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DOI
10.1007/s12144-019-00498-1

Publication date
2021

Document Version
Final published version

Published in
Current Psychology

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Citation for published version (APA):

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Teacher interventions to student misbehaviors: The role of ethnicity, emotional intelligence, and multicultural attitudes

Ceren Su Abacioglu 1 · Monique Volman 1 · Agneta H. Fischer 2

Published online: 14 November 2019
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Abstract
Teachers play an important role in students’ educational trajectories. As a consequence, their approach to diversity in the classroom might contribute to an unfavorable educational position for ethnic minority students. The current study tested whether teachers in Dutch primary schools differed in their interventions towards ethnic minority students compared to ethnic majority students for the same kind of misbehavior and whether this difference was related to their multicultural attitudes and their abilities to recognize and interpret emotions. Teachers responded to scenarios depicted in vignettes, describing student misbehaviors, by providing the frequency with which they would engage in various intervention strategies. Our results yielded no significant differences in teachers’ intervention strategies to student misbehaviors based on student ethnic background. A notable finding was that teachers’ multicultural attitudes were related to their intervention strategies: an increase in teachers’ positive multicultural attitudes predicted an increase in relatively tolerant (e.g., discussing the misbehavior) as opposed to more dismissive intervention strategies (e.g., sending the student out of class). This finding may suggest that demonstrating positive attitudes towards multiculturalism reflects an awareness of and comfort with cultural diversity, as well as general understanding of individual differences between students and their behaviors.

Keywords Emotional intelligence · Multicultural attitudes · Student misbehaviors · Intervention strategies · Ethnic minority students · Primary education

Introduction
Ethnic minority students in Europe, while steadily improving their achievement, still continue to have an unfavorable educational position compared to their ethnic majority counterparts. They perform more poorly, have lower levels of retention and attainment, and thus are overrepresented in lower level and vocational tracks (OECD 2014). Even after controlling for their educational performance, ethnic minority students are less frequently recommended by their teachers for the higher-level educational tracks (Glock and Karbach 2015). As teachers can play an important role in shaping students’ educational trajectories, how they manage diversity in their classrooms might contribute to the unfavorable educational position of the ethnic minority students.

Daily interactions in and around the classroom have been suggested to have at least an equally high impact on students’ educational functioning as formal instruction does (Crystal et al. 2010; Verkuyten and Thijs 2013). Previous research suggested that teachers often react differently to students with a minority compared to a majority background during their daily interactions (e.g., classroom management; Glock 2016). The social and emotional functioning of teachers during these interactions can contribute to students’ social as well as educational functioning, including children’s motivation and educational achievement (Brown et al. 2010; Roorda et al. 2011).
Therefore, it is valuable to investigate potential reasons for unfair treatment of students with ethnic minority backgrounds. The Netherlands, where the current research is conducted, stands out amongst other European countries: migrants and minorities maintaining their cultural identities has increasingly been seen as holding them back from socio-economic mobility. Multiculturalism is thus perceived as a threat to their integration into the Dutch society (Rijkshoorn et al. 2005); and, although support for multiculturalism and multicultural policies are showing modest increases in other parts of Europe, it has been decreasing in the Netherlands (Banting and Kymlicka 2013). This may suggest a lack of awareness on the part of the teachers of the need to acknowledge cultural diversity.

A multicultural approach to diversity, on the other hand, acknowledges and values diversity and favors equal educational opportunities for students, no matter their backgrounds (Banks 2004). Teachers who have positive multicultural attitudes are more likely to recognize and value cultural differences between students, and are more likely to be aware of their own biases that might affect their judgments (Ponterotto et al. 1998). In addition, teachers’ sensitivity to emotional cues can help to recognize and interpret students’ feelings and intentions, and can thus promote more accurate judgments (Brackett and Ketulak 2007; Lee et al. 2016).

With the current study, we therefore aimed: 1) to investigate whether teachers in Dutch primary schools differ in their interventions toward ethnic majority versus ethnic minority children, and 2) to examine whether teachers’ multicultural attitudes and their abilities to attend to, recognize, and correctly interpret emotions (emotional intelligence) can account for these differences.

**Teacher Interventions to Student Misbehaviors**

Classroom management constitutes a major challenge for teachers. It has been previously reported that 30 to 80% of teachers’ time can be spent addressing student misbehaviors (Levin and Nolan 2014). The most commonly listed misbehaviors by teachers are negative attitudes including emotional, verbal, or physical bullying, lack of concentration/daydreaming/idleness, disobedience, being late to class, talking out of turn or chatting during the lesson (e.g., Iran: Aliakbari et al. 2013; US: Beaman et al. 2007; UK: Houghton et al. 1988; Spain: Kyriacou and Martin 2010; Australia: Little 2005; Norway: Stephens et al. 2005; China: Sun and Shek 2012; Turkey: Türnüklü and Galton 2001). Previous research on classroom management strategies has shown that these misbehaviors are more easily prevented if teachers give positively stated directives that describe the expected behaviors from the students, instead of instructing what not to do (Kerr and Nelson 2002). Positive relationship between students and teachers, and positive reinforcement of appropriate behavior are especially emphasized as key to promoting desirable behaviors and reaching positive educational outcomes (De Jong 2005).

It has been widely documented, however, that teachers are more likely to have positive interactions with majority groups students than with minority group students (Thijs et al. 2012). Minority students receive less attention, praise, feedback, and emotional support from their teachers than their ethnic majority peers (Gay 2000). These students, in addition, are more often subjected to disciplinary sanctions, and are treated more harshly (e.g., with office referral, suspension, and expulsion), even after controlling for achievement and behavior (Peguero and Shekarkhar 2011; Rocque and Paternoster 2011). The findings, however, seem to differ depending on the ethnic background of the students. In the U.S., African-American and Hispanic students fit this trend, whereas Asian students tend to be exceptions (Skiba 2015). While most research on the topic is conducted in the US, studies from Europe suggest that ethnic minorities residing in Europe might fit the overall pattern of unfair treatment. Glock (2016), for instance, investigated how likely German pre-service teachers were to apply varying intervention strategies to the same misbehavior of ‘talking out of turn’, when students’ names were varied to reflect either an ethnic minority or a majority student. The author showed that teachers were more likely to apply harsh (compared to moderately harsh and mild) intervention strategies to ethnic minority students. Weiner (2016) similarly showed that in a Dutch primary school, Turkish and Surinamese ethnic minority children were most likely to be subjected to negative classroom practices, such as call outs, discouragement, silencing, and disciplinary actions.

Yet, with the exception of one qualitative study (see Weiner 2016), there are, to our knowledge, no studies investigating teachers’ different intervention strategies to ethnic minority students in the Netherlands—in a context with decreasing support for multiculturalism. We therefore tested the hypothesis that (H1) teachers in Dutch primary schools differentially react to the same kind of student misbehavior, depending on the ethnic background of the student. More specifically, we expected that H1a) Teachers choose milder intervention strategies (do nothing or discuss the misbehavior) more frequently toward ethnic majority students than toward minority students for the same kind of misbehavior; and H1b) Teachers choose harsher intervention strategies (warn the student, send out of the classroom, or contact the parents) more frequently toward ethnic minority students than toward minority students for the same kind of misbehavior.

**Accounting for Differences in Teacher Interventions**

A second question is what may explain teachers’ differing intervention strategies based on students’ ethnic background. An obvious explanation is that the differences are due to ethnic minority students’ higher rates of misbehavior compared...
to that of the ethnic majority (Skiba 2015). While some studies showed that ethnic minority students engaged in problematic behaviors more often than the ethnic majority (e.g., Demanet and Van Houtte 2012), other studies documented unfair treatment from teachers even after controlling for the type of misbehavior (Peguero and Shekarkhar 2011; Rocque and Paternoster 2011). Research on teacher-reported problem behavior in Turkish immigrant and Dutch children similarly revealed no significant differences between the two groups in showing problematic behavior in the classroom, including social problems, attention problems, and delinquent and aggressive behavior (Crijnen et al. 2000).

In light of lacking consensus on actual differences in misbehavior, what explains how teachers react differently to misbehaviors of students with different backgrounds? One such factor could be the potential misunderstandings between students and teachers with different ethnic backgrounds, which has been listed by previous research in the Netherlands as one of the biggest challenges of diversity in education (van Tartwijk et al. 2009). Indeed, there is evidence that teachers often classify disruptive behaviors differently for majority and minority group students, and therefore respond more severely towards misbehaviors of ethnic minority children than towards identical behaviors of ethnic majority children (Ferguson 2001).

We argue that teachers may therefore differ in their awareness, knowledge, and skills in dealing with problematic behavior. In particular, some attitudes and skills could allow them to comprehend students with different backgrounds better, and to promote an open and tolerant learning atmosphere towards being different. We therefore investigated two factors that may explain differences (if any) in teacher intervention strategies to misbehaviors of students from different ethnic backgrounds: multicultural attitudes and emotional intelligence.

**Multicultural Attitudes**

Previous research has shown that teachers both expect and report on ethnic minority students to engage in more negative behaviors (Downey and Pribesh 2004; Pigott and Cowen 2000), amongst which are disruptive behavior, inattentiveness, and not completing homework (Weiner 2016). It has been suggested that cultural misunderstandings and social biases contribute to these negative teacher perceptions when interacting with students from different cultural backgrounds (Thijs et al. 2012). Indeed, in order to deal with the richness of information, we use our mental schemas about the world to process all information (Pickens 2005). These mental schemas, however, are informed by cultural assumptions and tend to bias judgments regarding appropriate behavior. These biases distort not only the perception of current behavior but also the expectations of future behavior (Gawronski et al. 2003).

Consequently, the intervention strategies that teachers find appropriate seem to also differ. Skiba et al. (2002) suggested that teachers with negative ethnic stereotypes—a set of characteristics attributed to a group or a member of that group (Dovidio et al. 2010), tend to react quicker and more severely to minority students’ misbehaviors. Similarly, Ferguson (2001) reports that ethnic minority students are punished more often whereas ethnic majority students receive more positive interventions. Using semi-structured interviews with teachers, Gregory and Mosely (2004) found that only less than 10% of the teachers considered how diversity issues were reflected in their beliefs and classroom practices when accounting for the disparities in their intervention strategies. The authors further argued that such a color-blind approach to diversity harms students as it fails to acknowledge their realities (e.g., discrimination) and allows teachers to disregard internalized beliefs that may influence their practices. Therefore, recognizing and valuing different perspectives, belief systems, and cultures, and understanding that one’s own values, beliefs, and attitudes might be biased can decrease the likelihood of misinterpretations and the use of unfair intervention strategies (Weinstein et al. 2004).

In the current study, we measured multicultural attitudes to capture these teacher qualities. Following Ponterotto et al. (1998, p. 1003), we define multicultural attitudes as “the level of comfort with and general attitudes towards cultural diversity in the classroom”. Teachers who hold positive multicultural attitudes are more aware of, sensitive to, and willing to embrace interpersonal differences and issues that accompany diversity, and are more aware of their own biases that may lead to inequitable outcomes (Ponterotto et al. 1998). We therefore expected that (H2) teachers who hold more positive multicultural attitudes would differ less in their interventions towards majority versus minority group children’s misbehaviors.¹

**Emotional Intelligence**

The role of emotions in educational contexts has been slow to gain attention (Schutz and Pekrun 2007) even though accurate emotion perception has been proposed to be crucial for interpersonal interactions (Fischer and Manstead 2008; Fridlund 1994; Keltner and Haidt 1999; Scherer 1988; Van Kleef et al. 2004). Emotional displays can rapidly and reliably convey information about others' mental states, intentions, and inclinations (Fridlund 1994; Keltner and Kring 1998).

¹ In saying this it should be noted that we do not claim a general colorblind approach to diversity. Rather, our hypothesis is specific to the intervention strategies identified and used in our study, which are not reinforcing in their nature.
The recognition and interpretation of emotion expression, however, might differ depending on implicit stereotypes or expectations. Elfenbein and Ambady (2002) showed that people are less accurate in recognizing emotions from members of another ethnic group. For example, teachers may interpret looking away either as a sign of shame or of indifference, depending on the ethnic background of the student (Kommattam et al. 2017). Townsend (2000) similarly suggested that majority group teachers in the U.S. might misinterpret passionate or emotive interactions as hostile or argumentative if they are unfamiliar with the interactional patterns of the African American culture. Another study by Fu et al. (2012) revealed that depending on their implicit biases, Chinese participants differed in their intensity ratings of Caucasian people’s facial expressions of anger, fear, and sadness. Lack of accurate emotion perception can seriously hampers communication of social information, negatively influence teacher judgments, and contribute to the disadvantaged educational position of ethnic minority students.

We argue that teachers who have higher emotional intelligence—in other words who are better in attending to, recognizing, and correctly interpreting others’ emotional signals, as well as recognizing, understanding, and managing one’s own emotions (Salovey and Mayer 1990)—would differ less in their interventions to student misbehaviors. However, we expect this to be the case only if they are also aware that cultural differences between the majority and the minority culture and teachers’ own social biases can affect their emotion perceptions, recognitions, and interpretations. Therefore, we expect (H3) an interaction effect between teachers’ multicultural attitudes and their emotional intelligence in accounting for any differences in their interventions to ethnic minority versus ethnic majority students.

The Present Research

The aim of the present research was two-fold. Firstly, to examine whether teachers differ in their interventions to misbehaviors of students with different ethnic background and secondly, whether these differences are related to multicultural attitudes and emotional intelligence.

Our target group was primary school teachers. In Dutch primary schools, children usually have one or two teachers throughout the school year, which increases individual teachers’ impact on student outcomes (Geerlings et al. 2017). Additionally, the Dutch educational system is characterized by hierarchical tracking, which allocates students to different tracks according to their primary school performance at the beginning of secondary education. Each track has consequences for access to either vocational or higher education. Therefore, it is important to map out factors that may influence student motivation and achievement starting from primary school years. Moreover, primary school years are important years in children’s developmental trajectories. The associations children make around these ages have long-term consequences because of their effect on the development of their social identity (Swanson et al. 2009).

We focused on teachers’ intervention strategies to students with no migration history (i.e., ethnic majority Dutch) versus students with a migration history from Morocco. This ethnic group is (i) one of the largest ethnic groups in the Netherlands, forming 5% of the Dutch population together with students with a migration history from Turkey, (ii) there are noteworthy cultural and religious differences compared to the ethnic majority group, oftentimes making them the target of negative discourse and ethnic victimization, and (iii) their educational position consistently lags behind that of their majority group counterparts (Van Den Bergh et al. 2010).

Based on previous findings, we controlled for teacher background characteristics that might influence their responses to student misbehaviors: we asked teachers to report on their own ethnic background, as Downey and Pribesh (2004) showed that in cases where the background of the teachers is the same as that of their students, teachers may perceive student misbehavior more favorably. In addition, we included teachers’ years of teaching experience in our study as compared to more experienced teachers, beginning teachers may find dealing with diversity more challenging (van Tartwijk et al. 2009). Moreover, teachers’ age and gender were also included in the study since younger teachers are more likely to use conflict-avoiding intervention strategies (e.g., ignoring, time out) especially if the teachers are male (He 2013). Lastly, we included the ethnic composition of classrooms in our study, because ethnic minority students are most likely to experience unequal interventions on their behaviors in contexts that are less diverse (Edwards 2016). Teachers in diverse classrooms may develop more knowledge and/or positive multicultural attitudes; hence, they might have fewer misunderstandings with ethnic minority students as a result of increased exposure to different cultures (Allport 1954; Pettigrew and Tropp 2006).

Method

Participants

Primary school teachers were recruited from cities in all regions of the Netherlands through an online advertisement targeting our specific sample. All participants were given the option to participate in a lottery from which one sixth of the participants would be randomly chosen and would receive a €50 reward in exchange for their participation. In total, 148 primary school teachers completed the study, 136 of which were female (92%, $M_{age} = 42.2$, $SD = 10.92$), 11 were male (7%, $M_{age} = 46.82$; $SD = 14.28$), and one person’s gender
was unknown. Ninety-six percent of the participants were Dutch, whereas the rest of the participants indicated other primary ethnic identification (2%) or did not provide any information (2%).

**Procedure**

For the measurement of teachers’ intervention strategies, we conducted a pilot study with 25 participants that we reached through an online advertisement targeting teachers in Dutch primary schools located in Amsterdam. With this pilot study, we wanted to find out about the student misbehaviors that teachers experience in their classrooms and their intervention strategies in response to these misbehaviors. Using a free association paradigm to investigate which specific student behaviors teachers associate with problematic situations allowed us to get an understanding on the current state of affairs in Dutch primary school classrooms. Based on the findings (see supplementary materials for a detailed description), we created six scenarios described in vignettes based on the most frequently reported student misbehaviors. We also created five intervention strategies for each of these scenarios based on the most frequently reported teacher intervention strategies.

As part of the main study, participants filled in an online survey comprising of four instruments, which together lasted about 15 min to complete. Informed consent was obtained at the beginning of the online survey, which resulted in immediately ending the survey if the participant did not wish to proceed. Participation was voluntary and anonymous.

While the other three instruments were formulated as questionnaires, teacher intervention strategies were measured by providing participants with vignettes, created based on the most frequently reported classroom misbehaviors from the pilot study (further detailed below).

**Measures**

The initial design of the study also included an Implicit Association Task (Greenwald et al. 1998) as an implicit measure of teachers’ attitudes. However, we have observed very high drop-out rates, which appeared to be caused by participants’ reluctance towards completing this task, due to a lack of trust in its validity. We therefore dropped the task and restarted the data collection, without including the IAT in the study design. Our analyses do not contain data from the dropped-out participants.

**Teacher Intervention Strategies**

Teachers responded to six scenarios depicted in vignettes describing the following student misbehaviors: not cooperating with others, showing verbal aggression, hindering others, disrespecting the teacher, being non-attentive/daydreaming/idleness, and being out of seat (see supplementary materials for the full description). Each vignette scenario had two versions, which slightly differed in their descriptions (therefore 12 vignettes in total). The matching versions of the scenarios involved either a student with no migration history (i.e., six vignettes with ethnic majority, Dutch) or a student with a migration history from Morocco (i.e., six vignettes with ethnic minority, Moroccan-Dutch), signaled by the students’ names (e.g., Joris, Hassan respectively).

The presentation of the vignettes was counterbalanced. Every participant received both versions of each scenario randomly with either an ethnic majority or an ethnic minority name (i.e., either version 1 for scenario 1 as ethnic majority or version 2 for scenario 1 as ethnic majority) such that half of the versions 1 for each scenario were presented with an ethnic majority name and the other half with an ethnic minority name. Independent from this randomization, half of the matching scenarios were randomly assigned a male name (e.g., Joris, Hassan) while the other half was assigned a female name (e.g., Marlous, Fatima)–either an ethnic majority or minority name depending on the version. As a last step, the presentation orders of the 12 vignettes were randomized per participant.

Each participant responded to these twelve vignettes by providing an answer to the question how often they would engage in each of the provided intervention strategies, on a scale from 0 to 100 (0: never, 100: always), if they were faced with the described scenario. The same intervention options were provided for every vignette scenario: do nothing, warn, expel, discuss, and contact parents. The internal consistency of each intervention across vignettes were adequate, ranging between \( \alpha = .81-.92 \).

**Teachers’ Multicultural Attitudes**

We used the Teacher Multicultural Attitude Survey (TMAS; Ponterotto et al. 1998) to assess the multicultural attitudes of teachers. TMAS is comprised of 20 statements, seven of which are reverse-scored (3, 6, 12, 15, 16, 19, and 20). Some example statements include “I find the idea of teaching a culturally diverse group rewarding” and “when dealing with bilingual students, some teachers may misinterpret different communication styles as behavior problems”.

Participants replied to the statements on a 5-point Likert-type scale (1: strongly disagree, 5: strongly agree). TMAS has low social desirability contamination, and its construct validity has been tested using convergent correlations with racial equity issues in society (measured by the Quick Discrimination Index; Ponterotto et al. 1995) and positive attitudes toward other racial/ethnic groups (measured by the Multigroup Ethnic Identity Measure, Other Group Orientation subscale; Phinney 1992) with \( r = .45 \) and \( r = .31 \) respectively (Ponterotto et al. 1998). A total multicultural attitudes score
was calculated per participant, with higher scores indicating more positive multicultural attitudes and higher awareness of issues around diversity ($\alpha = .86$).

**Teachers’ Emotional Intelligence**

We used both self-report and performance-based measures to tap emotional intelligence.

**Self-Reported Emotional Intelligence** We used Schutte’s Self-Report Emotional Intelligence Test (SSEIT; Schutte et al. 1998) to assess teachers’ emotional intelligence. SSEIT consists of 33 statements, based on a 5-point Likert-type scale (1: strongly disagree, 5: strongly agree). Three items are reverse-scored (5, 28, and 33). Some example statements include “I am aware of my emotions as I experience them” and “it is difficult for me to understand why people feel the way they do”. A total emotional intelligence score was calculated per participant, with higher scores indicating higher emotional intelligence ($\alpha = .82$).

**Performance-Based Emotional Intelligence** We used Amsterdam Emotion Recognition test (AERT), which assessed the correct recognition and interpretation of basic emotional expressions via prototypical communicative facial signals. The AERT consists of 36 still pictures, derived from the Amsterdam Dynamic Facial Expression Set (van der Schalk et al. 2011). It includes both North-European (Dutch) and Mediterranean (Moroccan-Dutch) faces displaying anger, contempt, fear, joy, pride, shame, disgust, surprise, and sadness. For each of the nine emotions, one male and one female North-European and Mediterranean face were randomly presented to the participants. The intensity of emotion displays was similar for all faces. The answer options were as follows: anger, contempt, fear, pride, shame, disgust, or something else. Participants’ percentages of correct responses were calculated per person.

**Demographics**

Participants were asked to report on relevant individual and school characteristics. These included teachers’ age, sex, ethnic background, years of teaching experience, and ethnic minority percentage in their classroom and in their school. Some of the demographic variables were excluded from the analyses (explained further below), and the variables that were included have been treated as continuous.

**Analytical Approach**

In order to determine whether there are any differences in multiple dependent variables (i.e., teacher intervention strategies) between two different versions of the same scenario depicted in the vignettes (i.e., ethnic minority versus majority student version), we will perform a repeated measures multivariate analysis of variance with and without covariates.

Firstly, in order to test our first hypothesis, teachers’ mean intervention frequencies will be submitted to a 2 (type of teacher intervention strategy: dismissive vs. tolerant) × 2 (students’ ethnic background: ethnic majority vs. ethnic minority) within-subjects multivariate analysis of variance without any covariates (MANOVA). Next, if we find any differences between the frequencies of teachers’ interventions towards ethnic majority versus minority students, we will test our second and third hypotheses by performing the same analysis with multicultural attitudes, and with multicultural attitudes’ interaction with emotional intelligence variables as additional covariates (MANCOVA). For our model, we will use type III sums of squares in order to tease out the unique effects of our variables after controlling for any other effects on the differences in teacher interventions.

One the one hand, a within-subjects approach might make teachers relatively more aware of the aim of our study. On the other hand, it was not ecologically valid to assume that half of the teachers in service deals with students only with a migrant background and the other half deal with students only without a migrant background. In order to investigate whether the same teachers change their approach when they deal with students with differing backgrounds, the use of within-subjects design was warranted. We believe that the counterbalancing and the variation in the wording of the vignettes, and a sensitive response scale (i.e., 0–100 continuous instead of e.g., 1–5 Likert-type) allowed us to reach somewhat unbiased responses even if participants were inclined to respond in a socially desirable manner.

**Results**

**Teacher Intervention Strategies**

For each vignette (12 in total), participants indicated how often (ranging from 0 to 100), they would engage in each of the Intervention Strategies if they would be faced with the described misbehavior. Per Intervention Strategy (5 in total), teachers’ answers were examined for consistency across the 12 vignettes. Cronbach’s alphas indicate high consistency for all Intervention Strategies, ranging between .81 and .92. Therefore, we averaged the frequencies for each Teacher Intervention Strategies across 6 vignette scenarios, separately for the ethnic majority and ethnic minority targets for further analyses (Table 1). On average, the Intervention Strategy that teachers engaged in the most was discussing the misbehavior with the student, and the least frequent one was doing nothing.
The teacher intervention frequencies are rated on a scale from 0 to 100.

There were quite a number of correlations between the five Teacher Intervention Strategies that were higher than .3, which suggests a factor structure. We therefore conducted an exploratory factor analysis (for the tables and a detailed description, see supplementary materials) for the Teacher Intervention Strategies, separately for ethnic majority and ethnic minority target groups.

The same two factors were extracted for both target groups, using principal component analysis (PCA), explaining 59.5% and 60% of variance for ethnic majority and ethnic minority target groups respectively. Intervention Strategies that loaded on the first factor (i.e., ‘warn’, ‘expel’, ‘contact parents’) suggested intervention strategies that are mostly dismissive in nature, whereas the second factor (i.e., ‘do nothing’, ‘discuss’) suggests a more tolerant, and understanding approach. We therefore created 4 new variables, ‘Dismissive Intervention Strategies’ and ‘Tolerant Intervention Strategies’ to both ethnic majority and ethnic minority students on the basis of this factor analysis.

### Multicultural Attitudes, Emotional Intelligence, and Demographics

We inspected the correlations between Teachers’ Multicultural Attitudes, Emotional Intelligence measures, Background Characteristics, and Teachers’ Dismissive and Tolerant Intervention frequencies (for the descriptive statistics of these variables see Table 2).

Teachers’ Ethnic Background and Sex were not included in order not to confound our results by the highly uneven number of ethnic majority and ethnic minority, and male and female teachers included in this study. In addition, because the Ethnic Minority Percentage in teachers’ School was very strongly correlated with the Ethnic Minority Percentage in their Classroom ($r = .93$, $p < .01$), we only included the Classroom Percentage as a possible covariate (referred to as ‘Classroom Ethnic Composition’).

Table 3 shows correlations between all variables. Only Teachers’ Multicultural Attitudes (TMAS scores) significantly correlated with Teachers’ Tolerant Intervention Strategies for both ethnic majority and ethnic minority target group students. We further found significant correlations between Teachers’ Multicultural Attitudes and Self-report Emotional Intelligence test, between Multicultural Attitudes and Classroom Ethnic Composition, between Self-report Emotional Intelligence and Classroom Ethnic Composition, and between Age and Classroom Ethnic Composition. In addition, there was a significant negative correlation between Self-report and Performance-based Emotional Intelligence scores. This echoes previous findings on the discrepancy between self-perceptions and actual performance (e.g., Fischer et al. 2018; Murphy and Hall 2011) emphasizing the importance of accompanying self-report measures with more objective ones.

### Within-Subjects Multivariate Analysis of Variance

Before testing whether Teachers’ Multicultural Attitudes and its interaction with their Emotional Intelligence would account for any differences between Teachers’ Intervention Strategies towards ethnic majority versus minority students’ misbehaviors, we first inspected whether teachers actually differed in their Intervention Strategies to these different groups of students. To this end, teachers’ mean intervention frequencies were submitted to a 2 (Type of Teacher Intervention: dismissive vs. tolerant) × 2 (Students’ Ethnic Background: ethnic majority vs. ethnic minority) within-subjects multivariate analysis of variance.

We did not find any differences in frequencies of teachers’ Dismissive and Tolerant Intervention Strategies depending on Students’ Ethnic Background, with an omnibus test result of $F(2, 146) = .00$, $p > .05$, $\eta^2 = .00$. In fact, teachers’ mean Intervention frequencies were almost identical for the two groups (see supplementary materials for the descriptive statistics). We therefore did not further investigate whether

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2 In order to study the difference in teacher intervention strategies toward male and female students, we conducted two separate Hotelling’s $T^2$ tests (one each for the ethnic majority and ethnic minority target group students). The results indicated no statistically significant difference between the male and female student populations with $T^2 = .91$, $df = 5$, 290; $p = .48$ for the ethnic majority, and $T^2 = .78$, $df = 5$, 290; $p = .57$ for the ethnic minority target groups respectively. In contrast, previous research suggests that boys are more likely than girls to be punished for a range of misbehaviors, which is argued to be related to the higher prevalence rates of externalizing behaviors amongst boys (Skiba et al. 2002). Our vignettes, however, were not representative of major problematic situations such as bullying or sexual offense, which might account for the inconsistent findings.

3 We reached similar results when we investigated possible differences for all five teacher intervention strategies (do nothing, warn discuss, expel, contact parents), $F(5, 143) = .88$, $p > .05$, $\eta^2 = .93$. 

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Table 1 Teachers’ mean intervention frequencies for ethnic majority and minority students

<table>
<thead>
<tr>
<th>Teacher interventions</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do Nothing – Ethnic Majority</td>
<td>12.78</td>
<td>17.05</td>
</tr>
<tr>
<td>Do Nothing – Ethnic Minority</td>
<td>11.49</td>
<td>16.34</td>
</tr>
<tr>
<td>Warn - Ethnic Majority</td>
<td>52.11</td>
<td>25.58</td>
</tr>
<tr>
<td>Warn – Ethnic Minority</td>
<td>51.79</td>
<td>24.61</td>
</tr>
<tr>
<td>Expel – Ethnic Majority</td>
<td>23.60</td>
<td>15.88</td>
</tr>
<tr>
<td>Expel – Ethnic Minority</td>
<td>23.88</td>
<td>16.78</td>
</tr>
<tr>
<td>Discuss – Ethnic Majority</td>
<td>73.05</td>
<td>19.39</td>
</tr>
<tr>
<td>Discuss – Ethnic Minority</td>
<td>73.13</td>
<td>17.20</td>
</tr>
<tr>
<td>Contact Parents – Ethnic Majority</td>
<td>52.02</td>
<td>27.00</td>
</tr>
<tr>
<td>Contact Parents – Ethnic Minority</td>
<td>53.20</td>
<td>25.66</td>
</tr>
</tbody>
</table>

The teacher intervention frequencies are rated on a scale from 0 to 100.
Teachers’ Multicultural Attitudes and its interaction with their Emotional Intelligence would account for any differences between Teacher Intervention Strategies towards ethnic majority versus minority students’ misbehaviors.

Exploratory Analysis

As we did not observe any effect of Students’ Ethnic background, we averaged Teachers’ Intervention frequencies across ethnic majority and ethnic minority target groups for both Intervention Types (dismissive and tolerant). Next, we examined whether Multicultural Attitudes predicted Tolerant Intervention frequencies in order to follow-up on their identified significant correlation. As such, we separately regressed Dismissive and Tolerant Teachers’ Intervention types against Multicultural Attitudes.

Expectedly, Multicultural Attitudes did not significantly predict Teachers’ Dismissive Intervention Strategies. Multicultural Attitudes, however, did significantly predict Teachers’ Tolerant Intervention Strategies, $b = .02, t(146) = 2.41, p = .017,$ and explained a significant proportion of variance in Teachers’ Tolerant Intervention Strategies, $R^2 = .20, F(1, 146) = 5.80, p = .017.$ With increasing positive Multicultural Attitudes, Tolerant Teacher Intervention frequencies also increase. For Dismissive Intervention frequencies, no such effect was found (see Table 4 for the regression results and Fig. 1 for regression plots).

Discussion

The aim of this study was to investigate whether and how teachers’ self-reported intervention strategies towards problematic behavior of ethnic majority versus ethnic minority students differed, and how teachers’ multicultural attitudes and emotional intelligence relate to these intervention strategies.

Our prediction that teachers would differ in their reported intervention strategies towards misbehaviors of students with and without a migration background was not supported. As we did not find any differences in teachers’ intervention strategies, we could not test our second and third hypotheses that multicultural attitudes and emotional intelligence would predict the size of the differences.

Previous research has often shown more negative intervention strategies for ethnic minority students. However, most of this research focused on secondary education in the US (with the exception of Petras et al. 2011; Rocque and Paternoster 2011) or had pre-service teachers as participants (with the exception of Glock 2016), which may account for the difference between our results and the majority of the previous research findings.

Another explanation for the absence of any differences in teachers’ interventions based on students’ ethnic backgrounds could be the prevalence of a tolerant and colorblind approach to diversity in Dutch schools (Weiner 2016). While Dutch studies previously recorded prejudiced attitudes towards ethnic minorities (e.g., Van Den Bergh et al. 2010), other research suggests that teachers may try to prevent their biases from playing out due to having egalitarian self-concepts or because they want to avoid societal disapproval of discriminatory behavior (Park et al. 2008). In line with the latter, teachers in our sample scored rather high on the survey measuring teachers’ explicit multicultural attitudes and awareness. This may signal that they have egalitarian self-concepts, and/or they might have been relatively aware of the possibility that their own biases and frames of reference can lead to misinterpretations or misjudgments (Ponterotto et al. 1998).

Yet, discrimination is mostly perceived as disproportionate use of negative intervention strategies whereas more frequent

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<th>Table 2: Descriptive statistics</th>
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<tr>
<td>$N$</td>
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<tr>
<td>2. Performance-based emotional intelligence</td>
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<tr>
<td>3. Multicultural attitudes</td>
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<td>4. Classroom ethnic composition (%)</td>
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<tr>
<td>5. Age</td>
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<td>6. Years of teaching experience</td>
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<tr>
<td>7. Dismissive intervention frequency to ethnic majority</td>
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<td>8. Tolerant intervention frequency to ethnic majority</td>
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<td>9. Dismissive intervention frequency to ethnic minority</td>
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<tr>
<td>10. Tolerant intervention frequency to ethnic minority</td>
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<td>Valid N (listwise)</td>
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"Min" is the minimum, “Max” is the maximum, “$SD$” is the standard deviation, and “Var” is the variance values of the variables. The variables 7–10 are the components extracted after the Principal Component Analysis, which results in standardized values.
use of positive intervention strategies with certain groups of students tend to receive less attention in research and this might be the case for teachers as well. It has been previously reported that ethnic majority students not only receive less punishment but also receive more positive interventions (e.g., Ferguson 2001). In these cases, teachers might engage in less self-regulation. Therefore, including a wider range of possible teacher intervention strategies such as praising accomplishments (positive intervention) or exclusionary disciplinary actions (more extreme negative intervention strategies similar to that in the previous studies) might yield different results.

Additionally, our results indicated that, in general, teachers engaged more frequently in tolerant intervention strategies compared to dismissive intervention strategies. This is promising as amongst the tolerant intervention strategies, discussing the misbehavior with the students was the most frequently applied. Previous research suggests that teachers can only effectively prevent a misbehavior from happening if students understand why a behavior was problematic and what the expected consequences of the misbehavior are (De Jong 2005).

A notable finding in the current study was that teachers who hold more positive multicultural attitudes showed less dismissive and more tolerant intervention strategies. Only the latter relationship was significant. This finding might signal that teachers who are more aware of and are comfortable with ethnic and cultural diversity are, in general, more understanding of individual differences between their students and their behaviors. The significant relationship that we found between teachers’ multicultural attitudes and their emotional intelligence might further suggest that both constructs tap an underlying factor that increases teachers’ interpersonal understanding, such as perspective taking abilities.

Finally, our results showed that teachers who had more positive multicultural attitudes and higher emotional intelligence were appointed in classrooms with higher ethnic minority concentration. This could be due to teachers’ active choices to go to schools/classrooms with higher minority concentrations (Ponterotto and Pedersen 1993). They might be also more likely to stay as they can deal with diversity better than their colleagues (Thijs and Verkuyten 2014). Alternatively, they might develop more positive attitudes due to increased

| Table 3 | Correlation coefficients (significance levels) between possible covariates and teacher intervention strategies |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1. Self-report emotional intelligence | .18* (.029) | .17* (.031) | .16* (.030) | .15* (.028) | .14* (.027) | .13* (.026) | .12* (.025) | .11* (.024) | .10* (.023) | .10* (.023) |
| 2. Performance-based emotion recognition | .22* (.007) | .21* (.007) | .20* (.007) | .19* (.007) | .18* (.007) | .17* (.007) | .16* (.007) | .15* (.007) | .14* (.007) | .14* (.007) |
| 3. Multicultural attitudes | .00 (.992) | .00 (.992) | .00 (.992) | .00 (.992) | .00 (.992) | .00 (.992) | .00 (.992) | .00 (.992) | .00 (.992) | .00 (.992) |
| 4. Classroom ethnic composition | .16* (.049) | .15* (.048) | .14* (.047) | .13* (.046) | .12* (.045) | .11* (.044) | .10* (.043) | .09* (.042) | .08* (.041) | .08* (.041) |
| 5. Age | .10* (.092) | .10* (.092) | .10* (.092) | .10* (.092) | .10* (.092) | .10* (.092) | .10* (.092) | .10* (.092) | .10* (.092) | .10* (.092) |
| 6. Years of teaching experience | .13* (.036) | .12* (.035) | .12* (.035) | .11* (.034) | .10* (.033) | .09* (.032) | .08* (.031) | .07* (.030) | .06* (.029) | .06* (.029) |
| 7. Dismissive intervention frequency to ethnic majority | .00 (.992) | .00 (.992) | .00 (.992) | .00 (.992) | .00 (.992) | .00 (.992) | .00 (.992) | .00 (.992) | .00 (.992) | .00 (.992) |
| 8. Tolerant intervention frequency to ethnic majority | .17* (.046) | .16* (.045) | .15* (.044) | .14* (.043) | .13* (.042) | .12* (.042) | .11* (.041) | .10* (.041) | .09* (.040) | .09* (.040) |
| 9. Dismissive intervention frequency to ethnic minority | .18* (.050) | .17* (.049) | .16* (.048) | .15* (.047) | .14* (.046) | .13* (.045) | .12* (.044) | .11* (.043) | .10* (.042) | .10* (.042) |
| 10. Tolerant intervention frequency to ethnic minority | .01 (.956) | .01 (.956) | .01 (.956) | .01 (.956) | .01 (.956) | .01 (.956) | .01 (.956) | .01 (.956) | .01 (.956) | .01 (.956) |

Table 4 | Regression results of teacher intervention frequencies against teacher multicultural attitudes |
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<tbody>
<tr>
<td>Type of intervention frequency</td>
<td>$B$</td>
<td>$SE B$</td>
<td>$\beta$</td>
<td>$t$</td>
<td>$p$</td>
</tr>
<tr>
<td>Dismissive intervention frequency</td>
<td>$-0.01$</td>
<td>$0.01$</td>
<td>$-0.06$</td>
<td>$-0.73$</td>
<td>$0.471$</td>
</tr>
<tr>
<td>Tolerant intervention frequency</td>
<td>$0.02$</td>
<td>$0.01$</td>
<td>$0.20$</td>
<td>$2.41$</td>
<td>$0.017^{*}$</td>
</tr>
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</table>

B is unstandardized and $\beta$ is standardized regression coefficient

*$p < .05$, **$p < .01$
exposure to a diverse student body (Allport 1954; Pettigrew and Tropp 2006). Consistent with the last account, we also found a significant positive relationship between ethnic minority concentration of the classrooms and teachers’ age, which was in return strongly related to their years of teaching experience.

Limitations

Several limitations constrain the interpretation of our study’s findings. To start with, we recognize the limitations of relying on self-reported data, which might have led to socially desirable answers. However, notwithstanding the benefits of having trained observers collect data in a more natural environment, this approach would only provide us with a much more limited sample, and only a fraction of their usual practice.

In addition, we used a performance-based emotional intelligence test to complement the self-report emotional intelligence measure. However, the performance-based measure was rather limited in its scope compared to the self-report, as it focused only on emotion perception. This may be accompanied in future research by a measure that would inform us also on how teachers would respond to the emotions they perceived.

Next, we had to take out the Implicit Association Task (IAT; Greenwald et al. 1998) from our initial design due to high drop-out rates as teachers were reluctant to complete the task. We do acknowledge, however, that the implicit attitudes might have predicted the size of any difference in teacher behaviors over and above explicit attitudes (Van Den Bergh et al. 2010). One solution could be to conduct a similar study with participants from schools that already have collaboration with research institutions. Teachers might be more motivated to complete tasks under those circumstances.

Lastly, we advise caution when generalizing our results to other samples and settings. Our sample was primarily comprised of relatively middle-aged, female teachers with no migration background. Hence, future investigators could benefit from relying on a more heterogeneous sample.

Our results prevent us from making strong claims about educational benefits of our findings. Nevertheless, we observed that positive multicultural attitudes can be important for all students. Teacher education programs can benefit from increasing information about social biases and knowledge about different groups in society, which has been previously shown to be useful in increasing understanding of differences and reduce prejudices (e.g., Dovidio et al. 2004).

Directions for Future Research

Despite the potential limitations, the current study supplements the literature on classroom management in diverse settings, role of emotions in education, and multiculturalism that has been primarily focused on the US educational context. Future research can overcome these limitations, and look further into the relationship between multicultural attitudes and emotional intelligence and investigate whether there might be any interpersonal skills that underlie both teacher characteristics.

Next, differences in teacher behaviors would lead to differing educational outcomes to the extent that the difference is perceived as such by the students themselves (Suarez-Balcazar et al. 2003). Hence, another next step could be to include both teachers and students as informants in the
investigation of teacher intervention strategies and examine them in relation to student outcomes such as school engagement and academic achievement.

Lastly, we encourage further research that includes not only problematic but a broader range of situations in vignette scenarios. Moreover, future research can provide both dismissive as well as rewarding intervention strategies as potential expressions of any difference in teacher interventions based on their students’ ethnic backgrounds. Differences in rewarding behavior may be a subtler form of differentiation between ethnic majority and minority group students. Providing a broader range of possible intervention strategies might not only better conceal the aim of the study and lead to less social desirability, but also reduce defensiveness in participants.

Conclusion

In conclusion, the current study addressed the need to better understand teachers’ classroom management within multicultural European classrooms. Our findings signal that teachers’ intervention strategies did not differ based on students’ ethnic backgrounds, and multicultural attitudes in education can potentially benefit all students regardless of their backgrounds.

Acknowledgments The authors would like to thank the editor, the two anonymous reviewers, and Max Kortlander for their comments and contributions, which improved the quality of the manuscript.

Funding Information This work was supported by the Yield Graduate Programme grant [project number 022.006.013] obtained from the Nederlands Organisatie voor Wetenschappelijk Onderzoek (De Nederlandse Organisatie voor Wetenschappelijk Onderzoek; NWO).

Compliance with Ethical Standards

Ethical approval Ethical approval for this study (2016-SP-7084) was granted by the Ethics Review Board of the Faculty of Social and Behavioral Sciences at the University of Amsterdam

Informed consent Informed consent from participants was acquired online, before they started the investigation.

Conflict of Interest The authors confirm that there are no known conflicts of interest with respect to this research, authorship, and publication.

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