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Gender Nonconformity, Sexual Orientation, and Dutch Adolescents' Relationship with Peers

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Abstract Same-sex attraction and gender nonconformity have both been shown to negatively affect the relationships of adolescents with their peers. It is not clear, though, whether same-sex attracted adolescents are more likely to have negative peer relationships because they are same-sex attracted or because they are more likely to be gender nonconforming. It is also possible that both stressors affect peer relationships independently or amplify each other in their impact. We explored these questions in a sample of 486 Dutch adolescents ($M_{\text{age}} = 14.02$ years). We found that same-sex attraction and gender nonconformity both had an independent effect and that gender nonconformity moderated, but not mediated, the associations between same-sex attraction and peer relationships at school. Same-sex attraction was more strongly associated with poorer relationships with peers in adolescents who were more gender nonconforming. These findings indicate the importance of including gender nonconformity in the understanding of same-sex attracted adolescents' relationships and suggest that in order to improve same-sex attracted adolescents' social position at school, acceptance of gender diversity should be promoted as well.

Keywords Sexual orientation · Gender nonconformity · Gender role · Adolescent peer relationships · Netherlands

Introduction

Having a same-sex sexual orientation has been shown to negatively affect relationships with peers (e.g., Ueno, 2005). Among same-sex attracted adolescents, those who do not conform to gender-normative behaviors, activities, appearance, and characteristics or traits (gender nonconformity) (Lippa, 2002, 2005) are more likely to have problematic relationships with peers compared to adolescents who conform to their gender (e.g., Pilkington & D'Augelli, 1995). Gender nonconformity has also been shown to affect adolescents' peer relationships regardless of their sexual orientation (for an overview, see Collier, Van Beusekom, Bos, & Sandfort, 2013). It is not clear, however, whether sexual orientation and gender nonconformity independently impact on adolescents' relationships with peers. It is also not known whether and how sexual orientation and gender nonconformity interact in their influence on peer relations.

Sexual Attraction and Peer Relationships

The association of sexual orientation with peer relationships and social well-being has been studied by comparing older adolescents with sexual or romantic feelings toward the same sex (e.g., Russell & Joyner, 2001; Russell, Seif, & Truong, 2001; Ueno, 2005) and adolescents who self-identify as lesbian, gay, or bisexual (LGB) (e.g., Grossman & Kerner, 1998; Rosario, Rotherman-Borus, & Reid, 1996) with heterosexual adolescents. These studies showed that lesbian, gay, and bisexual (LGB) adolescents experience more rejection in their relationships with peers than their heterosexual counterparts do.

Most of the negative experiences of same-sex attracted and self-identified LGB adolescents with peers are likely to occur in school (e.g., D'Augelli, Grossman, & Starks, 2006). For example, in a U.S. study in which 91,888 9th through 12th-grade students participated, 10.1 % of the lesbian and bisexual girls ($n = 119$) and

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24.0 % of the gay and bisexual boys ($n = 196$) had been victimized at school at least 10 times in the previous year. The same proportion of heterosexual students was significantly lower: 1.1 % of the girls and 2.7 % of the boys (Bontempo & D'Augelli, 2002).

Although most of these studies used convenience samples (Savin-Williams, 2005), a few were based on probability samples. In these latter studies, participants were categorized based on reported feelings of sexual or romantic attraction to someone of the same sex. This was done, for example, in the National Longitudinal Study of Adolescent Health (Add Health study); this study also found that same-sex attracted adolescents experienced more problems with peers at school than their peers without same-sex attraction (Russell et al., 2001; Ueno, 2005). A recent Dutch study among young adolescents ($M_{\text{age}} 13.61$ years) showed that same-sex attracted adolescents experienced higher levels of peer role strain than their peers without same-sex attraction (Bos, Sandfort, de Bruyn, & Hakvoort, 2008); same-sex attracted adolescents also rated their relationships with peers less positively than adolescents without these feelings did.

Sexual Attraction and Gender Nonconformity

Homosexual adults are, on average, more gender nonconforming compared to heterosexual persons of their own sex. This has been found in relation to feelings, behaviors, and interests, such as speech pattern (Gaudio, 1994), motion (Johnson, Gill, Reichman, & Tassinari, 2007), and occupational and recreational interests (Lippa, 2000, 2005). Over the years, studies have investigated the relation between gender variance during childhood (recalled gender nonconformity) and having a lesbian, gay, or bisexual orientation as an adult. Adult homosexual men seemed to be more likely to report that they had been more feminine during childhood in their play behavior, activities, and attire than heterosexual men, while lesbian women reported that they had been relatively masculine on these aspects during their childhood (for review, see Bailey & Zucker, 1995; see also Lippa, 2008).

Most of these studies were based on retrospective reports, which could be biased because LGB people might, for example, be more willing to acknowledge gender nonconformity during childhood than heterosexual persons (Rieger, Linsenmeier, Gygax, & Bailey, 2008). Because memories can be biased, some scholars are skeptical regarding findings of significant associations between recalled childhood gender nonconformity and sexual orientation during adulthood (e.g., Gottschalk, 2003). Other scholars, however, have argued that this relationship between sexual orientation and gender nonconformity was not only found in retrospective studies (e.g., Zucker, 2005).

Indeed, prospective studies also reported an association between childhood gender nonconformity and sexual orientation (Drummond, Bradley, Peterson-Badali, & Zucker, 2008; Green, Roberts, Williams, Goodman, & Mixon, 1987; Singh, 2012; Wallien

& Cohen-Kettenis, 2008; Zucker & Bradley, 1995). These studies were, however, primarily based on clinical samples of persons who showed extreme forms of cross-gender behavior and expressed feelings of gender dysphoria during their childhood and/or met the criteria for gender identity disorder, as described in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM). These studies found that a large proportion of clinically referred gender-variant children reported a homosexual or bisexual orientation as adolescents and young adults.

Using a prospective design, Steensma, van der Ende, Verhulst, and Cohen-Kettenis (2013) studied the association between childhood gender nonconformity (measured with 2 items from the Child Behavior Checklist, rated on a 0–2 point scale by one of the parents or another primary caregiver) and adult homosexual or bisexual orientation, using a large, non-clinically referred sample. Consistent with the prospective studies with clinically referred groups, they found that gender nonconformity during childhood was associated with a homosexual orientation as an adult. They also found that this association was less strong in their non-clinical sample compared to what was found in clinically referred groups.

Gender Nonconformity and Peer Relationships

Behaving in gender nonconforming ways often has negative consequences for a person's social relationships (Serbin, Powlisha, & Gulko, 1993). Children expect already at a young age that their peers display sex-typed behavior (behavior viewed as normative for the child's biological sex); they are more tolerant to gender conforming peers and react more negatively to peers who do not exhibit gender stereotyped behavior, activities, appearance, or traits (e.g., Carver, Egan, & Perry, 2004; Egan & Perry, 2001; Ruble, Martin, & Berenbaum, 2006). There are also sex differences in regard to appraisals of sex-typed behavior: For example, boys more often preferred other boys who showed masculine behavior as friends while girls preferred male friends who showed feminine behavior (Zucker, Wilson-Smith, Kurita, & Stern, 1995).

Negative opinions about cross-sex-typed features increase with children's age (Carter & McCloskey, 1984). Gender norms and conventions regarding behavior, interests, and appearance play an even stronger role during adolescence and gender nonconformity is often negatively sanctioned by peers (Alfieri, Ruble, & Higgins, 1996). Adolescents monitor their peers' gender expressions and respond negatively to those who are gender atypical (e.g., Ewing Lee & Troop-Gordon, 2011a, 2011b; Washburn-Ormachea, Hillman, & Sawilowsky, 2004). The resulting lack of safety in a social environment might also contribute to the increased reports of psychological problems for youth who are gender-nonconforming (Rieger & Savin-Williams, 2012).

Sexual Attraction, Gender Nonconformity, and Peer Relationships

Several studies examined the role of gender nonconformity in experiences with rejection and victimization among LGB adults. Sandfort, Melendez, and Díaz (2007), for example, found that Latino self-identified gay and bisexual adult men who considered themselves effeminate more frequently reported verbal and physical abuse compared to adults who saw themselves as non-effeminate.

In other studies, LGB adults were asked about their current gender nonconformity and their experiences with victimization during childhood. These studies showed that higher levels of self-reported gender nonconformity were associated with more school victimization at a younger age (Landolt, Bartholomew, Saffrey, Oram, & Perlman, 2004; Toomey, Ryan, Diaz, Card, & Russell, 2010). Few studies asked LGB adolescents about their current gender nonconformity and experiences with peer rejections. Pilkington and D'Augelli (1995) found that LGB adolescents who were more gender nonconforming had experienced more victimization than those who conformed to stereotypical gender norms.

Because these studies only included adults or adolescents with same-sex feelings or people who identified as LGB, they could not disentangle whether experiences with rejection were a response to the adult or adolescent's gender nonconformity or their same-sex attraction. There is, however, one study that assessed the impact of gender nonconformity and same-sex attraction among adolescents with and without same-sex attraction (Rieger & Savin-Williams, 2012). In this study, Rieger and Savin-Williams focused on psychological well-being and not on social relationships. They found that childhood gender nonconformity (measured retrospectively and including behaviors and feelings) and present gender nonconformity (defined as current interest in typically opposite sex hobbies and activities) were better predictors of the well-being of late adolescent youth than sexual orientation; the latter was not significantly associated with any of the studied measures of well-being. The association of gender nonconformity with well-being was similar for male and female participants and for participants with different sexual orientations. Harry (1983) also found in a study among adult men and women that (childhood) gender nonconformity was negatively associated with psychological well-being in both gay and heterosexual people.

The relation between childhood and present gender nonconformity and adolescents' well-being can be understood from the perspective of the minority stress model (Logie, Newman, Chakrapani, & Shunmugam, 2012; Meyer, 2003). It could be that peers are more likely to perceive gender nonconforming youth to be LGB. Prevalent homo negative attitudes might result in harassment and gender nonconforming youth will consequently experience more stress, leading to a lower sense of psychological well-being. It could also be that gender nonconformity is a stressor independent of sexual orientation.

Rieger and Savin-Williams' (2012) study showed that gender nonconformity was associated with psychological well-being in adolescents with and without a sexual minority orientation. In the present study, we build upon their work and Meyer (2003) by more directly exploring the impact of gender nonconformity and same-sex attraction on various aspects of adolescents' relationships with peers.

Aim of the Present Study

Having romantic and sexual feelings toward persons of the same sex has been shown to have negative consequences for relationships with peers, including higher scores on victimization and lower scores on quality of peer relationships. Gender nonconformity, more present among persons with same-sex attraction, has also been shown to affect adolescents' peer relationships regardless of sexual orientation. It is possible that the association between same-sex attraction and peer relationships is mediated by gender nonconformity. Second, we hypothesized that gender nonconformity moderates the association between same-sex attraction and adolescents' relationships with peers. More specifically, we expected that the associations between same-sex attraction and peer victimization, peer role strain, and quality of peer relationships will be significant for those adolescents who also report high levels of gender nonconformity, but not for those with low levels of gender nonconformity. Finally, we tested whether sexual attraction and gender nonconformity both have independent effects and whether they amplify each other.

Method

Participants

Our questionnaire was completed by 518 Dutch students. Because there were 32 missing values on same-sex attraction and/or gender nonconformity, the final sample comprised 486 students. The mean age of the students was 14.02 years ($SD = 1.08$); 217 (44.7 %) of the students were male and 269 (55.3 %) were female. The ethnic composition of the sample was 54.3 % ($n = 264$) Dutch and 24.5 % ($n = 119$) non-Dutch (44 adolescents were Surinamese, 38 were Moroccan, 27 were Turkish, and 10 were Antillean); the ethnic background of 21.2 % ($n = 103$) participants was unknown. Of the students, 35.0 % were attending pre-vocational secondary school, 7.4 % general secondary school, and 57.1 % pre-academic secondary school.

Procedure

Data were collected at eight secondary schools in Amsterdam, including schools with pre-vocational, general, and pre-academic education. Only students in years 1, 2, and 3 were invited to participate. Before students were invited, the school boards informed

parents about the purpose and nature of the study, and the topics that would be included in the questionnaire. Seven parents did not allow their children to participate.

Students completed a questionnaire during regular class time and in the presence of a research assistant from the University of Amsterdam. Students were told that the study was about personal feelings (such as romantic feelings) and relationships with peers. They were also informed of the voluntary nature and confidentiality of their participation. All students present at the time of data collection (except those whose parents had refused to give their consent) agreed to participate and subsequently completed the questionnaire. In order to create sufficient privacy and to prevent students influencing each other while completing the questionnaire, seating in the classrooms was arranged as though the students were taking an exam.

Measures

Same-Sex Attraction

Same-sex attraction was assessed with the question “Do you feel sexually attracted to someone of your own sex?” (1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *frequently*, 5 = *very often*). This question has been used successfully in previous studies among youth in the Netherlands (e.g., Bos et al., 2008; Kersten & Sandfort, 1994; Sandfort, Bos, Collier, & Metselaar, 2010). Table 1 shows the distribution and frequency of the scores on this variable, separately for boys and girls.

Gender Nonconformity

Gender nonconformity was assessed with an adapted version of the Childhood Gender Nonconformity Scale, originally developed by Rieger et al. (2008). The original scale was designed to query adults about childhood experiences; we adapted the scale to measure adolescents’ current gender nonconformity. There was a version for boys and a version for girls (each 7 items). Examples of items of the gender nonconformity scale for boys include: “I am a feminine boy” and “I often feel I have more in common with girls than boys.” Participants responded to the items using a 7-point scale (1 = *does not describe me at all*, 7 = *describes me completely*). A mean score was computed across the 7 items, with higher scores indicating greater gender nonconformity. The scale demonstrated good internal consistency: Cronbach’s alpha was .79.

Table 1 Levels of same-sex attraction by biological sex

	Never <i>n</i> (%)	Rarely <i>n</i> (%)	Sometimes <i>n</i> (%)	Frequently <i>n</i> (%)	Very often <i>n</i> (%)
Boys	195 (89.9)	9 (4.1)	5 (2.3)	3 (1.4)	5 (2.3)
Girls	241 (89.6)	18 (6.7)	4 (1.5)	4 (1.5)	2 (0.7)

Relationships with Peers at School

Three aspects regarding peer relationships at school were assessed: victimization, peer role strain, and quality of relationships with classmates. Adolescents’ experiences of victimization were measured with a scale from the Inventory of School Climate (ISC-S) (Brand, Felner, Shim, Seitsinger, & Dumas, 2003). The experiences with victimization scale of the ISC-S consists of 6 items. Adolescents were asked how frequently (1 = *never*, 4 = *six or more times*) they had been victimized in school (e.g., “Has anyone actually beaten you up or really hurt you in school?”). Cronbach’s alpha was .76.

To measure peer role strain, students completed a 6-item subscale of the Early Adolescent Role Strain Inventory (EARSI) (Fenzel, 1989a, 1989b, 2000). This Peer Role Strain subscale examines the extent to which peers are perceived as a potential source of strain (Bos et al., 2008; de Bruyn, 2005). Students were asked to indicate how frequently their peers expressed specific negative behaviors toward them (e.g., “Classmates ignore me,” “Classmates laugh about me,” or “Classmates do not want me on their team”; 1 = *not at all*, 5 = *a lot*). Cronbach’s alpha was .89.

The quality of relationships with classmates was assessed with the 10-item peer relationship subscale of the revised Dutch version of the Inventory of Parent and Peer Attachment (IPPA) (Armsden & Greenberg, 1987). However, questions asked about relationships with classmates instead of referring to friends. Items (e.g., “Most classmates accept me as I am” or “I can tell some classmates about my problems or troubles”) were rated on a scale of 1 (*almost never true* or *never true*) to 5 (*almost always true* or *always true*). Cronbach’s alpha was .72.

Analyses

To investigate whether gender nonconformity mediated the expected association between same-sex attraction and the variables related to peer relationships at school (victimization, peer role strain and quality of the relationship with classmates) bootstrapped mediation analyses were conducted through the Indirect macro (Hayes, 2013). The bootstrapped mediation analysis was done separately for victimization, peer role strain, and quality of the relationship with classmates as dependent variables. Age, education, and biological sex were used in each analysis as covariates.

Bootstrapping generates random samples of the original data. In the current analysis, the bootstrapped mediation was done with 10,000 resamples. Mediation effects were computed for each random sample. The distribution of these effects was then used to obtain 95 % confidence intervals (CI) for the size of indirect effects of gender nonconformity on the relation between same-sex attraction and the peer relationships variables. The indirect effect for a mediator is significant when the obtained CI does not contain the value 0 (Hayes, 2013). Using bootstrapping CI reduces power problems that might occur when the distribution of an

indirect effect is asymmetric (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002).

We subsequently conducted a set of hierarchical analyses to examine whether gender nonconformity moderated the relationship between same-sex attraction and each of the peer relationship variables. Analyses were conducted separately for victimization, peer role strain, and quality of relationship with classmates. Same-sex attraction and gender nonconformity and the interaction between both variables were entered in Step 1 of each regression analysis (after entering age, education, and biological sex as control variables). To assess whether findings of Step 1 were influenced by biological sex, we entered biological sex in interaction with same-sex attraction and gender nonconformity in Step 2, as well as the interaction between these three variables.

Results

Descriptive Analyses

Means and *SD* of age, education, same-sex attraction, gender nonconformity, victimization, peer role strain, and quality of relationships with classmates are shown in Table 2. Boys and girls did not significantly differ on age; however, boys were more likely to attend a higher level of education than girls. Boys and girls did not differ in terms of same-sex attraction, but girls scored significantly higher on gender nonconformity than boys. Compared to girls, boys scored higher on victimization and peer role strain, and lower on quality of the relationship with classmates.

Table 2 also shows the correlations between the studied variables. It can be seen that age was associated with same-sex attraction with both boys and girls who were older scoring higher on same-sex attraction. Boys and girls who reported more gender nonconformity also scored higher on victimization and peer role strain and lower on quality of relationships with classmates. The associations between the three studied peer relationships variables were also significant for boys and girls: those who reported more peer role strain also had more victimization experiences, while the quality of their relationships with classmates was lower. Lower quality of relationships with classmates was also significantly related to higher scores on victimization.

There were also some differences between boys and girls. The correlation between same-sex attraction and gender nonconformity was only significant for boys: the stronger boys experienced same-sex attraction, the more gender-nonconforming they were. Fisher *z* test showed that this sex difference in the association between same-sex attraction and gender nonconformity was also significant (Fisher $z = -2.95, p = .003$).

The correlation between same-sex attraction and victimization was only significant for boys: boys with more same-sex attraction reported more victimization. This is in contrast with the two other peer relationship variables: boys and girls with

stronger same-sex attraction reported high levels of peer role strain and low levels of quality of relationships with classmates.

Two other sex differences were observed. We found only for boys that those who attended lower level education were older. For girls, we found that lower level of education was associated with lower quality of relationships with classmates.

Gender Nonconformity as a Mediator

Table 3 shows the mediation model examining the effect of same-sex attraction on victimization, peer role strain, and quality of relationships with classmates via gender nonconformity. Age, education, and biological sex were entered in the model as control variables. In the bootstrapping analyses, same-sex attraction was significantly related to all three peer relationships variables, without taking gender nonconformity into account: Adolescents who scored high on same-sex attraction scored high on victimization and peer role strain and low on quality of the relationships with classmates. The indirect effect of same-sex attraction on the three peer relationships variables was also significant (see Table 3). In the bootstrapped analyses, for victimization the 95 % CI for gender nonconformity was 0.00, 0.06. For peer role strain the 95 % CI was 0.00, 0.13, and for quality of the relationship with classmates $-0.07, 0.00$. The bootstrapping CIs for all these three variables included a zero, indicating that no support was found that gender nonconformity mediated the relationships between same-sex attraction and victimization, peer role strain, and quality of relationships with classmates.

Gender Nonconformity as Moderator

As shown in Table 4, age, education, biological sex, same-sex attraction, gender nonconformity, and same-sex attraction \times gender nonconformity, entered in Step 1 of the hierarchical regression analysis, explained 13 % of the variance in victimization and 17 % of the variance in peer role strain; the two R^2 's were significant as well (see Table 4). Entering the two-way interaction terms biological sex \times same-sex attraction and biological sex \times gender nonconformity, as well as the three-way interaction of these variables in Step 2 did not produce a significant ΔR^2 for victimization and peer role strain. For quality of relationships with classmates, however, both R^2 and ΔR^2 in Step 2 were significant and, after entering the interaction terms in Step 2, all variables in the equation accounted for 17 % of the variance.

As shown in Table 4, same-sex attraction and gender nonconformity were both positively related to victimization and peer role strain, and negatively to quality of relationships with classmates. Fisher *z*-tests showed that the beta's for same-sex attraction and gender nonconformity did not differ significantly (victimization: Fisher $z = -0.31$; peer role strain: Fisher $z = 1.73$; quality of relationships with classmates: Fisher $z = -.15$).

Table 2 Means, *SDs*, and intercorrelation between age, education, same-sex attraction, and relationships with peers at school

	<i>M</i>	<i>SD</i>	1.	2.	3.	4.	5.	6.	
Overall									
1. Age	14.02	1.08	–						
2. Education ^a	02.22	0.94	–.14***	–					
3. Same-sex attraction ^b	01.19	0.67	.13**	–.05	–				
4. Gender nonconformity ^c	01.89	0.96	.01	–.05	–.16***	–			
5. Victimization ^d	01.42	0.50	.04	–.00	–.22***	–.16***	–		
6. Peer role strain ^e	01.72	0.72	–.04	–.04	–.21***	–.27***	–.44***	–	
7. Quality of relationships with classmates ^f	03.48	0.60	–.07	–.07	–.16***	–.12**	–.24***	–.48***	
Boys									
1. Age	14.02 ^f	1.11	–	.05					
2. Education	02.41 ^g	0.85	–.23***	–					
3. Same-sex attraction	01.22 ^f	0.76	.13 [†]	–.06	–				
4. Gender nonconformity	01.72 ^g	0.93	.00	–.07	.30***	–			
5. Victimization	01.53 ^g	0.56	–.02	.02	.34***	.28***	–		
6. Peer role strain	01.85 ^g	0.81	–.04	.08	.24***	.31***	.47***	–	
7. Quality of relationships with classmates	03.30 ^g	0.56	.01	.04	–.13 [†]	–.15*	–.24***	–.48***	
Girls									
1. Age	14.02	1.05	–						
2. Education	02.08	0.98	–.08	–					
3. Same-sex attraction	01.17	0.59	.13*	–.06	–				
4. Gender nonconformity	02.03	0.96	.02	.01	.03	–			
5. Victimization	01.32	0.43	.10	–.10	.06	.12 [†]	–		
6. Peer role strain	01.62	0.62	.04	–.06	.16*	.30***	.35***	–	
7. Quality of relationships with classmates	03.62	0.59	–.14*	.17*	–.19***	–.19**	–.15*	–.44***	

^a Absolute range, 1–3, where 1 = pre-vocational level, 2 = general level, 3 = pre-academic level

^b Absolute range, where 1 = low score and 5 = high score on same-sex attraction

^c Absolute range, 1–7, where 1 = low score and 7 = high score on gender nonconformity

^d Absolute range, 1–4, where 1 = low score and 4 = high score on experiences of victimization

^e Absolute range, 1–5, where 1 = low score and 5 = high score on experiences of peer role strain

^f Absolute range, 1–5, where 1 = low and 5 = high score on quality of relationships with classmates

^g *t* test showed significant differences between boys and girls

[†] $p < .10$, * $p < .05$, ** $p < .001$, *** $p < .0001$

The effect of the interaction between same-sex attraction and gender nonconformity for victimization and peer role strain was significant in Step 1 of the hierarchical regression analysis. For quality of relationship with classmates, the effects of the interactions between same-sex attraction \times gender nonconformity and same-sex attraction \times biological sex in Step 2 were significant. To illustrate these findings, we graphed the relationship between same-sex attraction and victimization, peer role strain and quality of the relationship with classmates (see Figs. 1, 2, 3). Additionally, we examined simple slopes using the method described by Aiken and West (1991), Jaccard and Turrisi (2003), and Holmbeck (2002). Simple slopes for participants with a high score on gender nonconformity ($M + 1 SD$) were 0.16 ($p < .0001$) for victimization, 0.21 ($p < .0001$) for peer role strain, and -0.14 for quality of relationship with classmates. For adolescents with a low score of gender nonconformity ($M - 1 SD$), simple

slopes were not significant. The results of the simple slopes indicate that the effect of same-sex attraction on victimization, peer role strain, and quality of relationship with classmates was particularly significant for adolescents with higher scores on gender nonconformity. Simple slopes for boys and girls showed that the association between same-sex attraction and quality of the relationship with classmates was significant for both sexes; however, the slope for girls (simple slope: -0.29 , $p < .0001$) was stronger than that for boys (simple slope: -0.09 , $p < .0001$).

Discussion

Our findings showed that adolescents' relationships with classmates were less positive for adolescents who experienced more same-sex attraction and higher levels of gender nonconformity.

Table 3 Bootstrapping results of direct and indirect effect of same-sex attraction, victimization, peer role strain, and quality of relationships with classmates

	<i>B</i>	Standard error (SE)	<i>t</i>	<i>p</i>
Victimization				
Direct effect of same-sex attraction	.16	.03	4.74	<.0001
Indirect effect of same-sex attraction	.14	.03	4.13	<.0001
Peer role strain				
Direct effect of same-sex attraction	.22	.04	4.72	<.0001
Indirect effect of same-sex attraction	.17	.05	3.80	<.0001
Quality of relationships with classmates				
Direct effect of same-sex attraction	-.13	.04	-3.28	.001
Indirect effect of same-sex attraction	-.11	.04	-2.71	.007

Furthermore, gender nonconformity did not seem to mediate but moderated the associations between same-sex attraction and the peer relationships variables. These findings suggest that schools are less safe, especially for gender nonconforming same-sex attracted adolescents; however, because we also found that gender nonconformity affects the relationships with classmates independent of same-sex attraction it can be concluded that gender nonconforming heterosexual youth are also affected by their gender nonconformity.

Our findings were in agreement with studies that examined the role of gender nonconformity exclusively among same-sex attracted adolescents. These studies showed that same-sex attracted adolescents who conformed to gender norms had more positive relationships with peers than same-sex attracted adolescents who were more gender atypical (e.g., Toomey et al., 2010).

The results in the present study complement those of Rieger and Savin-Williams who studied gender nonconformity in heterosexual and non-heterosexual youth but focused on well-being rather than on relationships with peers. They found that the negative association between gender nonconformity and well-being was stronger than the relation between sexual orientation and well-being; they did not find an interaction effect of same-sex attraction and gender nonconformity. Similar to the results of Rieger and Savin-Williams (2012), we found that gender nonconformity was significantly related to the outcome variables, which in our study focused on relationships with classmates. In contrast to Rieger and Savin-Williams, however, we found significant effects of same-sex attraction and the interaction between same-sex attraction and gender nonconformity. A possible explanation for the difference in findings between the study of Rieger and Savin-Williams and our study could be that well-being, the outcome variable in the Rieger and Savin-Williams study, is a different construct than relationships with classmates and that the association with same-sex attraction and gender

Table 4 Hierarchical regression for victimization, peer role strain, and quality of relationship with classmates

	Victimization			Peer role strain			Quality of relationship with classmates		
	<i>B</i>	SE	β	<i>B</i>	SE	β	<i>B</i>	SE	β
Step 1									
Age	.00	.02	.00	-.05	.03	-.07	-.02	.02	-.04
Education	-.02	.03	-.04	.00	.03	.00	.07	.03	.12*
Biological sex (S)	-.23	.05	-.22***	-.25	.06	-.17***	.37	.05	.31***
Same-sex attraction (SSA)	.10	.04	.14**	.12	.05	.12*	-.08	.04	-.09
Gender nonconformity (GNC)	.06	.03	.12*	.17	.03	.23***	-.07	.03	-.12*
SSA \times GNC	.05	.02	.15**	.09	.03	.17***	-.05	.02	-.11*
Step 2									
Age	.00	.02	.01	-.05	.03	-.07	-.02	.02	-.04
Education	-.02	.02	-.04	.00	.03	.00	.08	.03	.12*
Biological sex (S)	-.23	.05	-.22***	-.25	.06	-.18***	.36	.05	.30***
Same-sex attraction (SSA)	.09	.04	.12*	.13	.05	.13**	-.09	.04	-.10*
Gender nonconformity (GNC)	.07	.03	.12*	.17	.03	.24***	-.07	.03	-.11*
SSA \times GNC	.04	.02	.10	.10	.02	.19**	-.05	.02	-.13*
S \times GNC	-.04	.05	-.04	-.02	.07	-.01	-.10	.06	-.08
S \times SSA	-.13	.07	-.09	.03	.10	.01	-.19	.08	-.11*
S \times SSA \times GNC	-.03	.04	-.04	.05	.06	.05	.05	.05	.06

Victimization: Step 1 $R^2 = .13$, $F = 11.83$, $p < .0001$; Step 2 $\Delta R^2 = .01$, $\Delta F = 2.14$; Peer role strain: Step 1 $R^2 = .17$, $F = 15.26$, $p < .0001$; Step 2 $\Delta R^2 = .00$, $\Delta F = 0.40$; Quality of relationship with classmates: Step 1 $R^2 = .15$, $F = 13.17$, $p < .0001$; Step 2 $\Delta R^2 = .02$, $\Delta F = 2.96$, $p = .032$

* $p < .05$, ** $p < .001$, *** $p < .0001$

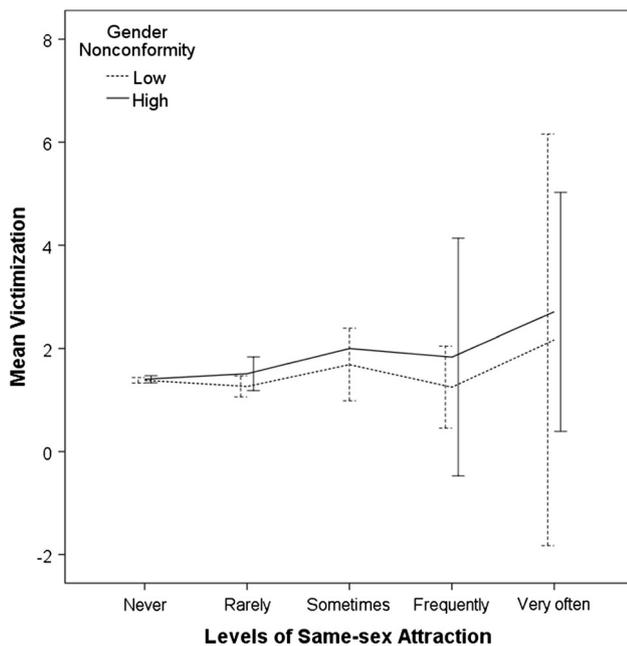


Fig. 1 Same-sex attraction with victimization across gender nonconformity. Error bars represent 95 % CIs

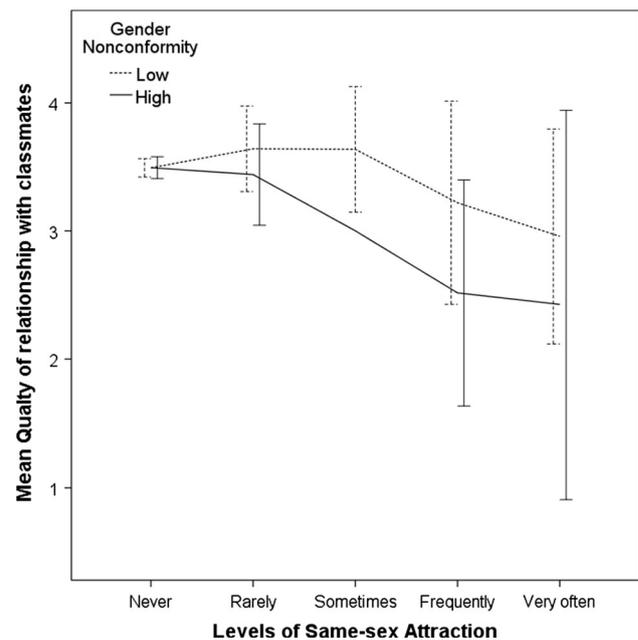


Fig. 3 Same-sex attraction with quality of relationships with peers across gender nonconformity. Error bars represent 95 % CIs

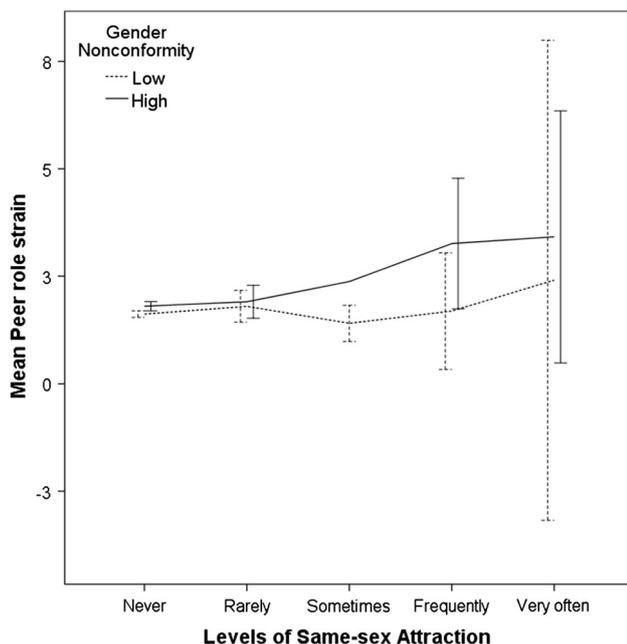


Fig. 2 Same-sex attraction with peer role strain across gender nonconformity. Error bars represent 95 % CIs

nonconformity therefore shows different patterns. Another explanation for the different outcomes could be that the participants in our study were younger ($M = 14.02$ years compared to $M = 17.3$ years in the study of Rieger and Savin-Williams). That the adolescents in our study were younger might also explain the observed differences in the association between same-sex attraction and gender nonconformity. Rieger and Savin-Williams found a

significant correlation between same-sex attraction and adolescent gender nonconformity for both boys and girls. We found a significant correlation between same-sex attraction and gender nonconformity for the total group, which according to statistical guidelines (Cohen, 1988) was a small effect ($r = .16$); the sex difference we observed indicated that the association was only significant for boys. The association between same-sex attraction and gender nonconformity in our study was also small in comparison to studies in adult populations (Bailey, Dunne, & Martin, 2000; Bailey & Zucker, 1995; Dunne, Bailey, Kirk, & Martin, 2000; Lippa, 2005).

Another explanation for the differential findings could be the way in which sexual orientation and gender nonconformity were operationalized. While Rieger and Savin-Williams used the average of three scales to assess sexual orientation (sexual attractions, fantasies, and infatuations), we only assessed sexual attraction. Rieger and Savin-Williams asked participants about their activities and interests, while we asked participants about their feelings. The operationalization of gender nonconformity in terms of activities and interests could be a stronger measure.

The minority stress model offers a framework for the interpretation of our study's findings. This model postulates that sexual minority people experience specific stressors related to their same-sex attraction or LGB identity or because other people perceive them as being homosexual because of their gender nonconformity (Meyer, 2003). The interaction that we observed between same-sex attraction and gender nonconformity suggests that same-sex attracted adolescent who are gender nonconforming have to deal with additional stressor (same-sex attraction and gender nonconformity).

Alternatively, as some scholars suggest, there could be a genetic factor that explains the association between sexual orientation and well-being (Zietsch, Verweij, Bailey, Wright, & Martin, 2011). According to this explanation, the most gender nonconforming adolescents would have the strongest genetic contribution to psychological problems, which in turn could affect their relationships with peers.

It should be noted that this study was conducted in the Netherlands, a country in which the social role differentiation between women and men is less strong compared to many other Western countries, including the U.S. (Hofstede, 1998). There also is a greater tolerance for gender nonconforming behavior and expression in Dutch culture than in North American culture. Steensma et al. (2014), for example, found that although Dutch and Canadian gender dysphoric children and adolescents showed the same pattern of emotional and behavioral problems, these problems were more prevalent in Canada than in the Netherlands. Furthermore, findings from the World Value Survey and the International Social Survey Program showed that, among Western societies, the Netherlands has the highest level of acceptance of lesbian and gay people (Kelley, 2001; Sandfort, 1998, 2005; Sandfort, McGaskey, & Bos, 2008). However, even in a country with a relatively tolerant climate toward same-sex attracted people and with a small gender role differentiation, we found that same-sex attraction in combination with gender nonconformity was associated with decreased social well-being in adolescents.

Our study had some limitations. First, we did not assess whether the self-rated gender nonconformity was visible in terms of their appearance or behavior. Future research might include measures based on other persons' perceptions, because the more gender nonconformity is visible to peers, the more likely it is that same-sex attracted adolescents will be shunned. Increased visibility of gender nonconformity among same-sex attracted adolescents might lead to loss of support by classmates, and this might make same-sex attracted adolescents more vulnerable to negative reactions (Yunger, Carver, & Perry, 2004).

Secondly, we do not know which classmates (in the participants' perception) reacted negatively, what their motives were, or what their attitudes were toward their peers' gender nonconforming behavior or appearance. Ewing Lee and Troop-Gordon (2011a, 2011b) showed that whether gender-nonconforming children received negative reactions from peers was dependent on gender norms in the peer group. Future research could include gender norms of classmates and explore whether these norms affect the acceptance or rejection of gender nonconformity of same-sex attracted classmates.

Furthermore, same-sex attracted students whose feelings are known to others might be more likely to be confronted with rejection than those who are not open about their sexuality (Ueno, 2005). We did, however, not assess whether same-sex attracted youth were open about their feelings towards their peers at school. Adolescents who choose not to disclose their same-sex attraction may isolate themselves from peers (D'Augelli, 1996).

It seems that understanding why same-sex attracted youth have peer difficulties requires distinguishing between those who are open about this and those who are not. Future research should also address this aspect.

Despite these limitations, we found that same-sex attraction contributes to negative peer relationships in school and that, gender nonconformity creates additional stress. Our findings underscore the importance of including gender nonconformity in studies of same-sex attracted adolescents' social relationships in school. They also strongly suggest that in order to improve adolescents' attitudes toward same-sex attracted peers, it is crucial to also promote acceptance of gender role diversity.

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