

# How stigma gets “in between”: Associations between changes in perceived stigma, closeness discrepancies, and relationship satisfaction among same-sex couples

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## Abstract

Same-sex couples continue to experience social stigma, which can have negative consequences for the quality of their relationships. The current study combined minority stress theory with closeness discrepancy theory in an examination of how the production of disjunctures between actual and ideal experiences of closeness (i.e., closeness discrepancies) accounts for an indirect association between stigma and relationship quality. Data were obtained from a longitudinal study of same-sex couples in the United States who were surveyed twice, 1 year apart ( $N = 552$  individuals, 276 couples). Participants completed measures of stigma, closeness discrepancies, and relationship satisfaction (as an outcome of relationship quality) at each Wave. Results from Actor Partner Interdependence Models demonstrated that increases in experiences of stigma over 1 year were associated with increases in closeness discrepancies, which were, in turn, associated with decreases in relationship satisfaction. This indirect pathway was observed for the association between stigma and one's own relationship satisfaction, but not with one's

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partner's relationship satisfaction. This research extends previous research on stigma and relational well-being among same-sex couples by offering a potential explanation for how stigma "gets in between" partners in same-sex couples thereby diminishing the quality of their romantic relationships.

## INTRODUCTION

The social and policy climates surrounding the lives of same-sex couples in the United States (US) have changed drastically in the past 2 decades. For example, same-sex marriage became legal in the whole of United States in 2015. Additionally, US polling data have shown that in 2013, for the first time, the majority of Americans were approving of same-sex marriage with levels of approval growing since then (Pew, 2019). However, despite these recent changes, same-sex couples still experience prejudice and discrimination stemming from the fact that their relationships remain stigmatized by society at large (Doyle & Molix, 2015; Gamarel et al., 2014; LeBlanc et al., 2018; Lehmillier & Agnew, 2006, 2007; Meyer, 2016; Rosenthal & Starks, 2015; Rosenthal et al., 2019; Rostosky & Riggle, 2017). Thus, continued attention is needed to deepen existing understandings of how people in same-sex relationships experience stigma and how stigma affects the quality of their relationships. The current study aims to understand how stigma, as a form of minority stress, makes its way "in between" members of same-sex couples by creating a disjuncture between their actual and ideal levels of closeness, thereby putting them at risk for diminished relationship quality.

### **Stigma as a minority stressor for individuals in same-sex relationships**

As a result of their stigmatized social status, sexual minority individuals are exposed to unique forms of social stress that have been termed "minority stressors" (e.g., Brooks, 1981; Meyer, 2003). In his now-classic articulation of minority stress theory, Meyer describes stigma – also referred to as expectations of rejection – as a form of minority stress that has been found to have deleterious effects on the well-being of sexual minority persons. Sexual minority individuals experience minority stressors because they are – as individuals – stigmatized by the larger society, and it has long been recognized that such stressors are often felt and endured in the context of their romantic relationships. For example, partners in same-sex relationships frequently anticipate and fear rejection from their families, friends, co-workers, and healthcare providers as a result of the social stigma attached to their identities as sexual minority persons. Research shows that sexual minority individuals in romantic relationships routinely experience threats and harassment as well as more minor forms of social distancing and slights (see, Rostosky & Riggle, 2017 for a review). As a result, stigma represents a persistent and pernicious source of minority stress diminishing the well-being of individual partners and the quality of their intimate relationships. Indeed, recent meta-analyses (Cao et al., 2017; Doyle & Molix, 2015) have demonstrated a general negative association between experiences of proximal minority stressors—such as internalized and perceived stigma—and various indicators of relationship functioning and quality, such as relationship

satisfaction and intimacy, among sexual minorities. The magnitude of the effect of internalized stigma on relationship quality indicators tends to be higher than that of perceived stigma. However, in encouraging future research on the topic, Doyle and Molix (2021) note that "... the deleterious role of perceived stigma in sexual minority romantic relationships is still meaningful and should not be overlooked by researchers" (p. 3).

For these reasons, stigma remains a form of chronic stress that deserves continued attention from researchers interested in understanding the role of minority stress in the health and well-being of sexual minority individuals, particularly those in same-sex relationships. Research on stigma and relationship quality among same-sex couples has thus far focused mainly on individuals' experiences and not fully accounted for how stigma is related to relationship quality in the couple context. Furthermore, research has yet to articulate the social psychological mechanisms that explain the association between stigma and relationship quality among same-sex couples. We draw on the recent extension of minority stress theory to include couple-level stress constructs (LeBlanc et al., 2015) in an attempt to elucidate such mechanisms. In particular, we focus on dyadic minority stress processes linking stigma as experienced at the individual level to the levels of closeness that partners seek and find in their same-sex relationships.

## Stigma and couple-level minority stress processes

In recent years, researchers have increasingly focused on the potential explanatory value of aspects of the experience of minority stress that are rooted in stigmatized relationship forms (LeBlanc et al., 2015), articulating some of the ways in which people in same-sex relationships experience minority stressors that result from the stigmatization of their relationships, in and of themselves. In other words, such stressors are not reducible to the stigma attached to their individual identities as sexual minority individuals, but rather exist as an additional aspect of the experience of stigma attached to the relationship form in which they are engaged. Previous research on couple-level minority stress has provided evidence for the impact of couple-level stigma on mental health which persists above and beyond the mental health effects of individual experiences of stigma (LeBlanc & Frost, 2020). However, couple-level minority stress theory also articulates "dyadic minority stress processes" that have yet to be examined in research on stigma, minority stress, and relationship quality among same-sex couples.

Specifically, expanding understandings of minority stress to include dyadic minority stress processes allows for studies that examine the ways in which stressors may proliferate and create more stress and ultimately diminish well-being over time (Pearlin et al., 1981). Stress proliferation can most simply be described as a process wherein stress begets more stress, and such proliferation may be observable for example, when given stressful events or experiences create new stressors in a person's life, as well as when stressful events or experiences for one person create stressors for others with whom they share close relationships (Pearlin & Bierman, 2013). Building on this stress process framework, couple-level minority stress theory argues that status-based stressors "might be understood as a primary source of stress that can proliferate to other relational stressors (e.g., role-based stressors associated with being a partner in an intimate relationship), thus seen as secondary stressors" including "lack of desired intimacy" (LeBlanc et al., 2015, p. 45). Thus, we can consider experiences of stigma as sexual minority individuals as *primary* stressors that proliferate into the relational domain creating new stressors that are experienced as *secondary* stressors by members of same-sex couples in the form of impaired

relationship functioning, which has negative consequences for the quality of same-sex relationships. This represents stress “spillover” in relationships, whereby stress external to the relationship can produce stress within the relationship (Neff & Karney, 2004). In these ways, couple-level minority stress theory offers potential insight into social psychological mechanisms linking experiences of minority stress to relationship quality among same-sex couples by accounting for how stigma proliferates into the relational domain of intimacy and closeness experienced jointly by members of same-sex couples. Furthermore, a couple-level perspective on minority stress highlights how stress can move between partners. Following theories of stress “crossover” in couples (e.g., Bolger et al., 1989; Neff & Karney, 2007), a person’s experience of minority stress may be related to their partner’s experience of minority stress, thus “crossing over” between individuals and requiring attention to social processes at both the individual level and interpersonal level of the couple.

### **Closeness discrepancies as secondary stressors**

Stressors in the relationship domain may manifest in suboptimal experiences of intimacy and closeness between partners in same-sex couples, as they would in any couple, regardless of sexual orientation and gender composition. For example, research on stress and relationship quality for couples in general highlights how stress external to the relationship has been shown to get “in between” partners by creating additional relationship problems and hindering constructive responses to relationship problems, which have resulting negative implications for relationship satisfaction and stability (Neff & Karney, 2017). Applying this model to the current context, individual-level stigma in the form of minority stress may act as a primary stressor external to the relationship, which makes its way into the relationship by disrupting relational experiences of closeness and intimacy, which may be experienced as secondary stress within the relationship. As a result, same-sex couples’ experiences of relationship quality may be impacted indirectly by external stigma via interrupted experiences of closeness as a relational stressor.

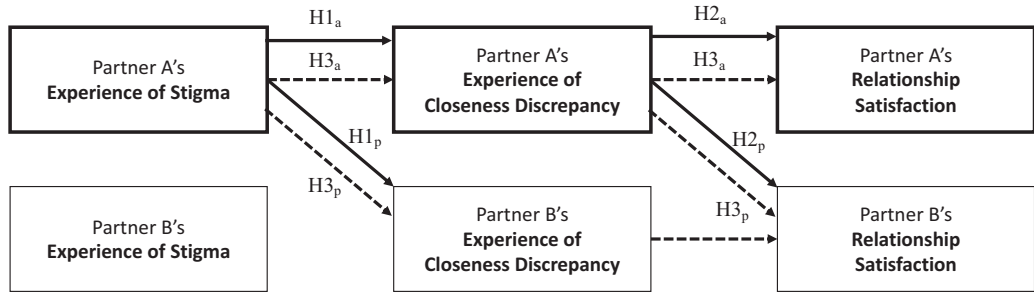
A focus on closeness discrepancies (Frost & Forrester, 2013; Frost et al., 2017) offers one potential way of theorizing and operationalizing this form of stress in the relational domain that may explain the link between stigma and relationship quality among same-sex couples. “Closeness discrepancies reflect the internal cognitive comparison between the amount of closeness a person feels in the present moment (i.e., actual closeness) and the amount of closeness they desire with their relationship partner (i.e., ideal closeness)” (Frost & LeBlanc, 2021; p.2). Expectancy violations occur when a person experiences a level of closeness that is less than their ideal. This experience gives way to negative emotions, diminished relationship satisfaction, and other potential undesirable outcomes in people’s relationships (e.g., Frost & Forrester, 2013; Gamarel & Golub, 2019). Alternatively, when a person experiences a level of closeness that is more than the amount they idealize in their relationship, they may experience a threat to autonomy, personal control, and identity. This experience may produce similar deleterious effects on relationship quality (Aron et al., 2004; Mashek & Sherman, 2004). Theory and research on closeness discrepancies dovetails with work emphasizing the need to balance striving for closeness with striving for distance in romantic relationships (e.g., Feeney, 1999; Hess, 2002; Hess et al., 2007). Thus, the links between experiences of closeness and outcomes pertaining to the quality of people’s romantic relationships is more complicated than the common assumption that a greater degree of closeness always translates to better quality relationships (Frost & LeBlanc, 2021).

Experiences of closeness discrepancies have been shown to be associated with lower levels of relationship quality and negative mental health outcomes, as well as heightened potential for relationship break-up. These associations hold true, even after account for people's current levels of closeness (Frost & Forrester, 2013; Frost et al., 2017). Given the established associations between closeness discrepancies and outcomes of distress, experiencing a discrepancy between actual and ideal levels of closeness may be usefully theorized within larger couple-level stress processes experienced in romantic couples. Previous research has demonstrated individual differences in the experience of closeness discrepancies based on personality traits and attachment style (Aron et al., 2004). Potential social factors, such as stigma, that may contribute to the production of closeness discrepancies have yet to be examined. Additionally, research has yet to examine the extent to which closeness discrepancies may play a role in the dyadic minority stress processes experienced by same-sex couples.

Combining previous theory and research on stress, stigma, and relationships (e.g., Frost & Forrester, 2013; LeBlanc et al., 2015; Neff & Karney, 2017) stigma can be thought to represent an external source of minority stress that could have potential negative consequences for a person's own relational functioning and quality (i.e., "actor effects") as well as one's partner's relational functioning and quality (i.e., "partner effects"). These types of dyadic "effects," or patterns of associations, are based in interdependence theory and spelled out by the Actor Partner Interdependence Model (e.g., Kashy & Kenny, 2010; Kenny, 1996): a common approach to analyzing dyadic data. By examining the ways in which stigma leads to potential negative outcomes for individuals and their partners, we are able to further examine stress processes of "contagion" or "crossover." As suggested by theories of stress crossover in romantic relationships (e.g., Bolger et al., 1989; Neff & Karney, 2007), experiencing a closeness discrepancy may function as a relational stressor with the potential to "crossover" in the context of romantic dyads by producing a detrimental effect on one's partner's experience of relationship quality. Closeness discrepancies—being likely to produce emotion contagion and stress crossover—may therefore have potential to result in negative outcomes, for both one's own experience of relationship quality *and* one's partner's experience of relationship quality.

## The current study

The current study examined the extent to which experiences of stigma faced by people in same-sex couples results in the production of closeness discrepancies, which in turn, lead to diminished relationship quality. In this regard, we examine the degree to which the production of closeness discrepancies represents a stigma-related social process explaining the association between exposure to minority stress and decreased relationship quality among same-sex couples. Hypothesized pathways are illustrated in Figure 1. Combining minority stress and social stress frameworks, we test the extent to which minority stress proliferates within same-sex couples in the form of: (a) Proliferation from individual status-based experiences of stigma to the relational domain of intimacy and relationships; and (b) Proliferation in the form of contagion from one partner's experience of stigma to the other partner's experience of closeness discrepancies and relationship quality. We used longitudinal dyadic data from a large, diverse sample of same-sex couples in the United States to test the following hypotheses: H1: Increases in levels of perceived stigma will be associated with increases in closeness discrepancies, both within person (H1<sub>a</sub>, actor effects) and across partners (H1<sub>p</sub>, partner effects); H2: Increases in closeness discrepancies will be associated with decreased relationship quality, both within person (H2<sub>a</sub>, actor effects) and across partners (H2<sub>p</sub>,



**FIGURE 1** Hypothesized pathways linking experiences of stigma, to closeness discrepancies and relationship satisfaction

partner effects); H3: changes in closeness discrepancies will account for an indirect association between perceived stigma and changes in relationship quality, both within person (H3<sub>a</sub>, indirect actor effects) and across partners (H3<sub>p</sub>, indirect partner effects). We tested these hypotheses controlling for other demographic and relational factors that have been previously shown to be associated with our focal predictors and outcome (i.e., length of relationship, legal marital status, sex, race/ethnicity, education, and income).

## METHOD

### Sample and procedure

Same-sex couples were eligible to participate in this study if: (1) both partners were at least 21 years of age; (2) both individuals perceived of themselves to be in a relationship with the other (i.e., forming a couple); and (3) at some point in their shared history, they were engaged in a sexual relationship with one another. Couples where one or both partners identified as transgender were not included in recognition of the unique stressors that they face (e.g., Hendricks & Testa, 2012).

We employed a modified targeted nonprobability Internet-based strategy (Meyer et al., 2008; Meyer and Wilson, 2009) to recruit study participants. Recruitment efforts began with the compilation of a list of over 1500 venues that were identified as having some sort of online presence, such as a functioning and active website, or via social media. These venues were divided into two general types: (1) Online Communities, or those existing solely or primarily online; and (2) Organizations with an Online Presence, or organizations with physical meeting spaces or who sponsor social gatherings, but that also have a website or are active on social media. These two general types were then further categorized as follows, with two types of Online Communities ([1] Social/Leisure/Sports Groups and [2] Parenting Groups) and seven types of Organizations with an Online Presence ([1] LGBT Centers; [2] Arts Organizations; [3] Chambers of Commerce or Business/Professional Groups; [4] College- or University-based Organizations; [5] Political/Advocacy Organizations; [6] Planners and Organizers of Annual LGBT Pride Events; and [7] Religious Organizations/Associations.

Additionally, we sought to identify a diverse sample of websites and magazines with an online presence where we could pay to advertise the study. We identified over 15 such websites and paid for various forms of advertising or outreach, including dedicated emails, sponsored social media posts (e.g., Facebook and twitter), and in-page ad banners.

Through these recruitment efforts, persons interested in participating in the research were invited to complete a brief online eligibility survey. Once both partners completed the eligibility survey, and were determined to be eligible, each was subsequently invited to provide online consent and complete the Wave 1 Survey. Participants were instructed to complete their survey independently and not discuss their answers with their partners. The Wave 1 Survey required about 45 min and each partner was electronically sent a \$30 Amazon gift card for completing it. On or near the 1-year anniversary of their Wave 1 Survey, participants were invited to complete the Wave 2 Survey. Content was largely the same across the two survey waves to ensure the capacity to assess change in key study variables over time. The Amazon gift card incentive for completing the Wave 2 survey was \$60 per partner. The study surveys were programmed for online implementation using Qualtrics software. All study procedures were approved by the Institutional Review Board at San Francisco State University. The first Wave 1 Survey was completed on February 26, 2016, and the final Wave 2 Survey was completed on May 8, 2018.

We implemented precautions to minimize fraudulent participation in the study (Bauermeister et al., 2013). Upon completing the brief eligibility survey, all potentially eligible participants were sent an e-mail invitation containing a unique link to complete the Wave 1 Survey. This link could only be used once and was connected to the contact and screening information provided by the invited participant, which helped to ensure the validity of e-mail addresses given in the eligibility screener. In addition, IP addresses for persons responding to the full survey were then compared with the zip code and state they listed in the eligibility screener to make sure those matched, and searches for the identification of IP addresses from which more than two surveys – one for each partner – originated were also conducted. Moreover, it was required that the eligibility survey be completed by each partner independently, and thus their responses could be compared to identify differences between partners in data describing their relationship. Finally, some questions from the eligibility survey were repeated in the Wave 1 survey, which allowed us to identify additional data inconsistencies for individuals across the two surveys.

To ensure a rich diversity of this sample we sought roughly equal distribution by couple sex and relationship duration (across three categories [6 months to <3 years; 3 years to <7 years; and 7 years or more]). As a result, we included “new” couples who had been together as few as 6 months in order to identify some of the early stressors that emerge as relationships form and initially become established, some of which may fade with time among longer-term couples. Our 7-year benchmark distinguishing long-term couples is in keeping with a general finding—from studies of heterosexual marriages—that the risk of relationship dissolution increases in the early years, reaches a peak, and then steadily declines with time (Kulu, 2014). We also attempted to recruit participants equally from four regions of the United States (Midwest, Northeast, South, and West). Thus, we created 24 recruitment cells (three relationship duration categories  $\times$  4 regions, within each of the two sub-samples based on couple sex). Additionally, to ensure diversity in this sample, we sought to ensure that at least 40% of participating couples were couples where at least one partner is a person of color, and that 20% resided in non-Urban areas.

In total, 2182 individuals completed the brief eligibility survey. Additionally, 156 of the individuals (78 couples) invited to take part in the study had been identified as eligible for a pilot version of the survey using the same recruitment strategy. In total, 983 individuals were formally invited to complete the Wave 1 Survey based on the quota-based sampling strategy described above.

A total of 754 participants completed the Wave 1 Survey. After reviewing the completed surveys, 13 individuals were excluded due to their partner not taking the survey; 18 couples were excluded because at least one partner provided incomplete data on at least one of the key study measures; and 39 individuals were excluded because their data were determined to be fraudulent or unreliable based on the previously stated precautions to minimize fraudulent participation (Bauermeister et al., 2013). The Wave 1 Survey sample therefore contained 684 individuals (342 couples). First, we describe couple-level variables. The sample was nearly evenly distributed by couple gender. Forty-three percent of couples were couples where at least one partner was a person of color. Twelve percent were legally married – or both legally married and in a registered domestic partnership or civil union (RDP/CU) – while 13% were in a RDP/CU, but without being also legally married. Over half (54%) were in relationships with no legal recognition. The modal annual household income fell in between \$65,000 and \$74,999, and a large proportion of the sample reported annual household earnings below \$75,000 (61%).

Second, regarding individual-level variables: The mean age was 34.4 years (standard deviation = 9.9) 12.6% identified as Spanish/Hispanic/Latino. In terms of race, 12.9% of the sample identified as Black or African American; and smaller proportions identified as Asian (4.1%) or Native Hawaiian or Pacific Islander (1.6%). Just over three-quarters of the sample identified as White (76.6%). More than half of the sample had completed a bachelor's degree or additional education beyond that degree (54.7%).

Longitudinal analyses conducted to test the current hypotheses required complete data on all predictors and outcomes for both partners at both Waves ( $N = 552$  individuals, 276 couples). This reflects an 80% retention rate. The final analytic sample had sufficient power (.80) to detect a small to medium actor or partner effect ( $Beta = .11$ ) assuming a .3 correlation between both predictors and errors (calculated using the software APIMPower, Ackerman & Kenny, 2016).

## Measures

### Stigma

Perceived stigma—also known as expectations of rejection—was measured with the 6-item scale developed by Meyer et al. (2008). Participants responded in terms of how much they agreed with a series of statements, for example: (1) Most people believe that a person like you cannot be trusted; (2) Most people think less of a person like you; and (3) Most people think people like you are not as intelligent as the average person. Response categories were: (1) disagree strongly; (2) disagree somewhat; (3) agree somewhat; and (4) agree strongly. Responses were internally consistent, with Cronbach's  $\alpha$ s ranging from .85 to .89 across both partners and both Waves. Each participant's responses were averaged across the six items.

### Closeness discrepancies

Closeness was measured using Aron et al.'s (1992) Inclusion of Other in Self (IOS) scale. This pictorial scale depicted six sets of two circles in which one circle represented the participant's "self" and the other represented the participant's "partner." The sets were presented with varying degrees of overlap ranging from completely separate ( $=1$ ) to almost completely overlapping ( $=6$ ).



We used a two-item approach to assessing IOS, where one version of the scale assessed participants' actual (i.e., "current") levels of IOS and a second version assessed participants' ideal levels of IOS (Mashek & Sherman, 2004). *Closeness discrepancy* scores were computed by subtracting ideal IOS ratings from actual IOS rating. Thus, negative IOS discrepancy scores indicated feeling "not close enough," and positive scores indicated feeling "too close" to one's partner, and scores of 0 indicated no discrepancy between actual and ideal levels of closeness. Previous research (Frost & Forrester, 2013) suggests that the direction of the discrepancy (positive vs. negative) does not differentially predict indicators of relationship quality. In keeping with that finding we use the absolute values of discrepancy scores in these analyses.

## Relationship quality

The 4-item version of the Couples Satisfaction Index (Funk & Rogge, 2007) was included to measure relationship satisfaction. This measure was developed using item response theory and is the result of a factor analysis of items pooled from eight previously validated measures of relationship satisfaction. Example items include: "How rewarding is your relationship with your partner?" and "In general, how satisfied are you with your relationship?" Participants responded to such items on a scale of "not at all" to "completely." This measure shows strong validity correlations with other measures of relationship satisfaction, and it also demonstrates less noise and more power in detecting individual differences in satisfaction than other measures (Funk & Rogge, 2007). Responses to the four items were internally consistent, with Cronbach's  $\alpha$ s ranging from .79 to .87 across both partners and both Waves. The measure is scored on a scale of 0–21, with scores of 13.5 or below indicating relationship distress.

## Demographic variables

Individual race/ethnicity, age, and education were measured as follows. Participants were asked to: (1) report whether they identify as Spanish, Hispanic, Latino, and which of the following best describe(s) their race or ethnicity (choosing all that apply): American Indian or Alaskan Native, Asian, Black or African-American, Native Hawaiian or Pacific Islander, White, or Something else not listed; (2) provide their date of birth; and (3) indicate the highest grade or year of school they had completed using the following response categories (no schooling completed, nursery or preschool through grade 12 [no diploma], high school diploma or equivalent, some college, associate's degree, bachelor's degree, master's degree, professional degree beyond a bachelor's degree, or doctorate degree).

Regarding gender, study participants responded to the following two questions (Sausa et al., 2009): (1) Which of the following best describe(s) your gender? (Response choices were man, woman, transmale/transman, transfemale/transwoman, genderqueer, or something else); and (2) What sex were you assigned at birth? (What is the sex listed on your birth certificate)? Response choices were male or female. According to the eligibility criteria, all sample members were required to be cisgender male or cisgender female and to be a member of a same-sex couple, thus couple sex was treated as either male or female.

Each partner also reported how long he/she had known his/her partner. If their responses differed, they were averaged. Time known is especially relevant in the study of relationship

forms that have historically lacked access to institutional and legal benchmarks of relationship recognition.

Relationship status was assessed with the following two survey questions: Are you and your (partner) currently legally married to one another? Are you and your (partner) currently living in a registered domestic partnership or civil union? These questions allowed us to distinguish between couples that are: legally married, in a registered domestic partnership (RDP) or civil union (CU), both legally married and in an RDP or CU, and not legally recognized. In the multivariate analyses below, we use a dichotomous measure to distinguish those legally married from those who are not.

Last, participants estimated their total household income before taxes during the past 12 months by checking one of 17 income categories, ranging from \$0 to \$4999 to \$1,000,000 or more.

## RESULTS

### Analysis strategy

Preliminary analyses began with descriptive statistics (means and standard deviations) and bivariate correlations between all study measures. For multivariate tests of the study's hypotheses, Actor Partner Interdependence Models (APIM; Kashy & Kenny, 2000; Kenny, 1996) were used to simultaneously examine associations between: changes in stigma, closeness discrepancies, and the relationship quality outcome. We chose change scores as our unit of analysis, rather than static variables at either timepoint, because we were focused on understanding whether changes in stigma were contemporaneously associated with changes in closeness discrepancies during the 1-year interval between assessments, and the degree to which changes in closeness discrepancies explained an indirect association between changes in stigma and relationship satisfaction. The model was run using structural equation modeling software (IBM SPSS Amos version 27) in order impose equality constraints to account for the fact that same-sex couples are indistinguishable dyads (Kenny & Ledermann, 2010). Additionally, in order to model the non-independence in the data that stems from the fact that all sampled individuals are nested within dyads, these models correlated the errors in the dependent variables and the predictor variables across partners (Olsen & Kenny, 2006). Indirect effects and 95% bias corrected confidence intervals (BC CI) were estimated using maximum likelihood bootstrapping procedures with 1000 samples.

A number of control variables were included in these models. At the individual-level we included: race/ethnicity (1 = person of color), age (years), and education. Education was collapsed into a dichotomous variable, distinguishing between those with (1) and without (0) the credential of a college degree (Ross & Mirowsky, 1999). At the couple-level we included: gender (1 = women); time known (years); legal marital status (1 = yes); and household income. Household income was transformed and treated as continuous variable by assigning the midpoint of each income category.

Time-variant variables entered into final models were modeled as change scores reflecting differences between Wave 2 and Wave 1 as recommended by Castro-Schilo and Grimm (2018). Direct and indirect actor and partner effects were estimated using bootstrapping procedures to construct 95% BC CIs. BC CIs that did not include 0 were considered "statistically significant."

## Descriptive and bivariate analyses

Means, standard deviations, and bivariate associations between all study variables are provided in Table 1, separated for Partner A and B. Means for change in stigma, closeness discrepancies, and relationship satisfaction were near zero, ranging from  $|-0.01|$  to  $|-0.09|$  units. However, we observed substantial variability in change scores with standard deviations for change scores ranging from  $.48$  to  $2.83$  units. The bivariate analyses pertaining to study hypotheses were all in the hypothesized direction. However, the results of these analyses are not interpreted because they are not adjusted for non-independence related to the nested design of the data (i.e., individuals nested within couples). Evaluation of tests of study hypotheses are therefore limited solely to the multivariate APIM models that follow.

## Multivariate tests of study hypotheses

First, we tested the hypothesis that increases in levels of perceived stigma will be associated with increases in closeness discrepancies, both within person (actor effects) and across partners (partner effects) (H1). In support of H1<sub>a</sub> an actor effect was observed linking stigma to closeness discrepancies, wherein increased perceptions of stigma over the course of 1 year were associated with an increase in one's own closeness discrepancy during the same period (Beta =  $.08$ , 95% BC CI =  $.002$ ,  $.161$ ). There were no meaningful associations between changes in one's own experience of stigma and changes in one's partner's experience of closeness discrepancies (H1<sub>p</sub> Beta =  $.026$  BC CI =  $-.056$ ,  $.119$ ). Next, we tested the hypothesis that increases in closeness discrepancies would be associated with decreased relationship quality both within person (actor effects) and across partners (partner effects) (H2). In support of H2<sub>a</sub> an actor effect was observed linking closeness discrepancies to relationship quality, such that an increased closeness discrepancy was associated with a decrease in one's own levels of relationship satisfaction (Beta =  $-.15$ , 95% BC CI =  $-.248$ ,  $-.065$ ). We did not detect a meaningful association between changes in one's own experience of closeness discrepancies and changes in one's partner's relationship satisfaction (H2<sub>p</sub> Beta =  $-.069$  BC CI =  $-.163$ ,  $.016$ ). The final multivariate model testing these associations controlling for couple gender, relationship length, household income, marital status, race/ethnicity, education, and age is included in Table 2. This model explained 11% of the variance in change in relationship satisfaction over a 1-year period.

Finally, we tested the hypothesis that changes in closeness discrepancies would account for an indirect association between perceived stigma and changes in relationship quality, both within person (indirect actor effects) and across partners (indirect partner effects) (H3). We examined the 95% BC CIs surrounding the indirect effects of interest in order to detect an indirect effect meaningfully different from 0. In support of H3<sub>a</sub>, an indirect actor effect was observed linking increased perceptions of stigma to decreased relationship satisfaction via increased closeness discrepancies (std. estimate =  $-.014$ ; 95% BC CI =  $-.034$ ,  $-.002$ ). We did not observe any meaningful direct or indirect partner effects (H3<sub>p</sub> all 95% BC CIs spanned 0).

**TABLE 1** Means, standard deviations, and bivariate associations between all study variables

Variable	Correlations										Mean	SD
	1	2	3	4	5	6	7	8	9	10		
1. Change in Relationship Satisfaction	—	-.056	-.160**	.071	-.005	-.213**	-.112*	-.014	-.263**	.024	.058	2.828
2. Change in Stigma	.007	—	.026	.054	-.081	-.086	-.007	-.092	.078	.121*	.013	.483
3. Change in Closeness Discrepancy	-.137*	.145**	—	.048	-.013	-.003	.156**	-.008	.062	.021	-.088	.838
4. Racial/Ethnic Minority	.120*	.039	-.066	—	-.083	-.016	-.072	-.137*	.047	-.095	NA	NA
5. Age	-.111*	-.093	.031	-.024	—	.202**	.402**	.703**	.271**	-.222**	34.648	10.141
6. BA Education	.180**	-.050	-.183**	.083	.082	—	.167**	.038	.229**	-.093	NA	NA
7. Legally Married	-.155**	.047	.064	-.119*	.413**	.201**	—	.361**	.127*	.001	NA	NA
8. Relationship Length	-.080	-.041	.014	-.061	.716**	-.005	.361**	—	.198**	-.108*	7.085	7.038
9. Household Income	-.096	-.015	-.038	.048	.242**	.233**	.127*	.198**	—	-.177**	NA	NA
10. Couple Gender	-.033	.027	.030	-.087	-.175**	-.070	.001	-.108*	-.177**	—	NA	NA
Mean	.058	.013	-.088	NA	34.648	NA	NA	7.085	NA	NA	NA	NA
Standard Deviation	2.828	.483	.838	NA	10.141	NA	NA	7.038	NA	NA	NA	NA

Note: Correlations for partner A are below the principal diagonal and in the last two rows, while correlations for partner B are above the principal diagonal and in the last two columns.

\* $p < .05$ .

\*\* $p < .01$ .

**TABLE 2** Actor partner interdependence models predicting change in relationship satisfaction

	<b>b</b>	<b>95% BC CI</b>		<b>P</b>	<b>Beta</b>
		<b>Lower</b>	<b>Upper</b>		
<i>Individual-Level Variables</i>					
Change in Stigma (Actor)	-.082	-.567	.497	.792	-.013
Change in Stigma (Partner)	-.096	-.666	.503	.731	-.015
Change in Closeness Discrepancy (Actor)	-.523	-.882	-.222	.001	-.152
Change in Closeness Discrepancy (Partner)	-.238	-.546	.055	.140	-.069
Racial/Ethnic Minority (Actor)	.868	.155	1.561	.011	.131
Racial/Ethnic Minority (Partner)	-.339	-1.024	.333	.282	-.051
Age (years) (Actor)	.005	-.046	.054	.893	.018
Age (years) (Partner)	.018	-.034	.071	.441	.060
BA Education (= 1) (Actor)	-.840	-1.431	-.241	.009	-.140
BA Education (= 1) (Partner)	-.513	-1.075	.013	.054	-.085
<i>Couple-Level Variables</i>					
Legally Married (=1)	-.412	-1.126	.285	.241	-.058
Relationship Length (years)	-.021	-.073	.031	.455	-.048
Household Income	-.180	-.325	-.056	.009	-.130
Couple Gender (Female = 1)	-.132	-.734	.516	.709	-.022

Note: Results reflect parameter estimates from actor partner interdependence models run with 95% bias-corrected confidence intervals (BC CI) based on bootstrapping with 1000 samples.

## DISCUSSION

Using longitudinal data from a study of same-sex couples in the US, the present study was able to demonstrate the persistence of associations between stigma, closeness discrepancies, and relationship quality. Specifically, increases in experiences of stigma were associated with concomitant increases in closeness discrepancies, which were, in turn, associated with decreases in relationship quality. This study is the first to identify the production of closeness discrepancies as a social psychological mechanism providing a link between stigma and diminished relationship quality among same-sex couples. Thus, the present findings address the association between stigma and closeness, which has been conspicuously absent in previous research on stigma and relationships (Doyle & Barreto, this issue). The findings contribute to minority stress theory (e.g., Meyer, 2003) and stress process literatures (e.g., Pearlin, 1999) by illuminating the potential negative effects of minority stress for same-sex couples operating via the relational domain. In this regard, we find evidence for an element of couple-level minority stress theory (LeBlanc et al., 2015) pertaining to previously untested “dyadic minority stress processes” linking individual-level experiences of stigma to negative outcomes in the relational domain. Specifically, the current study demonstrates the ways in which stigma as an individual-level status-based minority stressor proliferates to stress in the domain of relationship functioning in the form of closeness discrepancies. In this regard, stigma as minority stress can be seen to operate as a *primary* stressor that “moves” into the domain of relationships resulting in secondary stressors in the form of closeness discrepancies, which are in turn associated with diminished relationship quality.

The current study also makes a unique contribution to theory and research on closeness discrepancies (e.g., Frost & Forrester, 2013; Frost & LeBlanc, 2021; Gamarel & Golub, 2019; Mashek

& Sherman, 2004). Although previous research has examined individual differences in the experience of closeness discrepancies, the current study is the first to examine the extent to which closeness discrepancies may exist as mechanisms in pathways linking social stress and relationship well-being. Using longitudinal data, we were able to show that increased experiences of social stress in the form of stigma were associated with increased distance between individuals' actual and idealized experiences of closeness. Thus, closeness discrepancies were demonstrated to be sensitive to changes in stress exposure over time and represent an important construct to account for in frameworks that attempt to explain the impact of social stigma on stigmatized individuals' lives and relationships (e.g., Frost, 2011; Hatzenbuehler, 2009).

By combining couple-level minority stress theory (LeBlanc et al., 2015) with closeness discrepancy theory (Frost & Forrester, 2013), the current study further contributes to theory and research on how stress in the relationship domain can pose a threat to experiences of intimacy and closeness between partners in general regardless of sexual orientation and gender composition (Neff & Karney, 2017). The current study demonstrates how stress external to the relationship in the form of stigma is associated with a lack of alignment between actual and ideal experiences of closeness. In this regard, we show how stigma gets "in between" partners with negative consequences for relationship satisfaction.

We did not find evidence of stress contagion in the form of dyadic partner effects. This lack of association between individual partners' experiences of stigma and their partners' experiences of closeness discrepancies and relationship quality is not in keeping with previous theory on couple-level minority stress among same-sex couples (LeBlanc & Frost, 2020). It is also not in line with theories of stress crossover in couples in general (e.g., Bolger et al., 1989). However, there are important differences between the current study and previous research on the topic, including the current study's focus on relationship quality as an outcome (vs. mental health) and the current focus on change over time as a unit of analysis (as opposed to cross-sectional associations). Further explanation for the lack of partner effects may be found in previous evidence showing that the detrimental impact of closeness discrepancies is more individual than dyadic in nature (Frost & LeBlanc, 2021). Future research on closeness discrepancies as part of dyadic minority stress processes may benefit from exploring the degree to which the role of closeness discrepancies as a secondary stressor function at the individual or partner level (Kenny & Ledermann, 2010).

Findings are also important to consider in light of the improved social climate surrounding same-sex relationships in the United States. Although attitudes have improved and laws increasingly provide equal recognition for same-sex couples, the present findings demonstrate that policy change alone is not sufficient to eliminate the negative effects of stigma on same-sex couples' relationships (e.g., Meyer, 2016). Clinical and counseling efforts can potentially be targeted at the interface between stigma and closeness discrepancies in order to reduce the negative impact of stigma on relationship quality among same-sex couples. However, continued attention to the changing policy and attitudinal climate is necessary in order to understand how more inclusive policy and attitudes toward same-sex relationships do or do not translate to improved lived experience and individual and relational outcomes for members of same-sex couples (Fingerhut & Frost, 2020).

## Limitations

The findings from the present study should be considered in light of some limitations. Although we used a purposive sampling strategy to identify couples from across the United States, it was not



random or probability-based and therefore the sample is not representative of same-sex couples in the general population. Although we drew on longitudinal data from these couples, they only reflect changes in constructs between two points in time over a 1-year interval. Specifically, the predictor, mediator and outcome variables were assessed at the same timepoints, and we used change scores as our units of analysis. Change scores have known limitations as outcomes in regression models and cannot be used to provide formal tests of causal effects (e.g., Tennant et al., 2022). Our findings therefore can only be seen as indicative of concurrent longitudinal associations between changes in perceived stigma, changes in closeness discrepancies, and changes in relationship satisfaction. Future research is needed to delineate the temporal ordering of our hypothesized pathways so that the hypothesized role of stigma can be adequately tested as a causal factor which produces changes in closeness discrepancies and, indirectly, relationship satisfaction. It is also important to note that although the focal constructs of interests exhibited group-level stability, there was substantial variability in the change scores, as indicated by the standard deviations. Future research can benefit from examining dyadic minority stress processes using more measurement periods and differing time intervals. The effect sizes associated with the associations of interest in the study were also small in magnitude. Small effect sizes can nonetheless be meaningful in that they are adjusted for several demographic factors known to be associated with relationship quality. Additionally, our unit of analysis is change over time and therefore small effect sizes are considered meaningful associations. Finally, the sample was restricted to people in relationships who at some point in their shared history were engaged in a sexual relationship with one another. Thus, the sample is not representative of couples where the bond between partners has not included a sexual component, including couples where one or both partners identify as asexual.

## Summary and conclusion

Despite recent improvements in the social and policy climate faced by same-sex couples in the US, stigma continues to have links to diminished relationship functioning and quality for same-sex couples. By combining couple-level minority stress theory (LeBlanc et al., 2015) with closeness discrepancy theory (Frost & Forrester, 2013), the current study provides suggestive evidence for a novel indirect pathway linking social stigma and relationship quality among same-sex couples. Specifically, increased experiences of social stigma over the course of a year were associated with exacerbated differences between actual and ideal levels of closeness, which were in turn associated with diminished relationship quality among same-sex couples. This research therefore provides important extensions to previous research on stigma, minority stress, and relational well-being among same-sex couples (e.g., Cao et al., 2017; Doyle & Molix, 2015; Rostosky & Riggle, 2017) by offering a potential explanation for how stigma “gets in between” partners in same-sex couples thereby diminishing the quality of their romantic relationships. Future attention to how these processes persist or diminish in a rapidly changing social and policy climate should be a priority for future research on stigma and same-sex relationships (Fingerhut & Frost, 2020; LeBlanc & Frost, 2020; Meyer, 2016).

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