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Microaggressions and Depressive Symptoms in Sexual Minority Youth: The Roles of
Rumination and Social Support

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Abstract

Mental health disparities between sexual minority and heterosexual youth are often explained by discriminatory experiences and rejection. Although many studies focus on explicit victimization, the consequences of subtle, everyday discriminations (“microaggressions”) against sexual minority youth are unknown. With an online study among 267 Dutch sexual minority youth (aged 16-22 years) we investigated indirect associations between sexual orientation microaggression experiences and depressive symptoms through rumination and whether these could be buffered by sexuality-specific support. Microaggression experiences were indirectly related to depressive symptoms, through rumination. We found no buffering effects of support. Findings call for awareness of the potentially negative impact of subtle discriminatory experiences, in addition to explicit discrimination, and the negative mental health outcomes that may develop as a result of ruminative emotion regulation.

Keywords: sexual orientation microaggressions; ruminative emotion regulation depressive symptoms; sexuality-specific support; sexual minority youth.

Abstract (Dutch)

Verschillen in mentale gezondheid tussen seksuele minderheidsjongeren en heteroseksuele jongeren worden vaak verklaard door discriminatie en ervaren afwijzing. Hoewel veel studies zich richten op expliciete discriminatie, zijn de gevolgen van subtiele, dagelijkse discriminatie (“microaggressie”) van seksuele minderheidsjongeren onbekend. In een online studie onder 267 Nederlandse seksuele minderheidsjongeren (16-22 jaar oud) onderzochten wij de samenhang tussen seksuele microaggressie en depressieve symptomen via emotie-regulatie (piekeren) en of deze gebufferd kon worden door sociale steun gericht op seksualiteit. Ervaringen met microaggressie waren indirect gerelateerd aan depressieve symptomen, via piekeren. Daarnaast vonden wij dat sociale steun deze verbanden niet bufferde. De bevindingen vragen om bewustwording van de mogelijk negatieve impact van subtiele discriminerende ervaringen, naast expliciete discriminatie, en de mogelijke negatieve gevolgen voor de mentale gezondheid die ontstaan als gevolg van emotionele dysregulatie zoals piekeren.

Public significance statement

The current study shows that youth who experience subtle and sometimes unintentional rejection (sexual orientation microaggression) are more likely to “brood” in response to stress, which is linked to higher depressive symptoms. These findings raise awareness of the importance of common but subtle types of prejudice and provide insight for prevention and intervention programs that aim to minimize prejudice and to build resilience among sexual minority youth.

Microaggressions and Depressive Symptoms in Sexual Minority Youth: The Roles of Rumination and Social Support

Sexual minority or lesbian, gay and bisexual (LGB) youth report more depression, self-harm and suicidality compared to heterosexual youth (e.g., D'Augelli, 2002; King et al., 2008; Marshal et al., 2011; Meyer, 2003; Sandfort, De Graaf, Bijl, & Schnabel, 2001). For example, sexual minority youth are twice as likely to experience depression (King et al., 2008) or psychological problems (Kuyper, 2015) compared to their heterosexual peers. Moreover, adolescence and young adulthood are the most vulnerable times for the development of mental health problems for sexual minority youth (Meyer, 2003).

Mental health disparities between sexual minority and heterosexual youth are often explained using the minority stress framework (Meyer, 1995, 2003), and assumed to be the result of chronic exposure to stigma-related stressors, such as prejudice. Multiple studies have confirmed the negative impact of explicit forms of prejudice, such as discrimination, stigma, and aggression (e.g., Burton, Marshal, Chisolm, Sucato, & Friedman, 2013; Hatzenbuehler, Nolen-Hoeksema, & Erickson, 2008; Kuyper & Fokkema, 2011). Such explicit forms can range from explicit verbal slurs to physical abuse, based on one's actual or perceived sexual identity (Burton et al., 2013). However, the possible consequences of experiences with more implicit and subtle everyday discriminations directed at people's sexual orientation, termed sexual orientation microaggressions, and possible explanatory mechanisms and buffers are currently unknown.

The current study addresses this lacuna by investigating the association between the experience of sexual orientation microaggressions and depressive symptomatology in a sample of sexual minority youth (ages 16 to 22 years). Further, the present study investigates whether microaggression experiences are related to depressive symptoms, through ruminative emotion regulation, and are buffered by sexuality-specific support. The focus on

microaggression experiences represents an important contribution to the field, given that most research on discrimination focuses on explicit, rather than implicit, enactments of prejudice. Additionally, by focusing on mediators and moderators of these relations this study provides a nuanced understanding of this association.

Minority Stress and Depressive Symptoms

The minority stress framework (Meyer, 1995, 2003) posits that members of sexual minority groups are chronically exposed to stigma-related stressors related to one's sexual minority group. Among these stressors are negative prejudice events, which are situations in which a youth's minority status is emphasized as being different from or inferior to the norm. Extending social stress theory (Aneshensel, 1992), it has been hypothesized that stigma-related prejudice evokes stress that leads to adverse mental health outcomes, such as depression (Meyer, 1995, 2003).

Several studies show that stigma-related stressors precede changes in depression (Burton et al., 2013; Hatzenbuehler et al., 2008; Robinson, Espelage, & Rivers, 2013; Poteat & Espelage, 2007). Across these studies, differences in minority-specific victimization explained anywhere from 8% to 28% of the variance, suggesting that other factors may be important. In addition to overt and intentional forms of bias, microaggression experiences (Sue, 2010) might also play a role in explaining depression among sexual minority youth.

Microaggression Experiences and Psychological Well-Being

Recently, researchers have begun to focus on subtle discriminations called microaggressions. Microaggressions are defined as "brief and commonplace daily verbal, behavioral, and environmental indignities, whether intentional and unintentional, that communicate hostile, derogatory, or negative LGBT slights and assaults to the target group or person" (Sue, 2010, p. 191). The hidden messages of intolerance and exclusion communicate that sexual minority youth are different from or inferior to heterosexual youth. Examples of

microaggression experiences include that youth hear someone use the term “that’s so gay” in a derogatory way, are told that being gay is just a phase, or notice that someone feels uncomfortable in their presence after disclosing their sexual identity. Such microaggressions can be experienced in different contexts, and are often not intended to do harm (Sue, 2010).

The often ambiguous messages of microaggressions have been suggested to evoke stress and subsequent mental health problems, such as depressive symptoms, in a similar way that explicit rejection would (Sue, 2010). Microaggressions may be especially stressful because their subtle character makes them socially legitimized. In addition, microaggressions may lack the intensity of blatant prejudice (e.g., physical aggression), but have a repetitive, day-to-day nature (Sue, 2010). The harmfulness of victimization has been proposed to be the product of *intensity* and *repetition* of victimization (Volk, Dane, & Marini, 2014), which suggests that these subtle but common discriminations can be harmful to sexual minority youth.

In recent years, there has been an increase in empirical research involving the concept of microaggression, including typologies and associations with mental health and sexual identity (e.g., Balsam, Molina, Beadnell, Simoni, & Walters, 2011; Bostwick & Hequembourg, 2014; Sarno & Wright, 2013; Wright & Wegner, 2012; see Sue, 2010, for a review). Together, these studies suggest that microaggression experiences can have a negative impact on youth’s mental health. Examples of correlates of sexual orientation microaggression experiences are negative feelings, such as emotional distress (Nadal, Wong, Issa, Meterko, Leon, & Wideman, 2011; Woodford, Kulick, Sinco, & Hong, 2014). Microaggression experiences on campus were found to be related with psychological distress among LGB and queer college students (Woodford et al., 2014), and microaggression experiences were found to evoke anger, frustration, and, if frequent, depression among LGB individuals (Nadal et al., 2011). However, most studies on the correlates of microaggression

experiences have been qualitative and should be supplemented with quantitative studies. Further, despite the established link with distress, it is currently unknown whether microaggression experiences are also related to more severe psychological disturbances, such as depressive symptoms.

Microaggressions, Rumination and Depressive Symptoms

A behavior, related to emotional dysregulation, and used in the context of minority stress is brooding. Brooding is a type of ruminative emotion regulation (Hatzenbuehler, 2009), which is characterized by a focus on stress symptoms and its possible causes and consequences, as opposed to possible solutions to the problem (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008). People who are stigmatized are thought to manage their devalued social identity and the required effort may diminish the resources they need to adaptively regulate their emotions. This leaves them more vulnerable to developing mental health problems, such as depressive symptoms (Hatzenbuehler, 2009).

Previous studies demonstrate that experiencing explicit forms of victimization is linked to rumination among sexual minority young and older adults (Hatzenbuehler, Nolen-Hoeksema, & Dovidio, 2009) and that rumination can predict depressive symptoms (e.g., Michl, McLaughlin, Shepherd, & Nolen-Hoeksema, 2013; Nolen-Hoeksema, 2000). Moreover, research has shown that rumination explains the relation between explicit discrimination and psychological distress in sexual minority youth (Hatzenbuehler et al., 2009). In a study among sexual minority young and older adults, participants who reported more confrontations with stigma-related stressors also reported more rumination, which was related to higher levels of psychological distress (Hatzenbuehler et al., 2009). Rumination may in particular apply to microaggression experiences considering the ambiguous nature of the messages. This ambiguity is amplified when microaggressions are expressed with good intentions by people who hold egalitarian beliefs and are accepted by others who are present

(Nadal et al., 2014; Sue, 2010). The ambiguity in these messages may, thus, be particularly encouraging of behaviors such as brooding.

Potential Buffers of the Relation between Microaggression Experiences and Depressive Symptoms

In addition to explaining the impact of experiences with stigma-related stressors on depressive symptoms among sexual minority youth, researchers have increasingly focused on resilience and factors that can buffer the impact of stressors on well-being (Russell, 2005). Although social support can, in general, facilitate youth's adjustment, it has been suggested that social support functions best when it addresses the specific problems at hand (Doty, Willoughby, Lindahl, & Malik, 2010; Kwon, 2013). Considering the coming-out processes that many youth experience during adolescence and young adulthood, one of the potential protective factors against minority stress is support of one's sexual orientation or coming-out process (Kwon, 2013).

Previous research has shown that support directed at youth's sexual orientation can protect them from the negative impact of explicit prejudice (Doty et al., 2010; Hershberger & D'Augelli, 1995; Ramirez-Valles, Fergus, Reisen, Poppen, & Zea, 2005; Vincke & Van Heeringen, 2002). As such, sexuality-specific support from parents, peers, or the LGBT community can ameliorate the impact of stigma-related stressors on mental health problems (Doty et al., 2010; Hershberger & D'Augelli, 1995; Ramirez-Valles et al., 2005). For example, verbal support from parents has been shown to buffer the impact of victimization on mental health among sexual minority youth (Hershberger & D'Augelli, 1995).

In addition, friends can also be a source of support for sexual minority youth (Doty et al., 2010; Ueno, 2005; Vincke & Van Heeringen, 2002). The impact of victimization on sexual minority adolescents' distress has been shown to be buffered by having sexual minority friends (Ueno, 2005). Further, feeling connected to the LGB community is linked to

better mental health among sexual minority young and older adults (Kertzner, Meyer, Frost, & Stirratt, 2009; Lewis, Derlega, Berndt, Morris, & Rose, 2001). Moreover, LGBT community involvement has been shown to buffer the impact of stigma on depression, as shown in a study among gay men with HIV (Ramirez-Valles et al., 2005).

Sex Differences

Previous research has shown important mean-level sex differences in experiences with stigma-related stressors (Almeida, Johnson, Corliss, Molnar, & Azrael, 2009) as well as in the relation between minority stress and depressive symptoms. For example, in general, gay males report more rejection and victimization (Katz-Wise & Hyde, 2012), and lesbian females report more depressive symptoms (Marshall et al., 2013). Further, males and females may differ in the mechanisms that help explain how stigma-related stressors affect mental health (Almeida et al., 2009; Baams, Grossman, & Russell, 2015).

The Current Study

In this study, the following three hypotheses are formulated. First, based on the minority stress framework (Meyer, 1995, 2003) and microaggressions literature (e.g., Sue, 2010), we hypothesize that experiences of microaggressions are related to depressive symptoms among sexual minority youth. Second, following theoretical suggestions (Hatzenbuehler, 2009) and empirical findings (e.g., Hatzenbuehler et al., 2009) on ruminative emotion regulation, we hypothesize that microaggression experiences are indirectly related to depressive symptoms through ruminative emotion regulation. Third, based on the minority stress framework (Meyer, 1995, 2003) and empirical findings showing that sexuality-specific support from parents, peers or the LGBT community can buffer the impact of explicit forms of stigma-related stressors (e.g., Doty et al., 2010; Hershberger & D'Augelli, 1995; Ramirez-Valles et al., 2005), we hypothesize that the relation between microaggression experiences and depressive symptoms, through ruminative emotion regulation, is attenuated for those who

report higher levels of sexuality-specific support from parents, peers, or the LGBT community. Last, we explore whether the strength of these associations differ for male and female youth. Given the lack of research on the topic of microaggressions we do not have specific hypotheses as to the direction of effects. The hypotheses are tested with an online survey study among 267 Dutch sexual minority youth, using direct, indirect and moderation regression analyses in multigroup models for male and female youth.

Method

Participants

Data come from a larger research project on the occurrence and correlates of gender and sexual microaggression experiences among sexual minority youth. Participants were 364 Dutch youth who were recruited through several LGBT community-based organizations and websites. We excluded youth who did not report their sex, because information about participant's sex was needed to examine differences between male and female youth in the key variables. Further, we excluded youth who did not report any degree of same-sex attraction, as indicated by their scores on the same-sex attraction and/or sexual identity questions. Of the 364 participants, 96 did not report their sex, and one female participant reported both a straight sexual identity and feeling exclusively attracted to males. These 97 participants were excluded for the current analyses, resulting in a total sample of 267 youth (28.8% male; 71.2% female) who participated (ages 16-22, $M = 17.61$, $SD = 1.87$).

The majority of the sample had a Dutch cultural background (61.8%), smaller groups reported a Surinam (0.4%), Moroccan (0.4%), Antillean or Aruban (0.4%), Turkish-Dutch (0.4%), other cultural background (6.4%), and about one-third of youth did not report their cultural background (30.2%). Most youth were currently in secondary school (33.8%) or attending college or university (32.6%), and some were employed (1.5%), or had another occupation (1.9%), such as being unemployed and not enrolled in formal education. Others

(30.2%) did not report their occupation. Youth reported their sexual identity as lesbian (30.3%; 36.4% male, 63.6% female), gay (18.7%; 22% male, 78% female), bisexual (22.1%; 21.8% male, 78.2% female), queer (2.2%; 50% male, 50% female) or another sexual identity (6%; 13.3%, 86.7%). Others skipped this question (20.7%; 29.6% male, 70.4% female).

To check whether participants who were excluded because they did not report their sex differed from participants who did, we examined mean-level differences on our key variables. Participants who did not report their sex (excluded sample; $n = 96$) did not differ from those who did report their sex ($n = 267$) in the key variables microaggression experiences, rumination, depressive symptoms, and sexuality-specific acceptance from parents and peers or LGBT community connectedness ($ps > .05$).

Procedure

Participants were asked to fill out an online survey and were entered into a raffle to receive a gift card for their participation that had a value of €5. Participants were informed that their participation was confidential and voluntary, and were provided with contact details of counseling services and support groups for sexual minority youth. Informed consent was obtained from all individual participants included in the study. Furthermore, participants had the opportunity to participate anonymously, to end the questionnaire at any time, and to skip any question. Approval of all procedures was granted by the ethical committee of the Social and Behavioural Sciences faculty at Utrecht University.

Measures

Microaggression experiences. Microaggression experiences were measured as the mean of 26 items of the Sexual-Orientation Microaggressions Inventory (Swann, Minschew, Newcomb, & Mustanski, 2016). This measure has shown convergent, factorial, criterion-related, and discriminant validity in research among sexual minority youth (Swann et al., 2016). An earlier version of the SOMI measure designed by Swann and colleagues was

completed by the participants. This measure included 31 items, however the validated measure (Swann et al., 2016) reports on 26 items. To ensure the validity and reliability of our results, we decided to include these 26 items in the current analyses.

Participants were asked how often they were exposed to microaggressions in the past month. Sample items were: “*Someone told you that you’re not a “real” man or woman*”, “*Someone said: ‘you know how gay people are,’*” and “*Someone said: ‘I don’t mind gay people, they just shouldn’t be so public.’*” Participants could answer on 4-point scales (0 = *never* and 4 = *very often*), $\alpha = .93$. Higher scores thus represent higher levels of microaggression experiences.

Depressive symptoms. Adolescent’s level of depressive symptoms was assessed as the mean of six items from the Depressive Mood List (Kandel & Davies, 1982, translated to Dutch by Dékovic, 1996). This measure has been used extensively with population samples of adolescents and young adults (e.g., Van der Aa, Overbeek, Engels, Scholte, Meerkerk, & Van den Eijnden, 2009) and shows sufficient internal consistency, reliability, and stability over time (Kandel & Davies, 1986). Participants were asked how they thought or felt in the last two weeks. A sample item is “*I worried too much about things.*” Participants could answer on 5-point scales (1 = *never* and 5 = *very often*), $\alpha = .87$. Higher scores thus represent higher levels of depressive symptoms.

Rumination. Rumination was assessed as the mean of six items of the “brooding” subscale of the Ruminative Responses Scale (Treynor, Gonzalez & Nolen-Hoeksema, 2003) which has shown adequate internal consistency and test–retest stability (1 year time interval), has been shown to predict higher levels of depression (Treynor et al., 2003), and has been used in a sample of sexual minority youth (Hatzenbuehler et al., 2009). The scale assessed how youth generally thought or acted when experiencing difficult or stressful events. A sample item is “*Think: ‘What am I doing to deserve this?’*” Youth could answer on 7-point

scales (1 = *disagree strongly* and 7 = *agree strongly*), $\alpha = .84$. Higher scores thus represent higher levels of rumination.

Sexuality-specific mother, father and peer acceptance. Sexuality-specific mother, father and peer support were operationalized via one item that tapped how others responded to youths' sexual orientation at the moment of coming-out, adapted from Hershberger and D'Augelli's (1995) research on family support. This measure has been linked to poorer mental health problems among sexual minority adolescents and young adults (D'Augelli, 2002). For parental acceptance the item was "*How accepting was your father's /mother's reaction to your sexual orientation?*" and for peer acceptance "*Overall, how accepting were your peers' reactions to your sexual orientation?*" Youth could answer on 4-point scales (1 = *rejecting* and 4 = *accepting*), and higher scores thus represent higher levels of sexuality-specific acceptance. For each type of acceptance a separate variable was created.

LGBT community connectedness. Sexuality-specific support from the LGB-community was operationalized as community connectedness with the mean of four items from the Connectedness to the LGBT Community Scale (Frost & Meyer, 2012). This measure has previously been used in research among sexual minority youth (Durso & Meyer, 2013; Frost & Meyer, 2012), demonstrating factorial, convergent, and discriminant validity (Frost & Meyer, 2012). This scale assessed how close adolescents felt to the LGBT community and how positive their connections were. A sample item is "*You feel you're a part of an LGBT community.*" Youth could answer on 4-point scales (1 = *disagree strongly* and 4 = *agree strongly*), $\alpha = .88$. Higher scores thus represent higher levels of LGBT community connectedness.

Sexual identity. A single item assessed sexual identity: "*When you think about your sexual identity, do you think of yourself as lesbian, gay, bisexual, queer, or straight?*" Youth

could also respond with “*other, namely...*” (15 participants reported their sexual identity as “*other*”, these were recoded to missing).

Analytic Plan

Data-analyses were performed in SPSS version 22 (IBM, 2011) and Mplus version 7.4 (Muthén & Muthén, 2010). First, to examine sex differences, we used several analyses of variance (ANOVA) and one multivariate ANOVA (MANOVA). Second, we checked Pearson correlations to examine associations between the key variables. To test the hypothesized cross-sectional relations, the direct relation between microaggression experiences and depressive symptoms was examined by regression analysis in Mplus. To examine whether rumination mediated the relation between microaggression experiences and depressive symptoms, we used the MODEL INDIRECT option. To test moderated mediation effects of the support variables, we added interaction terms of microaggression experiences and the sexuality-specific acceptance from parents and peers and LGBT community connectedness variables as predictors of depressive symptoms (Preacher, Rucker and Hayes, 2007). To compare constrained and unconstrained multigroup models for male and female youth, we used a chi-square difference test and three goodness-of-fit indices: Comparative Fit Index (CFI), Tucker Lewis Index (TLI), and Root Mean Square Error of Approximation (RMSEA; Brown & Cudeck, 1993). In each model that was tested, we controlled for age and used bootstrapping to correct for non-normally distributed data (boot = 5000); significance of indirect effects is inferred from bootstrapped confidence intervals not including zero. Missing data were handled using full-information maximum-likelihood (FIML). The FIML procedure has been shown to be unaffected by missing data rates, even when the rate is nearly a quarter of the sample (Enders & Bandalos, 2001). Missing data on the key variables ranged from 0.7% (sexuality-specific acceptance from peers) to 25.5% (depressive symptoms). The mean percentage of missing data across all measures was 7.5%.

Results

Preliminary Analyses

Table 1 presents the means, standard deviations (*SDs*), and ranges of the key variables across male and female youth. Furthermore, this table presents the results of ANOVAS (for microaggression experiences, rumination, depressive symptoms, and age) and one MANOVA (for the support variables) that were conducted to examine differences across males and females, sexual identity groups and groups based on ethnic background in the key variables. The results show that there were no differences in the key variables between male and female youth, sexual identity groups, and groups based on cultural background (non-Dutch versus Dutch), $ps > .05$. We were unable to test group differences based on cultural background due to small subgroups (0.4% per subgroup).

Table 1 also presents the correlations between the key variables for male and female youth separately. For male youth, microaggression experiences was significantly related to higher levels of rumination, $r(56) = .41, p = .002$, and depressive symptoms, $r(55) = .42, p = .002$. Higher levels of rumination were, as expected, associated with higher levels of depressive symptoms, $r(55) = .53, p < .001$. Finally, none of the acceptance or LGBT community connectedness variables were associated with depressive symptoms among male youth. However, lower levels of father acceptance were associated with higher levels of rumination, $r(53) = -.32, p = .019$, and microaggression experiences, $r(72) = -.33, p = .004$.

For female youth, microaggression experiences was significantly related to higher levels of rumination, $r(146) = .37, p < .001$, and depressive symptoms, $r(146) = .32, p < .001$. Female youth with higher levels of rumination also reported higher levels of depressive symptoms, $r(144) = .64, p < .001$. Concerning acceptance and LGBT community connectedness, peer acceptance was related to depressive symptoms, $r(142) = -.22, p = .010$. Thus, higher levels of peer acceptance were related to lower levels of depressive symptoms.

None of the other support variables were related to depressive symptoms. In addition, peer acceptance was negatively related to rumination, $r(144) = -.28, p = .001$. Thus, for female youth higher levels of peer acceptance were associated with lower levels of rumination. Further, higher levels of father, mother and peer acceptance were related to lower levels of microaggression experiences (for father support, $r[178] = -.34, p < .001$; for mother acceptance, $r[180] = -.19, p = .010$; for peer acceptance, $r[185] = -.29, p < .001$). Age was related to lower levels of depressive symptoms, $r(144) = -.19, p = .022$. In other words, older females had lower levels of depressive symptoms.

Mediating Role of Rumination in the Relation Between Microaggression Experiences and Depressive Symptoms

Given the possible sex differences in the hypothesized relations, we tested a multigroup model in which paths were estimated freely across male and female youth and compared this model to a fully constrained model. Based on the results of a χ^2 difference test, the constraints across males and females did not significantly worsen model fit, $\chi^2(4) = 1.79, p = .774$. In addition, according to the CFI, TLI, and RMSEA, the model fit statistics of the indirect models that were unconstrained (CFI = 1.000, TLI = 1.017, RMSEA = 0.000; 90%CI[0.000;0.160]) were slightly worse compared to the model fit statistics of the indirect models that were fully constrained across male and female youth (CFI = 1.000, TLI = 1.035, RMSEA = 0.000; 90%CI[0.000,0.078]). Therefore, the hypotheses were tested in models in which male and female youth were constrained to be equal. The subgroups based on sexual identity (e.g., gay, lesbian, and bisexual) across sex were too small to reliably test multi-group models with these subgroups.

The regression model in which microaggression experiences was regressed on depressive symptoms (CFI = 1.000, TLI = 1.111, RMSEA = 0.000; 90%CI[0.000,0.119])

explained 14.2% of the variance in depressive symptoms for males, and 15.3% for females (Figure 1), and showed a significant direct relation between microaggression experiences and depressive symptoms ($b = 0.40, p < .001$). The results from the indirect model (CFI = 1.000, TLI = 1.035, RMSEA = 0.000; 90%CI[0.000,0.078]) explained 35.2% of the variance in depressive symptoms in males, and 42.0% for females. This model showed an indirect positive relation between microaggression experiences and depressive symptoms, through rumination ($b = 0.26, p < .001$; 90%CI[0.244,0.558]). As expected, higher levels of microaggression experiences were related to higher levels of rumination ($b = 0.82, p < .001$), and higher levels of rumination were related to higher levels of depressive symptoms ($b = 0.31, p < .001$). Moreover, the direct relation between microaggression experiences and depressive symptoms had diminished in the indirect model ($b = 0.14, p = .071$).

Moderating role of Sexuality-Specific Acceptance and LGBT Community

Connectedness

To test whether sexuality-specific support from parents, peers, or the LGBT community buffered the indirect relation between microaggression experiences and depressive symptoms through rumination, we tested moderated mediation effects. The interaction terms of microaggression experiences \times sexuality-specific acceptance and LGBT community connectedness were not significant in predicting depressive symptoms ($ps > .05$). Thus, sexuality-specific acceptance from fathers, mothers, peers or connectedness with the LGBT community did not buffer the indirect relation between microaggressions and depressive symptoms, through ruminative emotion regulation.

Discussion

In line with our hypotheses, the current study is the first to demonstrate that subtle implicit stigma-related stressors (microaggressions) are indirectly related to sexual minority

youth's depressive symptoms, through ruminative emotion regulation. By using the minority stress framework to explain the relation between day-to-day, subtle stigma-related stressors and mental health, the current study advances our understanding of mental health disparities among sexual minority youth. Further, with these findings, we show that similar to explicit stressors such as being threatened or harassed (Hatzenbuehler et al., 2009), prejudice that is more subtle and ambiguous is also associated with youth's depressive symptoms through ruminative emotion regulation.

The Role of Ruminative Emotion Regulation

The results of the current study show the indirect relation between microaggression experiences and depressive symptoms, through ruminative emotion regulation. In other words, youth who experience microaggressions also report a higher tendency to “brood” in response to stress, which is, in turn, linked to higher depressive symptoms. This finding extends previous research on the function of rumination in response to explicit stigma-related stressors (Hatzenbuehler et al., 2009), by demonstrating that there is an indirect relation between microaggression experiences and depressive symptoms through ruminative emotion regulation. Moreover, by focusing on a sample of Dutch youth we expand the cross-cultural validity of previous literature based on samples of youth in the U.S. (Hatzenbuehler et al., 2009; Swann et al., 2016).

Frequent experiences of stigma-related stressors can devalue youth's perception of their social identity, and attempts to restore this identity may diminish the resources that are required for adaptive emotion regulation (Hatzenbuehler, 2009). The current study suggests that microaggression experiences affect emotion regulation in a similar way. Rumination in response to microaggressions, and the possible causes and consequences of stress, may leave youth more vulnerable to psychological problems, such as depressive symptoms.

No Buffering Role of Sexuality-Specific Support

Contrary to our hypothesis that sexuality-specific support would buffer the relation between microaggression experiences and depressive symptoms, we did not find a moderating effect of sexuality-specific support on the relation between microaggression experiences and depressive symptoms, neither directly nor indirectly. Despite the positive function of sexuality-specific support in the relation between explicit rejection and mental health in previous work (Doty et al., 2010; Hershberger & D'Augelli, 1995; Ramirez-Valles et al., 2005), sexuality-specific support did not buffer the relation between microaggressions and depressive symptoms in the current study.

Several potential explanations may account for the lack of this buffering function in the relation between microaggression experiences and depressive symptoms in the current study. First, following suggestions that support is most effective when it matches the needs created by the specific stressors (Doty et al., 2010), we defined sexuality-specific support as acceptance by parents and peers during coming-out processes and as connectedness with the LGBT community. Perhaps a more comprehensive measure of sexuality-specific support is needed to examine its buffering role. For example, the moments of acceptance during coming-out and experiences of microaggressions might be separated in time by many years. It is likely that youth continue to need support after coming-out for the first time, and therefore an improved measure would also include more recent experiences with support. Further, it may be important that parents and peers not only show acceptance of sexual orientation, but that they also show support for romantic and sexual relationships or active involvement in communities that can accompany the disclosure of same-sex attractions or a sexual minority identity (Herek, 1995; Ryan, Russell, Huebner, Diaz, & Sanchez, 2010). Measures of sexuality-specific support that cover different aspects of support would be more sensitive to the detection of buffering effects. Second, in addition to our limited information on the content of support, we also miss vital information on the relational context in which

support was embedded. The relationship quality that youth have with their sources of support (Russell, 2005), as well as the structural aspects of that relationship (i.e., living at home, attending school, engagement in LGBT community) may be important to consider in future research on the function of sexuality-specific social support.

Limitations and Suggestions for Future Research

Despite the relevance of the findings, the current study also has several limitations. First, the analyses in the current study were performed on cross-sectional data. Since the models that we examined assume a causal process, longitudinal data are needed to assess the temporal order with which emotion regulation and depressive symptoms develop (Maxwell, Cole, & Mitchell, 2011). Second, we used data from a sample that might not be representative for the general population. Our community sample shows similarities to a population-based sample of Dutch young adults in terms of sexual identity distribution (Kuyper, 2015). However, previous research has shown that participants in community samples (samples that are recruited at LGBT venues) differ from those in the broader population, on aspects such as negative reactions, psychological distress and suicidality (Kuyper, Fernee, & Keuzenkamp, 2015). Therefore, we acknowledge that we cannot generalize our findings to the general population and future research should include representative samples to replicate these findings.

Our findings raise several suggestions for future research. First, concerning the measures of sexuality-specific support, future research may include a more comprehensive conceptualization of sexuality-specific support, for example, by considering the content and relational context of support. Second, longitudinal research including multiple measurement waves is needed to examine the temporal process through which depressive symptoms develop (Hatzenbuehler, 2009) and to examine whether microaggression experiences have an accumulative impact on depressive symptoms (Sue, 2010).

Third, future research could consider contextual elements in the relation between microaggression experiences and depressive symptoms. For example, the impact of microaggression experiences may depend on the person who delivers them. It has been suggested that experiencing microaggressions from strangers may have less of an impact than those delivered by family, friends or colleagues (Sue, 2010). Therefore, future studies could gain more insight into the contexts in which microaggression experiences are particularly harmful by focusing on, for example, the person who delivers microaggressions. In conclusion, future research could consider the interplay between contextual and individual factors, and microaggression experiences (Meyer, 2003; Sue, 2010) to gain a more comprehensive understanding of the relation between microaggression experiences and mental health.

Theoretical and Practical Implications

The findings of the present study increase our understanding of mental health among sexual minority youth, and risk factors such as the experience of microaggressions. We have integrated new types of stigma-related stressors in the important minority stress framework (Meyer, 1995, 2003) to explain mental health problems of sexual minority youth. In addition, our findings on ruminative emotion regulation suggest that although explicit discrimination and microaggression experiences differ in form and content, both forms of prejudice are related to youth's adjustment through psychological processes such as ruminative emotion regulation. However, despite similarities between stigma-related stress and "microaggression," combining them into one construct raises several concerns about the intentionality of the behavior: the construct aggression assumes the intent to harm another person (Anderson & Bushman, 2002), whereas the construct microaggression allows for "unintentional" behaviors (Sue, 2010, p. 191). Further, not all stigma-related stressors are directly the product of aggression or harm, they also do not always directly impact well-being

(Hatzenbuehler, 2009). Thus, to move this field forward, notions of the minority stress model (Meyer, 1995, 2003) and the research on microaggression (Sue, 2010), as well as our knowledge of important individual differences in resilience, should be combined into one model and tested using premises for both stigma-related stress *and* aggression.

The current findings are not only important for the extension of existing theories, but also have practical relevance. The findings on microaggressions call for awareness of their potentially harmful impact. Whereas existing (preventive) interventions may have focused on explicit rejection and victimization, the topic of microaggression is missing in current preventive efforts. For example, programs may be helpful in encouraging youth to recognize microaggression in their daily lives. These programs could be aimed not just at sexual minority youth, but also at teachers and policymakers. Furthermore, awareness of microaggression experiences and the role of rumination can also be important in the treatment of depression in sexual minority youth. For example, youth may learn adaptive coping strategies to deal with messages that appear ambiguous and well-intended. However, these practical suggestions should be interpreted with caution given the premature stage of this field and the cross-sectional nature of the current study.

Conclusions

Prejudice and discrimination put sexual minority youth at risk for various mental health problems such as depression (e.g., King et al., 2008). In addition to explicit forms of discrimination, the current study shows that subtle and sometimes unintentional expressions of rejection are also related to sexual minority youth's psychological maladjustment. Specifically, we have shown that youth's experiences of microaggression experiences are indirectly related to depressive symptoms, through ruminative emotion regulation processes. That these common experiences in the daily lives of sexual minority youth are related to youth's emotion regulation and mental health, may provide insight for developers of

prevention and intervention programs that aim to minimize prejudice or to build resilience among sexual minority youth.

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SEXUAL ORIENTATION MICROAGGRESSIONS AND DEPRESSION

Tables

Table 1

Means, Standard Deviations, Ranges, and Intercorrelations Among Key Variables Across Male and Female Youth

Variable	Intercorrelations								Males	Females	Range
	1	2	3	4	5	6	7	8	M (SD)	M (SD)	min-max
1. Microaggression experiences	–	.41**	.42**	-.33**	-.09	-.16	.04	.01	2.19 (0.76)	2.07 (0.76)	1-5
2. Rumination	.37***	–	.53***	-.32*	-.21	-.02	-.22	.06	3.95 (1.51)	4.09 (1.53)	1-7
3. Depressive symptoms	.32***	.64***	–	-.21	-.17	-.02	-.01	-.08	2.87 (0.88)	3.13 (0.85)	1-5
4. Sexuality-specific father acceptance	-.34***	-.16	-.15	–	.47***	.03	.05	.12	3.15 (0.96)	3.03 (1.08)	1-4
5. Sexuality-specific mother acceptance	-.19*	-.14	-.11	.48***	–	.03	.17	.00	3.39 (0.87)	3.25 (0.98)	1-4
6. Sexuality-specific peer acceptance	-.29***	-.28**	-.22*	.19*	.05	–	.02	.06	3.51 (0.69)	3.51 (0.69)	1-4
7. Sexuality-specific LGBT community connectedness	.04	-.13	.05	.06	-.01	.16*	–	-.12	2.97 (0.87)	2.95 (0.77)	1-4
8. Age in years	-.11	-.16	-.19*	.09	.08	.07	-.10	–	17.47 (1.64)	17.66 (1.95)	16-22

Note. Intercorrelations for male participants are presented above the diagonal, and intercorrelations for female participants are presented below the diagonal. Higher scores reflect higher levels of exposure to microaggressions, depressive symptoms, rumination, sexuality-specific acceptance from peers and parents and LGBT community connectedness.

* $p < .05$. ** $p < .01$. *** $p < .001$.

SEXUAL ORIENTATION MICROAGGRESSIONS AND DEPRESSION

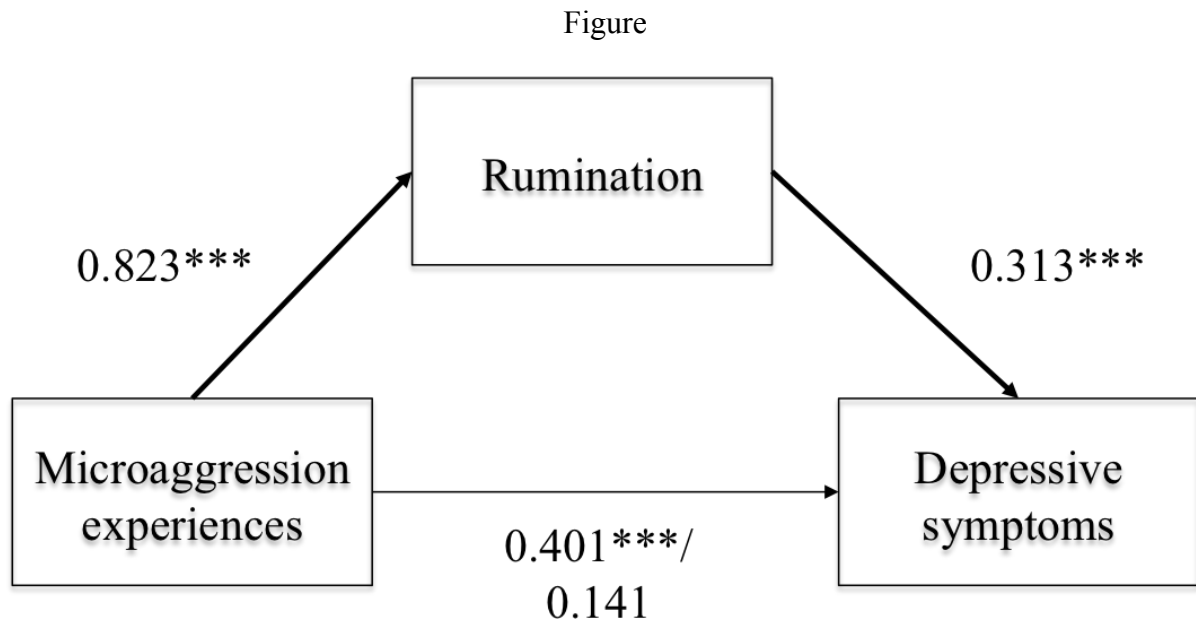


Figure 1. Indirect model of depressive symptoms, controlling for age. Significant indirect effects are presented in solid bold arrows. Unstandardized regression coefficients are shown. Coefficients of the direct relation (in the direct model) are shown before the slash. R^2 (male youth) = 0.35; R^2 (female youth) = 0.42.