Published in final edited form as:

J Gay Lesbian Ment Health. 2016 ; 20(4): 363–375. doi:10.1080/19359705.2016.1175396.

Looking on the Bright Side of Stigma: How Stress-related Growth Facilitates Adaptive Coping among Gay and Bisexual Men

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Abstract

Stigma has been linked to adverse mental health outcomes among gay and bisexual men, yet how psychological resources facilitate adaptive coping remains unclear. The present study examined the association between stress-related growth and internalizing mental health symptoms and considered emotion regulation as a mechanism mediating this association. Gay and bisexual men completed questionnaires measuring stress-related growth associated with sexual orientation identity development, emotion regulation difficulties, and anxiety and depressive symptoms. Stress-related growth was associated with more effective emotion regulation, which in turn predicted fewer internalizing symptoms. These findings have important implications for understanding and alleviating sexual minority mental health disparities.

Keywords

gay and bisexual men; sexual minority; discrimination; mental health

Sexual minorities (i.e., individuals who identify as lesbian, gay, or bisexual or engage in same-sex sexual behavior) disproportionately experience a number of mental health problems, such as depression and anxiety, compared with heterosexuals (Cochran & Mays, 2009). Drawing from minority stress theory (Meyer, 2003), researchers have identified stigma-related stressors, including experiences of perceived discrimination, internalized homophobia, and anticipation of rejection based on one's sexual orientation, as risk factors underlying these mental health disparities (e.g., Mays & Cochran, 2001; Pachankis, Goldfried, & Ramrattan, 2008). Recent work has further identified emotion dysregulation as one of the major psychosocial pathways through which these stigma-related stressors operate to adversely impact sexual minority mental health (Hatzenbuehler, 2009). In contrast, less work has focused on how positive concomitants of adaptation to stigma-related

stress might facilitate coping and psychological adjustment among this population. This represents a noteworthy limitation in light of the increased emphasis on the role of psychological resilience, both in the general coping literature (Folkman & Moskowitz, 2000; Tugade & Fredrickson, 2004) and within the field of sexual minority identity development (Vaughan & Rodriguez, 2014). Thus, the present investigation, utilizing a sample of gay and bisexual men, examined the association of stress-related growth (i.e., perceptions of positive personal or life changes as a result of stressful events; Calhoun & Tedeschi, 2006) with anxiety and depressive symptoms. Additionally, it considers the role of emotion regulation as a psychological mechanism that mediates this association.

In the context of a wide range of stressful life events (e.g., chronic illnesses, bereavement), stress-related growth has been linked to a host of positive psychological and behavioral outcomes (see Helgeson, Reynolds, & Tomich, 2006, for a review). For example, the perception of personal growth as a result of one's illness was associated with fewer depressive symptoms, lower substance use, and greater physical activity among HIV-positive individuals (Littlewood, Carey, Venable, & Blair, 2008; Milam, 2006). It is unclear, however, whether these findings would generalize to the context of managing stigma-related stressors, which can pose unique, ongoing coping demands for individuals from socially-disadvantaged groups. In the case of sexual minorities, for example, structural barriers (e.g., religious institutions, social policies) often place them in a relatively powerless position compared to heterosexual individuals and in turn expose them to instances of pervasive discrimination (Hatzenbuehler, 2014). Furthermore, some sexual minority individuals internalize the negative societal attitudes towards homosexuality, which can, over time, erode their sense of self-worth and potentially heighten psychological distress (Newcomb & Mustanski, 2010).

Limited evidence suggests that finding benefits associated with one's stigmatized identity can indeed lead to better adjustment. For instance, stress-related growth has been linked to both greater hope and adaptive coping among racial/ethnic minority adolescents (Vaughn, Roesch, & Aldridge, 2009) and fewer risky sexual behaviors among transgender women (Golub, Walker, Longmire-Avital, Bimbi, & Parsons, 2010). In the specific case of sexual minorities, stress-related growth has been associated with greater sexual identity strength, which is defined as the extent to which a sexual minority individual feels attached to, or affiliated with, the gay/lesbian community and often conceptualized as an important coping resource for these individuals (Bonet, Wells, & Parson, 2007; Vaughan & Waehler, 2010). Within the minority stress theoretical framework, stress-related growth has been linked to lower internalized homophobia (Cox, Dewaele, van Houtte, & Vinckie, 2011), a reliable predictor of internalizing mental health problems (Newcomb and Mustanski, 2010). Despite these findings, the relationship between stigma-based stress-related growth and mental health outcomes (e.g., anxiety and depressive symptoms) remains, to our knowledge, unexamined. Moreover, as noted by Park and Helgeson (2006), although much empirical attention has been devoted to identifying factors that moderate the impact of stress-related growth on mental health, less is known about the psychological mechanisms that mediate this association. Understanding such explanatory processes not only clarifies the role of stress-related growth in facilitating adaptive coping but can also inform practical interventions designed to promote resilience among stigmatized individuals.

One possible mechanism underlying the adaptiveness of stress-related growth is the ability to engage in effective emotion regulation. Defined as strategies that people use to increase, maintain, or decrease their emotional responses to a given situation (Gross, 2001), emotion regulation has been identified as an important psychological mechanism underlying a wide range of mental health problems (e.g., Aldao, Nolen-Hoeksema, & Schweizer, 2010; Kring & Sloan, 2010). Although little research has directly examined the relationship between stress-related growth and emotion regulation, existing evidence suggests that finding positive meaning in a stressful situation can generate positive emotions (e.g., joy, contentment), which can promote adaptive coping. Specifically, according to the broaden-and-build theory of positive emotions (Fredrickson, 2001; Fredrickson & Joiner, 2002), positive emotions can broaden individuals' scope of attention and cognition by encouraging them to discover novel lines of thought or action. One important outcome of this broadened mindset is an increase in psychological resources, such as flexible and creative thinking and access to effective emotion regulation strategies, that can facilitate coping with stress and adversity. Consistent with this theoretical framework, among diverse populations, including early-stage breast cancer patients, women living with HIV/AIDS, and racial/ethnic minority adolescents, stress-related growth has been linked to the use of positive reappraisal, a commonly-studied form of adaptive emotion regulation (Sears, Stanton, & Danoff-Burg, 2003; Siegel, Schrimshaw, & Pretter, 2005; Vaughn et al., 2009). Related work also suggests that activities that generate positive affect and facilitate stress-related growth, such as regular expressions of gratitude, can function as a protective factor against psychopathology by interrupting rumination, a form of maladaptive emotion regulation (Layous, Chancellor, & Lyubomirsky, 2014). Taken together, these findings support the proposition that focusing on the positive aspects of one's stigmatized identity would facilitate effective emotion regulation and thus predict better psychological adjustment.

In sum, the present research seeks to extend previous work on minority stress and mental health by examining the association between stress-related growth and internalizing mental health symptoms (i.e., anxiety and depressive symptoms) among gay and bisexual men. We chose these particular outcomes because internalizing mental health problems (e.g., major depression, anxiety disorders) often co-occur and disproportionately affect gay and bisexual men as well as other sexual minorities (Cochran & Mays, 2000, 2009; see also Feinstein, Goldfried, & Davila, 2012). The current study focused on gay and bisexual men because this population faces a relatively unique confluence of health threats, including depression, anxiety, substance use, and HIV risk. According to recent extensions of syndemic theory as applied to gay and bisexual men's co-occurring health conditions, understanding the mechanisms underlying any of these health threats, such as mental health problems, can potentially inform research on other threats, such as HIV risk behaviors (Pachankis, 2015).

We hypothesized that stress-related growth would be associated with more effective emotion regulation, which would in turn predict fewer internalizing mental health symptoms. Additionally, drawing from existing research documenting the psychosocial pathways through which minority stress operates to influence psychological well-being, we proposed that emotion regulation would significantly mediate the association between stress-related growth and internalizing symptoms.

Method

Participants

Analyses for this paper were conducted using the baseline data from a pilot trial of a stigma coping intervention geared towards young gay and bisexual men. Participants were recruited through advertisements posted to social and sexual networking websites and mobile applications (e.g., sex party listserves, Facebook, popular mobile sex-seeking apps), college counseling centers, and community-based organizations. All participants completed a brief screening questionnaire, either on-line or over the phone, to confirm eligibility, which was defined as: (1) being born male and currently identifying as a man, (2) gay or bisexual identity, (3) being between ages 18 and 35; (4) being fluent in English; (5) residing in the New York City area; (6) being HIV-negative; (7) engaging in HIV risk behavior (i.e., at least one instance of condomless anal sex with a casual male partner or with an HIV-positive or status-unknown main male partner) in the past 90 days), (8) experiencing symptoms of depression and anxiety in the past 90 days, and (9) not currently receiving regular mental health services (i.e., not more than once a month). Past-90-day depression and anxiety was assessed using the four-item Brief Symptom Inventory – Screening scale (Lang, Norman, & Means-Christensen, 2009) adapted from the Brief Symptom Inventory (Derogatis, 2001). Participants responded to each of the four items (i.e., “nervousness or shakiness inside,” “feeling tense or keyed up,” “feeling blue,” “feelings of worthlessness”) using a 5-point scale. A minimum cutoff of 2.5 on either the depression or anxiety scale has been shown to reliably differentiate between individuals with and without depressive/anxiety disorders with optimal sensitivity and specificity (Lang et al., 2009); thus, it was chosen as an inclusion criterion for this study.

Data were taken from 64 sexual minority men who enrolled in the intervention study and completed all baseline assessment questions. As can be seen in Table 1, the sample was diverse with regards to racial/ethnic background, employment status, and educational attainment; most participants were gay/queer-identified and single. Ages ranged from 18 to 35 (consistent with eligibility criteria), with a mean age of 24.94 ($SD = 4.27$) years.

Measures

As part of the baseline assessment for the trial, participants completed a series of validated measures via Qualtrics, a popular Internet-based survey platform. Participants completed mental health measures in the research office immediately before receiving the intervention. They completed other measures, including the measures of stress-related growth and emotion regulation difficulties as well as demographic assessment, at home shortly before the baseline in-office visit. All study materials were approved by the Institutional Review Board, and written informed consent was obtained from all participants.

Stress-related growth—Stress-related growth was measured using an adapted version of the 15-item Stress-related Growth Scale Short Form (SRG-SF; Bonet et al., 2007; Park, Cohen, & Mulch, 1996), which was designed to measure perceived positive changes experienced as a result of a focal stressor. All items begin with the stem “As a result of coming to terms with my sexual identity...”; examples include “I learned to be myself and

not try to be someone others want me to be.” and “I learned to communicate more honestly with others.” Each item was rated using a 3-point scale, ranging from 1 (*not at all*) to 3 (*a great deal*). Participant scores were summed across all items (in this sample, $\alpha = .89$).

Emotion regulation difficulties—Emotion regulation difficulties were measured using the 36-item Difficulties with Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). This scale assesses general problems with regulating emotions as well as six specific domains of difficulty with emotion regulation: non-acceptance of emotional responses (e.g., “When I’m upset, I become embarrassed for feeling that way”), difficulties engaging in goal-directed behavior (e.g., “When I’m upset, I have difficulty focusing on other things”), impulse control difficulties (e.g., “I experience my emotions as overwhelming and out of control”), lack of emotional awareness (e.g., “I am attentive to my feelings”; reverse-coded), limited access to emotion regulation strategies (e.g., “When I’m upset, I believe that I will remain that way for a long time”), and lack of emotion clarity (e.g., “I have no idea how I am feeling”). Each subscale contains between 4 and 6 total items to which participants respond on a scale from 1 (*almost never [0–10%]*) to 5 (*almost always [91–100%]*). For the purpose of investigating the primary hypothesis for this paper, we utilized the full-scale score, calculated as the mean response across the 36 items ($\alpha = .93$), which has been associated with self-regulation of negative moods, experiential avoidance, self-injurious behaviors, and partner abuse (Gratz & Roemer, 2004). We also conducted exploratory analyses using each subscale score simultaneously as a follow-up to the primary model.

Depressive symptoms—Depressive symptoms were measured using the 20-item Center for Epidemiological Studies - Depression Scale (CES-D; Radloff, 1977), a self-report symptom rating scale with an emphasis on the affective, depressed mood component of depression. Participants indicated the frequency of each symptom over the past week on a 4-point scale, ranging from 0 (*rarely or none of the time [less than 1 day]*) to 3 (*most or all of the time [5–7 days]*). Sample items include “I felt like everything I did was an effort” and “I felt hopeful about the future” (reverse-coded). Participant scores were summed across all items (in this sample, $\alpha = .86$).

Anxiety symptoms—We assessed participants’ general level of anxiousness using the 20-item Trait Anxiety subscale taken from the State Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983), which is often used to diagnose anxiety disorders in clinical settings. Participants indicated the extent to which each item describes how they generally feel on a 4-point scale, ranging from 1 (*not at all*) to 4 (*very much so*). Sample items include “I feel nervous and restless” and “I feel secure” (reverse-coded). Participants’ scores were summed across all items (in this sample, $\alpha = .89$).

Results

The bivariate correlations among all variables of interest are summarized in Table 2. Stress-related growth was negatively associated with emotion regulation difficulties, anxiety symptoms, and depressive symptoms (marginally significant). Emotion regulation difficulties, anxiety symptoms, and depressive symptoms were all significantly and positively correlated with one another.

We proposed that stress-related growth would be associated with fewer difficulties with emotion regulation, which would in turn predict better mental health outcomes. We examined this hypothesized model by conducting a path analysis with 10,000 bootstrap draws; all variables were treated as manifest (see Figure 1). Consistent with the idea that focusing on the benefits associated with one's sexual orientation would facilitate adaptive emotion regulation, stress-related growth was negatively associated with emotion regulation difficulties, $\beta = -.35$, $p = .002$. Also as expected, emotion regulation difficulties were positively associated with both depressive ($\beta = .39$, $p = .004$) and anxiety symptoms ($\beta = .50$, $p < .001$). In line with the mediation hypothesis, there were significant indirect effects of stress-related growth on both depressive ($\beta = -.14$, $p = .049$) and anxiety ($\beta = -.17$, $p = .015$) symptoms through emotion regulation difficulties. The direct effects of stress-related growth on depressive and anxiety symptoms were no longer significant after controlling for emotion regulation difficulties, $ps = .47$ and $.074$, respectively.

Given that the Difficulties in Emotion Regulation Scale (DERS) consists of six subscales, we also conducted exploratory analyses to examine each of the individual subscales of the DERS as potential mediators underlying the association between stress-related growth and internalizing mental health symptoms. Stress-related growth was significantly associated with the following DERS subscales: difficulties engaging in goal-directed behavior ($\beta = -.35$, $p < .001$), lack of emotional awareness ($\beta = -.39$, $p = .005$), limited access to emotion regulation strategies ($\beta = -.28$, $p = .015$), and lack of emotional clarity ($\beta = -.35$, $p = .007$). However, only the lack of emotional clarity subscale significantly predicted depressive symptoms, $\beta = .33$, $p = .035$; the difficulties engaging in goal-directed behavior ($\beta = .30$, $p = .009$) and the limited access to emotion regulation strategies ($\beta = .36$, $p = .026$) were the only subscales significantly associated with anxiety symptoms. The only significant indirect path was observed from stress-related growth to anxiety symptoms through difficulties engaging in goal-directed behavior, $\beta = -.10$, $p = .036$. Because all of the DERS subscales are highly correlated with one another (see Table 2), issues with multicollinearity most likely prevented us from detecting other significant indirect effects.

Discussion

The present research examined how stress-related growth, conceptualized here as perceptions of positive personal or life changes associated with one's sexual orientation, influences mental health outcomes among gay and bisexual men. We found that stress-related growth was associated with fewer anxiety and depressive symptoms. Additionally, this relationship was mediated by the ability to understand and regulate one's emotions: Focusing on the benefits resulting from one's sexual orientation was associated with more effective emotion regulation, which in turn predicted fewer internalizing symptoms. Taken together, these findings suggest that stress-related growth, which is typically studied in the context of coping with trauma, can also have important psychological benefits in the context of coping with stigma-related stressors. Furthermore, they reveal a potential mechanism that might, at least in part, account for the positive impact of stress-related growth on mental health.

Consistent with increasing empirical attention to positive affect and psychological resilience in the coping literature (Folkman & Moskowitz, 2000; Tugade & Fredrickson, 2004), there is now a significant interest in understanding the positive concomitants of adapting to stigma-related stress (Shih, 2004). This interest is especially salient for researchers studying the experiences of sexual minority individuals, who face substantial mental health disparities that can be mitigated by factors promoting resilience and empowerment (Vaughan & Rodriguez, 2014). However, research in this area thus far has been largely exploratory and focused on the relationship between resilience and sexual identity development (e.g., Bonet et al., 2007). The present investigation thus contributes to the existing literature by linking stress-related growth directly to emotion regulation, a transdiagnostic mechanism underlying a wide range of psychopathology symptoms, as well as clinically significant mental health outcomes (e.g., anxiety and depressive symptoms).

The current findings also have broader theoretical and clinical implications. Theoretically, although previous research has suggested that focusing on the positive aspects of a stressful situation might enable individuals to cope with their negative emotions more effectively (Fredrickson & Joiner, 2002), the constructs of stress-related growth and emotion regulation have mostly been studied in the context of separate literatures. As noted by Gross (1999), this represents a noteworthy limitation given that emotion regulation and coping are closely related processes and that research in one domain can often inform work in the other domain. To this end, the current study not only illuminates the psychological mechanisms underlying the adaptiveness of stress-related growth but also enriches our understanding of how emotion regulation difficulties might shape real-world coping processes. More practically, our findings highlight the importance of incorporating emotion regulation skills into psychosocial interventions that target minority stress coping processes. While emerging minority stress coping treatment approaches encourage the perception of positive aspects of sexual orientation development (e.g., social and sexual creativity, social activism; Herrick et al., 2011; Pachankis, 2014), the results of the present study suggest that emotion regulation represents a promising mental health treatment target as well. Indeed, exercises to strengthen emotion awareness and management for alleviating the adverse mental health effects of stigma-related stress have been shown to reduce health-risk behavior among gay and bisexual men with depression and anxiety (Pachankis et al., 2015).

Of course, the present investigation has several limitations. First, because participants completed all measures at one time point with one assessment approach, we are limited in our ability to draw causal conclusions. In particular, whereas we conceptualized stress-related growth as a coping resource of gay and bisexual men (see Golub et al., 2010, for a similar conceptualization of stress-related growth among transgender individuals; see also Littlewood et al., 2008; Milam, 2006), we acknowledge that stress-related growth can also be viewed as a positive outcome that results from life stressors (Helgeson et al., 2006). In other words, it is possible that gay and bisexual men who were more well-adjusted (e.g., experienced fewer emotion regulation difficulties and mental health problems) were more likely to experience stress-related growth in relation to their sexual orientation. Future research using longitudinal and experimental designs is needed to ascertain the role of adaptive emotion regulation as an explanatory mechanism underlying the association between stress-related growth and internalizing mental health symptoms. For example,

prospective designs that include measures of these constructs at repeated assessment points over several months or years could help determine the temporal sequence of stress-related growth, emotion regulation difficulties, and mental health problems. Furthermore, determining whether an intervention designed to facilitate stress-related growth among gay and bisexual men reduces internalizing symptoms by improving emotion regulation represents another promising direction for future research.

Additionally, because participants in the current study were recruited for an intervention trial, the sample was relatively small, homogeneous, and limited in its representativeness. Specifically, consistent with eligibility criteria, all participants were between ages 18 and 35, living in New York City, experiencing anxiety and depression symptoms, and at elevated risk for HIV. These sampling characteristics provide us with a unique opportunity to test our hypothesized model with those gay and bisexual men who were particularly at risk for mental health problems. Furthermore, because all participants in our sample were experiencing some symptoms of anxiety and depression, the associations with internalizing symptoms found in this study may represent conservative estimates given possible range restriction on our outcome measures. Nevertheless, future research should carefully examine the generalizability of our findings using larger, more heterogeneous samples. While the direct effect of stress-related growth on anxiety was significant, the direct effect of stress-related growth on depressive symptoms was only marginally statistical significant, possibly due to the relatively small sample size and the restricted range of the outcome measures, as previously noted.

Lastly, as noted earlier in the manuscript, we chose to focus on internalizing mental health symptoms in the current investigation because gay and bisexual men are disproportionately affected by internalizing mental health problems, such as major depression and anxiety disorders (Cochran & Mays, 2000, 2009). As evident from the positive psychology and resilience literature, however, it is important to note that frequent experiences of positive emotions can be uniquely beneficial and that fewer adverse mental health outcomes do not necessarily translate into greater psychological well-being (Helgeson et al., 2006; see also Lyubomirsky, King, & Diener, 2005). Future research could therefore productively examine how stress-related growth might, by facilitating adaptive emotion regulation, lead to positive psychological outcomes (e.g., greater life satisfaction). Furthermore, considering that men and women tend to experience their sexual orientation differently (Savin-Williams & Diamond, 2000), future work is needed to understand how the current model might generalize to sexual minority women. In sum, by examining associations among stress-related growth, emotion regulation, and mental health among gay and bisexual men, the present research provides a starting point in understanding how finding benefits associated with one's stigmatized identity might facilitate adaptive coping in the context of sexual minority stress.

Acknowledgments

This project was supported by a research grant from the National Institute of Mental Health (R34-MH096607; PI: John E. Pachankis). Katie Wang was supported by a training fellowship from National Institute of Mental Health (T32-MH020031). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

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Figure 1.

The hypothesized model showing stress-related growth predicting emotion regulation difficulties and internalized mental health symptoms among gay and bisexual men. All regression coefficients are shown in their standardized forms.

Table 1

Demographic Characteristics of the Sample

	<i>n</i>	%
Race/Ethnicity		
Black	7	10.9
Latino	23	35.9
White	26	40.6
Asian/Native Haw./Pac. Islander	3	4.7
Other/Multiracial	5	7.8
Sexual Orientation		
Gay, queer, or homosexual	59	90.6
Bisexual	5	9.4
Employment Status		
Full-time	25	39.1
Part-time	21	32.8
Student (unemployed)	10	15.6
Unemployed (including disability)	8	12.5
Highest Educational Attainment		
High school diploma or GED	8	12.5
Some college or Associate's degree	31	48.4
Bachelor's or other 4-year degree	19	29.7
Graduate degree	6	9.4
Relationship Status		
Single	53	82.8
Partnered	11	17.2
	<i>M</i>	<i>SD</i>
Age (Range: 18 – 35; Median = 26.0)	25.8	4.3

Table 2

Correlations between primary variables of interest and scale descriptive statistics.

Variable	1	2	2a	2b	2c	2d	2e	2f	3	4
1. Stress-Related Growth	--									
2. Difficulties with Emotion Regulation Scale (DERS) Total Score	-0.35**	--								
2a. DERS - Non-acceptance of Emotional Responses	-0.10	0.82***	--							
2b. DERS - Difficulties Engaging in Goal-Directed Behavior	-0.35**	0.73***	0.47***	--						
2c. DERS - Impulse Control Difficulties	-0.11	0.65***	0.52***	0.47***	--					
2d. DERS - Lack of Emotional Awareness	-0.39**	0.56***	0.25*	0.27*	0.19	--				
2e. DERS - Limited Access to Emotion Regulation Strategies	-0.28*	0.86***	0.68***	0.61***	0.44***	0.30*	--			
2f. DERS - Lack of Emotional Clarity	-0.35**	0.69***	0.52***	0.31*	0.21	0.45***	0.57***	--		
3. CES-Depression	-0.24†	0.42***	0.30*	0.29*	0.20	0.17	0.44***	0.45***	--	
4. State-Trait Anxiety Inventory	-0.35**	0.56***	0.38**	0.55***	0.32*	0.17	0.58***	0.40**	0.69***	--
<i>M</i>	34.66	101.97	17.88	16.63	14.91	15.05	24.06	13.45	26.67	53.69
<i>SD</i>	6.76	22.74	6.22	5.18	4.45	5.17	6.27	4.00	9.54	10.08
Cronbach's α	0.89	0.93	0.90	0.88	0.74	0.85	0.83	0.81	0.86	0.89

Note: $N = 65$.† $p < 0.06$.* $p < 0.05$.** $p < 0.01$.*** $p < 0.001$.