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IMPLICATIONS OF SEXUAL IDENTIFICATION FOR PERCEPTIONS OF STIGMA, CONCEALMENT BEHAVIORS, AND WELL-BEING AMONG MEN WITH SAME-SEX TENDENCIES

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ABSTRACT

Sexual minority men may identify themselves as gay, bisexual, or straight, with potential implications for how they perceive and experience stigma, their efforts at identity concealment, and their well-being. The goal of the current study is to investigate the experiences of sexual minority men as a function of how they sexually identify themselves. We aim to understand group differences between straight men and sexual minority men, as well as differences within sexual minority men – how different identifications (i.e., straight-identified heterosexual, straight-identified sexual minority, bisexual, and gay) are related to stigma, concealment, and well-being. Six hundred and two cisgender men ($N = 602$) of diverse racial and ethnic backgrounds across the U.S. were recruited to complete an online survey about interpersonal relationships and attractions. Results showed that straight men reported less perceived stigma against sexual minorities in the United States, and greater well-being than sexual minority men. As for comparisons within sexual minority men, results showed that straight-identified sexual minority men internalized more sexual stigma and reported more frequent concealment behaviors than bisexual and gay men. However. we found protective effects of the straight identification of straight-identified sexual minority men such that they experienced less enacted stigma from both sexual majority and other sexual minorities and reported greater well-being than bisexual and gay men. Additionally, results also revealed an interaction between sexual identification and structural stigma on loneliness and perceived social support, such that in low stigma environments, straight-identified sexual minority men had similar levels of loneliness and perceived social support as gay and bisexual men. However, in high stigma environments, straight-identified sexual minority men reported significantly lower loneliness and higher perceived social support than gay and bisexual men. Implications of the results for future research directions are discussed.

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INTRODUCTION

Recent Gallup (2020) survey data revealed that LGBT (lesbian, gay, bisexual, and transgender) identification has risen to 5.6% in the United States, showcasing the importance of further research on the implications of sexual identification. A growing body of research has shown significant differences in stigma experiences (Herek et al., 2007; Herek, 2010), identity concealment (Pachankis et al., 2020), and mental and physical health (Meyer, 2003; for a review, see Ploderl & Tremblay, 2015) as a function of one's sexual identification, such that people with sexual minority identifications (LGB) are at greater risk in comparison to their heterosexual counterparts. Yet only few empirical studies (e.g., Savin-Williams & Vrangalova, 2013) have addressed the complexity of human sexuality, such that components and attributes of being straight can greatly overlap with those of sexual minorities (van Anders, 2015; Abed et al., 2019). People with same-sex tendencies[1] may assume different identities (e.g., straight, gay/lesbian, bisexual), and heterosexually-identified people could have diverse past and current sexual behaviors, attraction patterns, and sexual fantasies. As a result, among groups we traditionally categorize as heterosexuals, there are people with same-sex tendencies whose experiences can sometimes be easily overlooked in the literature. And the effect of the straight identification of these sexual minority people on their everyday experiences has yet to be quantitively examined.

Empirical evidence from epidemiological studies as early as the late 1990s suggested the complexity of human sexual orientation, particularly that one's sexual identity, behavior and attraction might not be congruent within an individual at a given time (Copas et al., 2002; Laumann et al.. 1994). Such incongruence has been referred to as *sexual discordance* in the public health literature (Mustanski et al., 2014). To address such discordance and avoid missing individuals at high risk, public health researchers studying HIV/AIDS in the late 1990s (Glick et al., 1994) began to emphasize behavior-focused labeling such as men who have sex with men (*MSM*) and women who have sex with women

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[1] As an attempt to provide a more inclusive categorization, we use the term same-sex tendency to encompass people who have felt sexually attracted to or had sexual experiences with people of the same sex.

(*WSW*), rather than sexual identifications. Behavioral discordance – the incongruence between sexual behavior and sexual identification – have also been empirically associated with increased risk of mental health and substance use disorders (Mustanski et al., 2014; Gattis et al. 2012). While terms like *MSM/WSW* or the sexual discordance approach are very efficient at identifying individuals who are at risk due to their focus on sexual behaviors and health outcomes, Young and Meyer (2005) pointed out the troubles with such approaches is that they neglect the effects of sexual identification on sexual minorities' experiences. For example, the straight identification of some *MSM/WSW* or sexually discordant individuals might protect them from stigma against sexual minorities, potentially leading to beneficial outcomes. Yet stigma experiences as a function of identification are rarely discussed under the sexual discordance framework. Additionally, the operationalization of discordance in bisexual-identified individuals seems to be problematic. For example, Gattis et al. (2012) categorized bisexual men who reported "only attracted to men" or "only had sex with men" into "homosexual concordant" group, ignoring the other-sex tendency in their sexual identification.

Therefore, the goal of the current study is to investigate the experience of sexual minority men[2] (i.e., stigma, identity concealment, and well-being) as a function of how they sexually identify themselves with a particular interest in one type of sexual discordance - men who identify as straight but report same-sex behaviors or attractions. We use the term *straight-identified sexual minority men* to represent men with such discordance. To investigate differences within sexual minority men, we took sexual discordance into consideration but also respecting individuals' self-reported labels when quantitatively categorizing our participants. While we are interested in the comparison between heterosexuals and sexual minorities, we also want to recognize the diversity within sexual minority men as it could provide insights on intragroup differences in experiences of stigma, concealment decisions, and well-being as a function of their sexual identification. We aim to understand group differences within sexual minority

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[2] Current study only focused on men because we tried to achieve satisfactory power in our statistical analyses under budget constraints. Future studies should also investigate the experiences of sexual minority women.

men – how different identifications of sexual minority men (i.e., gay, bisexual, and straight) are related to stigma experiences, identity concealment, and psychological well-being.

The current study is important for 1) constructing a quantitative model of whether and how the experience of stigma and identity concealment vary as a function of sexual identification in sexual minority men, and 2) understanding how different identifications of sexual minority men are related to well-being in comparison to heterosexuals and within sexual minority men. Previous studies have focused more on qualitatively describing the straight-identified sexual minority experiences (Savin-Williams, 2018; Savin-Williams & Vrangalova, 2013) or only focused on the behavioral discordance and health outcomes in straight-identified sexual minority men (Mustanski et al., 2014; Gattis et al). Results of the current study can provide further information about the effects of sexual identification, such that they will contribute to the current sexual discordance literature with regards to the role of the straight identification for those straight-identified sexual minority men compared to other sexual identifications in relations to stigma experiences, identity concealment, and psychological well-being.

Stigma against Sexual Minority Men

Stigma has been traditionally defined as "an attribute that is deeply discrediting" that reduces someone "from a whole and usual person to a tainted, discounted one" (Goffman, 1963, p. 3). The concept of stigma emphasized the interconnectedness among processes such as labeling, stereotyping, devaluation of an attribute/identity, discrimination, and alienation (Link & Phelan, 2001; Major & O'Brien, 2005). Stigmatized individuals are socially discredited usually because some of their characteristics or identities deviate from what is accepted as normal by the rest of the society. However, possessing a stigmatized identity or characteristic that is relatively concealable does not lead to immediate social discrediting, but presents a risk of such discrediting (Quinn et al., 2004). Sexual stigma, as conceptualized by Herek (2007), refers to the devaluation, discrimination, and alienation of any non-heterosexual attributes (i.e., identity, behaviors, and attractions). Sexual stigma is often represented by a commonly shared belief system by most members in a society that deems any non-heterosexuality inferior

to heterosexuality, legitimizing the exclusion and alienation of sexual minority populations. Herek (2007) has identified different types of stigma depending on the level of processes that are being studied (i.e., intrapersonal, interpersonal, institutional). In this paper, we investigated stigma on each level of processes (i.e., perceived stigma, enacted stigma, structural stigma, and internalized stigma) because each type of stigma might have different implications on sexual minority experiences in terms of concealment and well-being outcomes (Matsick et al., 2020).

Perceived stigma concerns the expected reaction of others and is therefore relevant for people with same-sex tendencies, who may or may not want to be open about their sexuality. Perceived stigma is often defined to include perceptions at an institutional and structural level with regard to how institutional policies influence and how the general public reacts to those with same-sex tendencies. It also includes an interpersonal level with regards to how others' attitudes and actions toward men with same-sex tendencies are (Herek, 2010). Such perception is not exclusive to sexual minorities. Virtually all members of society are aware that sexual minority people are stigmatized regardless of whether they personally endorse the view because sexual stigma is rooted in society's shared belief system (Herek, 2007), therefore straight people are also able to perceive stigma towards sexual minorities. However, for most straight individuals, sexual stigma tends to be salient only when sexual orientation becomes personally relevant (e.g., when they encounter a LGBT person). For sexual minorities, in contrast, such perceptions of sexual stigma are chronic (Meyer, 2003) as they are having ongoing appraisals of social situations for possible enactments of stigma (Herek et al., 2007). Therefore, we hypothesized that as targets of stigma, sexual minority groups are likely to be more sensitive to stigma towards sexual minorities, and we predicted that men with same-sex tendencies (i.e., gay, bisexual, or straight-identified sexual minority men) tend to perceive more stigma against sexual minorities than their straight counterparts. While we did not have strong hypotheses about differences in perceived stigma among the three sexual minority groups (i.e., gay, bisexual, or straight-identified sexual minority men), we speculated that bisexual and gay men would perceive more stigma than straight-identified sexual minority men because perceived stigma is inherently connected to lived experiences of marginalization (Herek et al., 2009) and the straight identification might protect

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straight-identified sexual minority men from being the targets of sexual stigma. However, an alternative hypothesis could be that straight-identified sexual minority men are as sensitive to sexual stigma as gay and bisexual men. Although not as directly targeted by sexual stigma, straight-identified sexual minority men may be able to relate to gay and bisexual men's lived experiences of marginalization as sexual stigma is also personally relevant to them. Thus, we conducted exploratory analyses on differences within the sexual minority groups.

H_{1a}: Men with same-sex tendencies (i.e., gay, bisexual, or straight-identified sexual minority men) will perceive more stigma against sexual minorities than straight men do because as targets of stigma, sexual minority groups are likely to be more sensitive to stigma toward their group.

H_{1b}: Straight-identified sexual minority men will perceive less stigma against sexual minorities than bisexual and gay men do because the straight identification might protect straight-identified sexual minority men from being the targets of sexual stigma.

Enacted stigma is defined as the lived experiences of prejudice, discrimination, and exclusion described by the stigmatized people[3] (Herek, 2007). Despite evidence showing increasing global acceptance of LGBT population in the past few years (Flores & Park, 2018), sexual minorities in the 21st century still encounter physical abuse, hate crimes, verbal aggressions, social rejections, and microaggresions in their everyday lives (Nadal et al., 2016). Over half of sexual minority population reported encountering verbal harassment and unfair treatment in a recent meta-analysis of victimization of sexual minorities (Katz-Wise & Hyde, 2012). The difference in enacted stigma as a function of sexual identification within sexual minority men has been documented in the literature. According to a 2013 Pew Research Center survey, when asked about six specific types of incidents – ranging from being subjected to slurs and jokes (the most common experience among all LGBT respondents) to being treated unfairly by an employer (the least common), bisexuals were significantly less likely than gay men to have experienced most of them. However, there are evidence showing that bisexual men potentially might

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[3] Enacted stigma, by definition, is an experience exclusive to sexual minorities. Therefore, the hypotheses here only focus on differences within sexual minority men.

encounter more stigma than gay men. Anderson and McCormack (2016) identified 11 distinct kinds of what they refer to as "bisexual burden" documented in the literature: bisexuals are stigmatized as (1) neurotic, (2) unable to love, (3) sex-crazed, (4) less capable of monogamy than those attracted to a single sex, (5) suffering from negative stereotypes about their identities from other sexual minorities, (6) confused about their sexual orientation, (7) seen as being within a transitional phase, (8) attention-seeking, (9) not being brave enough to fully come out, (10) accused of holding on to heterosexual privilege; yet, when they are in a relationship with the same-sex, and (11) perceived as gay. Such distinct bisexual burden might subject bisexual men to more enacted stigma from sexual majority than gay men. Furthermore, research on enacted stigma has often focused on people who self-labeled as gay or bisexual, thus the experiences of straight-identified sexual minority individuals are generally missing from the narrative. Compared to openly gay and bisexual men, the straight identification of straight-identified sexual minority men tends to make their same-sex tendencies even less visible to heterosexuals, thus protecting them from being targets of prejudice and discrimination from the heterosexuals. Therefore, we hypothesized that straight-identified sexual minority men would experience less enacted stigma than bisexual and gay men.

H_{2a1}: Gay men will report higher levels of enacted stigma from <u>sexual majority</u> than will bisexual men. This is because bisexuality may be more palatable to sexual majorities than strict homosexuality. An alternative hypothesis is that prejudice toward bisexuals will lead to higher levels of enacted stigma among bisexual men relative to gay men.

H_{2a2}: Gay and bisexual men will report higher levels of enacted stigma from <u>sexual majority</u> than will straight-identified sexual minority men. This is because their identification as gay or bisexual is likely to have exposed them to more unfair treatment and prejudice than straight-identified sexual minority men.

Most research considers enacted stigma as perpetrated by the majority group (e.g., heterosexuals), but recent studies confirm that stigma can also be enacted by members of sexual minority groups. For instance, bisexual men experience high rates of enacted stigma (e.g., being ignored, discriminated against,

demonized, or rendered invisible) by both heterosexuals and other sexual minorities (Brewster & Moradi, 2010; Roberts et al., 2015). One possible explanation for bisexual men's experience of enacted stigma from the sexual minority communities might derive from intracommunity stress (Pachankis et al., 2020), which is the idea that men with bisexual attractions may be viewed as "not gay enough," leading to exclusion from the mainstream gay community. Such enacted stigma is not exclusive to bisexual men. Gay men often use descriptive terms to identify and label other men within the wider mainstream gay community (e.g., bears, jocks, fems[4]), and these labels within the gay community often reflect standards of what attributes are desired with regards to masculinity, weight/body types, fashion sense (Feinstein & Dyar, 2017). Therefore, when bisexual men are negatively judged by other gay men, it might not be only because their bisexual identity, but also because of the way they present themselves. In this case, straight-identified sexual minority men would encounter the same type of enacted stigma from the mainstream gay community like bisexual men because they tend to behave in ways that might be deemed different from what are expected of men with same-sex tendencies in the mainstream gay community. Therefore, we predicted differences in enacted stigma from within the community among sexual minority men as below.

H_{2b}: Bisexual and straight-identified sexual minority men will report higher levels of enacted stigma from <u>sexual minorities</u> than will gay men. This is because bisexual and straight-identified sexual minority men may be viewed as not fitting into the stereotypical image of a man with same-sex tendencies.

Structural stigma is defined as the institutional policies, cultural norms, and other societal-level conditions that either intentionally restrict the opportunities of, or yield unintended consequences for stigmatized individuals (Corrigan et al., 2004; Hatzenbuehler & Link, 2014). Link and Phelan (2001) noted that such forms of stigma refer to the inequities and injustices inherent in social structures that

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[4] Characteristically, a bear is a large, possibly heavy gay man that could also be muscular. Jocks tend to almost always be considered attractive, muscular gay men with low body fat. Among the gay community, fem refers to gay men who demonstrate behaviors that are stereotypically associated with women.

restrict the means and freedoms of a specific population. With regards to sexual minority men, research

on structural stigma often relies on (1) measurement of social policies related to sexual minorities, (2)

community-level attitudes, and (3) neighborhood-level hate crimes (Hatzenbuehler, 2014). For example,

some state laws deny sexual minority individuals access to the same opportunities afforded to

heterosexuals, such as housing[5], thus serving to mark members of this group as less-than-equal (Eskridge

& Spedale, 2006). Similar to perceived stigma, we hypothesized that men with same-sex tendencies (i.e.,

straight-identified sexual minority, gay, bisexual) will report more structural stigma than straight men

because men with same-sex tendencies are targets of structural level stigma. It remains a question whether

there is an association between structural stigma and sexual identification within sexual minority men.

One possible hypothesis is that environments with high structural stigma force sexual minority men to

conceal their same-sex tendencies because identity concealment is a normative reaction to structural

stigma (Pachankis et al., 2007). And one way for sexual minority men to conceal their same-sex

tendencies, or the degree of their same-sex tendencies, is to maintain their straight identification in the

public view (Quinn et al., 2017). Therefore, people living in high structural stigma environments are more

likely to identify as straight-identified sexual minority. Hence, we predicted group differences in

structural stigma as below.

H_{3a}: Men with same-sex tendencies (i.e., straight-identified sexual minority, gay, bisexual) will

report more structural stigma than straight men.

H_{3b}: Among men with same-sex tendencies, straight-identified sexual minority men will report

higher structural stigma than gay and bisexual men - gay men will report the lowest. This is because

structural level stigma influences how people identify themselves, so that for men with same-sex

tendencies, they are more likely to identify as bisexual or gay if they live in places with low structural

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[5] As for March 2021, 21 states have no explicit prohibitions for discrimination in housing based on sexual orientation or gender identity in state law that protect LGBTQ people from being unfairly evicted, denied housing, or refused the ability to rent or buy housing.

stigma, while more likely to identify as straight-identified sexual minority if they live in places with high structural stigma.

Internalized stigma is defined as the internalization of negative attitudes and assumptions about the stigmatized attributes of a group by people who are members of the stigmatized group[6] (Herek et al., 2007). In the context of sexuality, internalized stigma is often called internalized homonegativity (Ross et al., 2013) (previously named internalized homophobia). The social-cognitive model of self-stigma (Watson et al., 2007) posits that people with stigmatized attributes internalize negative messages via a series of cognitive processes: stigma awareness, stigma agreement, and self-concurrence. Stigma awareness, or we previously refer to it as perceived stigma, occurs when an individual is exposed to and becomes aware of the societal devaluations about having same-sex tendencies. Subsequently, the individual decides, tacitly or deliberately, whether they agree or disagree with the societal assumptions. Stigma agreement occurs when an individual accepts the stigma as true and valid. The stigma then become personally relevant when their same-sex tendencies become salient in certain social interactions. If the individual agrees that these stigmas are true and comes to believe that they apply to themselves, "self-concurrence" takes place, leading to internalized stigma (Drapalski et al., 2013). Meyer and Dean (1998) have referred to internalized stigma as the most insidious of the minority stress processes in that, although it stems from heterosexist social attitudes, it can become self-generating and persist even when individuals are not experiencing direct external devaluation because the stigma no longer needs an external stimulus once internalization process completed. With regards to group differences within sexual minority men, bisexual individuals have been shown to experience more negative attitudes toward their own sexual orientation than lesbians and gay men (Balsam & Mohr, 2007; Cox et al., 2010). Experiences of anti-bisexual prejudice have also been associated with greater internalized negative attitudes toward one's own bisexual identity than gay men towards their gay identities (Dyar et al., 2019; Dyar, et al., 2017). One possible explanation for this is that bisexual men tend to be more concealed about their same-

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[6] Internalized stigma, by definition, is also an experience exclusive to sexual minorities. Therefore, the hypotheses here only focus on differences within sexual minority men.

sex tendencies than gay men (Schrimshaw et al., 2013), but such concealment does not keep them from getting exposed to negative social messages and attitudes against same-sex tendencies in their everyday social interactions. When interacting with others who have heterosexist views, being concealed often means to keep quiet or blend in during the conversation (Quinn et al., 2017). Such unchallenged exposure to heterosexist views makes it more likely bisexual men would agree with negative stereotypes about men with same-sex tendencies, thus internalizing them. In this case, straight-identified sexual minority men would be in an even worse situation than bisexual men with regards to internalized stigma as the group tend to be more concealed about their same-sex tendencies than bisexual and gay men (Savin-Williams, 2017). On the other hand, gay men who are generally more out about their same-sex tendencies, would typically subvert the negativity associated with same-sex tendencies and take pride in their identity in their coming out processes (Corrigan et al., 2013). Therefore, we predicted that bisexual and straight-identified sexual minority men would internalize more stigma than gay men.

H_4: Straight-identified sexual minority men will have more internalized stigma than bisexual and gay men – bisexual men internalize more stigma than gay men do because straight-identified sexual minority men tend to be more concealed about same-sex tendencies and thus, to receive more unchallenged exposure to negative social messages about same-sex tendencies, while gay men tend to more out about their same-sex tendencies, and thus to subvert the negativity associated with their identity[7].

Concealability and Concealment behaviors

The "coming out" process among sexual minority individuals has been the subject of much research interest and has been considered an important developmental milestone in the U.S. (Mustanski et al., 2014). In fact, past research on "coming out" tends to operationalize sexual orientation status as a concealable stigmatized identity, an identity that can be kept hidden from others to avoid social

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[7] An alternative causal direction for H4 is that internalized stigma influences how people identify themselves, so that men are more likely to identify as gay or bisexual if they internalize less stigma against same-sex tendencies, while more likely to identify as straight-identified sexual minority if they internalize more stigma.

devaluation (Crocker et al., 1998; Quinn & Chaudoir, 2009). Yet there is evidence showing that for some queer men, sexual orientation is less concealable and more visible in social interactions with others (Rule, 2017). Ambady et al. (1999) found that still frames of video of gay and straight individuals allowed others to discern their sexual orientation at rates significantly greater than chance guessing. Additionally, one of the most prolific areas of contemporary research on nonverbal cues related to sexual orientation involves differences in speech. Van Borsel et al. (2009) found gay men more likely to lisp than straight men. Although Munson (2010) raised issues with their design, other studies (e.g., Mack & Munson, 2012; Van Borsel & Van de Putte, 2014) concur that people at least show high consensus about the perception that gay men lisp more than straight men do. However, Ding and Rule (2012) found that perceivers could reliably categorize gay and straight men based on facial features but could not accurately distinguish bisexual men. Thus, we suspect that either due to nature or nurture, it is easier for some sexual minority men to present themselves more in line with norms for heterosexuality, therefore higher concealability. In the current study, we define *concealability* as the ability of men with same-sex tendencies to pass as completely straight when interacting with others (i.e., for their presumed heterosexuality to not be questioned). We predicted group differences in concealability among sexual minority men as a function of sexual identification.

H_5: Straight-identified sexual minority and bisexual men will have higher concealability than gay men. This is because either due to nature or nurture, straight-identified sexual minority men, and perhaps to a somewhat lesser degree, bisexual men, will tend to behave more in line with norms for masculinity/heterosexuality[8].

Decisions about identity concealment and disclosure are central to the experiences of many sexual minorities. In past research, identity concealment has been understood as using strategies such as lying and/or evasion to keep people from learning about one's important identities (Ilic et al., 2014).

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[8] An alternative explanation for H5 is that concealability influences how people identify themselves, so that men with same-sex tendencies are more likely to identify as gay if they are low in concealability, while more likely to identify as bisexual or straight-identified sexual minority if they are high in concealability.

People who disclose a stigmatized group membership can be exposed to discrimination, bias, or negative stereotypes (Goffman, 1963; Jones et al., 1984). Individual decisions to conceal are thus reactions to structural stigma (Pachankis et al., 2007; Quinn et al., 2017). However, there is enormous variability among sexual minority individuals in their patterns of disclosure. For example, men who are generally concealed might disclose in response to accepting and friendly environmental cues in a given social interaction, and men who are generally out would still conceal in response to stigmatizing environmental cues in a given social interaction. This suggests potential group differences in responsiveness to interpersonal and environmental cues of acceptance or rejection. In other words, such decisions to conceal or disclose could also be reactions to social cues during social interactions as a function of individuals' sexual identification.

It is also worth mentioning that research on concealment often measures concealment behaviors in a unidimensional fashion that focus on general frequency of a behavior (Pachankis et al., 2020). An example item from such measure would be "how often do you avoid talking about topics related to or otherwise indicating your sexual orientation" (Meidlinger & Hope, 2014). While such items are useful in measuring the overall level of concealment of an individual, they overlook the possibility that some concealment behaviors are more dependent on social and environmental cues while others are more invariant across social interactions. For example, in some social situations more than others, a gay man may choose to present themselves in a way that is more in line with the masculine norms. This concealment behavior is qualitatively different than the one where a straight-identified sexual minority men choose to present themselves in a masculine way on a daily basis. Such differentiation in different concealment behaviors is crucial in studying identity concealment as both ongoing decisions that can vary across situations and trait-like lifestyle choices that tend to be less variant. The differentiation enables us to study concealment patterns that can be difficult to measure. Therefore, besides measuring the overall level of concealment, we also measured and categorized concealment behaviors into two main categories: 1) situational concealment behavior that potentially varies across social contexts; 2) lifestyle concealment that occurs consistently through everyday life (e.g., ongoing interests and hobbies). As we previously

hypothesized, bisexual and straight-identified sexual minority men tend to be more concealed about their same-sex tendencies, thus they should exhibit more lifestyle concealment behaviors that are invariant across situations. We predict that gay men, who tend to be lower on concealability, are more sensitive to stigmatizing environmental cues, and will, thus, exhibit more situational concealment behaviors. Therefore, in the current study, we predicted group differences in these two types of concealment behaviors among sexual minority men as a function of sexual identification.

H_{6a}: Gay men will report more situational concealment behavior than bisexual and straight-identified sexual minority men. This is because gay men may wish to conceal in some interactions more than others, whereas bisexual and straight-identified sexual minority men may be more concealed across their social interactions.

H_{6b}: Bisexual and straight-identified sexual minority men will report more lifestyle concealment than gay men. This is because straight-identified sexual minority and bisexual men consciously or unconsciously, adopt norms from heterosexual cultures, and thus are less willing to be associated with stereotypically gay-related interests or activities.

H_{6c}: People in general who are high in concealability will follow the pattern of straight-identified sexual minoritys described in H6a and H6b that they tend to have less situational concealment behavior and more lifestyle concealment than those who are low in concealability.

Disparities in Well-being

Disparities in social status often lead to health inequality (Hatzenbuehler et al., 2013; Major et al., 2013; Richman & Hatzenbuehler, 2014). For instance, a recent meta-analytic report showed that stigmatized groups report more depression than those who are not stigmatized when it comes to race, gender, socioeconomic status, and sexual orientation (Cox et al., 2012). As Ross and Rosser (1996) and Currie et al. (2004) note, stigma has a central role in working with health-related risk factors of sexual minority populations, especially men. An increasing body of research shows large mental health disparities between sexual minorities as compared with heterosexual individuals (Meyer, 2003; for a

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review, see Ploderl & Tremblay, 2015) In particular, lesbian, gay and bisexual (LGB) youths have a greater risk for suicide attempts than non-LGB youths and higher prevalence of depression and anxiety diagnoses (Cochran et al., 2003; Wichstrom et al., 2003). Earlier studies have found that sexual minorities are between 1.4 and 4 times more likely to have a lifetime history of mental disorder when compared with heterosexuals (King et al., 2008). Sexual orientation health disparities have largely been explained through minority stress theory, which describes the excess stress that LGB individuals experience when compared with heterosexual individuals by virtue of their stigmatized sexual orientation (Meyer, 2003). This minority stress, in the form of prejudice, discrimination, sexual orientation concealment, expectations of rejection and internalized stigma, additively combines with general life stress to confer adverse health outcomes. In addition to the higher exposure to stressors, the minority stress model also describes stress–ameliorating factors such as social support, which can reduce the impact of minority stressors. Several recent studies have shown associations between low quality of social support and mental health problems among LGB individuals (Mustanski & Liu, 2013; Hatzenbuehler et al., 2009). Consistent with previous findings on sexual orientation disparities in psychological well-being, we predicted the difference in our study as below.

H_{7a}: Straight men will report higher perceived social support, less loneliness, higher life satisfaction and more social integration than do men with same-sex tendencies (i.e., gay, bisexual and straight-identified sexual minority men). This is because men with same-sex tendencies experience more stigma due to same-sex tendencies than do completely straight men.

Only recently have researchers begun to examine the potential mental health differences between gay and bisexual men. Although not all (Balsam, et al., 2005; Kertzner, Meyer et al., 2009), a substantial number of studies have documented that men with bisexual tendencies (variously defined by identity, behavior, or attractions, therefore some sample also included straight-identified sexual minority men) are at greater risk for mental illness than gay men (Bostwick et al., 2010; Conron et al., 2010; Mills et al., 2004; Paul et al., 2002; Robin et al., 2002; Warner et al., 2004). One potential explanation is that bisexual and straight-identified sexual minority men are less likely to disclose, and more likely to conceal their

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same-sex tendencies, exposing them to greater stress and personal conflict (Balsam & Mohr, 2007; Lewis, Derlega, Brown, Rose, & Henson, 2009; Rosario, Schrimshaw, & Hunter, 2008; Wheeler et al., 2008). Theories of sexual identity development (Cass, 1979) or the "coming out process" (Corrigan & Matthews, 2003; Rosario et al., 2001) have emphasized the benefits of disclosure on health and well-being. Likewise, minority stress model (Meyer, 2003) and related theories focused on concealment of sexual orientation (Pachankis, 2007) have posited that concealment of sexual orientation may have detrimental effects on mental health. While identity concealment allows some sexual minority individuals to "pass" as heterosexual, potentially escaping discrimination, concealment itself can be stressful, as people need to continually track who knows what and may worry about discovery (Ryan et al., 2015). Additionally, as gay men are generally more "out", they may also be more likely to participate in the sexual minority community, which can help them to cultivate a unique and important source of social support (Doty et al., 2010). As for straight-identified sexual minority men, we suspected that the protective effects of the straight identification of straight-identified sexual minority men can reduce stigma experiences, leading to more favorable outcomes than bisexual men. Thus, we predicted group differences among sexual minority men in psychological well-being as below.

H_{7b1}: Gay men will report higher perceived social support, less loneliness, and more social integration than do bisexual and straight-identified sexual minority men. This is because bisexual and straight-identified sexual minority men are generally more concealed and less likely to disclose their same-sex tendencies, thus being less integrated with sexual minority communities than gay men.

H_{7b2}: Straight-identified sexual minority men will report higher perceived social support, less loneliness, and more social integration than do bisexual men. This is because the protective effects of the straight identification of straight-identified sexual minority men might reduce the stigma experiences.

Researchers have also hypothesized that broader structural forms of stigma (i.e., structural stigma) are likely fundamental contributors to unequal health outcomes between members of stigmatized and non-stigmatized groups (Link et al., 2004), and a burgeoning line of cross-sectional research has begun to support this hypothesis (e.g., Hatzenbuehler et al., 2009; Hatzenbuehler, 2010; Lucachko et al.,

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2013; Miller et al., 2012). In an early example of the work on the effect structural stigma on health disparities in sexual minority populations, Hatzenbuehler et al. (2009) coded all 50 states for the presence or absence of hate crime statutes and employment nondiscrimination policies that included sexual orientation as a protected class (the measure of structural stigma). They found that sexual orientation disparities in psychiatric morbidity were more pronounced in high structural stigma states than in low structural stigma states. Complementing these observational studies are quasi-experimental designs. During 2004, several states passed constitutional amendments banning same-sex marriage. Hatzenbuehler et al. (2010) found that sexual minority adults who lived in states that passed same-sex marriage bans experienced a 37% increase in mood disorders and a 248% increase in generalized anxiety disorders between the two waves from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC). Therefore, taken together with our hypotheses on the well-being disparity as a function of sexual identification, we predicted an interaction effect between sexual identification and structural stigma on health and well-being as below.

H_{7c}: The social environment that men with same-sex tendencies live in and how men with same-sex tendencies identify themselves influence their psychological well-being. For those who live in places where structural stigma is high, being straight-identified sexual minority will lead to higher social integration into the larger community than identifying as gay or bisexual. This is because the straight identification can help these individuals to avoid becoming the targets of stigma. For those who live in LGBT friendly places where structural stigma is low, identifying as gay or bisexual will lead to higher social integration into the community than being straight-identified sexual minority. This is because identifying as gay or bisexual can help these individuals access community resources for sexual minorities.

METHODS

Participants

Participants ($N = 602$) were cisgender men, recruited from Prolific Academic (http://prolific.ac). They took part in this cross-sectional survey in return for a payment of 1.68 US dollars at an average payment rate of 6 US dollars per hour. We targeted participants aged from 18 to 30 years ($M = 24.20$ years, $SD = 3.73$). The sample was diverse in racial and ethnic background (White 57.1%, Black/African American 11.5%, Asian/Asian-American 15.6%, Hispanic/Latino, 9%, Native American 1%, Mixed race 5.8%). Prolific Academic's 'country of origin' filter was used, such that only individuals residing in the United States could participate. Overall, participants in this sample were slightly left-wing ($M = 31.67$, $SD = 26.38$) in their political ideology, somewhat not religious ($M = 25.31$, $SD = 31.59$), and identified as middle class ($M = 5.91$, $SD = 1.76$) on the MacArthur Scale of Subjective Social Status[9] (Adler et al., 2000).

Participants' sexual identification was determined based on participants' responses to items on sexual attractions, behaviors, and self-reported sexual identification. For self-reported sexual identification, participants chose the option that best described their current identification: Straight/Heterosexual ($N = 384$); Bisexual ($N = 58$); Gay ($N = 126$); Pansexual ($N = 24$); Demisexual ($N = 3$); Uncertain, don't know for sure ($N = 3$); Something else, please specify ($N = 4$). We categorized participants as bisexual ($N = 58$) and gay ($N = 126$) based on their self-reported sexual identification. We categorized participants as "straight-identified sexual minority" ($N = 162$) if they identified as straight but reported same-sex attractions above the scale midpoint or reported recent same-sex behaviors. People who self-labeled as pansexual were categorized as bisexual in the analyses. For participants who self-labeled as demisexual, uncertain, or other, their sexual identification was determined based on sexual attractions and behaviors: five participants reported no same-sex tendencies, they were categorized as straight; three participants reported no other-sex tendencies, they were categorized as gay; two participants reported both other-sex and same-sex tendencies, they were categorized as bisexual. As a

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[9] Political ideology was measured with a slider question ranged from 0 (*very left-wing*) to 100 (*very right-wing*). Religiosity was measured with a slider question ranged from 0 (*not at all religious*) to 100 (*very religious*). Socioeconomic status was measured with the MacArthur Scale of Subjective Social Status from 1 to 10.

result, in our analyses, 227 participants were categorized as straight, 162 participants were categorized as straight-identified sexual minority, 84 participants were categorized as bisexual, and 129 participants were categorized as gay.

Procedures

Part of our target population can be reticent to consider participation because they are concealing their same-sex tendencies. Thus, we advertised the research accurately, but broadly, as a study about interpersonal relationships and attractions (rather than emphasizing our interest in non-heterosexuality). To reach men who have same-sex tendencies but do not necessarily identify with a sexual minority identification (i.e., gay, bisexual, pansexual, etc.), we first ran a screening survey with 1,000 cisgender men living in the United State and invited 179 straight-identified participants among them who reported meaningful same-sex attractions (above 50 in a 0-100 slider question) or recent same-sex behaviors to the main study survey. Prolific Academic's 'sexual orientation' filter was also used together with the screening survey to get roughly equal numbers of participants who identified as exclusively straight, straight but with same-sex attractions or behaviors, bisexual, and gay.

After consenting to participate, participants answered questions related to psychological well-being (e.g., life satisfaction, feeling of loneliness, perceived social support, and community integration), as well as questions adapted from other research assessing sexual identities, attractions, and behaviors. Participants were then directed to one of two branches of similar length based on their responses to questions related to sexuality. The first branch was for participants who had reported any form of same-sex tendencies (same-sex attraction, behavior or identity). They were presented with self-report measures assessing stigma and concealment of same-sex tendencies. The second branch was for exclusively straight participants, who were randomly assigned to one of four conditions in an exploratory vignette experiment. Last, all participants were asked questions related to physical health and health behaviors[10] (e.g., drinking,

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[10] Currently analyses only focus on psychological well-being as the main outcome. Future analyses will also investigate the effect of sexual identification on physical health and health behaviors.

smoking, safe sex practices). This study was approved by Penn State University's Institutional Review Board.

Measures

Measures are presented in the order in which participants saw them.

Life Satisfaction was measured with one author-generated slider question anchored from 0 (*very dissatisfied*) to 10 (*very satisfied*). Participants were presented with a slider and instruction "Please use the slider below to indicate how satisfied you are with your life in general".

Loneliness was measured with the 3-item *UCLA Loneliness Scale* (Hughes et al., 2004) on a five-point Likert scale, $\alpha = .86$. Items are "how often do you feel that you lack companionship", "how often do you feel left out", and "how often do you feel isolated from others". Participants were asked to indicate the frequency of which they experienced these situations from 1 (*hardly ever*) to 5 (*most of the time*).

Community Integration was measured with four items adapted from Harder et al. (2018) on a five-point Likert scale, $\alpha = .76$. Participants were asked to rate how connected they felt with the communities where they work or go to school, and how connected they felt with the communities where they live from 1 (*I do not feel a connection at all*) to 5 (*I feel an extremely close connection*)

Perceived social support was measured with three items adapted from Zimet et al. (1988), aiming to measure social support received from three aspects of participants life (i.e., a special person, family, and friends), $\alpha = .71$. Items are "There is a special person who is around when I am in need", "I can talk about my problems with my family", "I can talk about my problems with my friends". Participants were asked to indicate the degree to which they agreed with the statements on a five-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*).

Sexual attractions were measured with sliders questions anchored from 0 (*not at all*) to 100 (*very much*). Participants were presented with a slider and instruction "Please use the slider below to indicate the degree to which you feel sexually attracted to other men". In addition to same-sex attractions, we also asked participants to indicate the degree to which they felt sexually attracted to women.

Recent same-sex sexual behaviors were measured in two steps - first we asked about recent sexual behavior and then we asked about same sex. Fenten et al. (2001) found that incidence reports (whether the individual engaged in sexual behavior) were generally more reliably reported than frequency reports (for example, number of partners, frequency of sex), and that longer recall intervals over a year often resulted in either underreporting or inaccurate recall of sexual practices and partners (Catania et al., 1990). Since COVID-19 outbreak has greatly decreased people's frequencies of social interaction and limited opportunities for sexual encounters (Saladino et al., 2020), we defined "recent sexual behavior" as behaviors occurred six months before the pandemic started in the U.S. because the study took place during the COVID-19 pandemic. First, we asked participants if they were sexually active in the six months before the COVID-19 pandemic started in the U.S. (Sep. 2019 - Feb. 2020). If they answered yes, we then asked if they at least once consensually engage in same-sex sexual behavior (including but not limited to intercourse, oral sex, non-penetrative sex) in the six months before the COVID-19 pandemic started in the U.S. (Sep. 2019 - Feb. 2020).

Enacted stigma was measured from two perspectives – stigma from heterosexual, and stigma from within the sexual minority community. Four items concerning enacted stigma from heterosexuals were adapted from Molina et al. (2013) and Rao et al. (2009), $\alpha = .81$. Example items are "I have been made fun of or called names by straight people because of my same-sex tendencies", "I have been rejected by my straight friends because I told them or they found out about my same-sex tendencies." Three items concerning enacted stigma from within the sexual minority communities were inspired the *Intracommunity Stress Scale* developed by Pachankis et al. (2020), $\alpha = .83$. Example items are "I have been negatively judged or made fun of by sexual minority people because I don't fit into the stereotypical image of a man with same-sex tendencies", "I have been negatively judged or made fun of by sexual minority people because of how I sexually identified myself (e.g., straight, bisexual, gay, etc.)." Participants were asked to indicate the frequency of which they experienced these situations from 1 (*never*) to 5 (*very frequently*).

Internalized stigma was measured with seven items adapted from the short version of the *Internalized Homo-Negativity Scale* (Tran et al., 2017) on a five-point Likert Scale, $\alpha = .77$. The scale aimed to measure the three components of internalized stigma - social comfort with men with same-sex tendencies (e.g., "Being around effeminate men makes me feel uncomfortable."), public identification as men with same-sex tendencies (e.g., "I feel comfortable discussing topics related to same-sex tendencies in a public situation"), and personal comfort with identification as a man with same-sex tendencies (e.g., "Same-sex attractions or behaviors are morally acceptable to me."). Participants were asked to indicate the degree to which they agreed with the statements from 1 (*strongly disagree*) to 5 (*strongly agree*).

Concealability was measured with a slider question anchored from 0 (*not at all easy*) to 100 (*very easy*). Participants were asked to use the slider to indicate generally how easy it was (or would be) for them to pass as a straight man without same-sex tendencies.

Overall level of outness and concealment was measured with 10 items adapted from *Nebraska Outness Scale* (Meidlinger & Hope, 2014) with two subscales, overall disclosure/outness ($\alpha = .86$), and general tendency to conceal ($\alpha = .82$). This scale assessed outness and concealment as separate constructs. For the outness subscale, participants were asked to provide an estimate percentage of people in their social circles (e.g., immediate family, extended family, people at their work/school, etc.) who they thought were aware of their same-sex tendencies. For the concealment subscale, participants were asked to indicate the frequency of which they avoided discussing topics related to sexual minority populations or indicating their same-sex tendencies when interacting with members from their different social circle. All responses were given on sliders. For the outness subscale the slider was anchored from 0 (*None of them*) to 100 (*All of them*), and for the concealment subscale, it was anchored from 0 (*Never avoid*) to 100 (*Always avoid*).

Concealment behaviors were measured with fourteen author-generated items with two subscales – six items for situational concealment behaviors ($\alpha = .65$) and eight items for lifestyle concealment behaviors ($\alpha = .68$). Since the reliability analyses only showed acceptable reliability coefficients, one item

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from the situational concealment subscale and two items from the lifestyle concealment behaviors were dropped to achieve higher reliability of the scale. After adjustments, reliability increased for both subscales (situational concealment, $\alpha = .68$; lifestyle concealment, $\alpha = .73$). Examples from the remaining five items of situational concealment behaviors are "When interacting with certain people, I use a more masculine tone or way of talking than I do with others", "I don't correct people in a conversation if they assume I'm exclusively attracted to women". Examples from the remaining six items of lifestyle concealment behaviors are "In general, I dress in a way that is consistent with heterosexual norms for men", "Most of my interests and hobbies are consistent with norms of masculinity", "In general, I avoid posting photos that could identify me (e.g., face pics) on apps that I use to meet other guys". Participants were asked to indicate how well each statement describes them on a five-point Likert scale from 1 (*Not at all characteristic of me*) to 5 (*Completely characteristic of me*).

Structural stigma was operationalized with a question regarding the visibility of the support for sexual minority in participants' communities, which we used to infer community-level attitudes toward sexual minority population - "In the community where you typically work and live, how often do you see signs or displays that show support for sexual minority population (e.g., rainbow flags, safe place sign, etc.)?" Participants responded on a five-point Likert scale from 1 (*all the time*) to 5 (*not at all*). Higher score means higher structural stigma.

Perceived stigma was measured with four items, of which two items are adapted from King et al. (2007). The first two item - "The general public in the United States is understanding and accepting of sexual minority people", "Generally, things are going a lot better for sexual minority people in the United States in the past few decades" are general positively framed statements on perceived stigma. Participants were asked to indicate the degree to which they agree with the statements from 1 (*strongly disagree*) to 5 (*strongly agree*). The other two items - "I have seen or heard sexual minority people being made fun of or called names by others", "I have seen or heard sexual minority people being treated unfairly by others" were author-generated to measure participants' perception of stigma enacted on others. Participants were asked to indicate the frequency of which they experienced these incidents from 1 (*never*) to 5 (*most of the*

time). The scale overall only showed an acceptable reliability coefficient ($\alpha = .62$). Therefore, we

conducted a principal component analysis with varimax rotation, and it showed that there are two

components with eigenvalues larger than one in the scale as expected (Table 1.2). The first two items

employed general statements to measure perceived stigma on a structural level, while the last two items

measured lived experiences on perceived stigma enacted on others.

Table 1
Principal Component Analysis with Varimax Rotation – Perceived Stigma

Items	Components	
	1	2
The general public in the United States is understanding and accepting of sexual minority people[a].	0.276	0.743
Generally, things are going a lot better for sexual minority people in the United States in the past few decades[a].	-0.057	0.864
I have seen or heard sexual minority people being made fun of or called names by others.	0.921	0.086
I have seen or heard sexual minority people being treated unfairly by others.	0.914	0.11
Eigenvalue	1.764	1.319
Percent variance	44.093	32.97
Cumulative variance	44.093	77.062

Note. $N = 602$.
[a]. Items are reversely coded.

RESULTS

Covariates

While the focus of our research is to study the effect of sexual identification on stigma,

concealment, and well-being, there are other known factors that could have influenced these outcomes.

Adding covariates can greatly improve the accuracy of our models and reduce errors.

We observed that the participants in our sample differ in other dimensions (Table 2). Specially,

straight-identified sexual minority men are significantly more religious and politically conservative than

bisexual and gay men. Gay and bisexual men are significantly more out than straight-identified sexual

minority men. Whether this is a sampling issue or representative of sexual minority population is unclear from this study, thus, we aim to control these differences and entered them as covariates in our models.

As we have preregistered, the general strategy for selecting covariates into the analytical models was determined empirically based on a correlation matrix among potential covariates and outcome variables. In our sample, seven covariates were significantly correlated with at least one key outcome variable of interest in our model: socioeconomic status (SES), political ideology, religiosity, age, race, overall level of outness, and overall level of concealment (Table 4). Specifically, people with higher perceived stigma tended to be higher in SES, $r(600) = .09$, $p = .034$, and more left-wing, $r(600) = -.28$, $p < .001$. People who experienced more stigma from the sexual majority tended to be older, $r(373) = .14$, $p = .006$, lower in SES, $r(373) = -.11$, $p = .033$, and generally more out about their same-sex tendencies, $r(373) = .38$, $p < .001$. People who experienced more stigma from other sexual minorities tended to be lower in SES, $r(373) = -.15$, $p = .005$, more right-wing, $r(373) = .25$, $p < .001$, more religious, $r(373) = .18$, $p = .001$, more likely to be racial minorities, $r(373) = -.21$, $p < .001$, and generally more out about their same-sex tendencies, $r(373) = .23$, $p < .001$. People who reported higher structural stigma tended to be younger, $r(600) = .09$, $p = .021$, higher in SES, $r(600) = -.18$, $p < .001$, more likely to be racial minorities, $r(600) = -.11$, $p = .007$, generally less out, $r(373) = -.24$, $p < .001$, and more concealed about their same-sex tendencies, $r(373) = .22$, $p < .001$. People who reported higher internalized stigma tended to be more right-wing, $r(373) = .36$, $p < .001$, more religious, $r(373) = .34$, $p < .001$, generally less out, $r(373) = -.13$, $p = .011$, and more concealed about their same-sex tendencies, $r(373) = .30$, $p < .001$. People who reported higher concealability are more likely to be white, $r(373) = .13$, $p = .011$, generally less out, $r(373) = -.35$, $p < .001$, and more concealed about their

Table 2

Descriptive Statistics of Covariates by Men's Sexual Identification

Sexual Identification	Age		SES		Political ideology***		Religiosity***		Race*		Overall outness$^\Delta$***		Overall concealment$^\Delta$	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Straight-Identified Heterosexual[a]	23.99	3.76	5.79	1.84	39.55[bcd]	24.67	29.62[cd]	33.89	0.51[bd]	0.50				
Straight-Identified Sexual Minority[b]	24.40	3.63	5.84	1.69	32.06[acd]	26.87	28.91[cd]	32.25	0.65[ac]	0.48	22.43[cd]	24.05	62.61	24.92
Bisexual[c]	23.74	3.36	6.24	1.66	19.86[ab]	21.89	16.77[ab]	23.52	0.54[bd]	0.50	30.78[bd]	22.84	58.55	26.98
Gay[d]	24.43	3.52	5.98	1.75	24.98[ab]	26.96	18.75[ab]	29.15	0.61[ac]	0.49	48.02[bc]	25.53	57.07	23.19

Note. $N = 602$. *M* = Estimated marginal means. *SD* = Standard deviation of the means. Unless otherwise noted, higher values indicate a greater amount of the construct. SES (socioeconomic status) was measured from 0 to 10. Race was coded as 0 = racial minority, 1 = non-Hispanic white. Political ideology, religiosity, overall outness, and overall concealment was measured from 0 to 100. Higher scores on political ideology indicate more right-wing. Differences in superscripts next to means indicate a Bonferroni-adjusted difference at $\alpha = .05$ between the sexual identification in a given row and the sexual identification in the same column with a different superscript.

$^\Delta N = 375$ for overall outness and overall concealment, as the constructs do not apply to straight-identified heterosexual participants.

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

Table 3

Inter-Correlations among Covariates

Covariates	M	SD	1	2	3	4	5	6
1. Age	24.16	3.62						
2. SES	5.91	1.76	-.02					
3. Political ideology	31.67	26.38	.00	-.16**				
4. Religiosity	25.31	31.59	.08*	-.15**	.41**			
5. Race	0.57	0.50	.12**	.00	-.07	-.13**		
6. Overall outness$^\Delta$	33.10	26.74	.20**	-.18***	-.01	.10	.13*	
7. Overall concealment$^\Delta$	59.79	24.89	-.12**	.19**	.15**	.02	-.09	-.37***

Note. $N = 602$. M = Arithmetic means. SD = Standard deviation of the means. Unless otherwise noted, higher values indicate a greater amount of the construct. SES (socioeconomic status) was measured from 0 to 10. Race was coded as 0 = racial minority, 1 = non-Hispanic white. Political ideology, religiosity, overall outness, and overall concealment were measured from 0 to 100. Higher scores on political ideology indicate more right-wing.

$^\Delta N = 375$ for overall outness and overall concealment, as the constructs do not apply to straight-identified heterosexual participants.

$^*p < .05$, $^{**}p < .01$, $^{***}p < .001$

Table 4

Descriptive Statistics of Outcome Variables and Correlations between Covariates and Outcome Variables

Variable names	M	SD	Age	SES	Political Ideology	Religiosity	Race	Overall outness△	Overall concealment△
Perceived stigma	2.70	0.67	.01	.09*	-.29***	-.03	-.08	-.03	.08
Enacted stigma from sexual majority△	1.73	0.76	.14**	-.11*	.10	.10	-.06	.38***	-.07
Enacted stigma from sexual minorities△	1.65	0.84	.08	-.15*	.25***	.18**	-.21***	.23***	.03
Structural stigma	3.47	1.06	-.09*	.18**	.08	-.06	-.11**	-.24***	.22***
Internalized stigma△	2.08	0.77	.09	-.09	.36***	.34***	-.09	-.13*	.30***
Concealability△	78.19	26.37	-.06	.05	.01	-.09	.13*	-.35***	.14**
Situational concealment behaviors△	2.66	0.78	.04	.03	.24***	.22**	-.12*	-.30***	.38***
Lifestyle concealment behaviors△	2.57	0.83	.06	-.02	.34***	.18**	-.05	-.25***	.31***
Life Satisfaction	5.61	2.62	.02	-.50***	.28***	.26***	.00	.23***	-.15**
Loneliness	2.60	1.09	-.07	.25***	-.13**	-.06	-.01	-.19***	.20***
Community integration	2.72	0.82	.09*	-.38***	.14	.16***	.03	.29***	-.26***
Perceived social support	3.41	0.99	.12**	-.25***	.06	.06	.19***	.37***	-.24***

Notes. $N = 602$. M = Arithmetic means. SD = Standard deviation of the means. Unless otherwise noted, higher values indicate a greater amount of the construct. Concealability was measured from 0 to 100. Life satisfaction was measured from 1 to 10. All other constructs were measured on 5-point scales.

△$N = 375$ for these constructs as they do not apply to straight-identified heterosexual participants.

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

same-sex tendencies, $r(373) = .14$, $p = .005$. People who reported more frequent situational concealment

behaviors tended to be more right-wing, $r(373) = .24$, $p < .001$, more religious, $r(373) = .22$, $p < .001$,

more likely to be racial minorities, $r(373) = -.12$, $p = .017$, generally less out, $r(373) = -.30$, $p < .001$, and

more concealed about their same-sex tendencies, $r(373) = .38$, $p < .001$. People who reported more

frequent lifestyle concealment behaviors also tended to be more right-wing, $r(373) = .34$, $p < .001$, more

religious, $r(373) = .17$, $p = .001$, generally less out, $r(373) = -.25$, $p < .001$, and more concealed about

their same-sex tendencies, $r(373) = .31$, $p < .001$. People who reported higher life satisfaction tended to

be lower in SES, $r(600) = -.50$, $p < .001$, more right-wing, $r(600) = .28$, $p < .001$, more religious, $r(600)$

$= .26$, $p < .001$, generally more out, $r(373) = .23$, $p < .001$, and less concealed about their same-sex

tendencies, $r(373) = -.15$, $p = .003$. People who reported higher loneliness tended to be higher in SES,

$r(600) = .25$, $p < .001$, more left-wing, $r(600) = -.13$, $p = .001$, generally less out, $r(373) = -.19$, $p < .001$,

and more concealed about their same-sex tendencies, $r(373) = .20$, $p < .001$. People who were more

integrated into their communities tended to be older, $r(600) = .09$, $p = .036$, lower in SES, $r(600) = -.38$, p

$< .001$, more religious, $r(600) = .16$, $p < .001$, generally more out, $r(373) = .29$, $p < .001$, and less

concealed about their same-sex tendencies, $r(373) = -.26$, $p < .001$. People who perceived more social

support tended to be older, $r(600) = .12$, $p = .003$, lower in SES, $r(600) = -.25$, $p < .001$, more likely to be

white, $r(600) = .19$, $p < .001$, generally more out, $r(373) = .37$, $p < .001$, and less concealed about their

same-sex tendencies, $r(373) = -.24$, $p < .001$. Therefore, we controlled for SES, political ideology,

religiosity, age, race in all our models. Overall level of outness and concealment are entered as covariates

only in models that omit straight men.

Analytic Plan

The general analytic plan was to run a series of ANCOVAS where our primary interest was in

one or more of a set of planned orthogonal contrasts that tests our preregistered hypotheses (for all pre-

registered hypotheses, see https://osf.io/kbxrn/). Contrast analysis is a powerful and direct way to test

hypotheses of interest (Rosnow et al., 2000). The specific contrasts specified varied from model to model

but were always orthogonal and described at the beginning of each section. When additional exploratory

analyses were conducted, they were noted, including when additional comparisons were made that were

not included in the set of orthogonal contrasts.

Perceived Stigma

Perceived sigma was measured on a 5-point Likert scale from 1 to 5, with higher levels indicating

greater perception of stigma. Overall, participants perceived a moderate level of stigma against sexual

minorities (M = 2.70, SD = .67). A one-way ANCOVA (Table 5) was conducted to test the effect of

sexual identification on perceived stigma controlling for SES, political ideology, religiosity, age, and race.

To test our hypotheses on the group differences in perceived stigma, we specified three orthogonal

contrasts to represent the four levels of sexual identification: a) straight men (coded as 3) versus men with

same-sex tendencies (straight-identified sexual minority men coded as -1, bisexual men coded as -1, gay

men coded as -1); b) straight-identified sexual minority men (coded as 2) versus gay (coded as -1) and

bisexual men (coded as -1); c) bisexual men (coded as 1) versus gay men (coded as -1). Contrast analyses

revealed that straight men perceived marginally less stigma against sexual minorities than men with same-

sex tendencies in the United States, $t(593)$ = -1.89, p = .060, η_p^2 = .006. There were no significant

differences observed between straight-identified sexual minority men versus bisexual and gay men, $t(593)$

= 0.35, p = .724, η_p^2 = .0002 and between bisexual and gay men, $t(593)$ = 0.29, p = .77, η_p^2 = .0001.

Table 5
Summary of ANCOVA Models Predicting Perceived Stigma and Its two subscales

Dependent Variables		B	SE	95% CI		p	R^2/η_p^2	F
Perceived Stigma - Full Scale	Overall Model	-	-	-	-	< .001	.102	8.416
	Constant	2.831	.210	2.419	3.244	< .001		
	Age	.002	.007	-.013	.016	.807		
	SES	.019	.015	-.011	.048	.207		
	Political Ideology	-.008	.001	-.010	-.005	< .001		
	Religiosity	.002	.001	.000	.004	.040		
	Race	-.131	.054	-.237	-.026	.015		
	Identification	-	-	-	-	.261	.007	1.340
	Contrast 1	-.106	.056	-.217	.005	.060		
	Contrast 2	.024	.068	-.110	.158	.724		

		B	SE			p	η²	F
	Contrast 3	.026	.090	-.150	.202	.771		
Perceived Stigma - General	Overall Model	-	-	-	-	< .001	.077	6.180
	Constant	2.434	.263	1.917	2.951	< .001		
	Age	.008	.009	-.010	.025	.407		
	SES	.006	.019	-.031	.043	.734		
	Political Ideology	-.009	.001	-.011	-.006	< .001		
	Religiosity	.001	.001	-.001	.004	.201		
	Race	-.158	.067	-.290	-.026	.019		
	Identification	-	-	-	-	.191	.008	1.590
	Contrast 1	.062	.071	-.077	.200	.384		
	Contrast 2	.122	.086	-.047	.290	.156		
	Contrast 3	.137	.113	-.084	.358	.222		
Perceived Stigma - Enacted on Others	Overall Model	-	-	-	-	< .001	.076	6.122
	Constant	3.221	.279	2.673	3.770	< .001		
	Age	-.003	.010	-.022	.016	.725		
	SES	.030	.020	-.009	.070	.131		
	Political Ideology	-.006	.001	-.009	-.004	< .001		
	Religiosity	.002	.001	-.000	.005	.058		
	Race	-.102	.072	-.243	.038	.153		
	Identification	-	-	-	-	.002	.025	4.980
	Contrast 1	-.277	.075	-.424	-.129	< .001		
	Contrast 2	-.080	.091	-.258	.099	.382		
	Contrast 3	-.073	.119	-.307	.162	.543		

Note. $N = 602$, *B* = unstandardized coefficient. *SE* = standard error of the coefficient. Unless otherwise noted, higher values indicate a greater amount of the construct. SES (socioeconomic status) was measured from 0 to 10. Race was coded as 0 = racial minority, 1 = non-Hispanic white. Political ideology and religiosity were measured from 0 to 100. Higher scores on political ideology indicate more right-wing. Contrast 1 was coded as straight-identified heterosexual (3) versus straight-identified sexual minority (-1), bisexual (-1), and gay (-1). Contrast 2 was coded as straight-identified sexual minority men (2) versus bisexual (-1) and gay (-1). Contrast 3 was coded as bisexual (1) versus gay (-1).

As we noted in the Methods, principal component analysis revealed two components of perceived stigma, which we labeled (1) perceived stigma on a structural level and (2) lived experiences of perceived stigma on other people. To further explore group differences in perceived stigma, we conducted exploratory analyses on these two components in perceived stigma separately using the same analysis strategy as above. With regards to lived experience of perceived stigma enacted on others, results (Table 6) revealed that straight men perceived significantly less stigma enacted on others than men with same-sex tendencies, $t(593) = -3.69$, $p < .001$, $\eta_p^2 = .022$. No differences were observed in the other two

contrasts: straight-identified sexual minority men versus bisexual and gay men, $t(593) = -0.88$, $p = .3820$,

$\eta_p^2 = .001$, bisexual men versus gay men, $t(593) = -0.61$, $p = .543$, $\eta_p^2 = .001$.

Table 6

Estimated Marginal Means for Perceived Stigma and Its two subscales by Sexual Identification

Dependent Variables	Sexual Identification	*M*	*SE*	95% CI	
Perceived stigma	Straight-Identified Heterosexual	2.637	0.043	2.552	2.721
	Straight-Identified Sexual Minority	2.759	0.050	2.660	2.858
	Bisexual	2.748	0.071	2.609	2.887
	Gay	2.721	0.057	2.610	2.833
Perceived Stigma - General	Straight-Identified Heterosexual	2.499	0.054	2.392	2.605
	Straight-Identified Sexual Minority	2.518	0.063	2.394	2.642
	Bisexual	2.465	0.089	2.291	2.640
	Gay	2.328	0.071	2.188	2.467
Perceived Stigma - Enacted on Others	Straight-Identified Heterosexual	2.775	0.057	2.662	2.888
	Straight-Identified Sexual Minority	2.999	0.067	2.867	3.130
	Bisexual	3.042	0.094	2.857	3.227
	Gay	3.115	0.075	2.966	3.263

Note. $N = 602$. *M* = Estimated marginal means controlling for age, SES, political ideology, religiosity and race. *SE* = Standard errors of the mean.

Taken together, these results partially support our hypothesis that men with same-sex tendencies (i.e., gay, bisexual, or straight-identified sexual minority men) tend to perceive more stigma against sexual minorities than straight men do. This difference is less observed when participants were asked to rate their agreement to a general positively framed statement on perceived stigma (e.g., "Generally, things are going a lot better for sexual minority people in the United States in the past few decades"), but more prominent when they were asked about their lived experiences on perceived stigma (e.g., "I have seen or heard sexual minority people being treated unfairly by others"). This is potentially because as targets of stigma, sexual minority groups are likely to be more sensitive to prejudices toward their own groups.

Enacted Stigma

Analyses on enacted stigma only include men with same-sex tendencies, as the questions do not apply to straight men. As described in the Methods, enacted stigma was measured on 5-point Likert scales

from 1 to 5 from two perspectives – stigma from sexual majority, and stigma from within the sexual

minority community with higher levels indicating more frequent experiences stigma. Overall, participants

hardly experienced stigma from both sexual majority ($M = 1.73$, $SD = .76$), and other sexual minorities

($M = 1.65$, $SD = .84$).

A one-way ANCOVA (Table 7) was conducted to test the effect of sexual identification among

men with same-sex tendencies on enacted stigma from sexual majorities controlling for SES, political

ideology, religiosity, age, race, overall level of outness, and overall level of concealment. To test our

hypotheses that gay and bisexual men would report higher levels of enacted stigma from sexual majority

than would straight-identified sexual minority men and that gay men would report higher levels of

enacted stigma from sexual majority than would bisexual men, we specified two contrasts: a) straight-

identified sexual minority men (2) vs. bisexual (-1) and gay men (-1) and b) bisexual men (1) versus gay

men (-1). Results of the first contrast revealed that straight-identified sexual minority men experienced

marginally less enacted stigma from sexual majorities than gay and bisexual men in the United States,

$t(365) = -1.63$ $p = .102$, $\eta_p^2 = .007$. There was no significant difference observed between bisexual men

and gay men, $t(365) = .48$, $p = .634$, $\eta_p^2 = .001$.

Table 7
Summary of ANCOVA Models Predicting Enacted Stigma from Sexual Majority and Enacted Stigma
from Within Sexual Minorities

Dependent Variables		B	SE	95% CI		p	R^2/η_p^2	F
Enacted Stigma from Sexual Majority	Overall Model	-	-	-	-	< .001	.181	8.953
	Constant	1.050	.320	.421	1.680	.001		
	Age	.015	.011	-.005	.036	.146		
	SES	-.018	.023	-.063	.027	.429		
	Political Ideology	.002	.002	-.001	.005	.163		
	Religiosity	.001	.001	-.002	.003	.688		
	Race	-.151	.076	-.301	-.001	.048		
	Overall Outness	.011	.002	.007	.014	< .001		
	Overall Concealment	.002	.002	-.001	.005	.220		
	Identification	-	-	-	-	.242	.008	1.426
	Contrast 1	-.134	.082	-.295	.027	.102		
	Contrast 2	.049	.102	-.152	.249	.249		
	Overall Model	-	-	-	-	< .001	.188	9.393

		B	SE	LL	UL	p	η_p^2	F
Enacted Stigma from Sexual Minorities	Constant	1.301	.353	.607	1.996	< .001		
	Age	.006	.012	-.017	.029	.636		
	SES	-.037	.025	-.087	.012	.136		
	Political Ideology	.007	.002	.003	.010	< .001		
	Religiosity	.001	.002	-.002	.004	.455		
	Race	-.368	.084	-.533	-.203	< .001		
	Overall Outness	.008	.002	.005	.012	< .001		
	Overall Concealment	.003	.002	.000	.007	.067		
	Identification	-	-	-	-	.126	.011	2.083
	Contrast 3	-.024	.094	-.208	.160	.799		
	Contrast 4	.221	.108	.160	.434	.042		

Note. $N = 375$, B = unstandardized coefficient. SE = standard error of the coefficient. Unless otherwise noted, higher values indicate a greater amount of the construct. SES (socioeconomic status) was measured from 0 to 10. Race was coded as 0 = racial minority, 1 = non-Hispanic white. Political ideology, religiosity, overall outness, and overall concealment were measured from 0 to 100. Higher scores on political ideology indicate more right-wing. Contrast 1 was coded as straight-identified sexual minority men (2) versus bisexual (-1) and gay (-1). Contrast 2 was coded as bisexual (1) versus gay (-1). Contrast 3 was coded as gay men (2) versus bisexual (-1) and straight-identified sexual minority men (-1). Contrast 4 was coded as bisexual men (1) versus straight-identified sexual minority men (-1).

Another one-way ANCOVA (Table 7) was conducted to test the effect of sexual identification among men with same-sex tendencies on enacted stigma from sexual minorities controlling for SES, political ideology, religiosity, age, race, overall level of outness, and overall level of concealment. To test our hypotheses that bisexual and straight-identified sexual minority men would report higher levels of enacted stigma from sexual minorities than would gay men, we specified two contrasts: a) straight-identified sexual minority (-1) and bisexual men (-1) vs gay men (2); b) straight-identified sexual minority men (-1) vs. bisexual men (1). And planned contrasts revealed no significant differences between straight-identified sexual minority and bisexual men versus gay men in enacted stigma from sexual minorities, $t(365) = 0.26$, $p = .799$, $\eta_p^2 = .0001$. However, bisexual men experienced significantly more enacted stigma from sexual minorities than straight-identified sexual minority men, $t(365) = 2.05$, $p = 0.42$, $\eta_p^2 = .011$.

These results partially supported our hypothesis on enacted stigma from sexual majorities that straight-identified sexual minority men tend to experience less enacted stigma from sexual majority than gay and bisexual men. However, our hypothesis on straight-identified sexual minority men experiencing

more enacted stigma from sexual minorities was not supported. Instead, results were in the opposite

direction that straight-identified sexual minority men experienced significantly less enacted stigma from

sexual minorities than bisexual men. One possible explanation is that straight-identified sexual minority

men are less integrated into sexual minority communities than bisexual men, thus generally have fewer

interactions with sexual minorities. In contrast, bisexual men are likely interacting more with other sexual

minorities, thus possibly experiencing more unpleasant interactions and stigmatization because of their

sexual attractions to or behaviors with women.

Table 8
Estimated Marginal Means for Enacted Stigma from Sexual Majority and from Within Sexual Minorities

Dependent Variables	Sexual Identification	*M*	*SE*	95% CI	
Enacted Stigma from Sexual Majority	Straight-Identified Sexual Minority	1.657	0.059	1.541	1.773
	Bisexual	1.815	0.077	1.663	1.967
	Gay	1.767	0.066	1.636	1.897
Enacted Stigma from Within Sexual Minorities	Straight-Identified Sexual Minority	1.573	0.065	1.445	1.700
	Bisexual	1.794	0.085	1.626	1.962
	Gay	1.659	0.073	1.515	1.803

Note. *N* = 602. *M* = Estimated marginal means controlling for age, SES, political ideology, religiosity race, overall outness, and overall concealment. *SE* = Standard errors of the mean.

Structural Stigma

Structural stigma was measured with a 5-point Likert question from 1 to 5 with higher levels

indicating greater structural stigma. Overall, participants reported moderate level of structural stigma (*M*

= 3.47, *SD* = 1.06). A one-way ANCOVA (Table 9) was conducted to test the effect of sexual

identification on structural stigma controlling for the usual set of covariates. To test our hypotheses that

men with same-sex tendencies (i.e., straight-identified sexual minority, gay, bisexual) would report more

structural stigma than straight men and that straight-identified sexual minority men would report higher

structural stigma than gay and bisexual men, we specified three contrasts to represent the four levels of

sexual identification: a) straight men (3) versus men with same-sex tendencies (straight-identified sexual

minority men coded as -1, bisexual men coded as -1, gay men coded as -1); b) straight-identified sexual

minority men (2) versus gay (-1) and bisexual men (-1); c) bisexual men (1) versus gay men (-1). Planned contrasts revealed that straight men reported marginally lower structural stigma than men with same-sex attractions in the United States, $t(593) = -1.86$, $p = .063$, $\eta_p^2 = .006$. There were no significant differences in the other two contrasts.

Table 9
Summary of the ANCOVA Model Predicting Structural Stigma

Dependent Variables		B	SE	95% CI		p	R^2/η_p^2	F
Structural Stigma	Overall Model	-	-	-	-	< .001	.073	5.861
	Constant	3.271	.337	2.609	3.933	< .001		
	Age	-.020	.012	-.043	.003	.092		
	SES	.109	.024	.061	.156	< .001		
	Political Ideology	.005	.002	.001	.008	.006		
	Religiosity	-.003	.001	-.006	-.001	.021		
	Race	-.209	.086	-.378	-.040	.016		
	Identification	-	-	-	-	.268	.007	1.340
	Contrast 1	-.169	.091	-.036	.346	.063		
	Contrast 2	.013	.110	-.225	.203	.909		
	Contrast 3	-.054	.144	-.229	.337	.710		

Note. $N = 602$, B = unstandardized coefficient. SE = standard error of the coefficient. Unless otherwise noted, higher values indicate a greater amount of the construct. SES (socioeconomic status) was measured from 0 to 10. Race was coded as 0 = racial minority, 1 = non-Hispanic white. Political ideology and religiosity were measured from 0 to 100. Higher scores on political ideology indicate more right-wing. Contrast 1 was coded as straight-identified heterosexual (3) versus straight-identified sexual minority (-1), bisexual (-1), and gay (-1). Contrast 2 was coded as straight-identified sexual minority men (2) versus bisexual (-1) and gay (-1). Contrast 3 was coded as bisexual (1) versus gay (-1).

Table 10
Estimated Marginal Means for Structural Stigma by Sexual Identification

Dependent Variables	Sexual Identification	M	SE	95% CI	
Structural Stigma	Straight-Identified Heterosexual	2.420	0.069	2.284	2.557
	Straight-Identified Sexual Minority	2.597	0.081	2.439	2.756
	Bisexual	2.558	0.114	2.335	2.781
	Gay	2.612	0.091	2.433	2.790

Note. $N = 602$. M = Estimated marginal means controlling for age, SES, political ideology, religiosity and race. SE = Standard errors of the mean.

These results, to some degree, supported our hypothesis that straight men would report lower structural stigma than men with same-sex tendencies. However, our hypotheses on the differences among men with same-sex tendencies were not supported.

Internalized Stigma

Analyses on internalized stigma only include men with same-sex tendencies, as the questions did not apply to straight men. Internalized stigma was measured on a 5-point Likert scale ranging from 1 to 5 with higher levels indicating greater internalized stigma. Overall, participants reported moderately low internalized stigma ($M = 2.08$, $SD = .077$). A one-way ANCOVA (Table 11) was conducted to test the effect of sexual identification among men with same-sex tendencies on internalized stigma controlling for the usual set of covariates. To test our hypotheses on the group differences that straight-identified sexual minority men would internalize more stigma than would bisexual and gay men, we specified two contrasts: a) straight-identified sexual minority men (2) vs. bisexual (-1) and gay men (-1) and b) bisexual men (1) versus gay men (-1). Planned contrast revealed no significant differences between straight-identified sexual minority men versus bisexual and gay men, $t(365) = .71$, $p = .481$, $\eta_p^2 = .001$. There is also no significant difference between bisexual and gay men, $t(365) = -.27$, $p = .783$, $\eta_p^2 = .0002$.

Table 11
Summary of ANCOVA Models Predicting Internalized Stigma and Its Subscales

Dependent Variables		B	SE	95% CI		p	R^2/η_p^2	F
Internalized Stigma- Overall	Overall Model	-	-	-	-	< .001	.255	13.88
	Constant	1.124	.310	.515	1.733	< .001		
	Age	.019	.010	-.002	.039	.072		
	SES	-.025	.022	-.068	.018	.252		
	Political Ideology	.006	.002	.003	.009	< .001		
	Religiosity	.006	.001	.003	.009	< .001		
	Race	-.055	.074	-.200	.089	.451		
	Overall Outness	-.002	.002	-.005	.001	.195		
	Overall Concealment	.008	.002	.005	.011	< .001		
	Identification	-	-	-	-	.757	.002	.278
	Contrast 1	.056	.079	-.100	.211	.481		
	Contrast 2	-.027	.099	-.221	.167	.783		
Internalized Stigma-SC	Overall Model	-	-	-	-	< .001	.190	9.54
	Constant	.897	.446	.020	1.775	.045		
	Age	.008	.015	-.021	.037	.572		
	SES	-.014	.032	-.076	.048	.658		
	Political Ideology	.012	.002	.007	.016	< .001		
	Religiosity	.003	.002	.000	.007	.070		

		B	SE			p		
	Race	-.072	.106	-.281	.136	.497		
	Overall Outness	.004	.002	-.001	.008	.098		
	Overall Concealment	.010	.002	.005	.014	< .001		
	Identification	-	-	-	-	.891	.001	.115
	Contrast 1	-.001	.114	-.225	.224	.996		
	Contrast 2	-.068	.142	-.347	.211	.632		
Internalized Stigma-PUBID	Overall Model	-	-	-	-	< .001	.152	7.251
	Constant	1.839	.437	.981	2.698	< .001		
	Age	.008	.014	-.020	.036	.580		
	SES	-.024	.031	-.085	.037	.443		
	Political Ideology	.003	.002	-.001	.007	.143		
	Religiosity	.006	.002	.002	.010	.002		
	Race	-.199	.104	-.403	.005	.056		
	Overall Outness	-.003	.002	-.007	.002	.199		
	Overall Concealment	.010	.002	.005	.014	< .001		
	Identification	-	-	-	-	.682	.002	.383
	Contrast 1	.029	.112	-.190	.249	.792		
	Contrast 2	-.117	.139	-.390	.156	.398		
Internalized Stigma-PC	Overall Model	-	-	-	-	< .001	.218	11.29
	Constant	.572	.394	-.202	1.346	.147		
	Age	.030	.013	.004	.056	.022		
	SES	-.020	.028	-.075	.035	.469		
	Political Ideology	.005	.002	.001	.009	.010		
	Religiosity	.008	.002	.005	.011	< .001		
	Race	.053	.094	-.131	.237	.573		
	Overall Outness	-.005	.002	-.009	-.001	.023		
	Overall Concealment	.005	.002	.001	.009	.022		
	Identification	-	-	-	-	.042	.017	3.210
	Contrast 1							
	Contrast 2							

Note. $N = 375$, B = unstandardized coefficient. SE = standard error of the coefficient. Three subscales of internalized stigma are social comfort (SC), public identification (PUBID), and personal comfort (PC). Unless otherwise noted, higher values indicate a greater amount of the construct. SES (socioeconomic status) was measured from 0 to 10. Race was coded as 0 = racial minority, 1 = non-Hispanic white. Political ideology, religiosity, overall outness, and overall concealment were measured from 0 to 100. Higher scores on political ideology indicate more right-wing. Contrast 1 was coded as straight-identified sexual minority men (2) versus bisexual (-1) and gay (-1). Contrast 2 was coded as bisexual (1) versus gay (-1).

While we found no significant differences among men with same-sex tendencies in overall internalized stigma, we did exploratory analyses on the three components of the scale for internalized

stigma as described in the Methods – social comfort with men with same-sex tendencies (SC), public identification as men with same-sex tendencies (PUBID), and personal comfort with identification as a man with same-sex tendencies (PC). Among three subscales, results (Table 12) showed that straight-identified sexual minority men reported significantly more internalized stigma on items about PC, $t(365)$ = 2.06, $p = .039$, $\eta_p^2 = 0.012$.

Table 12
Estimated Marginal Means for Internalized Stigma and Its Subscales

Dependent Variables	Sexual Identification	M	SE	95% CI	
Internalized Stigma - Overall	Straight-Identified Sexual Minority	2.111	0.057	1.999	2.223
	Bisexual	2.042	0.075	1.894	2.189
	Gay	2.069	0.064	1.942	2.195
Internalized Stigma - SC	Straight-Identified Sexual Minority	2.034	0.082	1.873	2.196
	Bisexual	2.001	0.108	1.789	2.213
	Gay	2.069	0.093	1.887	2.251
Internalized Stigma - PUBID	Straight-Identified Sexual Minority	2.450	0.080	2.292	2.608
	Bisexual	2.362	0.106	2.154	2.569
	Gay	2.479	0.091	2.301	2.657
Internalized Stigma - PC	Straight-Identified Sexual Minority	1.939	0.072	1.797	2.082
	Bisexual	1.816	0.095	1.629	2.003
	Gay	1.646	0.082	1.485	1.806

Note. $N = 375$. M = Estimated marginal means controlling for age, SES, political ideology, religiosity race, overall outness, and overall concealment. SE = Standard errors of the mean. Three subscales of internalized stigma are social comfort (SC), public identification (PUBID), and personal comfort (PC).

Taken together, these results partially supported our hypothesis that straight-identified sexual minority internalized more stigma than bisexual men and gay men. Exploratory analyses on the three subscales of internalized stigma showed that straight-identified sexual minority men were particularly sensitive to items on personal comfort with identification as a man with same-sex tendencies that they felt less comfortable being a man with same-sex tendencies, and same-sex attractions and behaviors were less morally acceptable to them than gay and bisexual men.

Concealability and Concealment Behaviors

Analyses on concealability and concealment behaviors only include men with same-sex tendencies as the question did not apply to straight men. Concealability was measured from 0 to 100 with higher scores indicating higher concealability. Overall, participants reported medium to high concealability ($M = 78.19$, $SD = 26.37$), meaning it was relatively easy for most participants to pass as a man without same-sex tendencies.

A one-way ANCOVA (Table 13) was conducted to test the effect of sexual identification among men with same-sex tendencies on concealability controlling for the usual set of covariates. To test our hypothesis on the group differences in concealability that straight-identified sexual minority and bisexual men would have higher concealability than gay men, we specified two contrasts: a) straight-identified sexual minority (-1) and bisexual men (-1) vs gay men (2); b) straight-identified sexual minority men (-1) vs. bisexual men (1). Planned contrasts revealed that gay men reported significantly less concealability than bisexual and gay men, $t(365) = -4.10$, $p < .001$, $\eta_p^2 = .017$. However, no significant difference was observed between straight-identified sexual minority men and bisexual men, $t(365) = -1.26$, $p = .210$, $\eta_p^2 = .004$. These results supported our hypothesis that due to nature or nurture, gay men tend to rate their sexual orientation as less concealable than bisexual and straight-identified sexual minority men do.

As described in the Methods, concealment behaviors were measured in two dimensions – 1) situational concealment behavior that potentially varies across social contexts; 2) lifestyle concealment that likely occurs consistently through everyday life (e.g., ongoing interests and hobbies). To test our hypothesis on the group differences in these types of concealment behaviors, we specified two contrasts similar as the analyses on concealability: a) straight-identified sexual minority (-1) and bisexual men (-1) vs gay men (); b) straight-identified sexual minority men (-1) vs. bisexual men (1).

With regards to situational concealment, we conducted a one-way ANCOVA (Table 13) to test the effect of sexual identification among men with same-sex tendencies on situational concealment behaviors. Results revealed no significant differences between straight-identified sexual minority and bisexual men as compared to gay men, $t(365) = -1.02$, $p = .304$, $\eta_p^2 = .003$. Also, no significant difference

was found between straight-identified sexual minority men and bisexual men, $t(365) = -.75$, $p = .452$, $\eta_p^2 = .002$.

With regards to lifestyle concealment, we also conducted a one-way ANCOVA (Table 13) to test the effect of sexual identification among men with same-sex tendencies on lifestyle concealment behaviors. Planned contrast revealed no significant differences between straight-identified sexual minority and bisexual men versus gay men, $t(365) = -1.37$, $p = .173$, $\eta_p^2 = .005$. Also no significant difference was found between straight-identified sexual minority men and bisexual men, $t(365) = -.88$, $p = .375$, $\eta_p^2 = .002$. However, exploratory pairwise contrast showed that straight-identified sexual minority men ($M = 2.646$, $SE = 0.062$) reported marginally more frequent lifestyle concealment than gay men ($M = 2.478$, $SE = 0.07$), $t(365) = 1.69$, $p = .091$, $\eta_p^2 = .008$.

Table 13
Summary of ANCOVA Models Predicting Concealability and Concealment Behaviors

Dependent Variables		B	SE	95% CI		p	R^2/η_p^2	F
Concealability	Overall Model	-	-	-	-	< .001	.201	10.22
	Constant	72.966	10.932	51.469	94.464	< .001		
	Age	-.039	.362	-.751	.672	.914		
	SES	-.075	.776	-1.602	1.451	.923		
	Political Ideology	.018	.054	-.089	.125	.735		
	Religiosity	-.083	.047	-.175	.010	.080		
	Race	8.253	2.598	3.145	13.361	.002		
	Overall Outness	-.244	.057	-.357	-.131	< .001		
	Overall Concealment	.047	.055	-.062	.156	.396		
	Identification	-	-	-	-	< .001	.050	9.701
	Contrast 1	-11.88	2.901	17.586	-6.175	< .001		
	Contrast 2	-4.222	3.359	10.827	2.383	.210		
Concealment Behaviors - Situational	Overall Model	-	-	-	-	< .001	.252	13.64
	Constant	1.687	.312	1.074	2.300	< .001		
	Age	.019	.010	-.001	.039	.068		
	SES	-.001	.022	-.044	.043	.972		
	Political Ideology	.003	.002	.000	.006	.067		
	Religiosity	.019	.010	-.001	.039	.068		
	Race	-.098	.074	-.244	.048	.186		
	Overall Outness	-.006	.002	-.009	-.002	.001		
	Overall Concealment	.009	.002	.006	.012	< .001		
	Identification	-	-	-	-	.413	.005	.888

Variable		B	SE			p	R²	F
	Contrast 1	-.085	.083	-.248	.078	.304		
	Contrast 2	-.072	.096	-.260	.116	.452		
Concealment Behaviors - Lifestyle	Overall Model	-	-	-	-	< .001	.228	11.97
	Constant	1.555	.338	.889	2.220	< .001		
	Age	.017	.011	-.005	.039	.127		
	SES	-.002	.024	-.050	.045	.921		
	Political Ideology	.009	.002	.005	.012	< .001		
	Religiosity	.001	.001	-.002	.004	.441		
	Race	-.003	.080	-.161	.155	.973		
	Overall Outness	-.005	.002	-.008	-.001	.008		
	Overall Concealment	.007	.002	.004	.010	< .001		
	Identification	-	-	-	-	.237	.008	1.444
	Contrast 1	-.123	.090	-.299	.054	.173		
	Contrast 2	-.092	.104	-.297	.112	.375		

Note. $N = 375$, *B* = unstandardized coefficient. *SE* = standard error of the coefficient. Unless otherwise noted, higher values indicate a greater amount of the construct. SES (socioeconomic status) was measured from 0 to 10. Race was coded as 0 = racial minority, 1 = non-Hispanic white. Political ideology, religiosity, overall outness, and overall concealment were measured from 0 to 100. Higher scores on political ideology indicate more right-wing. Contrast 1 was coded as straight-identified sexual minority men (2) versus bisexual (-1) and gay (-1). Contrast 2 was coded as bisexual (1) versus gay (-1).

Table 14

Estimated Marginal Means for Concealability and Concealment Behaviors

Dependent Variables	Sexual Identification	M	SE	95% CI	
Concealability	Straight-Identified Sexual Minority	83.948	2.012	79.991	87.906
	Bisexual	79.726	2.643	74.529	84.923
	Gay	69.957	2.268	65.496	74.417
Concealment Behaviors - Situational	Straight-Identified Sexual Minority	2.717	0.057	2.605	2.830
	Bisexual	2.645	0.075	2.497	2.794
	Gay	2.596	0.065	2.469	2.723
Concealment Behaviors - Lifestyle	Straight-Identified Sexual Minority	2.646	0.062	2.524	2.769
	Bisexual	2.554	0.082	2.393	2.715
	Gay	2.478	0.070	2.339	2.616

Note. $N = 375$. *M* = Estimated marginal means controlling for age, SES, political ideology, religiosity race, overall outness, and overall concealment. *SE* = Standard errors of the mean. Concealability was measured from 0 to 100. Concealment behaviors were measured from 1 to 5. Higher values indicate a greater amount of the construct.

As an exploratory analysis, we did item-level analysis for concealment behaviors as the scale

only showed acceptable reliability coefficients. Among the six items developed to measure lifestyle

concealment, participants differed significantly by sexual identification on two items that mentioned conformity to masculine or heterosexual appearances and interests ("In general, I dress in a way that is consistent with heterosexual norms for men." $t(365) = 2.53$, $p = .012$, $\eta_p^2 = .017$, "Most of my interests and hobbies are consistent with the norms of masculinity." $t(365) = 3.39$, $p = .001$, $\eta_p^2 = .030$) – straight-identified sexual minority men reported higher conformity to masculine and heterosexual norms in their appearances and interests than bisexual and gay men. Among the five items developed to measure situational concealment, participants differed significantly by sexual identification on two items that described tendencies to blend in during a social interaction ("If the topic of same-sex attractions comes up during social interactions with friends, I try to blend in and pretend I do not have them." $t(365) = 2.59$, $p = .010$, $\eta_p^2 = .018$, "I don't correct people in a conversation if they assume I'm exclusively attracted to women.", $t(365) = 2.28$, $p = .023$, $\eta_p^2 = .014$) – straight-identified sexual minority men are more likely to blend in during a conversation about same-sex tendencies and less likely to correct people about their sexuality than bisexual and gay men.

Taken together, while none of the planned contrasts in concealment behaviors show significant group differences, these results show a trend that straight-identified sexual minority men reported more lifestyle concealment than bisexual and gay men, which is consistent with the direction that we predicted. The results do not support our hypotheses on situational concealment behaviors. As we have mentioned in the methods part, there were potential problems with the reliability of the scale we used to measure concealment behaviors in this study. Future studies need to refine the scale and retest these hypotheses.

Psychological Well-being

We measured four important indicators of participants' social and psychological well-being. Life satisfaction was measured from 0 to 10. Loneliness, community integration, and perceived social support were measured with a 5-point Likert scale from 1 to 5. Higher values on these measures indicate a greater amount of the constructs. We specified three orthogonal contrasts to represent the four levels of sexual identification: a) straight men (3) versus men with same-sex tendencies (straight-identified sexual

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minority men coded as -1, bisexual men coded as -1, gay men coded as -1); b) straight-identified sexual

minority men (2) versus gay (-1) and bisexual men (-1); c) bisexual men (1) versus gay men (-1). Planned

contrasts (Table 15) revealed that straight men reported marginally higher life satisfaction, $t(593) = 1.75$,

$p = .081$, $\eta_p^2 = .005$, and significantly less loneliness, $t(593) = 2.22$, $p = .027$, $\eta_p^2 = .008$, than men with

same-sex tendencies. While the contrast between straight men and men with same-sex tendencies is not

significant in community integration, $t(593) = 1.53$, $p = .124$, $\eta_p^2 = .004$, and perceived social support,

$t(365) = .46$, $p = .646$, $\eta_p^2 = .0003$, the patter of means were in the same direction.

Table 15
Summary of ANCOVA Models Predicting Psychological Well-being

Dependent Variables		B	SE	95% CI		p	R^2/η_p^2	F
Life Satisfaction	Overall Model	-	-	-	-	< .001	.321	34.98
	Constant	8.194	.717	6.786	9.601	< .001		
	Age	.004	.025	-.045	.052	.887		
	SES	-.681	.051	-.782	-.580	< .001		
	Political Ideology	.014	.004	.006	.021	< .001		
	Religiosity	.010	.003	.004	.016	.002		
	Race	.156	.183	-.204	.516	.395		
	Identification	-	-	-	-	.006	.021	4.23
	Contrast 1	.336	.192	-.042	.714	.081		
	Contrast 2	.567	.233	.109	1.025	.015		
	Contrast 3	.513	.306	-.088	1.115	.094		
Loneliness	Overall Model	-	-	-	-	< .001	.088	7.167
	Constant	2.540	.344	1.865	3.215	< .001		
	Age	-.021	.012	-.044	.003	.085		
	SES	.145	.025	.096	.193	< .001		
	Political Ideology	-.004	.002	-.007	-.000	.049		
	Religiosity	.001	.002	-.002	.004	.549		
	Race	-.046	.088	-.218	.127	.604		
	Identification	-	-	-	-	.051	.021	2.60
	Contrast 1	-.204	.092	-.385	-.023	.027		
	Contrast 2	-.027	.112	-.247	.192	.806		
	Contrast 3	-.208	.147	-.497	.081	.157		
Community Integration	Overall Model	-	-	-	-	< .001	.169	15.12
	Constant	3.087	.249	2.598	3.577	< .001		
	Age	.016	.009	-.001	.033	.062		
	SES	-.167	.018	-.202	-.132	< .001		
	Political Ideology	.001	.001	-.002	.004	.481		

	B	SE	95% CI LL	95% CI UL	p	η²	F
Religiosity	.002	.001	-.000	.004	.057		
Race	.058	.064	-.068	.183	.367		
Identification	-	-	-	-	.180	.008	1.634
Contrast 1	.103	.067	-.028	.235	.124		
Contrast 2	.118	.081	-.041	.278	.145		
Contrast 3	.069	.107	-.141	.278	.520		
Perceived Social Support							
Overall Model	-	-	-	-	< .001	.114	9.525
Constant	3.414	.310	2.805	4.023	< .001		
Age	.025	.011	.004	.046	.019		
SES	-.138	.022	-.182	-.095	< .001		
Political Ideology	.001	.002	-.002	.004	.596		
Religiosity	.001	.001	-.002	.004	.526		
Race	.375	.079	.219	.531	< .001		
Identification	-	-	-	-	.678	.003	.506
Contrast 1	.038	.083	-.125	.202	.646		
Contrast 2	-.069	.101	-.268	.129	.492		
Contrast 3	-.104	.133	-.364	.157	.435		

Note. $N = 602$, B = unstandardized coefficient. SE = standard error of the coefficient. Unless otherwise noted, higher values indicate a greater amount of the construct. SES (socioeconomic status) was measured from 0 to 10. Race was coded as 0 = racial minority, 1 = non-Hispanic white. Political ideology and religiosity were measured from 0 to 100. Higher scores on political ideology indicate more right-wing. Contrast 1 was coded as straight-identified heterosexual (3) versus straight-identified sexual minority (-1), bisexual (-1), and gay (-1). Contrast 2 was coded as straight-identified sexual minority men (2) versus bisexual (-1) and gay (-1). Contrast 3 was coded as bisexual (1) versus gay (-1).

With regards to contrasts among men with same-sex tendencies, we observed that straight-identified sexual minority men reported significantly higher life satisfaction than gay and bisexual men, $t(593) = 2.43$, $p = .015$, $\eta_p^2 = .010$, and bisexual men reported marginally higher life satisfaction than gay men, $t(593) = 1.68$, $p = .094$, $\eta_p^2 = .005$. These contrasts were not significant in loneliness, community integration, or perceived social support.

Table 16
Estimated Marginal Means for Psychological Well-bing by Sexual Identification

Dependent Variables	Sexual Identification	M	SE	95% CI	
Life Satisfaction	Straight-Identified Heterosexual	5.804	0.147	5.514	6.093
	Straight-Identified Sexual Minority	5.845	0.172	5.507	6.183
	Bisexual	5.535	0.242	5.060	6.009
	Gay	5.021	0.193	4.642	5.401
Loneliness	Straight-Identified Heterosexual	2.464	0.071	2.325	2.603

		M	SE		
	Straight-Identified Sexual Minority	2.650	0.082	2.488	2.812
	Bisexual	2.574	0.116	2.346	2.801
	Gay	2.782	0.093	2.599	2.964
Community Integration	Straight-Identified Heterosexual	2.785	0.051	2.684	2.885
	Straight-Identified Sexual Minority	2.760	0.060	2.643	2.878
	Bisexual	2.676	0.084	2.511	2.841
	Gay	2.608	0.067	2.475	2.740
Perceived Social Support	Straight-Identified Heterosexual	3.436	0.064	3.311	3.561
	Straight-Identified Sexual Minority	3.352	0.074	3.205	3.498
	Bisexual	3.369	0.105	3.164	3.575
	Gay	3.473	0.084	3.309	3.637

Note. $N = 602$. *M* = Estimated marginal means controlling for age, SES, political ideology, religiosity and race. *SE* = Standard errors of the mean. Life satisfaction was measured from 0 to 10. Loneliness, community integration, and perceived social support were measured from 1 to 5. Higher values indicate a greater amount of the construct.

Taken together, these results do not support our hypothesis that gay men would report higher psychological well-being. In fact, they showed a completely opposite direction of effects that straight-identified sexual minority men reported higher well-being than did bisexual and gay men. One possible explanation for this could be that the straight identification of straight-identified sexual minority men protects them from some negative effects on psychological well-being. We only predicted such protective effects when straight-identified sexual minority men living in high-stigmatizing environments, but it could be that the protective effects exist in all environments – as heterosexism is still prevailing in the United States and people can have stigmatizing interactions even in what we considered low-stigmatizing environments.

Interactions between Sexual Identification and Structural Stigma

We hypothesized that the heterosexual identification of straight-identified sexual minority men would be beneficial in environments with high structural stigma because it can help these individuals to avoid becoming the targets of stigma. To test this hypothesis, we created two interaction terms by taking the produce of structural stigma with the two contrasts specified previously in the analyses of well-being: a) straight-identified sexual minority men (2) versus gay (-1) and bisexual men (-1); b) bisexual men (1)

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versus gay men (1). Our hypothesis focuses were tested by the interaction term between structural stigma and the first contrast (straight-identified sexual minority vs. bisexual and gay).

With regards to loneliness, we found a significant interaction between sexual identification and structural stigma $F(2,362) = 3.506$, $p = .031$, $\eta_p^2 = .0165$, such that when structural stigma is one standard deviation above the mean, straight-identified sexual minority men ($M = 2.42$) reported less loneliness than bisexual and gay men ($Mcombined = 2.89$), $t(362) = 2.91$, $p = .004$, $\eta_p^2 = .025$. But when structural stigma is one standard deviation below the mean, straight-identified sexual minority men ($M = 2.71$) did not differ from bisexual and gay men ($Mcombined = 2.69$), $t(362) = .437$, $p=.663$, $\eta_p^2 = .002$.


Figure 2.1 Interaction Effect between Sexual Identification and Structural Stigma on Loneliness
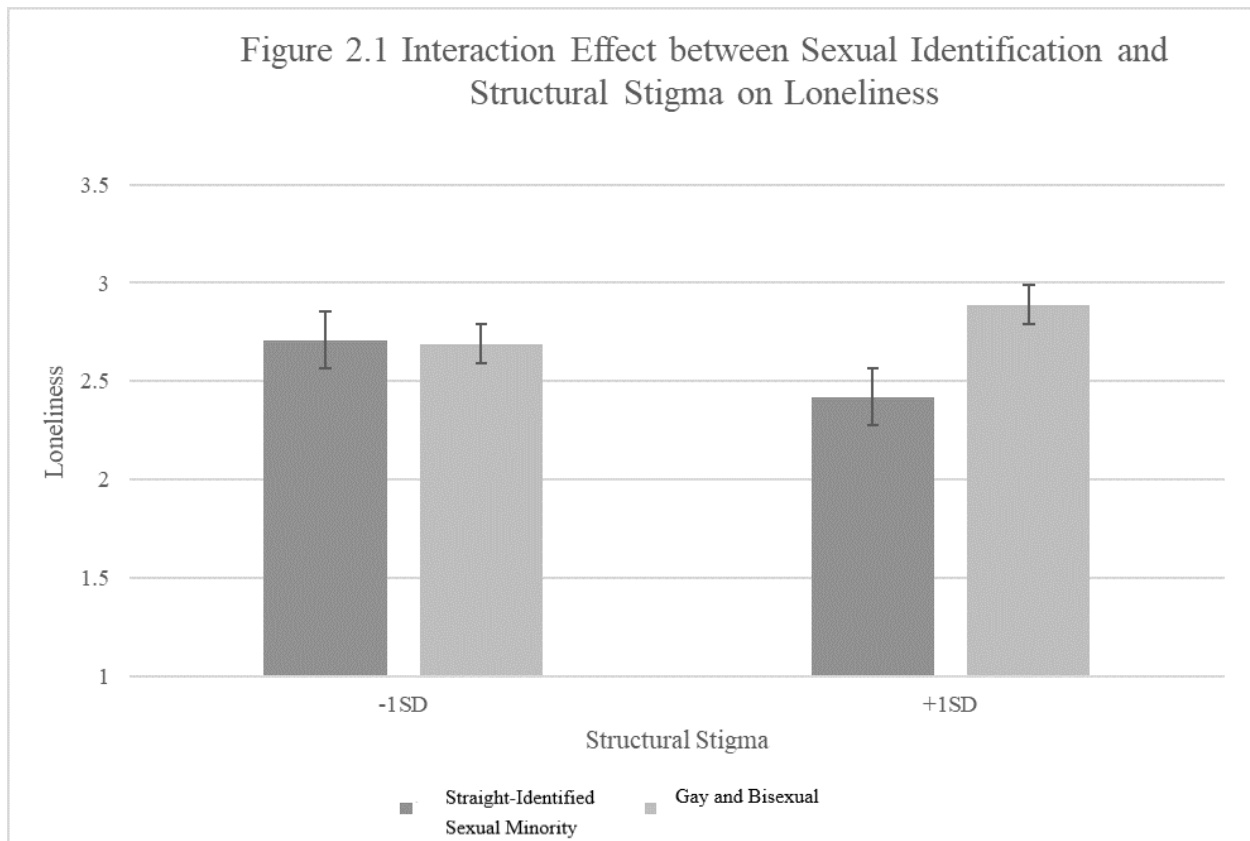
Note. $N = 375$, each bar represents estimated marginal means of loneliness controlling for SES, political ideology, religiosity, age, race, overall level of outness, and overall level of concealment. X-axis represents two conditions where structural stigma is either one standard deviation ($SD = 1.041$) above or below the mean. Error bars represent the standard errors of the means. Loneliness was measured on a Likert scale from 1 to 5 with higher level indicating more loneliness.

We also found an significant interaction between sexual identification and structural stigma on perceived social support, $F(2,362) = 3.056$, $p = .048$, $\eta_p^2 = .012$, such that when structural stigma is one

standard deviation below the mean, the contrast between straight-identified sexual minority men (M =

3.57) versus bisexual and gay men (M = 3.40) is not significant, $t(362) = .884$, $p = .378$, $\eta_p^2 = .007$. But

when structural stigma is one standard deviation above the mean, the contrast between straight-identified

sexual minority men (M = 3.47) versus bisexual and gay men (M = 3.21) is significant, $t(362) = 2.10$, p

$= .036$, $\eta_p^2 = .015$.

The results partially supported our hypothesis on protective effect of the straight identification of

straight-identified sexual minority men in environments with high structural stigma. While we generally

observed the protective effects of the straight identification in our analyses of well-being outcome, the

results of this interaction confirmed that protective effects could be particularly beneficial in high

stigmatizing environments compared to low stigmatizing environments.

Figure 2.2 Interaction Effect between Sexual Identification and Structural Stigma on Perceived Social Support
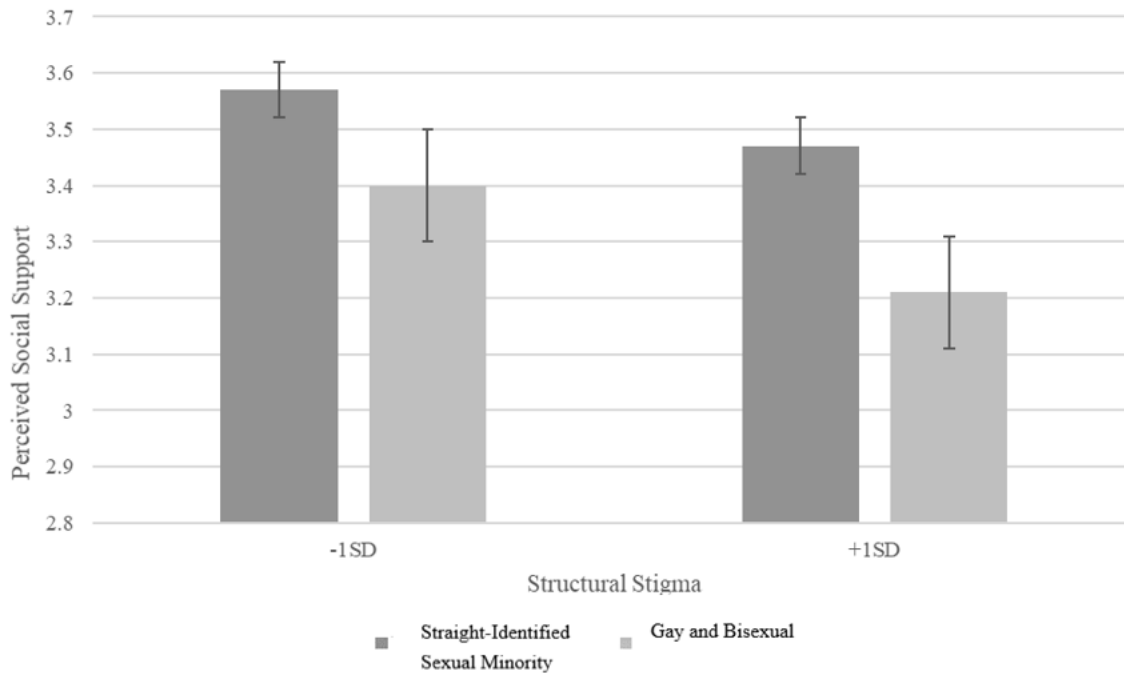
Note. N = 375, each bar represents estimated marginal means of perceived social support controlling for SES, political ideology, religiosity, age, race, overall level of outness, and overall level of concealment. X-axis represents two conditions where structural stigma is either one standard deviation (*SD*=1.041) above or below the mean. Error bars represent the standard errors of the means. Perceived social support was measured on a Likert scale from 1 to 5 with higher level indicating greater perceived support.

DISCUSSION

In this study, we made inferences about sexual identification categories as the causal factors. It should be noted that participants in our sample differ in other dimensions (e.g., straight-identified sexual minority men are significantly more religious and politically conservative than bisexual and gay men). Whether this is a sampling issue or representative of sexual minority population is unclear from this study, thus we controlled these differences and entered them as covariates in our models. We observed that participants' political ideology and religiosity were significant covariates in most of our models predicting experiences and perceptions of stigma, such that participants who are more right winged and religious reported more enacted stigma from other sexual minorities and greater internalized stigma. This could be that the LGBT activism discourse and equal rights movements all tend to endorse liberalism, and there has been well-documented religious oppression against sexual minority population in the United States (Barnes & Meyer, 2012). The prototype of sexual minority men depicted by mainstream gay culture would be liberal and non-religious (Pachankis et al, 2020). Previous research also documented strong correlations between religiosity and negative attitudes towards same-sex sexuality (Rowatt et al., 2009). Therefore, conservative and religious individuals would easily encounter conflicts in ideologies when interacting with sexual minorities. In addition, we observed that self-reported socioeconomic status (SES) was negatively associated with psychological well-being outcomes, such that people with higher SES reported higher loneliness, lower life satisfaction, higher community integration, and higher perceived social support than those with lower SES. However, previous research consistently documented the positive correlations between self-perceived SES and well-being. Future research should investigate this more to get the robustness of the results.

One major implication of our study results is that there might be an adaptive part of the straight identification for some sexual minority men, resulting in less frequent experiences of stigma and better psychological well-being. Specifically, our results showed that straight-identified sexual minority men experienced less enacted stigma from the sexual majority than bisexual and gay men did. We also found that straight-identified sexual minority men reported significantly higher life satisfaction than gay and

bisexual men, and bisexual men reported marginally higher life satisfaction than gay men. These results provide evidence that the straight identification of some sexual minority men could have protective effects against stigma and prejudice from their heterosexual counterparts and provide benefits for their psychological well-being. Past literature on sexual discordance have mainly focused on the negative impact of the discordance between straight identification and same-sex behavior on well-being. Our findings add to the literature that such discordance could also be beneficial. We also found significant interactions between structural stigma and sexual identification on well-being, such that identifying as straight for some sexual minority men could lead to less loneliness, more perceived social support in high stigmatizing environments compared to low stigmatizing environments than identifying as gay or bisexual in these environments. This suggest that sexual discordance between identity and behaviors/attractions could help some sexual minority men fit into a heteronormative or even homophobic environment by avoiding being the target of heterosexism. While our results indicated some beneficial effects of the straight identification for some sexual minority men, it should be noted that such straight identification of sexual minority men is also associated with some negative results. We found that straight-identified sexual minority men reported significantly greater internalized stigma than bisexual and gay men. This could indicate that the discordance between sexual identification and behaviors/attractions could lead to greater internal conflicts, such that identifying as straight might make it difficult for sexual minority men to moralize and accept their same-sex attractions and behaviors, resulting in greater self-stigmatization. Future research can dive deeper into the mechanism of the positive and negative effects of the straight identification for sexual minority men.

In this study, we tried to expand the conceptualization of concealment behaviors. The differentiation between situational concealment and lifestyle concealment makes it possible to study identity concealment as both ongoing decisions that can vary across situations and trait-like lifestyle choices that tend to be less variant. Although we did not find strong evidence to support our hypotheses on group differences in situational concealment behaviors within sexual minority men, exploratory item-

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level analyses revealed that straight-identified sexual minority men reported higher lifestyle conformity to masculine and heterosexual norms in their appearances and interests than did bisexual and gay men. Participants did not differ in terms of avoiding stereotypically gay appearances or interests. This could be a measurement error that sexual minority men tend to have a general agreement on what is considered masculine (Connell & Messerschmidt, 2005). But they differ on what is considered stereotypically gay (Pachankis et al., 2020). As we noted, there are many subgroups among men with same-sex tendencies who hold different standards for attractiveness and sexual appeal (Panchankis et al., 2020). Such measurement error might also be the factor contributing to low internal consistency of the scale as we noted before. Since there were potential problems with the reliability of the scale we generated to measure the two types of concealment behaviors in this study, future studies need to refine the scale and retest our hypotheses on concealment behaviors.

Additionally, in terms of concealability, we found quite robust evidence suggesting that the concealability of men's sexuality differs as a function of their sexual identification. Specifically, straight-identified sexual minority and bisexual men have significantly higher concealability than gay men. Past research has often conceptualized concealment as an active and intentional behavior (Pachankis et al., 2020; Quinn et al., 2017) that sexual minorities can engage in if they choose. However, the differences in concealability could mean that for some gay men, concealment could hardly be an option because either due to nature or nurture, their appearance and/or behaviors could give away cues about their sexual minority status. An interesting question for future research is to determine the directionality between concealability and sexual identification – does high level of concealability cause people to identify as straight or bisexual, or do people who identify as straight intentionally change their mannerism to increase their level of concealability?

Lastly, past literature on sexuality has overwhelmingly focused on sexual identification as the predictor. While we tried to acknowledge the multidimensionality of human sexual orientation when we were quantitatively categorizing our participants into different sexual identifications, we were still

homogenizing diverse experiences of sexual minorities into checkboxes. Future research could employ mixed methods and qualitatively describing the experiences of their participants in compliment to statistical analyses.

CONCLUSION

In this study, we used an online survey to investigate the experiences of sexual minority men as a function of how they sexually identify themselves. We were particularly interested in how different identifications (i.e., straight-identified heterosexual, straight-identified sexual minority, bisexual, and gay) are related to stigma, concealment, and well-being. Besides differences between straight men and sexual minority men, we found differences within sexual minority men that straight-identified sexual minority men internalized more sexual stigma and reported more frequent concealment behaviors than bisexual and gay men. However. we found protective effects of the straight identification of straight-identified sexual minority men such that they experienced less enacted stigma from both sexual majority and other sexual minorities and reported greater well-being than bisexual and gay men. Additionally, results also revealed an interaction between sexual identification and structural stigma on loneliness and perceived social support, such that in low stigma environments, straight-identified sexual minority men had similar levels of loneliness and perceived social support as gay and bisexual men. However, in high stigma environments, straight-identified sexual minority men reported significantly lower loneliness and higher perceived social support than gay and bisexual men. Our results provide evidence for both positive and negative effect of discordance between straight identification and same-sex behaviors/attractions, future research can dive deeper into the mechanism of the positive and negative effects of the straight identification for sexual minority men and identify potential moderators and mediators in the mechanism.

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