<sup>1</sup>We use the term *Muslim ethnic minority adolescents* to describe adolescents, who self-identified as Muslims, have at least one foreign-born parent or grandparent and either have been born outside (first generation) or within (second and third generation) Germany.

while considering ethnic and religious identification as possible promotive and protective factors. This study extends previous research (Greene et al., 2006; Tineo et al., 2021) in five ways, namely by (a) specifically examining the roles of PED and PRD in the school context; (b) focusing on the impact of PRD on Muslim adolescents' adjustment over and above that of PED; (c) testing the buffering role of religious identification over and above ethnic identification; (d) including two psychological (depressive symptoms and self-esteem) and one behavioural (disruptive behaviour at school) indicator of adjustment (with most studies focusing on psychological outcomes only; e.g., Bierwiazzonek & Waldzus, 2016); and (e) focusing on Muslim ethnic minority adolescents, who in particular constitute an at-risk population for identity-based discrimination due to rising Islamophobia in Europe.

### ***Perceived discrimination as a risk factor for psychological and behavioral adjustment***

During adolescence, identity formation and thus developing a stable and enduring self is a core developmental task. In the school context adolescents use their peers and teachers as a reflective mirror to gather information about themselves (Matsueda, 1992). By relying on the perceptions and thoughts of their peers and teachers in this way, ethnic minority adolescents become highly vulnerable to experiences of ethnic and religious identity-based discrimination. Perceiving that something about the self is rejected or disliked by others can lead to a loss of self-esteem, more depressive symptoms and greater psychological stress when incorporating these discriminatory appraisals (Denise, 2012; Thijs et al., 2018). Being discriminated against can also evoke rebellion from some minority adolescents against unjust treatment, resulting in negative behavioural adjustment (Marcelo & Yates, 2019).

For Muslim adolescents, experiences of PED and PRD at school by peers and teachers can evoke the feeling of being devalued because of their ethnicity and their religion, and thus can act as risk factors regarding their adjustment and developmental outcomes (Suárez-Orozco et al., 2018; Utley et al., 2021). While multiple studies (for a meta-analytic review, see Benner et al., 2018) highlighted PED as an important risk factor for psychological (i.e., poorer self-esteem and more depressive symptoms) and behavioural (i.e., more aggression and delinquency) adjustment during adolescence, studies focusing on Muslim ethnic minority adolescents'

experiences of religious discrimination at schools and its implications for their adjustment are rare. Balkaya et al. (2019) found that religious discrimination is related to more internalizing problems for Muslim-American adolescents. Still, to our knowledge, research has yet to examine the impact of religious discrimination on Muslim adolescents' adjustment over and above that of ethnic discrimination.

### ***Two potential promotive and protective factors: ethnic and religious identification***

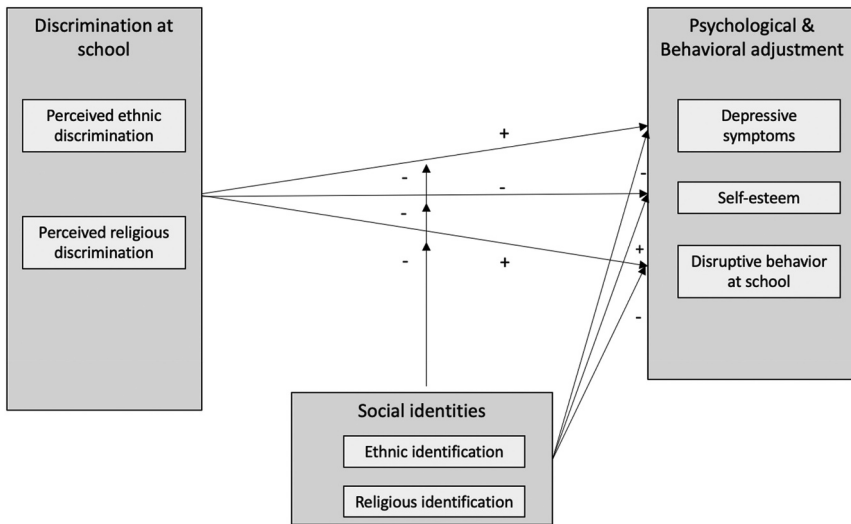
While examining PED and PRD as potential risk factors for the psychological and behavioural adjustment amongst Muslim ethnic minority adolescents in Germany, it is also necessary to identify factors that can counteract and buffer these effects. Within the risk and resilience framework these factors can be described as promotive and protective factors, ensuring that children and adolescents exhibit positive developmental outcomes despite at-risk contexts (Masten, 2015). While promotive factors counteract the risk factor through their direct positive influence on developmental outcomes, protective factors serve as buffers, ensuring that the relation between risks and problematic development is attenuated (Fergus & Zimmerman, 2005). Identifying with their ethnic group can help adolescents gain a better sense of who they are (Umaña-Taylor et al., 2014). In addition, research on Muslim adolescents from Germany suggests that religious identity should be considered as an additional, related but distinct facet of identity (Fleischmann et al., 2019). Drawing on social identity theory (Tajfel & Turner, 1986), Branscombe et al. (1999) argued that strong ethnic identification can serve as a psychological buffer against the negative consequences of ethnic discrimination, assuming that feeling connected with one's ethnic group compensates for the negative consequences of ethnic discrimination. Thus, for Muslim adolescents, when experiencing ethnic and religious discrimination, high identification with their ethnic and religious group may buffer the effects of discrimination on their adjustment by reinforcing unique aspects of these two groups. While having a clearer commitment and stronger attachment to their ethnic and religious group, Muslim adolescents can still feel good when being discriminated because they focus on positive aspects of their group memberships which

compensates for the negative consequences of discrimination. In reverse it means that Muslim adolescents with low ethnic and religious identification may have less psychological resources to deal with instances of PED and PRD.

There is a well-established relationship between ethnic identification and adjustment outcomes (see Rivas-Drake et al., 2014 for an international meta-analysis). Research in Germany has found that adolescents of immigrant descent with a stronger ethnic identity may have better adjustment outcomes and well-being (e.g., Kunyu et al., 2021). Regarding the protective effect of ethnic identification in the relationship between perceived discrimination and adjustment, youth with a strong sense of ethnic identification were found to be less negatively affected in their adjustment by perceived discrimination than those who were less identified (Greene et al., 2006; Kunyu et al., 2021).

Another central identity of Muslim youth is their religious identity. Religion and ethnicity are often strongly intertwined and influence each other (Hutchinson & Smith, 1996), with religious practices becoming and shaping cultural habits (see e.g., Yilmaz, 2014). Religion is often considered among the core cultural elements that immigrant parents aim to pass on to their children (Phalet et al., 2018). In addition, in the current intergroup climate generic social representations tend to ascribe ethnic minority youth who originated from majority-Muslim countries a Muslim identity further blurring their religious and ethnic identities (Slootman, 2014).

However, despite possible interconnections between their religious and ethnic identity, Fleischmann et al. (2019) have shown that Muslim youth do distinguish in their self-identification between their religious and ethnic group membership to some extent. Similar to research on ethnic identification, studies have shown that religious identification (i.e., feeling commitment to one's religious group) may act also as a promotive and protective factor for Muslim ethnic minority adolescents' adjustment (e.g., Balkaya et al., 2019). For example, research amongst U.S. college students shows a protective role of Muslim identity on mental health in the face of discrimination (Tineo et al., 2021). To our knowledge research has yet to examine religious identification as a protective factor over and above ethnic identification for Muslim adolescents in Europe.



**Figure 1.** Summary of expected relations.

### **The present study**

As shown in [Figure 1](#), we investigated the associations of ethnic and religious identification with different aspects of psychological and behavioural adjustment (depressive symptoms, self-esteem and disruptive behaviour at school) among Muslim ethnic minority adolescents in Germany in the face of PED and PRD at school. Using a risk and resilience perspective (Jenson & Fraser, 2006), we expected that high experiences of PED and PRD at school will be associated with lower adjustment (i.e., more depressive symptoms, less self-esteem and more disruptive behaviour at school; Hypothesis 1). Consistent with research showing that higher ethnic (e.g., Rivas-Drake et al., 2014) and religious (e.g., Balkaya et al., 2019) identification have beneficial effects on ethnic minority adolescents' mental health and adjustment, we, moreover, expected Muslim ethnic minority adolescents to show better adjustment outcomes when identifying highly with their ethnic (Hypothesis 2a) or religious group (Hypothesis 2b). Based on previous findings on the buffering effects of ethnic and Muslim identity (Kunyu et al., 2021; Tineo et al., 2021), we hypothesized that ethnic (Hypothesis 3) and religious (Hypothesis 4) identification will buffer the negative effects of PED and PRD on Muslim ethnic minority adolescents' adjustment.

## Materials and methods

### *Data and participants*

We used data from  $N = 105$  Muslim ethnic minority students in Germany. Students self-identified as Muslim, indicated to have at least one foreign-born parent or grandparent and have been born outside (first generation) or within (second and third generation<sup>2</sup>) Germany. Data collection took place in 2021 and 2022 across 18 classrooms in six culturally diverse schools in Halle (Saale) and Berlin, Germany. While seven classrooms each participated from non-academic track secondary schools and comprehensive secondary schools, four classrooms from academic track secondary schools took part in our study. Data of all students of participating classes was collected. On average, classrooms were composed of 51% youth of immigrant descent, with 32% self-identified as Muslim. Schools were recruited at network meetings and school staff meetings, where we presented our study, and we obtained approval from the education authorities of Berlin and Saxony-Anhalt as well as parental consent for students to participate in the study. Adolescents completed the paper-pencil survey voluntary during two class periods and received a small gift for their participation. Anonymity was guaranteed and the survey materials were available in German, the language of school instruction. If students had comprehension and/or language-related questions when filling out the questionnaire, research assistants were present to help them. The study was preregistered on OSF (<https://osf.io/zg6fv>).

While ages of our sample ranged from 12 to 15 ( $M_{\text{age}} = 13.30$ ,  $SD = 0.75$ ), 45% identified themselves as female. Moreover, participants primarily stated Syrian ( $n = 28$ ), German-Syrian ( $n = 18$ ), Turkish ( $n = 16$ ) and Kurdish ( $n = 16$ ) as their heritage identities. Of  $n = 70$  first-generation immigrant participants,  $n = 38$  indicated to have left their home country because of persecution, fear of violent conflicts and/or war and were therefore considered refugees (United Nations High Commissioner for Refugees, 1951).

### *Measures*

#### *Psychological and behavioral adjustment*

Seven items of the German version (Kohlmann & Gerbershagen, 2006) of the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) measured the extent to which participants reported depressive

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<sup>2</sup>While  $n = 34$  adolescents indicated to have at least one foreign-parent (second generation),  $n = 1$  indicated to have at least one foreign-born grand-parent (third generation).



symptoms (e.g., 'I felt like a bad person';  $\alpha = 0.89$ ) on a scale ranging from 1 (*not at all or less than 1 day last week*) to 4 (*five to seven days last week*). Self-esteem was assessed with four items (e.g., 'On the whole, I am satisfied with myself';  $\alpha = 0.81$ ) of the revised German version of the Rosenberg Self-esteem scale (Collani & Herzberg, 2003) on a 4-point Likert-scale from 1 (*strongly disagree*) to 4 (*strongly agree*).

For disruptive behaviour at school, adolescents answered four items (e.g., 'How often did you throw something around during class in the last 4 weeks?';  $\alpha = 0.72$ ) on a 5-point Likert-scale from 1 (*almost never*) to 5 (*very often*) from Jenkins (1995) scale on delinquency and school commitment. These items were previously used with a similar sample (Schachner et al., 2018). Both, for psychological and behavioural adjustment item structures were revealed based on factor analyses.

### *Ethnic and religious identification*

We measured ethnic and religious identification (commitment) with five items each on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*). While the original items by Leszczensky and Gräbs Santiago (2014) measured ethnic identity commitment, we created parallel items for religious identity (e.g., 'I feel like I am part of my religion';  $\alpha = 0.91$ ). For ethnic identity, reliability was improved ( $\alpha = 0.91$ ) when only three items were retained. Items can be found in the Supplementary Material, Table S1. Results of Confirmatory factor analyses (CFA) revealed acceptable model fit for both, ethnic (RMSEA = 0.061, 90% (CI 0.052; 0.078); SRMR = 0.046; CFI = 0.913; TLI = 0.902; chi-square = 114.297,  $p = 0.000$ ) and religious identification (RMSEA = 0.053, 90% (CI 0.041; 0.069); SRMR = 0.040; CFI = 0.932; TLI = 0.908; chi-square = 117.398,  $p = 0.000$ ).

### *Perceived ethno-religious discrimination*

We used items by Titzmann et al. (2011) for ethnic discrimination (e.g., 'My schoolmates laughed at me because I have a different heritage culture'), formulating parallel items for religious discrimination. Adolescents responded on a scale from 1 (*never*) to 5 (*more than 10 times*). As the scales for perceived ethnic and religious discrimination correlated highly ( $r(103) = .834$ ,  $p < .001$ ), we treated them as a single 10-item scale measuring *perceived ethno-religious discrimination* ( $\alpha = 0.90$ ). Results of our one-factor CFA revealed an acceptable model fit (RMSEA = 0.033, 90% (CI 0.021; 0.058); SRMR = 0.017; CFI = 0.930; TLI = 0.870; chi-square = 378.286,  $p = 0.081$ ). Items can be found in the Supplementary Material, Table S1.

### Control variables

To estimate net effects of the main predictor variables, *age*, *gender*<sup>3</sup> (1 = girls, 0 = boys), *immigrant generation* (1 = first generation, 0 = second and third generation), *refugee status* (1 = refugee, 0 = no refugee), *school track* (1 = non-academic track secondary schools, 0 = academic track secondary schools) and *socioeconomic status* (SES) were included as statistical controls in our models. The SES of adolescents was assessed with the question whether the adolescent has his or her own room at home (1 = yes, 0 = no) (Boyce et al., 2006).

### Analyses

We tested our hypotheses using structural equation modelling (SEM) in Mplus 8, version 1.6 (Muthen & Muthen, 1998-2017), controlling for age, gender, immigrant generation, refugee status, school track and SES. We tested direct effects of PERD, ethnic and religious identification on psychological and behavioural adjustment outcomes (Model 1) and interaction effects of PERD with ethnic and religious identification on the adjustment measures (Model 2) for Muslim ethnic minority adolescents. Model fit was evaluated with Chi-square ( $p > .05$ ), Comparative fit index (CFI  $> .90$ ), Tucker-Lewis Index (TLI  $> .90$ ), Root Mean Square Error of Approximation (RMSEA  $< .06$ ), and Standardized Root Mean square Residuals (SRMR  $< .08$ ) (Hu & Bentler, 1999). Models were estimated with full information maximum likelihood (FIML), which is recommended to effectively make use of all available information while accommodating missing values (Enders, 2010).

## Results

### Descriptive results

Our participants reported a moderate amount of PERD at school (range 1–4;  $M = 1.38$ ,  $SD = 0.63$ ). The mean scores of ethnic ( $M = 3.54$ ,  $SD = 0.64$ ) and religious ( $M = 3.60$ ,  $SD = 0.63$ ) identification were close to the positive end of their 4-point scale, suggesting that Muslim ethnic minority adolescents identified quite strongly with their ethnic and religious group, respectively. Concerning their psychological and behavioural adjustment, participants showed a moderate level of depressive symptoms (range 1–4;  $M = 1.79$ ,  $SD = 0.76$ ) and disruptive behaviour at school (range 1–5;  $M = 2.08$ ,

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<sup>3</sup>While indicating their gender, participants could also choose 'Non-binary'; in our sample no participant did this.

$SD = 0.90$ ). Meanwhile, their average self-esteem score was slightly over '3' on its 4-point scale ( $M = 3.05$ ,  $SD = 0.72$ ), indicating psychological adjustment on a rather high level. Bivariate correlations between the main study variables can be found in the Supplementary Material, Table S2. Except for the chi-square test, the final model fit for the rest of the indices was adequate to good (RMSEA = 0.055, 90% (CI 0.043; 0.068); SRMR = 0.109; CFI = 0.910; TLI = 0.880; chi-square = 105.314,  $p < 0.001$ ).

### *Results of structural equation modeling*

Model results with standardized regression coefficients, while controlling for immigrant generation, refugee status, age, gender, school track and SES, are presented in Table 1. In Model 1 (direct effects) higher experiences of PERD at school were significantly related to more depressive symptoms. ( $\beta = 0.476$ ,  $p < 0.001$ ) while they were unrelated to self-esteem and disruptive behaviour at school. Therefore, Hypothesis 1 was only partly confirmed.

Partly confirming Hypothesis 2a and 2b, both measures of identification were associated with some indicators of a better psychological adjustment. More precisely, Muslim ethnic minority adolescents who reported more ethnic identification also reported higher self-esteem ( $\beta = 0.393$ ,  $p < 0.001$ ), while no associations were found with depressive symptoms and disruptive behaviour at school. In addition, a higher religious identification was significantly related to less depressive symptoms ( $\beta = -0.336$ ,  $p = 0.001$ ), while no associations were found with self-esteem and disruptive behaviour at school.

Concerning Hypothesis 3, in Model 2 (interaction effects) a significant two-way interaction effect between PERD at school and ethnic identification on depressive symptoms emerged. Conducting simple slope analysis (Aiken et al., 1991), we examined the effect of PERD at school on Muslim ethnic minority adolescents' depressive symptoms separately for those low ( $1\ SD < M$ ) and high ( $1\ SD > M$ ) in ethnic identification. Adolescents showed more depressive symptoms when they perceived more ethno-religious discrimination, but only when they were highly identified with their ethnic group ( $\beta = 0.775$ ,  $p < 0.001$ ; Figure 2). Moreover, a significant interaction effect emerged between PERD and ethnic identification on Muslim ethnic minority adolescents' self-esteem. Yet, this association did not reach significance for low ( $1\ SD < M$ ) and high ( $1\ SD > M$ ) ethnic identifiers (Figure 3). Since – contrary to our expectation – we found that

**Table 1.** Results of the structural equation models ( $N = 105$ ).

	Model 1			Model 2		
	Depressive symptoms	Self-esteem	Disruptive behaviour at school	Depressive symptoms	Self-esteem	Disruptive behaviour at school
Perceived ethno-religious discrimination at school	0.476***	-0.154	0.169	0.426***	0.004	0.170
Ethnic identification	0.067	0.393***	0.205	0.056	0.356***	0.202
Religious identification	-0.336***	0.148	-0.146	-0.270**	0.018	-0.149
<i>2-way interaction terms</i>						
PERD at school X Ethnic identification				0.211*	-0.205*	
PERD at school X Religious identification					-0.272***	
<i>Controls</i>						
Immigrant Generation (1 <sup>st</sup> generation)	-0.039	0.090	-0.069	-0.032	-0.003	-0.074
Refugee Status (Refugee)	0.060	0.040	0.069	0.024	0.143	0.059
Age	0.004	-0.039	-0.055	0.017	-0.057	-0.061
Gender (Female)	0.248*	-0.011	0.050	0.266**	-0.035	0.050
School track (Non-academic track secondary school)	-0.007	0.296**	0.299*	0.005	0.286**	0.291*
Socioeconomic status	0.061	-0.134	0.252**	0.101	-0.159	0.254**
<i>Variance</i>						
R <sup>2</sup>	0.354	0.382	0.221	0.323	0.398	0.213

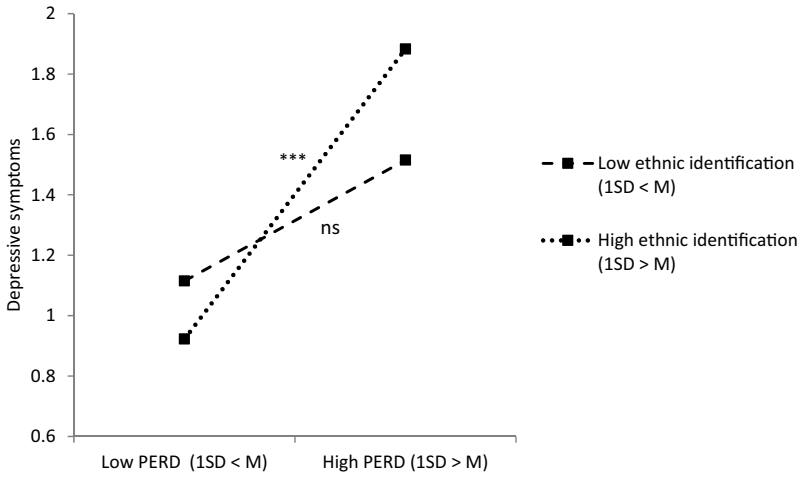
Standardized coefficients presented.

\*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ , † $p < .10$ .

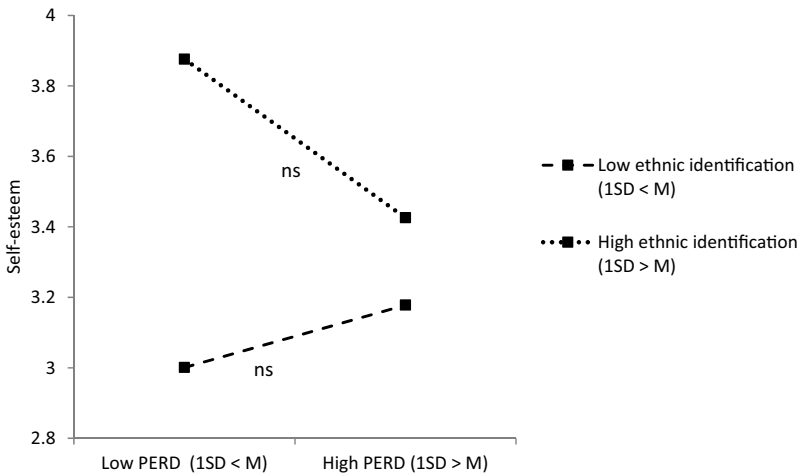
ethnic identification rather exacerbates the negative effect of PERD on adjustment (i.e., depressive symptoms), Hypothesis 3 had to be rejected.

Concerning Hypothesis 4, a significant two-way interaction effect emerged between PERD and religious identification for self-esteem. Adolescents who experienced more ethno-religious discrimination and were highly identified with their religious group showed less self-esteem ( $\beta = -0.542$ ,  $p = 0.013$ ), while low religious identifiers showed more self-esteem ( $\beta = 0.396$ ,  $p = 0.007$ ; Figure 4). Since our results did not reveal religious identification as a protective factor buffering the negative effect of PERD on Muslim adolescents' adjustment, Hypothesis 4 also had to be rejected.

Concerning our control variables, girls showed more depressive symptoms than boys. Further, adolescents attending non-academic

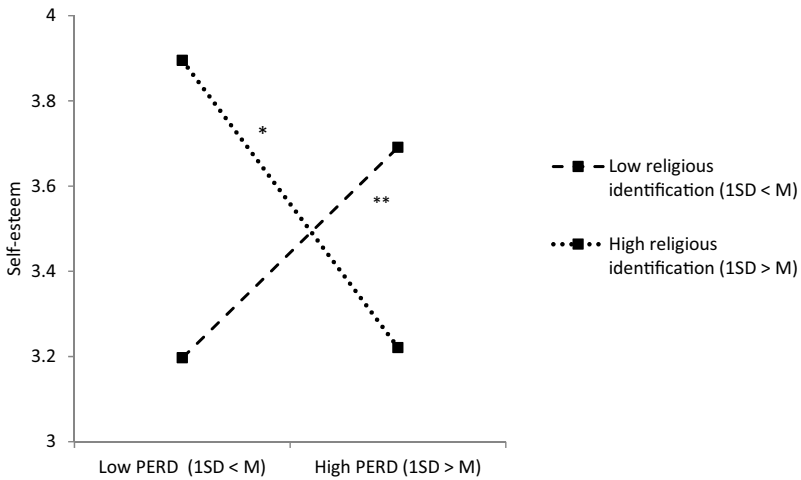


**Figure 2.** Effects of PERD on Muslim adolescents’ depressive symptoms dependent on the level of ethnic identification. Note. \*\*\* $p < .001$ , ns = not significant.



**Figure 3.** Effects of PERD on Muslim adolescents’ self-esteem dependent on the level of ethnic identification. Note. ns = not significant.

track secondary schools showed higher self-esteem and more disruptive behaviour at school than those attending academic track secondary schools, and adolescents with higher SES revealed more disruptive behaviour at school compared to those with lower SES. No significant differences in Muslim ethnic minority adolescents’ adjustment outcomes emerged for immigrant generation, refugee status and age.



**Figure 4.** Effects of PERD on Muslim adolescents' self-esteem dependent on the level of religious identification. \*\* $p < .01$ , \* $p < .05$ .

## Discussion

With Islamophobia rising in Europe, this study examines the associations of ethnic and religious discriminatory experiences with Muslim minority adolescents' psychological (i.e., depressive symptoms and self-esteem) and behavioural adjustment (i.e., disruptive behaviour at school). In doing so, we consider the adolescents' ethnic and religious identification as two factors that may *promote* their adjustment and *protect* them from the negative consequences of discriminatory experiences.

Our study goes beyond existing research on ethnic discrimination and identity by also including religious discrimination and identity of Muslim minority adolescents. For the Muslim adolescents in our sample, PERD and PRD mapped onto a joint construct of PERD, while ethnic and religious identification – as expected and found in previous research (Fleischmann et al., 2019) – remained separate. Thus, it seems that for discrimination experiences, it is hard for Muslim adolescents to distinguish whether others discriminate on ethnic or religious grounds, whereas for their own identification this distinction between ethnicity and religion matters.

As expected, our findings suggest that PERD can harm while ethnic and religious identification can promote Muslim minority adolescents' psychological adjustment. Although PERD was unrelated to adolescents' self-esteem, we did find that those who experienced more PERD reported more depressive symptoms. Moreover, higher ethnic

identifiers reported greater self-esteem, while higher religious identifiers showed fewer depressive symptoms. Thus, our findings are consistent with previous studies showing the harmful effects of discrimination (e.g., Benner et al., 2018) and the potential benefits of being highly committed to one's ethnic and/or religious group (e.g., Balkaya et al., 2019; Rivas-Drake et al., 2014). Identifying with their ethnic and religious groups can provide adolescents with a better sense of who they are, hence contributing to their psychological adjustment (e.g., Umaña-Taylor et al., 2014).

Interestingly, PERD and ethnic and religious identification were related to the adolescents' psychological, but not to their behavioural adjustment in the form of disruptive behaviour at school. This highlights the importance of distinguishing between different forms of adjustment. Regarding the relations between ethnic and religious identification and psychological adjustment (i.e., fewer depressive symptoms, greater self-esteem) our results are in accordance with previous research (e.g., Balkaya et al., 2019; Rivas-Drake et al., 2014). More research is needed to examine the mechanisms underlying these differential findings for behavioural and psychological adjustment.

Unexpectedly, beyond direct, promotive effects, we did not find that ethnic or religious identification protects the adolescents' adjustment in the face of PERD. On the contrary, high ethnic and high religious identifiers were found to be more vulnerable to experiences of PERD: Muslim adolescents identifying highly with their ethnic group reported more depressive symptoms and those identifying highly with their religious group reported lower self-esteem when experiencing PERD. One possible explanation could be that Muslim adolescents with high ethnic/religious identification may be more sensitive to rejection due to higher investment in their ethnicity/religion (Yoo & Lee, 2008). For highly identified adolescents, their ethnic/religious group membership forms a larger, and probably more central part of the self. Consequently, PERD may present an increased attack on the self, resulting in higher feelings of hurt and more depressive symptoms. Ferrari et al. (2022) found similar results showing the exacerbating role of adoptive identity in the relation between international adoptees' experienced victimization and psychosocial adjustment. Future studies should research the mechanisms that can explain the exacerbating roles of ethnic and religious identification in the association between PERD and psychological adjustment.

Finally, Muslim adolescents with low religious identification showed higher self-esteem when experiencing higher PERD. In accordance with the rejection-sensitivity argument, it might be that those adolescents were less sensitive to PERD due to their low religious identification (Yoo & Lee, 2008). In addition, boosting self-reported and thus explicit self-esteem (Verkuyten, 2005) could be a coping mechanism for low religious identifiers when experiencing PERD. While high religious identifiers may experience PERD as an attack on the self, low religious identifiers may be better able to defy such experiences by displaying greater explicit self-esteem.

The present study should be considered in the light of some limitations. First, we used cross-sectional data and therefore could not provide evidence for causality. While only providing a snapshot in time; this makes identifying the directionality of complex relationships between variables such as PERD, ethnic and religious identification and adjustment difficult. In addition, individual endorsement of identities can fluctuate over time in response to various social and contextual cues. There are a handful of longitudinal studies, suggesting that perceived discrimination has deleterious effects on adolescents' adjustment (e.g., Galliher et al., 2011). Future studies should use longitudinal designs to replicate our findings and test for causality. As a second limitation, we acknowledge that the present study only used self-report measures and a measure of PERD that only captured the frequency of different instances of discrimination but not their intensity. While in particular for measures of discrimination self-reports could reflect a coping mechanism (e.g., by under-reporting actual discrimination experiences), Muslim youth may have experienced similar instances of discrimination at school but in different intensities (Kaiser & Major, 2006). Upcoming studies should complement self-report measures with other methods to avoid such a minimization bias and measure also the intensity of discriminatory experiences. Moreover, in future studies, the relations between PERD, ethnic and religious identification and adjustment should be examined with a larger sample of participants to increase external validity and to minimize possible statistical flaws.

## Conclusion

Besides confirming harmful effects of PERD on Muslim adolescents' adjustment, our findings show that both ethnic and religious identification can promote adjustment, but they can also make adolescents more vulnerable to experiences of ethno-religious discrimination. Thus, intervention



programmes at school should not only promote ethnic and religious identity development but simultaneously also prevent and tackle discrimination and stimulate respectful intergroup relationships. While helping adolescents to develop a clearer understanding about their identities, programmes should also promote critical consciousness in order to make adolescents more aware of and resilient in the light of discrimination, as well as equipping them with strategies to combat discrimination (Mathews et al., 2020). One intervention programme for schools that seeks to achieve this dual aim is the Identity Project, an intervention developed in the US which is currently being implemented and evaluated in five European countries (Juang et al., 2022). In its eight sessions, adolescents learn more about their own and others' identities and critically reflect about discrimination, stereotyping and racism. This can promote a climate of critical consciousness in the classroom, which may make students more resilient in the light of discrimination (Juang et al., 2020).

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### Data availability statement

The data that supports the findings of this study are available on request from the corresponding author.

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