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Peer Rejection and Emotion Development: The Role of Peer Rejection and Coming Out on
Emotional Health among Gay and Bisexual Men

by

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Abstract

Objective: Gay and bisexual men experience a higher prevalence of negative mental and physical health outcomes than their heterosexual counterparts. The theory of minority stress implicates experiences of stigmatization, discrimination, and rejection as central in understanding this disparity. Using this theory as a framework, this study examines sexual identity milestone achievement—the age of first coming out to friends—for its effect in mediating the association between childhood experiences of peer rejection and levels of emotion dysregulation in adulthood. **Method:** This study analyzes baseline data on peer rejection, sexual identity milestone achievement (the age at which participants first come out to friends) and emotion dysregulation among a sample of 367 gay and bisexual men, recruited in and around the New York City area. **Results:** Regression analyses suggested that peer rejection predicted levels of emotion dysregulation, as well as age of first coming out to friends. Age of first coming out to friends did not, however, predict emotion dysregulation. **Discussion:** The findings support the predictive association between peer rejection and key constructs independently; however, delayed age of coming out to friends did not have any significant effect on levels of emotion dysregulation in adulthood, the hypothesis of mediation was not supported. Nonetheless, results suggest that interventions supporting positive childhood peer relations, as well as targeting bullying and harassment, are important in helping developing healthy identities for sexual minority youth.

*Peer Rejection and Emotion Development: The Role of Peer Rejection and Coming Out
Emotional Health among Gay and Bisexual Men*

Gay and bisexual men experience negative mental and physical health outcomes at higher rates than their heterosexual counterparts, including higher instances of anxiety, depression, and substance abuse (Cochran, 2000; Herek, 2010; Hershberger & D'Augelli, 1995; Meyer, 2003; Pachankis, Hatzenbuehler, Starks, 2014). Research suggests that the framework of the theory of minority stress explains this disparity, which positions minority-unique stressors as primary contributors to negative health outcomes among sexual minority populations (Frost, Lehavot & Meyer, 2015; Meyer, 2003; Pachankis, 2015). One of the earliest experiences with minority stress among some gay and bisexual youth is that of rejection—or fear of rejection—from parents and peers (Savin-Williams, 1998; Toomey, Ryan, Diaz, Card & Russel, 2010). The stress resulting from this rejection may be important for understanding the mechanisms by which health disparities among gay and bisexual men exist. Of these mechanisms, emotion dysregulation—the inability to effectively modulate emotional responses to provocative stimuli (Gratz & Roemer, 2004)—is among the most well-researched.

Emotion dysregulation levels may act as the outcome by which negative mental and physical health disparities exist among gay and bisexual men (Pachankis, Rendina, Restar, Ventuneac, Grov & Parsons, 2015; Starks, Grov & Parsons, 2013). There exist, however, a number of potential factors that could link the association of minority stress experiences such as rejection and levels of emotion dysregulation. Research has examined the role of sexual identity milestones—important event markers that are meaningful for the development of one's sexual identity (Floyd & Stein, 2002; Parks & Hughes, 2007; Savin-Williams & Diamond, 2000) — as

a potential factor. Among gay and bisexual men, the milestone of coming out to others has been described as one of the most meaningful for its implications in self-esteem and interpersonal functioning, both mechanisms by which emotion dysregulation may develop (Cass 1984; Floyd & Stein, 2002; Frost, Lehavot & Meyer, 2015; Pennebaker, Kiecolt-Glaser, & Glaser, 1988; Pistella, Salvati, Ioverno, Laghi, and Baiocco, 2016). In this way, coming out to others may act as a mechanism by which minority stress experiences— particularly that of rejection—affect emotion dysregulation levels in adulthood.

“Coming Out” as a Sexual Identity Milestone

Sexual identity milestones may be important for understanding the association between minority stress experiences and mental health outcomes among sexual minority populations. There are four identified milestones for the sexual identity development process among gay and bisexual men: initial awareness of same-sex attraction, self-identification as gay or bisexual, having a debut same-sex sexual experience, and disclosure of sexual orientation to others (coming out) (Cass, 1979; Troiden, 1986; Floyd & Stein, 2002). Though these milestones vary in trajectory and sequencing, the milestone of coming out typically supersedes the other three milestones (Cass 1984; Floyd & Stein, 2002; Martos, Nezhad & Meyer, 2015). Coming out to peers is particularly significant for gay and bisexual youth, as sexual minority youth tend to come out to their friends before they come out to anyone else (D'Augelli, Pilkington, & Hershberger 2002; Savin-Williams, 1998). Furthermore, research suggests that benefits to self-esteem and interpersonal functioning may exist for those who come out at average or earlier ages (Jordan & Deluty, 1998; Martos, Nezhad & Meyer, 2015; Savin-Williams, 1989). For this

reason, examining the trajectory of this milestone in particular may be important for understanding the mental health of sexual minority (Cass, 1979; Jordan & Deluty, 1998).

Though research supports the mental health benefits associated with coming out, it is important to consider the bidirectional effects that come with achievement of this milestone. That is, while there are many interpersonal and psychological benefits to coming out, the experience could also be associated with rejection and discrimination that may bring about their own emotional and psychological challenges (Frost, Lehavot & Meyer, 2015). These factors are important for considering the nature of coming out not as a choice or a decision, but as a complicated milestone that may be facilitated or impeded by personal, social, and structural societal factors. This complication is important to understand when examining the effects of minority stress experiences—such as rejection of sexual orientation—on the trajectory of coming out, and subsequent effects on levels of emotion dysregulation. Though the emotional complications and stressors that arise from concealment of sexual orientation present a significant long-term challenge that weighs heavily on social, psychological and self-evaluative stability (Pachankis, 2007), there may be some whose social environment make coming out a more psychologically harmful action than concealment. In this way, the trajectory of coming out is a complex milestone to achieve, and requires further examination for its role in understanding mental health among gay and bisexual men.

Coming out is a complex and fragile milestone to achieve among gay and bisexual youth, due mostly in part to fears of rejection, discrimination, and, in some instances, violence and abuse. Many studies have identified that coming out to others as the most stressful of sexual identity milestones to achieve (D'Augelli, 1991; Rotheram-Borus, Rosari, Van Rossem, Reid, &

Gillis, 1995)—one that can be made easier with parental, peer, and social acceptance; or more difficult with negative, stigmatization, and social rejection. Generally, the first social support system that gay and bisexual youth typically come out to is their friends, around the age of 16 or 17 years old (D'Augelli, Pilkington, & Hershberger 2002; Savin-Williams, 1998). As rejection and ostracism from peers may be a common experience among gay and bisexual youth, the mechanisms by which coming out is achieved becomes even more complicated. This rejection from peers also makes achievement of the coming out milestone particularly vulnerable to minority stress experiences.

Peer Rejection and Emotion Dysregulation: The Roles of Self-Esteem and Concealment

Coming out to one's support system—often times initially to their peers—is important to understand rejection and achievement of this milestone among gay and bisexual boys. Childhood experiences of peer rejection may include teasing, threats of violence, exclusion and isolation, and attempts at suppressing non-conforming expression. This rejection may be a deterrent for disclosure of sexual orientation, potentially resulting in later ages of coming out to others and subsequent effects on emotional health (Garnets, Herek, & Levy, 1990; D'Augelli, Pilkington, & Hershberger 2002).

Research implicates rejection as centrally related to interference of healthy sexual identity development in adolescence by affecting development of self-esteem, positive self-evaluation, and coping mechanisms (Meyer, 2003; Floyd & Stein, 2002; Lane & Wagner, 1995; Pachankis, 2007). These mechanisms are important for regulating effective responses to minority stressors, and are the basis for which experiences of peer rejection can affect levels of emotion

dysregulation (Pachankis, 2007; Pachankis, Rendina, Restar, Ventuneac, Grov & Parsons, 2015; Pennebaker, Kiecolt-Glaser, & Glaser, 1988; Rosario, Scrimshaw, Hunter, 2011).

Peer rejection experiences may lead to concealment of sexual identity from friends, creating interpersonal conflict and emotional turmoil. This turmoil fosters feelings of internalized homophobia, poor coping skills, and low self-esteem (Feldman Barret & Swim, 1998); all factors that weaken the supportive buffer that guards against the emotional and psychological consequences of minority stress experiences (Frost et al, 2015; Landolt, Bartholomew, Saffrey, Oram & Perlman, 2004; Toomey, Ryan, Diaz, Card & Russel, 2010). In this way, acceptance of sexual orientation during childhood and adolescence not only may have important implications for how gay and bisexual youth accept and integrate their own sexual identity, but also how they cope with minority stressors that would otherwise affect healthy psychological functioning (Landolt et al, 2004; Rosario et al. 2001). This emotional buffer of has implications for identity interference that results from rejection-related fear of coming out, and forms the basis by which coming out could be associated with levels of emotion dysregulation later in life.

Peer rejection experienced in childhood may play an important role in affecting the age at which sexual minority youth come out to others, thereby affecting levels of emotion dysregulation in adulthood both directly and indirectly through coming out experiences. Fear of rejection and discrimination from others as a result of their sexual orientation may alter the trajectory of the coming out milestone among sexual minority youth (Maugen, Floyd, Bakemen & Armistead, 2002), and could hold negative implications for mental health development later in life (Pachankis, Rendina, Restar, Ventuneac, Grov & Parsons, 2015; Pennebaker, Kiecolt-Glaser, & Glaser, 1988; Rosario, Scrimshaw, Hunter, 2011). Specifically, more experiences of peer

rejection could be associated with later ages of coming out to others, which in turn may have an effect on levels of emotion dysregulation in adulthood (Kelly, 1998; Maguen, Floyd, Bakemen & Armistead, 2002; Savin-Williams & Diamond, 2000).

Study Objectives

Peer rejection related to one's sexual orientation may interfere with the trajectory of coming out (Kelly, 1998; Maguen, Floyd, Bakemen & Armistead, 2002; Savin-Williams & Diamond, 2000). This interference may in turn foster interpersonal difficulties and low self-esteem—both factors that play a role in the development of emotional dysregulation (Cass 1979; Floyd & Stein, 2002; Landolt, et al, 2004; Pachankis, Rendina, Restar, Ventuneac, Grov & Parsons, 2015; Starks, Grov & Parsons, 2013). In this way, interference of the trajectory of the coming out milestone may have an effect on one's ability to cope with and regulate their responses to strong emotions and stimuli by indirectly affecting self-esteem, interpersonal skills, and self-evaluation (D' Augelli, Pilkington, & Hershberger 2002; Jordan & Deluty, 1998; Rosario, Hunter, Gwadz, & Smith, 2001; Pachankis, 2007). When the trajectory of sexual identity milestone achievement is delayed, one's ability to cope with the negative effects of minority stress factors may be weakened, and levels of emotion dysregulation may increase.

The objective of this study will be to examine achievement of the coming out milestone—specifically first coming out to a friend—for its significance in the lives of sexual minorities, and its association with childhood experiences of peer rejection and development of emotion dysregulation. This has implications for better understanding the psychological effects associated with delayed achievement of the coming out milestone, which has been implicated in psychological distress and an impairment of interpersonal functioning (Pachankis, 2007). There

is, however, a noted gap in research that explores the exact emotional and psychological impact that later trajectories of coming out could carry into adulthood.

This study hopes to add to the growing evidence of the minority stress theory by developing a model of minority stress that examines the potential mediating role of the coming out milestone on the association between peer rejection and emotion dysregulation. Given the work of Meyer (2003), Cass (1984) and Pachankis (2007), I expected to find that the age at which one first comes out to a friend will at least partially mediate the already established association between childhood experiences of peer rejection and levels of emotion dysregulation (Pachankis et al, 2015) among a sample of gay and bisexual men.

Method

Participants & Procedures

This study uses baseline data from *Pillow Talk*, a larger longitudinal study that followed participants for 12 months, between the years of 2011 and 2012. Data collection required the completion of psychosocial measures in a computer-administered self-interviewing survey (CASI), retrospective sexual behavior assessment via the timeline follow-back (TLFB) interviews, sexual behavior assessment utilizing an online daily sexual behavior diary, neurocognitive assessments necessary for exclusion checks, and a structured mental health interview. Eligible participants had to be over 18, have had 9 or more sexual partners in 90 days, self-identified as gay or bisexual, and have had daily access to internet for the duration of the study. This study exclusively uses baseline data collected from the computer-administered survey.

Participants were recruited using the following strategies: (1) respondent-driven sampling; (2) internet-based advertisements on social networking (e.g., Facebook) and sexual networking (e.g., Manhunt, Adam4Adam) websites; (3) email blasts through New York City sex party listservs; and (4) active recruitment in New York City venues such as gay bars/clubs and sex parties. Participants recruited from the internet or in the field were pre-screened utilizing a brief online survey via the Qualtrics online survey site. After initial recruitment, all participants completed a brief, phone-based screening interview to confirm eligibility. All procedures were reviewed and approved by the Institutional Review Board of the City University of New York.

Measures

Demographics. The Demographics questionnaire asked participants demographic information, such as age, ethnicity, employment status, yearly income, parents' social status, education, sexual orientation, HIV status, and relationship status

Peer rejection. This scale was based on the Mother-Father-Peer Scale (Epstein, 1983), and consists of ten items that measure gay-related acceptance and rejection from peers. Responses are along a Likert Scale, from 1 (*strongly agree*) to 5 (*strongly disagree*), and included items such as: "When I was a child (ages 6-12) other children: often picked on me and teased me..." for respondents to answer along the scale. Among this study's sample, this scale to be strongly reliable and internally consistent among gay and bisexual men, with Cronbach's $\alpha = .92$. Six items on the scale were recoded so that higher scores indicate more experiences of peer rejection.

Age of first coming out to friends. Following Floyd and Stein's (2002) model of sexual identity milestones, participants were asked to indicate the ages at which they admitted to

themselves and others of their sexual orientation, the age at which they first became aware of their sexual orientation, and the age at which they engaged in same-sex sexual activity.

Responses were taken from a broader scale of nine items. For this study, the relevant item measuring age of first coming out to friends include: “How old were you when you first told any of your friends that you are gay/bisexual?”

Emotion dysregulation. Gratz and Roemer’s (2004) model of regulation was used to develop the psychometric properties of the Difficulties in Emotion Regulation Scale, designed to measure six different domains of emotion dysregulation from a functional perspective, across 36 items. The responses are on a Likert Scale, from 1 (*strongly agree*) to 5 (*strongly disagree*), and measure: difficulty maintaining awareness of emotional responses, difficulty accepting emotional responses, difficulty in modulating impulsive behaviors, difficulty with engaging in goal-directed behaviors while experiencing negative emotions, difficulty employing effective coping strategies when experiencing negative emotions, and difficulty maintaining clarity of emotions. Relevant items included statements for participants to rate on the 1-5 scale in relation to themselves, such as: “When I’m upset, I feel out of control.” and “When I’m upset, I lose control over my behaviors.” The Difficulties in Emotion Regulation Scale has been found to be internally, predictively, and constructively valid among this study’s sample, with Cronbach's $\alpha = .94$. Higher scores indicate higher levels of emotion dysregulation.

Data Analysis Plan

Data analysis for this study occurred in three steps. First, a test of bivariate correlation calculated using Pearson’s correlation coefficients for associations among peer rejection scores, the age at which each one first came out to their friends, and a full score measuring emotion

dysregulation. Next, linear hierarchical regressions tested the predictive ability of the following paths: peer rejection on the age at which one comes out to their friends; the age at which one comes out to their friends on emotion dysregulation; and experiences of peer rejection on emotion dysregulation. Finally, used SPSS macro syntax developed by Hayes (2015) was used to bootstrap 5,000 resamples, in examination of these pathways for direct and indirect effects (mediation).

Results

Demographic Associations with Key Variables

This study was based on a sample of 367 gay and bisexual men. Detailed demographic characteristics are presented in Table 1. The sample was ethnically diverse; white men comprised 51% of the sample, while men of color—black (20.2%), Latino (13.1%), and those who reported as “other” (15.8%)—comprised 49% in total. The average age of the sample was about 39 years old, and most were college educated (about 58%). Most participants identified as gay, queer or homosexual (88.3%) while those who identified as bisexual comprised 11.7% of the sample. HIV positive men were represented as 45% of the sample, while those who were HIV-negative comprised 55.3% of the sample.

Demographic variables (education, race/ethnicity, HIV-status, and sexual orientation) were examined in relation to the three key variables in the mediational model (peer rejection, age of first coming out to friends, and emotion dysregulation). Detailed results are reported in Table 2. Among these potential covariates, peer rejection did not significantly differ between any of the groups. Ages of first coming out to friends differed significantly by sexual orientation ($F(1,366)= 7.05, p=0.01$), education ($F(1, 366)= 8.65, p=0.003$), HIV status ($F(1, 366)=3.91, p=0.05$), and race, ($F= (1, 366) = 3.87, p=0.05$). In this sample, those men who identified as gay

came out to their friends at younger ages ($M=18.35$) than those who identified as bisexual ($M=20.77$). Between education, those without a college degree came out to their friends at a younger age ($M=17.62$) than those with a college degree, ($M=19.36$). Tukey's Honest Significant Difference showed no significant pairwise differences between race/ethnicity and age of first coming out to friends. Emotion dysregulation differed significantly by education ($F(1, 366)=5.42, p = 0.02$) and race/ethnicity ($F(1, 366) = 8.28, p = 0.004$). In terms of education and emotion dysregulation, men who reported a lower level of educational attainment—those who reported not having a college degree—reported higher levels of emotion dysregulation ($M=83.57$) when compared to those men who reported having a college degree ($M=77.67$). In terms of race/ethnicity and emotion dysregulation, Tukey's Honest Significant Difference found that only White and Latino men represented the most significant pairwise difference, with white men ($M=76.63$) reporting lower levels of emotion dysregulation than Latino Men ($M=89.94$).

Bivariate Correlations of Key Variables

Pearson correlation coefficients among key variables peer rejection, emotion dysregulation, age of first coming out to friends, and demographic variable of participant age were calculated, and are presented in Table 3. Peer Rejection was weakly, negatively correlated with the age at which one comes out to their friends ($r = -0.16, p = 0.003$), suggesting that higher levels of peer rejection were associated with slightly earlier ages of coming out to friends. Age of first coming out to friends was weakly negatively correlated with emotion dysregulation ($r = -0.14, p=0.006$), suggesting that later ages of coming out to friends was associated with slightly lower levels of emotion dysregulation. Higher levels of emotion dysregulation was moderately correlated with higher levels of peer rejection ($r = 0.29, p < 0.001$). To examine potential

covariates, age of participants was found to have a moderate, positive correlation with age of first coming out to friends, ($r= 0.37, p<0.001$) suggesting that older participants came out to their friends at older ages. Age had a weak, negative correlation with emotion dysregulation ($r=-0.17, p=0.001$) suggesting that older participants also had lower levels of emotion dysregulation. The associations found among key variables indicate that, at the bivariate level, each condition necessary to test for mediation has been met.

Simple Linear and Hierarchical Regression Models Predicting Age of First Coming Out to Friends and Emotion Dysregulation

Adjusting for age, race/ethnicity, education, HIV status, and sexual orientation, a linear regression examining the predictive association between peer rejection and the age of first coming out to friends can be seen in Table 4. Among these variables, age ($\beta =0.40, p<0.001$) and HIV status, ($\beta = -0.17, p=0.002$) were found to be significant in Model 1. In Model 2, these variables remained significant. In Model 2, the strength of the effect of peer rejection on the age of which one comes out to their friends was significant, but the effect was small ($\beta =-0.13, p=0.009$). The R^2 indicated that Step 1 (i.e., the demographic covariates) accounted for 19% of the variability in age of first coming out to friends; with the addition of peer rejection in Step 2, the model accounted for an additional 2% of the variability in age of first coming out to friends.

A series of linear regressions were conducted to examine the predictive association between peer rejection and emotion dysregulation, as potentially mediated by age of first coming out to friends (see Table 5). In Model 1, of the potential demographic covariates listed previously, only age was found to be significant in its association with emotion dysregulation, ($\beta = -0.18, p=0.001$). In Model 2, age and race/ ethnicity remained significant variables; peer

rejection was added at Step 2 of this model, where the strength of its moderate effect on emotion dysregulation remained significant ($\beta = .29, p < 0.001$). In Model 3, age and race/ethnicity remained significant variables; peer rejection also remained significant in Step 2 of this ($\beta = .29, p < 0.001$). Age of first coming out to friends was not significant in Step 3 of this model, ($\beta = -0.02, p = 0.70$). The R^2 indicated that Step 1 (i.e., the demographic covariates) accounted for 5% of the variability in emotion dysregulation. With the addition of peer rejection in Step 2, the model accounted for an additional 9% of the variability in emotion dysregulation; and finally, with the addition of age of first coming out to friends in Step 3, the model accounted for no additional variability in emotion dysregulation.

Bootstrapped Indirect Effects on the Association between Peer Rejection and Emotion Dysregulation

To further examine the potential mechanism that links more peer rejection experiences with higher levels of emotion dysregulation, the potential mediation of age of first coming out to friends on the association between peer rejection and emotion dysregulation was examined, while adjusting for the demographic covariates mentioned previously. Though there was no direct effect of age of first coming out to friends on emotion dysregulation, an indirect effect of the peer rejection variable on the outcome of emotion dysregulation was calculated. The indirect effect was tested using a bootstrap estimation approach with 5000 samples (Hayes, 2015), and its significance was tested using Sobel's test. These results indicated the indirect coefficient ($b = 0.45, SE = 0.34, 95\% CI = -0.01, 1.30$) was not significant ($z = 1.80, p = 0.07$).

Discussion

This study draws on research implicating minority stress experiences, such as rejection of one's sexual minority status, as primary contributors to mental health disparities among gay and

bisexual men (Landolt, Bartholomew, Saffrey, Oram & Perlman, 2004; Floyd & Stein, 2002; Meyer, 2003). In this sample, significant associations were found between experiences of peer rejection and levels of emotion dysregulation, converging with established research on the association of minority stress experiences and levels of emotion dysregulation among gay and bisexual men (Frost, Lehavot & Meyer, 2015; Pachankis et al., 2015; Pennebaker, Kiecolt-Glaser, & Glaser, 1988; Toomey, Ryan, Diaz, Card & Russel, 2010). Results also yielded an individual predictive association between levels of peer rejection and ages of first coming out to friends, as well as suggestions of important factors of demographic characteristics (such as age, race, and HIV-status) on key variables. The predictive association between ages of coming out to friends and levels of emotion dysregulation, however, was not found to be significant; thus, analyses failed to fully support the hypothesized mediational model.

Results found the significant association between peer rejection experiences and levels of emotion dysregulation; this converges with research that continually supports the association of minority stressors and mental health outcomes. Regression analyses suggest that experiences of peer rejection are associated with higher levels of peer rejection; this association was expected, and suggests a temporal basis by which minority stress experiences can affect mental health outcomes into adulthood. That is, peer rejection, when experienced in childhood, can predict levels of emotion dysregulation levels throughout the lifespan.

Results showed a significant association of peer rejection experiences and age of first coming out to friends. Contrary to expectation, higher levels of peer rejection were associated with earlier ages of first coming out to friends. Given the association of minority stress experiences with negative internalization of sexual identity (i.e. internalized homophobia) and

fear of rejection (Starks, Newcomb, & Mustanski, 2015), I anticipated that more experiences of peer rejection would predict later ages of coming out to others. This assumption was not supported in the results. The unexpected directionality of these results warrant further investigation into possible alternative variables that potentially moderate this association. It could be that those who came out earlier tended to exhibit gender atypical behaviors early in childhood that made coming out less of a choice; and hence, perhaps these boys had more experiences of peer rejection as a result. Additionally, it's possible that looking solely at experiences of peer rejection limits interpretation of results for other levels of rejection (or acceptance). That is, if sexual minority youth experience rejection from peers, but experience acceptance from other social support systems (such as from family, coworkers, and teachers), then the effects of peer rejection may be rendered insignificant.

Bivariate analyses showed a significant association of participant age and the age of coming out to first friends, suggesting potential cohort differences. Analyses of peer rejection and age of first coming out to friends showed that age was positively, moderately associated with age of first coming out to friends, suggesting that older participants tended to come out at later ages than younger participants. This warrants a brief discussion of cohort differences in the interpretation of these results. As younger cohorts of gay and bisexual men inherit more acceptance of their sexual orientation on a broad, societal level, ages of coming out altogether can be expected to occur at earlier ages. However, this increase in the level of societal acceptance should conceivably confer fewer experiences of peer rejection and harassment. The results of bivariate analyses failed to find this association; that is, age was not found to have a significant association with peer rejection. The benefit of these cohort differences should be seen

in lower levels of emotion dysregulation and fewer experiences of peer rejection throughout for younger cohorts. The failure of these results to identify a significant cohort association with peer rejection suggests that even though social acceptance has increased, the climate of rejection among young people based on sexual orientation may remain unchanged.

Results of ANOVA pairwise comparison of demographic characteristics and key variables yielded important findings. In analyzing the age of first coming out to friends by HIV-status, results showed that HIV-positive participants came out to their friends at significantly earlier ages than HIV-negative participants. An interpretation of this result could suggest the importance of examining other sexual identity milestones in addition to that of coming out. One interpretation of this pairwise comparison could suggest that those who came out at earlier ages also achieved the milestone of having a same-sex sexual debut at an earlier age, which has been associated with riskier sex practices (due perhaps to a lack of comprehensive sex education informing safe sexual practices) (Mustanski, Newcomb, Bois, Garcia & Grov, 2001). When exploring the age of first coming out to friends by sexual orientation, bisexual men reported much later ages of first coming out to friends than gay men. Research has shown that non-gay identified bisexual men are more likely to conceal their sexual orientation than gay men, and hence the coming out process may be different among bisexual men (Parsons, Grov, & Golub, 2012; Scrimshaw, Siegel, Downing, Parsons & Nezu, 2013). Further examination of this difference could yield important differences in achievement of the coming out milestone across sexual orientations. In analyzing levels of emotion dysregulation by race, white men reported much lower levels than men of color, with the largest difference observed between white men

and Latino men. This presents an opportunity for future research to examine the intersectional racial and cultural differences when interpreting minority stress outcomes.

The age of first coming out to friends was not found to be statistically significant in its hypothesized association with emotion dysregulation. The complexities of the coming out milestone may explain the lack of support for mediation of coming out to friends on the significant association of peer rejection and emotion dysregulation. As peer rejection is almost always experienced as a minority stressor—that is, sexual minority experiences of peer rejection are almost always negative experiences, associated with stigmatization and discrimination. Achievement of the coming out milestone, however, can be an experience of minority stress for some sexual minority youth, and a wholly positive experience for others. In this way, the coming out experience can be highly varied based on a number of factors (for example, level of acceptance from not only peers, but from family and community as well), and could yield different mental health outcomes based on these factors.

Implications

These results add to a robust body of research that supports the need for more comprehensive and effective anti-bullying measures. The associations found in this study reinforce the idea of a temporal basis by which peer rejection experienced in childhood affects levels of emotion dysregulation experienced in adulthood; this highlights the importance of early prevention and intervention against bullying and harassment in school settings. As previously discussed, bivariate analyses of this study suggest that peer rejection remains somewhat constant through generational levels. These results converge with research that peer rejection remains somewhat constant through cohort differences (Groves, Bimbi, Parsons & Nanin, 2006), indicating

that even though social acceptance of sexual minority orientation increases, gay and bisexual youth still face discrimination and stigmatization among their peers. This finding should inform parental and educational caregiving practices on the lifelong impact of rejection and stigmatization on the lifelong psychological development of sexual minorities. In environments where the significance of bullying and harassment are not well understood, this research adds to a growing body of research that emphasizes the psychological implications of these experiences, aiding in the development of school policies and curriculum that protect vulnerable sexual minority youth, and deter youth who engage in harassment from potentially inflicting long-lasting psychological consequences. This research also helps shape policies that are more effective in targeting these minority stress experiences; as these policies on the educational and community levels may not always be developed by sexual minorities, this research provides an informed foundation for understanding the best ways to address experiences of bullying and harassment of sexual minority youth.

Targeting bullying and harassment during childhood may, in some instances, prevent psychological effects resulting from minority stressors. As a means of intervention, this line of research also informs psychological treatments tailored to the lifelong needs of sexual minority populations. That is, this research could inform better psychotherapeutic options for sexual minority populations. This has implications for more accurate and informed initial assessment of poor mental health outcomes, and psychotherapies that are more meaningful and relevant to a sexual minority experience. This implication can be extended to improving physical health outcomes as well, targeting specifically more effective HIV-prevention programming and messaging. Research has shown that levels of emotion dysregulation predict higher engagement

in HIV-risk behaviors, as well as factors related to sexual compulsivity among gay and bisexual men (Pachankis et al., 2015; Parsons, Grov & Golub, 2012). HIV-prevention interventions that aim to understand the psychological mechanisms that arise from experiences of peer rejection and concealment of sexual orientation could inform effective HIV- prevention, reduction, and treatment strategies.

Limitations

There are limitations of this study that provide opportunities for future research. Generalizability of results should be carefully considered when interpreting results of this study. The diverse makeup of the sample was a noted strength of the study that yielded baseline data for a wealth of demographic, behavioral and physical health characteristics. However, it is important to take into consideration that all participants were more highly sexually active than average, as dictated by the inclusion criteria of the original longitudinal study. As such, the sample of this study draws from a highly sexually active population of gay and bisexual men whose behaviors and thought processes may not be representative of the population as a whole. Additionally, the study inclusion criteria required participants to live in the New York City area. Though this provided a unique opportunity of convenience to sample from one of the most diverse LGBT communities in the country, it does have the potential to limit results to gay and bisexual men residing in large urban areas. Future research initiatives should include sampling from non-urban areas, particularly from rural areas where the coming out process may present very different challenges to sexual minorities coming out in large urban areas.

As this study only measures the age of coming out to friends, this research could potentially be missing valuable data on other dimensions that are important for understanding the

milestone of coming out to friends, such as: which friend circles participants first came out to, how close participants were to the first person they came out to, how many friends participants came out to within a specified period of time, and how positive or negative the experience was overall. In expanding the constructs of this study, it may yield even more data to examine the association of the other three sexual identity milestones with mental health outcomes.

Particularly, research has shown that the milestone of self-identification in accordance with one's sexual orientation has been significantly associated with community involvement, self-esteem, and interpersonal functioning, both factors that are meaningful for understanding the association of minority stress experiences and the development of emotion dysregulation (Cass, 1984; Floyd & Stein, 2002; Starks, Grov, & Parsons, 2013; Starks, Newcomb, & Mustanski, 2015).

Conclusion

This study, based off baseline, self-reported data, yielded results that converged with established research while affirming the opportunity for further studies into the specific mechanisms by which minority stress experiences can have lifelong psychological impact among sexual minority populations. It reinforces the association between peer rejection experienced in childhood and levels of emotion dysregulation in adulthood, while implicating the complex factors behind the association of peer rejection and the coming out process. Together, these results help to inform measures for fostering acceptance and tolerance in environments where young people most interact. They also emphasize the importance of equipping young people with psychologically adaptive coping mechanisms that foster self-esteem and positive interpersonal connections. These efforts, in whole, contribute to a comprehensive understanding of the lifelong factors associated physical and mental outcomes among sexual minority populations.

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Table 1
Demographic Characteristics of the Sample (N=367)

Characteristic	<i>n</i>	%
Race		
White	187	51.0
Black	74	20.2
Latino	48	13.1
Other	58	15.8
HIV Positive		
No	203	55.3
Yes	164	44.7
Sexual Orientation		
Gay, queer or homosexual	324	88.3
Bisexual	43	11.7
Education- College Degree		
Yes	213	58.0
No	154	42.0

Table 2
Pairwise Comparison of Demographic Characteristics and Key Variables (N=367)

Characteristic	Peer Rejection		Age of First Coming Out (Friends)		Emotion Dysregulation	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Race	F(1, 366) = 0.63		F(1, 366) = 3.87*		F(1, 366) = 8.28**	
White	2.45	0.89	19.20	6.09	76.63	23.26
Black	2.37	0.82	18.43	5.36	79.70	24.49
Latino	2.56	0.74	18.10	5.28	89.94	24.36
Other	2.38	0.83	17.48	4.77	83.95	23.85
HIV Positive	F(1, 366) = 0.00		F(1, 366) = 3.91*		F(1, 366) = 2.71	
No	2.44	0.86	19.15	6.32	78.29	24.54
Yes	2.44	0.83	17.98	4.67	82.44	23.41
Sexual Orientation	F(1, 366) = 1.08		F(1, 366) = 7.05**		F(1, 366) = 0.00	
Gay, queer or homosexual	2.45	0.84	18.35	5.24	80.13	24.13
Bisexual	2.37	0.86	20.77	7.97	80.28	24.15
Education- College Degree	F(1, 366) = 0.92		F(1, 366) = 8.65**		F(1, 366) = 5.42*	
Yes	2.48	0.84	19.36	5.71	77.67	22.96
No	2.40	0.85	17.62	5.46	83.57	25.26

**p<.01, *p<.05

Table 3
Correlations of Key Variables and Age

	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
1. Peer Rejection				
2. Age of coming out (Friend)	-0.16**			
3. Emotion Dysregulation	0.29**	-0.14**		
4. Age	-0.07	0.37**	-0.17**	
<i>M</i>	2.44	18.63	80.15	36.98
<i>SD</i>	0.85	5.67	24.10	11.33
<i>Cronbach's α</i>	0.92		0.94	

**p<.01, *p<.05

Table 4
Summary of Hierarchical Regression for Variables Predicting Age of Coming Out (Friends (N=367))

Variables	Model 1				Model 2			
	<i>B</i>	<i>SE</i>	β	ΔR^2	<i>B</i>	<i>SE</i>	β	ΔR^2
Step 1				0.19				
Age	0.20	1.35	0.40**		0.20	0.02	0.39**	
Race/Ethnicity	-0.11	0.60	-0.01		-0.03	0.58	-0.00	
Education	0.84	0.60	0.07		0.77	0.60	0.07	
HIV Status	-1.93	0.62	-0.17**		1.46	0.85	0.08**	
Sexual Orientation	1.57	0.86	0.09		-1.92	0.61	-0.17	
Step 2								0.02
Peer Rejection					-0.86	0.32	-0.13**	

**p<.01, *p<.05

Table 5
Summary of Hierarchical Regression for Variables Predicting Emotion Dysregulation (N=367)

Variables	Model 1				Model 2				Model 3			
	<i>B</i>	<i>SE</i>	β	ΔR^2	<i>B</i>	<i>SE</i>	β	ΔR^2	<i>B</i>	<i>SE</i>	β	ΔR^2
Step 1				.05								
Age	-0.39	0.12	-0.18**		-0.35	0.11	-0.16**		-0.33	0.12	-0.15**	
Race/Ethnicity	-4.19	2.65	-0.09		-4.98	2.53	-0.10*		-4.99	2.54	-0.10*	
Education	-2.16	2.77	-0.04		-1.40	2.64	-0.03		-1.33	2.65	-0.03	
HIV Status	4.94	2.83	0.10		4.89	2.70	0.10		4.72	2.74	0.10	
Sexual Orientation	1.78	3.93	0.02		2.90	3.75	0.04		3.03	3.77	0.04	
Step 2								0.09				
Peer Rejection					8.37	1.40	0.29**		8.30	1.42	0.29**	
Step 3												0.00
Age of first coming out (Friends)									-0.08	0.23	-0.02	

**p<.01, *p<.05

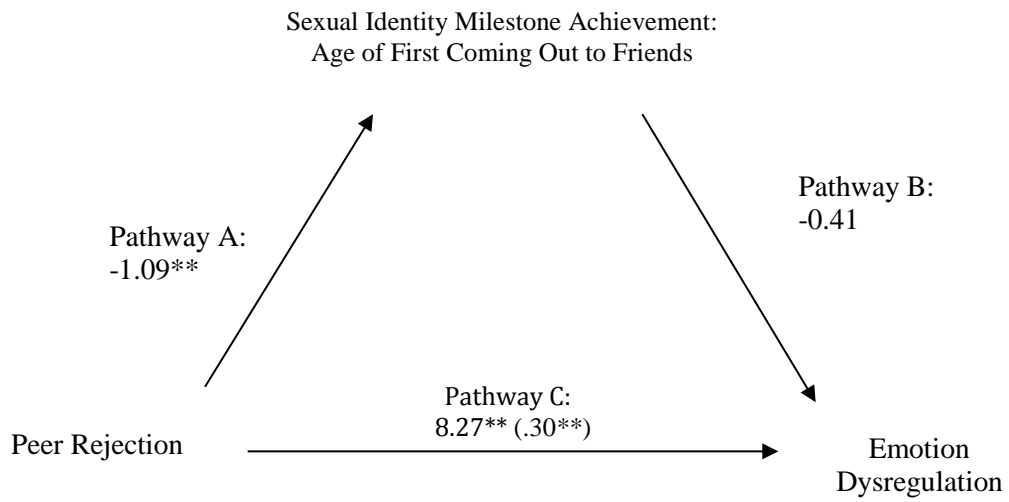


Figure 1. Standardized regression coefficients for the association between peer rejection and emotion dysregulation, as mediated by age of first coming out (friends), based on 5000 bootstrapped samples. The standardized regression coefficient between peer rejection and emotion dysregulation, adjusting for age of coming out (friends) is in parentheses.

** $p < .01$, * $p < .05$