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Autonomy Support Fosters Lesbian, Gay, and Bisexual Identity Disclosure and Wellness, Especially for Those with Internalized Homophobia

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Lesbian, gay, and bisexual (LGB) individuals experience disparities in psychological well-being, including greater symptoms of depression and anxiety, relative to their heterosexual peers. One group of LGB individuals is particularly vulnerable—those with high levels of internalized homophobia, or sexual prejudice directed toward the self. The current research explored whether a supportive social environment might be especially beneficial for this group. Specifically, we tested whether autonomy support within a given social environment (e.g., with family, friends, and peers or coworkers) is associated with greater identity disclosure and well-being in that environment, especially for those high in internalized homophobia. Using within-person analyses, we found support for this: perceptions of autonomy support predicted greater disclosure (outing) and well-being, and this relation was particularly strong for those high in internalized homophobia. Implications of these findings for promoting well-being among LGB individuals, a critical social issue, are discussed.

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Introduction

Despite recent trends of decreasing stigmatization—or social devaluation—of lesbian, gay, and bisexual (LGB) individuals within North America and Europe (Pew Research Center, 2013), disparities in psychological well-being continue to emerge when comparing this group to heterosexuals. For LGB individuals, the risk of depression and anxiety disorders is 1.5–2.6 times higher than for heterosexuals (King et al., 2008). At greatest risk for well-being deficits are LGB individuals who internalize the stigma about their sexual identity, or who show internalized homophobia (Meyer, 2013). In the present paper, we examine how supportive social environments relate to levels of sexual identity disclosure and psychological well-being and whether these supportive environments might be especially beneficial for those high in internalized homophobia. Drawing on principles of self-determination theory (SDT; Ryan & Deci, 2000), we argue that perceiving autonomy support, or support for self-expression and volitional action, will be associated with greater disclosure and well-being for LGB individuals within these supportive contexts. Further, those high in internalized homophobia may be especially likely to experience greater outcomes and well-being in autonomy supportive contexts.

Well-Being Disparities among LGB Individuals: The Role of Internalized Homophobia

Across the lifespan sexual minorities experience worse wellness outcomes compared to heterosexuals (Fredriksen-Goldsen, Kim, Barkan, Muraco, & Hoy-Ellis, 2013; King et al., 2008).

Research comparing bisexual individuals to gay men and lesbians suggests that bisexual individuals are at greatest risk of experiencing psychological distress (Semlyen, King, Varney, & Hagger-Johnson, 2016). Growing evidence indicates that minority stress, or chronic stress related to holding a stigmatized identity (Meyer, 2013), may in part explain these mental health disparities (Hatzenbuehler, 2009). Indeed, LGB individuals frequently face harassment, victimization, and rejection from close others (e.g., Herek, 2009) and these experiences of prejudice and social stigma are associated with higher incidence of mental health problems, particularly depression (Burton, Marshal, Chisolm, Sucato, & Friedman, 2013).

However, prejudice need not be experienced directly to impact well-being. LGB individuals grow up aware of the negative stereotypes and attitudes associated with a sexual minority identity, and as they come to realize their sexual orientation, may apply these negative views to the self (Meyer, 1995). This self-stigma, or internalized homophobia, acts as another form of minority stress as LGB individuals experience and cope with identity-related tension and shame (Meyer, 2013).

Among the range of minority stressors, internalized homophobia may uniquely contribute to poor well-being because it influences psychological processes, self-concept, and coping behavior even in the absence of direct threats (Meyer, 1995). Moreover, internalized homophobia may become self-perpetuating as individuals anticipate and perceive more negative treatment on the basis of their identity (Meyer & Dean, 1998). The association between internalized homophobia and psychological distress in LGB individuals is indeed consistent (see meta-analysis by Newcomb & Mustanski, 2010) and these associations are as strong for lesbian and bisexual women as they are for gay and bisexual men. In short, individuals high in internalized homophobia are most vulnerable to developing depression and anxiety. Research examining factors that may improve the well-being of individuals with high internalized homophobia is therefore critical in reducing LGB mental health disparities.

Coming Out and Well-Being

Theory and research suggest that, for LGB individuals, coming out can be a critical part of identity integration and self-acceptance (Cass, 1984) and is important to the development of a stable, positive, and authentic sense of self, and for mental health and well-being (Ragins, 2004; Legate, Ryan, & Weinstein, 2012). Coming out is posited to benefit well-being by reducing the stress, vigilance, and self-monitoring associated with concealment (Crichter & Ferguson, 2014). Concealment prevents people from behaving authentically in interpersonal interactions (Bosson, Weaver, & Prewitt-Freilino, 2012) and may make it difficult to connect with similar others (i.e., other LGB people), further undermining well-being by reducing sources of social support (Frable, Platt, & Hoey, 1998).

However, the relationship between concealment and psychological distress is mixed, with some studies suggesting no relationship (e.g., Fredriksen-Goldsen et al., 2013), others a positive relationship (e.g., Newheiser, Barreto, & Tiemsersma, 2017; Pachankis, Cochran, & Mays, 2015) and still others indicating a negative relationship (e.g., Ragins, 2004). While coming out is associated with many benefits, it also can leave individuals vulnerable to experiencing harassment, assault, or rejection (e.g., D'Augelli, 2006). Emerging work suggests that decisions to disclose an LGB identity may be based in part on how specific individuals or the social environment are likely to react (e.g., Ryan, Legate, & Weinstein, 2015).

Social Contexts and Disclosure

Despite often dichotomous language, coming out or sexual identity disclosure varies within persons and across contexts. Evidence suggests that LGB individuals disclose selectively (e.g., Cole, 2006). In one study, only 23% of LGB youth were

out to everyone (D'Augelli, 2006). Variability exists also in the level of disclosure or outness of individuals within a given social context (Chaudoir & Fisher, 2010; Wessel, 2017), and the degree to which one can openly discuss identity-relevant topics (Mohr & Fassinger, 2000). For example, a gay man's family and friends may both be aware of his sexual orientation, but he may only feel comfortable talking about dating, LGB rights, and other identity-relevant issues with his friends—not his family. Thus, this man displays greater outness with his friends than with his family. Assessing outness along a continuum captures the full range of disclosure including contexts in which one's sexual orientation may be known, but identity-relevant topics are never or rarely discussed.

Research suggests that level of disclosure is guided by fears of prejudicial treatment and rejection (e.g., Radkowsky & Siegel, 1997), and that those higher in internalized homophobia are especially prone to fear rejection from others based on their sexual orientation (e.g., Pachankis, Goldfried, & Ramrattan, 2008). Indeed, individuals high in internalized homophobia are less likely than those with lower levels to disclose and discuss their sexual orientation with others (Herek, Cogan, Gillis, & Glunt, 1998). It follows, therefore, that LGB individuals with high levels of internalized homophobia may be particularly sensitive to the acceptance or safety felt within a social context, and that feeling acceptance is even more important in encouraging self-disclosure and well-being for these individuals.

Autonomy-Supportive Social Contexts

We use the framework provided by self-determination theory (SDT; Ryan & Deci, 2000) to understand how LGB individuals generally, and those with internalized homophobia specifically, experience their social environments. A focus within SDT is how relationships make people feel safe to be authentic, versus closed off and defensive, with others. Social contexts vary greatly in the extent to which they support an individual's autonomy, or one's need to behave authentically and in accord with their values and beliefs (Deci, La Guardia, Moller, Scheiner, & Ryan, 2006). Autonomy support refers to the degree to which others encourage authentic expression of all aspects of the self, regardless of the specific values, choices, and interests being expressed (Ryan & Deci, 2000), and is associated with a host of positive outcomes including better mental and physical health (Vansteenkiste & Ryan, 2013). Social environments can fail to support autonomy by exerting pressure to behave or act in a specific way. In other words, when autonomy is not supported people feel pressured to be how others would like them to be instead of acting in accord with their own values and desires.

As such, perceiving autonomy support increases individuals' willingness to express different aspects of their personality (La Guardia & Ryan, 2007; Uysal, Lin, & Knee, 2010). More immediate to this paper, Legate et al. (2012) examined autonomy support across a variety of social contexts (e.g., family, friends, faith

community, work) and found that individuals reported greater levels of sexual identity disclosure and well-being in contexts perceived to support autonomy. This study suggests that autonomy support may indeed convey a sense of safety and acceptance, facilitating LGB identity disclosure and well-being.

Because autonomy support conveys acceptance for one's authentic self (Ryan & Deci, 2000), it is likely particularly important for LGB individuals, as they hold an identity often met with stigma and lack of acceptance. For those high in internalized homophobia, perceiving acceptance for their authentic self may be particularly valuable as they struggle with shame and fear of rejection from others. Perceiving autonomy support may therefore be especially important for wellness and disclosure decisions among those with internalized homophobia, as it may allay salient fears of rejection and reduce feelings of shame. The present research expands on work by Legate et al. (2012) by testing the expectation that individuals high in internalized homophobia may especially stand to benefit from autonomy-supportive contexts.

Present Research

Research examining how social contexts can promote resilience especially among those high in internalized homophobia is critical as internalized homophobia does not appear to be decreasing despite greater societal acceptance (Newcomb & Mustanski, 2010), and research on factors that can promote resilience despite minority stress is lacking (Kwon, 2013). In the present research, we utilize within-person analyses to examine whether perceived autonomy support in a given social context (family, friends, coworkers or peers) is associated with more outness and well-being in that context. New to this paper, we test these context-specific experiences side-by-side with between-person differences in internalized homophobia, a characteristic that leaves individuals vulnerable to higher personal costs as a result of holding a stigmatized identity. Specifically, we hypothesize that perceiving autonomy support will predict greater self-disclosure and well-being and that this relation will be particularly strong for individuals with high levels of internalized homophobia.

Method

Participants and Procedure

One-hundred and fifty-six lesbian, gay, and bisexual individuals (65 males, 88 females, 2 transgender males, 1 transgender female) living in the United Kingdom, and primarily but not exclusively in London and Bristol, were recruited via word-of-mouth. The sample ranged in age from 18 to 55 years ($M = 26.0$, $SD = 9.12$), and 56% identified as lesbian, 22% identified as gay and 22%

identified as bisexual. Sixty-four percent of participants completed an online survey and the rest completed the same survey using pencil and paper. In both cases, it was made clear that survey responses were kept anonymous. Participants responded to questions about their outness, well-being, and perceptions of autonomy support from various people (i.e., family, friends, and coworkers or school peers). They also completed a trait measure of internalized homophobia. Two individuals did not provide sufficient data and were excluded from all analyses. Two other individuals did not report on outness with coworkers/peers, but were included in all analyses as they provided sufficient data for multilevel models.

Measures

Revised internalized homophobia scale. Nine items assessed feelings of internalized homophobia (Herek et al., 1998; Meyer, 1995). Participants rated the items (e.g., “I feel that being gay, lesbian or bisexual is a personal shortcoming for me,” “I feel alienated from myself being lesbian, gay, or bisexual”) on a 5-point scale ranging from 1 (*disagree strongly*) to 5 (*agree strongly*). Internal reliability for the revised internalized homophobia scale (IHP-R) was high ($\alpha = .89$).

Autonomy support questionnaire. Perceptions of autonomy support versus control in social contexts were assessed using the autonomy support questionnaire (ASQ) (Deci et al., 2006). In order to reduce participant burden, participants responded to only five items from the ASQ (demonstrated to be top loading items from Legate et al., 2012) for each of the three social contexts (for a total of 15 items): family, friends, and coworkers or school peers. Items included “[My family members] encourage me to express my true emotions,” and were paired with a scale ranging from 1 (*not at all true*) to 7 (*very true*). The five items were averaged to form an autonomy support score for each social context. Internal reliability was high across contexts ($\alpha = .88-.90$).

Outness inventory. The outness inventory (OI) (Mohr & Fassinger, 2000) assesses the extent to which individuals disclose their sexual orientation to various others. Rather than asking about specific individuals we adapted the items to reflect the three social contexts of interest (family, friends, co-workers or school peers). Participants rated the extent to which they disclosed their sexual orientation in each social context (3 total items) using a 7-point scale ranging from 1 (*person definitely does not know about your sexual orientation status*) to 7 (*person definitely knows about your sexual orientation status, and it is openly talked about*). If no such context existed in participants’ life, they had the option of selecting 0. No participants selected this option.

Psychological well-being. Psychological well-being scores were derived from items selected from three well-validated instruments used in Legate et al. (2012) and were assessed across the three social contexts. Risk for depression was assessed with three items (e.g., “When I am with my [family], I feel sad”) from the Center for Epidemiological Studies-Depression Scale (CES-D; Radloff, 1977). Self-esteem was measured with three items (e.g., “When I am with my [family], I feel dissatisfied with myself”) from the Rosenberg Self-Esteem Scale (Rosenberg, 1979). Last, four items from the General Health Questionnaire (Goldberg & Hillier, 1979) assessed anxiety (e.g., “When I am with my [family], I feel nervous and uptight”). Participants were asked to rate their feelings in each context over the last month on a 7-point scale ranging from 1 (*not at all true*) to 7 (*very true*). Participants completed a total of 30 well-being items, 10 for each social context. Internal reliability for depressive feelings ($\alpha = .80-.90$) and anxiety ($\alpha = .83-.89$) was high across contexts and for self-esteem was adequate ($\alpha = .65-.76$).

Results

Preliminary Results

For descriptive purposes, we examined mean differences in perceptions of autonomy support, outness, and well-being with each of the three social groups (i.e., family, friends, and coworkers/school peers) using a repeated measures analysis of variance (ANOVA) with a Greenhouse–Geisser correction to account for nonsphericity in the data. Supporting past research showing that LGB individuals are selective in their disclosure, there were significant differences in how out people were across social groups, $F(1.89, 285.76) = 70.48, p < .001$. There were also differences in perceptions of autonomy support across social groups, $F(1.71, 261.24) = 65.85, p < .001$. Similarly, feelings of depression $F(1.78, 272.52) = 18.04, p < .001$, anxiety $F(1.79, 273.27) = 31.84, p < .001$, and self-esteem $F(1.84, 281.87) = 13.27, p < .001$, differed across the social groups. In sum, people were most out with their friends, and felt the most autonomy support and well-being with friends compared with family members and coworkers or school peers. See Table 1 for means, *SDs*, and results of pairwise comparisons between social groups.

Next, we tested for differences in autonomy support, outness, internalized homophobia, and well-being across the three sexual orientation categories as research often shows mean differences between these groups (e.g., Semlyen et al., 2016). Only one difference emerged with outness, $F(2, 151) = 9.29, p < .001$: bisexuals were less out than both gay men ($p < .001$) and lesbians ($p < .001$), and the latter groups did not differ from one another ($p > .15$). There were no differences across sexual orientation groups for average perceived autonomy

Table 1. Means and *SDs* of Study Variables Overall, Across Social Context, and Split by Sexual Orientation

	Overall sample		Sexual orientation type		
	Mean	<i>SD</i>	Gay men	Lesbians	Bisexuals
Internalized homophobia	1.63	0.80	1.61	1.69	1.63
Autonomy support	5.52	1.33	5.42	5.42	5.13
Family	5.45 ^b	1.38	5.51	5.54	5.20
Friends	6.19 ^a	0.93	6.28	6.24	5.89
Coworkers/peers	4.92 ^c	1.32	5.04	4.85	4.72
Outness	5.59	1.17	5.86	5.60	4.88
Family	5.09 ^b	1.89	5.34	5.03	4.48
Friends	6.62 ^a	0.86	6.82	6.62	6.12
Coworkers/peers	5.07 ^b	1.80	5.42	5.18	4.03
Depression	2.36	1.27	2.29	2.25	2.63
Family	2.60 ^b	1.62	2.50	2.54	2.91
Friends	2.05 ^a	1.19	2.00	1.89	2.33
Coworkers/peers	2.42 ^b	1.46	2.37	2.32	2.66
Anxiety	2.52	1.17	2.48	2.44	2.71
Family	2.80 ^b	1.58	2.73	2.68	3.12
Friends	2.07 ^a	1.09	2.01	2.44	2.26
Coworkers/peers	2.69 ^b	1.41	2.70	2.60	2.76
Self-esteem	4.84	1.29	4.85	5.03	4.62
Family	4.76 ^{ab}	1.60	4.81	4.86	4.51
Friends	5.12 ^a	1.43	5.14	5.32	4.89
Coworkers/peers	4.64 ^b	1.34	4.60	4.89	4.48

Note. $N = 156$, however two individuals had missing data on all measures except for internalized homophobia; two more did not provide data on their outness with coworkers/peers; all alphabetic superscripts refer to significant differences ($p < .05$) as identified by pairwise comparisons using paired samples t -tests with Bonferroni correction to adjust for multiple comparisons. Means with a common letter in their superscript were not significantly different from one another.

supportiveness, well-being variables, or trait levels of internalized homophobia ($F < 1.59, p > .15$; see Table 1).

We also examined correlations of variables aggregated across the three social groups to explore patterns between-persons. Greater outness related to greater autonomy support ($r = .47, p < .001$), lower anxiety ($r = -.19, p = .02$), marginally lower depressive feelings ($r = -.14, p = .08$), and greater self-esteem ($r = .14, p = .07$). Consistent with the literature, those with higher levels of internalized homophobia were less out ($r = -.28, p < .001$) and reported greater anxiety ($r = .37, p < .001$), depression ($r = .36, p < .001$), and lower self-esteem ($r = -.30, p < .001$). More autonomy support was also linked with less internalized homophobia ($r = -.23, p = .004$).

Multilevel Modeling

We used hierarchical linear modeling (HLM 7.0; Raudenbush et al., 2011) to test our hypotheses that autonomy support will predict outness, that autonomy support and outness will predict better well-being, and that internalized homophobia will moderate the effects of autonomy support on outness and well-being. Multilevel models can accommodate the nested structure of the data and are better suited than ordinary-least squares regression to handle missing data (Bolger & ShROUT, 2007; Little & Rubin, 1987). Unconditional models indicated sufficient variance in outcomes at the within-person level (outness: 82%; depression: 36%; anxiety: 46%) to add predictors to the model. For all models except when outness was the outcome variable, autonomy support and outness were simultaneous predictors at Level 1 (the within-person level). At Level 2 (the between-person level), internalized homophobia was entered as a predictor of the intercept and as a moderator of the slope of autonomy support. At Level 2, two dummy coded sexual orientation variables (gay and lesbian, coded 1, with bisexuals as the reference group, coded 0) were included as covariates in all analyses. Level 1 variables were centered on individual means (Bryk & Raudenbush, 1992). All *bs* are the unstandardized regression coefficients, and Level 1 effects were set as random, or allowed to vary between individuals. For all multilevel results, 95% confidence intervals of the regression coefficients are presented. For all analyses, “low” and “high” values refer to 1 SD below and above the sample mean for the variable being described. Data and syntax are posted on the study’s Open Science Framework page <https://osf.io/5z22u/>.

Replicating results from prior research (Legate et al., 2012), we found that perceiving autonomy support in a social context was robustly linked to being more out in that context, $b = .67$, $SE = 0.07$, $p < .001$, CI (0.53, 0.82). Internalized homophobia was related to being less out in any given social context, $b = -.41$, $SE = 0.12$, $p < .001$, CI (-0.64, -0.18). Bisexuals were less out than gay men or lesbians ($p < .01$). Next, we tested the interaction of autonomy support and internalized homophobia to predict outness, which was marginal, $b = .15$, $SE = 0.09$, $p = .096$, CI (-0.02, 0.32). Though the interaction was marginal, our hypothesis was mainly focused on the patterns for those low and high in internalized homophobia rather than the difference in the slope of autonomy support between them, so we explored simple slopes. Using an online utility for testing simple effects in HLM (Preacher, Curran, & Bauer, 2006), we found that autonomy support was more strongly related to outness for those with higher levels of internalized homophobia, $b = .79$, $SE = 0.10$, $p < .001$, CI (0.59, 0.98), compared to those with lower levels, $b = .56$, $SE = 0.10$, $p < .001$, CI (0.36, 0.76). Simple effects indicate that when autonomy support is low, those high in internalized homophobia are significantly less out than those low in internalized homophobia, $b = -.60$, $SE = 0.10$, $p < .001$, CI (-0.93, -0.26). However, when autonomy support is high,

Table 2. Main and Interaction Effects of Outness and Psychological Well-Being in Multilevel Models

	Outness		Depression		Anxiety		Self-esteem	
	<i>b</i>	95% CI	<i>b</i>	95% CI	<i>b</i>	95% CI	<i>b</i>	95% CI
Level 1								
Outness	–	–	–.07 [†]	–0.14, 0.002	–.08*	–0.14, –0.01	.03	–0.04, 0.11
Autonomy Support	.67***	0.53, 0.82	–.21***	–0.32, –0.09	–.33***	–0.45, –0.22	.31***	0.20, 0.42
Level 2								
IHP	–.41***	–0.64, –0.18	.56***	0.32, 0.80	.55***	0.33, 0.76	–.48***	–0.72, –0.23
Gay	.76***	0.33, 1.18	–.20	–0.66, 0.24	–.15	–0.53, 0.24	.21	–0.31, 0.72
Lesbian	.92**	0.46, 1.38	–.29	–0.82, 0.23	–.20	–0.65, 0.25	.41	–0.18, 1.00
Autonomy support × IHP	.15 [†]	–0.02, 0.32	–.16*	–0.30, –0.02	–.12*	–0.22, –0.03	–.09 [†]	–0.19, 0.01

Note: All coefficients are unstandardized HLM coefficients. IHP refers to internalized homophobia; Gay and Lesbian refer to the dummy coded sexual orientation variables with bisexuals as the reference group; Autonomy support × IHP refers to the interaction of internalized homophobia (at Level 2) on autonomy support (at Level 1).

[†]*p* < .10. **p* < .05. ***p* < .01. ****p* < .001.

no significant differences in outness emerge by level of internalized homophobia, $b = -.21, SE = 0.16, p = .18, CI (-0.52, 0.09)$. Though marginal, this interaction suggests that autonomy support is especially important for outness in those who are high in internalized homophobia and that when autonomy support is high, these individuals are no less out than their low-internalized-homophobia counterparts (see Table 2 for a summary of multilevel models and Figure 1 for predicted values).

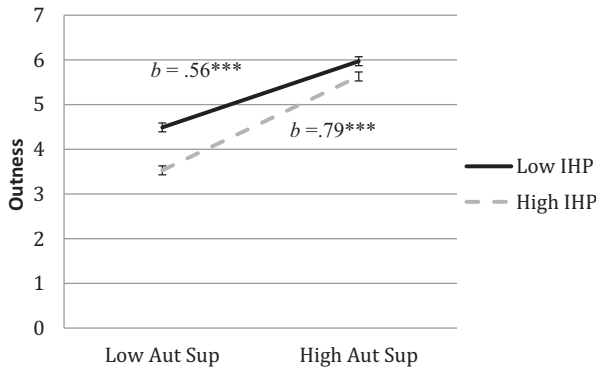


Fig. 1. Interaction of internalized homophobia and autonomy support on outness. Slopes for the interaction were calculated at 1 *SD* above and below the grand mean-centered variables. Bars represent *SEs* of the slope estimates. IHP stands for internalized homophobia. Aut sup is short form for autonomy support.

[†]*p* < .10. **p* < .05. ***p* < .01. ****p* < .001.

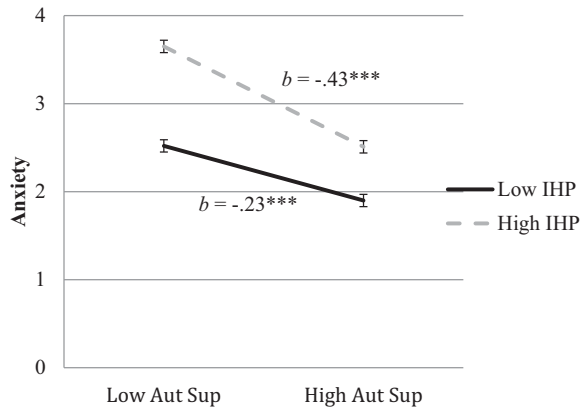


Fig. 2. Interaction of internalized homophobia and autonomy support on anxiety. Slopes for the interaction were calculated at 1 *SD* above and below the grand mean-centered predictor and moderator variables. Bars represent *SEs* of the slope estimates. This same pattern of interaction occurs when self-esteem is the outcome. IHP stands for internalized homophobia. Aut sup is short form for autonomy support.

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Autonomy support experienced in different social groups predicted lower anxiety, $b = -.33$, $SE = 0.06$, $p < .001$, $CI (-0.45, -0.22)$. Being more out in a social group was also related to lower anxiety, $b = -.08$, $SE = 0.03$, $p = .02$, $CI (-0.14, -0.01)$. Sexual orientation was not related to anxiety ($p > .15$). Internalized homophobia predicted greater anxiety, $b = .55$, $SE = 0.11$, $p < .001$, $CI (0.33, 0.76)$, and interacted with autonomy support to predict anxiety, $b = -.12$, $SE = 0.05$, $p = .01$, $CI (-0.22, -0.03)$ (see Figure 2). The relation between autonomy support and anxiety was stronger for those high in internalized homophobia, $b = -.43$, $SE = 0.07$, $p < .001$, $CI (-0.57, -0.28)$, as compared with those lower in internalized homophobia, $b = -.23$, $SE = 0.07$, $p < .001$, $CI (-0.36, -0.10)$. Simple effects reveal that at both low, $b = .71$, $SE = 0.13$, $p < .001$, $CI (0.44, 0.97)$, and high levels of autonomy support, $b = .39$, $SE = 0.12$, $p = .001$, $CI (0.16, 0.61)$, those high in internalized homophobia reported greater anxiety than those low in internalized homophobia, and this effect was especially large when autonomy support was low.

Autonomy support predicted greater self-esteem, $b = .32$, $SE = 0.06$, $p < .001$, $CI (0.20, 0.42)$. Outness did not relate to self-esteem, $b = .03$, $SE = 0.04$, $p = .42$, $CI (-0.04, 0.11)$, nor did sexual orientation ($p > .15$). Internalized homophobia predicted lower self-esteem, $b = -.48$, $SE = 0.12$, $p < .001$, $CI (-0.72, -0.23)$, and showed a marginal interaction with autonomy support, $b = -.09$, $SE = 0.05$, $p = .07$, $CI (-0.19, 0.01)$. Similar to the pattern with

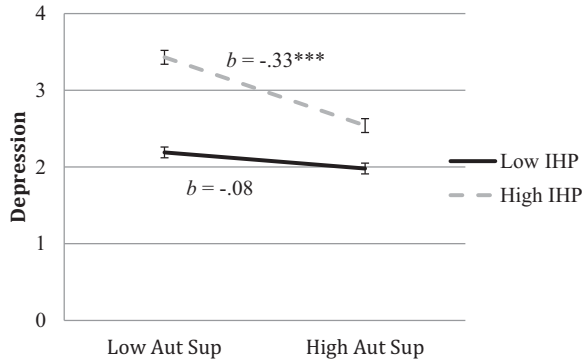


Fig. 3. Interaction of internalized homophobia and autonomy support on depression. Slopes for the interaction were calculated at 1 SD above and below the grand mean-centered predictor and moderator variables. Bars represent SEs of the slope estimates. IHP stands for internalized homophobia. Aut sup is short form for autonomy support.

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

anxiety, the relation between autonomy support and self-esteem was stronger for those high in internalized homophobia, $b = .39$, $SE = 0.07$, $p < .001$, $CI (0.24, 0.53)$, as compared with those lower in internalized homophobia, $b = .24$, $SE = 0.07$, $p < .001$, $CI (0.10, 0.38)$. Simple effects again indicate that at both low and high levels of autonomy support, those low in internalized homophobia reported greater self-esteem than those with high levels of internalized homophobia, though again this effect was stronger at low levels of autonomy support, $b = -.60$, $SE = 0.13$, $p < .001$, $CI (-0.85, -0.35)$, than high levels of autonomy support, $b = -.35$, $SE = 0.16$, $p = .03$, $CI (-0.52, -0.04)$.

Autonomy support predicted lower depression, $b = .21$, $SE = 0.06$, $p = .001$, $CI (-0.32, -0.09)$. Being more out in a social group was also related to marginally lower depression, $b = -.07$, $SE = 0.04$, $p = .057$, $CI (-0.14, 0.002)$. Sexual orientation was not related to depression ($p > .15$). Internalized homophobia predicted greater depression, $b = .56$, $SE = 0.12$, $p < .001$, $CI (0.32, 0.80)$, and interacted with autonomy support, $b = -.16$, $SE = 0.07$, $p = .03$, $CI (-0.30, -0.02)$ (see Figure 3). While autonomy support predicted lower depression among those high in internalized homophobia, $b = -.33$, $SE = 0.09$, $p < .001$, $CI (-0.52, -0.15)$, the slope of autonomy support for those low in internalized homophobia was not significant, $b = -.08$, $SE = 0.07$, $p = .25$, $CI (-0.21, 0.06)$. Simple effects again indicate that at both low and high levels of autonomy support, those with high internalized homophobia reported greater depression, $b = .35$, $SE = 0.13$, $p < .01$, $CI (0.09, 0.60)$, than those with low internalized homophobia, $b = .78$,

$SE = 0.18$, $p < .001$, $CI (0.42, 1.12)$, such that the difference in depression as a function of internalized homophobia is stronger at low levels of autonomy support.

Having identified that internalized homophobia moderated the effects of autonomy support controlling for sexual orientation, we were curious whether autonomy support interacted with sexual orientation to predict well-being. Because research suggests that bisexuals are particularly vulnerable to well-being deficits (Semlyen et al., 2016), we explored whether, like those higher in internalized homophobia, bisexuals would be especially benefited by autonomy support. In order to examine this question we conducted a set of post hoc analyses similar to those described above. Instead of controlling for sexual orientation, the interaction of each dummy coded sexual orientation variable (gay and lesbian dummy coded 1 with bisexuals as the reference group, coded 0) with autonomy support was tested. Results revealed that sexual orientation marginally interacted with autonomy support to predict all three well-being indicators (anxiety: $b = .24$ and $.17$, $p = .06$ and $.10$, $CI -0.03, 0.48$); self-esteem: $b = .20$ and $.17$, $p = .11$ and $.09$, $CI -0.01, 0.40$; depression: $b = .21$ and $.20$, $p = .097$ and $.09$, $CI -0.04, 0.46$). Exploratory simple slopes show that autonomy support had a stronger effect on anxiety, depression, and self-esteem for bisexuals (bs range from $|.40-.53|$, $p < .001$) as compared to both gay men and lesbians (bs range from $|.19-.37|$, $p < .01$), no CI s include 0. In other words, as perceptions of autonomy support increase, anxiety and depression decrease and self-esteem increases for everyone; however, these effects were stronger for bisexuals compared to gay men and lesbians. There was no interaction with autonomy support in predicting outness, $p > .50$.

Discussion

The current work replicated and extended findings from Legate et al. (2012) by examining whether autonomy support functions differently across levels of internalized homophobia. As in our prior work, we found autonomy support within a social context to be a robust predictor of being out as LGB in that context. Both perceptions of autonomy support and outness in a social context were associated with lower depression and anxiety, and greater self-esteem. Consistent with the literature (Herek et al., 1998; Newcomb & Mustanski, 2010; Semlyen et al., 2016), we also found that those with higher levels of internalized homophobia were less out across social contexts and reported lower well-being than those with lower levels of internalized homophobia. New to this research, we found that internalized homophobia moderated the effects of autonomy support on well-being outcomes and outness (though some effects were marginal). Specifically, perceiving autonomy support was more strongly associated with experiencing lower depression and anxiety, and marginally with greater self-esteem and outness, in those with high levels of internalized homophobia compared to those with lower

levels. In the case of outness, this difference was such that in contexts in which perceived autonomy support was high, internalized homophobia was unrelated to outness; outness was high across levels of internalized homophobia. Depression and anxiety were higher and self-esteem lower for individuals high in internalized homophobia (compared to those low in internalized homophobia), though this difference was reduced under conditions of high autonomy support.

Future research should investigate how minority stress factors such as general psychological processes (e.g., rumination) associated with depression and anxiety, self-concept, and expectations of rejection (Meyer, 2013) explain why autonomy support may be particularly beneficial to those with internalized homophobia. We also found a similar pattern when analyzing the strength of the effect of autonomy support on depression and anxiety for bisexuals compared to gay men and lesbians. Bisexuals tend to demonstrate worse mental health outcomes as compared to gay men and lesbians (Semlyen et al., 2016). Therefore, we explored whether autonomy support may be particularly beneficial to bisexual individuals. Results indicated marginal effects, suggesting that autonomy support is more strongly associated with lower anxiety and depression and greater self-esteem among bisexuals than gay men and lesbians. Autonomy support may be particularly important for various types of vulnerable groups, though more research is needed to support this.

Given the novelty of these findings caution is needed when interpreting results. The effect size of interactions was relatively small and many were marginally significant, suggesting that interaction results might not replicate in another sample. However, the consistent pattern across multiple dependent variables (anxiety, depression, self-esteem, and outness), provides support for their reliability. Nevertheless, highly powered replications with representative samples examining these interactions are thus an important direction for future research.

Importantly, these data are cross-sectional and cannot speak to a causal role of autonomy support in promoting positive outcomes, or conversely of internalized homophobia, causing negative consequences. It could be that those who are more “out” and who have lower anxiety and depression see others as more supportive of their autonomy, and view their LGB identity more positively. On this latter point, there is research and theory to suggest that coming out is associated with decreases in internalized homophobia (e.g., Schrimshaw, Siegel, Downing, & Parsons, 2013), though the directionality of this relation remains unknown. Future work should use quasi-experimental or longitudinal methods to test whether autonomy support from one’s social environments influences disclosure decisions and wellness in those environments, and whether autonomy support is particularly helpful in promoting outness and well-being among those high in internalized homophobia. Future research should also examine whether perceiving autonomy support from important others over time can reduce internalized homophobia and improve overall well-being. Given that those high in internalized homophobia have

experienced and anticipate social rejection of their sexual identity (Pachankis et al., 2008), experiencing environments that convey acceptance may help reduce anticipated rejection and internalized stigma. Whether perceived autonomy support within specific contexts and relationships can spill over and impact well-being more generally also remains an empirical question, though correlational work suggests that it may (Ryan et al., 2015).

These findings have important social implications. Our work supports other research showing that supportive social contexts can act as buffers against minority stress to promote LGB mental health (e.g., Hershberger & D'Augelli, 1995) and that this buffering effect may be particularly strong for those most likely to suffer from poor mental health outcomes—individuals with high internalized homophobia and potentially bisexuals as well (Newcomb & Mustanski, 2010; Semlyen et al., 2016). Still, autonomy support was associated with outness and well-being overall, suggesting that interventions can be broadly implemented. These could include strategies or policies to boost autonomy support in workplaces and schools via (but not limited to) safe spaces where LGB youth can receive support from staff or teachers, “gay-straight alliance” networks, curricula that address health and social concerns of LGB youth, explicit workplace and school policies that prohibit discrimination and harassment based on sexual orientation, and efforts to protect LGB organizations and social venues. Growing evidence suggests structural changes (e.g., policies that increase support resources and inclusion) positively impact mental health among LGB individuals (Hatzenbuehler, Birkett, Van Wagenen, & Meyer, 2014). Importantly, interventions to boost autonomy support in social settings versus interventions that focus exclusively on reducing sexual prejudice may be more effective as they may inspire less reactance among participants (Legault, Gutsell, & Inzlicht, 2011). While this hypothesis remains untested, the present research suggests that improving social supports available to LGB individuals may be critical to reducing disparities in LGB psychological well-being.

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