THE ROLES OF COGNITIVE FLEXIBILITY, BICULTURAL SELF-EFFICACY, AND MINORITY STRESS IN THE MENTAL HEALTH OF BISEXUAL INDIVIDUALS

By

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A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

2011
To lattes, my fuel of choice
ACKNOWLEDGMENTS

I am thankful for the unending support of my family and doctoral mentor, Bonnie Moradi. This project was brought to life through only their patience and encouragement. I am also grateful for the feedback and guidance offered by my committee members, Cathy Cottrell, Kendal Broad, and Mary Fukuyama, who have each supported me in many ways for the last few years. Finally, I feel extremely fortunate for the close friendships fostered through my work in room 232 of the Psychology Building – “buds” for life!
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Despite a growing body of literature that examines the psychological distress and well-being of lesbian women and gay men, scholarly understanding of the experiences of bisexual individuals remains largely speculative. While prior research with sexual minority populations suggests that sexual orientation-based stressors contribute to psychological distress (e.g., Lewis et al., 2003; Meyer, 1995; 2003), little research has focused exclusively on bisexual persons. Moreover, despite calls to examine indicators of psychological well-being (e.g., Sandage, Hill, & Vang, 2003), there is little work in this area pertinent to bisexual individuals. Within the available literature, some scholars suggest that both bicultural self-efficacy (Collins, 2000) and cognitive flexibility (Konik & Crawford, 2004) may be important aspects of bisexual peoples’ life experiences; moreover, both of these variables have been linked with mental health in broader multicultural literatures (e.g., David et al., 2009; Streufert & Nogami, 1989). The present study elucidated how mental health stressors (experiences of prejudice, perceptions of stigma, concealment of sexual orientation, internalized biphobia) and mental health promoters (bicultural self-efficacy, cognitive flexibility) are related to psychological distress and well-being in bisexual populations. Multiple regressions and bivariate
correlations were conducted with data from 414 bisexual people. Findings suggested that, as expected, most minority stress variables were related positively with psychological distress. Moreover, mental health promoters were related positively with dimensions of psychological well-being. Implications for future research, practice, and interventions with bisexual people are discussed.
CHAPTER 1
REVIEW OF THE LITERATURE

Introduction

A growing body of research with marginalized groups suggests that minority stressors such as perceived experiences of prejudice, internalization of prejudice, and expectations of stigma are related to mental health concerns for these groups (e.g., Klonoff & Landrine, 1995; Landrine & Klonoff, 1996; Lewis, Derlega, Griffin, & Krowinski, 2003; Mays & Cochran, 2001; Moradi & Hasan, 2004; Moradi & Risco, 2007; Moradi & Subich, 2002; 2004; Pascoe & Richman, 2009). Specifically, within sexual minority populations, minority stressors have been found to be related to a number of psychological distress indicators including anxiety, depression, substance abuse, and suicidal ideation (Meyer, 2003; Selvidge, Matthews, & Bridges, 2008; Szymanski, Kashbubeck-West, & Meyer, 2008). While it is clear that minority stressors are related to the psychological distress of lesbian women and gay men, there has been limited attention to the experiences of bisexual people (Phillips, Ingram, Smith, & Mindes, 2003). Thus, minority stressors are posited to be linked with bisexual persons' experiences of psychological distress (Meyer, 2003), but further support for this relation is necessary.

Furthermore, some scholarship points to factors that may be particularly salient mental health and well-being promoters for minority populations. Particularly, biculturalism literature suggests that the cognitive flexibility necessary to competently navigate and function in two cultures may promote mental health (Kim & Omizo, 2006). Conceptualizations of biculturalism are relevant to understanding the experiences of bisexual people because available literature posits that bisexual individuals may
develop heightened cognitive flexibility in order to navigate both mainstream heterosexual culture and marginalized lesbian/gay culture (Collins, 2000; Dworkin, 2002; Konik & Crawford, 2004; Zinik, 1985). As such, navigating mainstream and marginalized cultures may foster greater bicultural self-efficacy and cognitive flexibility which may be related to psychological well-being for bisexual people. While mental health promoters, such as bicultural self-efficacy and cognitive flexibility, are discussed in the broader multicultural literature (e.g., Sue & Constantine, 2006) and in scholarship about sexual minority people (e.g., Brown, 1989), few studies have examined these mental health promoters with bisexual samples.

Indeed, limited attention to bisexual issues in psychological disciplines has been noted by numerous scholars (Bieschke, Paul, & Blasko, 2007; Israel & Mohr, 2004; Mohr, Israel, & Sedlecek, 2001; Mohr, Weiner, Chopp, & Wong, 2009). A deeper understanding of the unique factors that may contribute to the psychological distress and well-being of bisexual persons is necessary to inform scientific understanding and clinical work with this population. Thus, the present study extends the literature on mental health stressors and promoters for marginalized groups by focusing on the unique experiences of bisexual individuals.

**Bisexuality**

Broadly conceptualized, bisexuality refers to an individual’s experiences of erotic, emotional, and sexual attraction to persons of more than one gender (Firestein, 1996). While bisexual issues are often overlooked in the larger body of literature on sexual minority people, evidence from historical, biological, and cross-cultural research supports that bisexuality has existed throughout history in diverse cultures and species (Fox, 1996). Specific to psychological theory, Freud (1925) posited that bisexuality was
a normal component of psychosexual development and that all people had some degree of same-sex attractions. Later theorists came to view bisexuality as a transitory state, or a denial of homosexual feelings; notably, Bergler (1956) argued that “bisexuals are really homosexuals with the occasional heterosexual excuse” (p. 81). Indeed, early sexual identity development models described bisexuality as a form of identity foreclosure or an unhealthy process of halting the formation of a strictly lesbian or gay identity (Cass, 1979).

In more recent years, many members of the psychological community have come to view bisexuality as a valid sexual orientation which may have distinct developmental pathways; however, theorists posit that the general lack of recognition given to bisexuality might prevent some individuals from sustaining this sexual identity (Troiden, 1988). Moreover, some research suggests that bisexual individuals may have varying degrees of attraction to different genders, and these degrees of attraction may fluctuate throughout life (Diamond, 2008). To acknowledge these complexities, many researchers have moved away from conceptualizations of sexual orientation that dichotomize identity to either heterosexual or lesbian/gay. Affirmative theories regarding bisexual identity development now view this identity formation as a complex and open-ended process, during which bisexual individuals may encounter negative societal views about bisexuality and learn to flexibly navigate both heterosexual and lesbian/gay cultures (Bradford, 2004).

**Mental Health Stressors**

Anti-bisexual attitudes among heterosexual people have been well documented (e.g., Eliason, 1997; 2001; Herek, 2002; Mohr & Rochlen, 1999; Mulick & Wright, 2002; Spalding & Peplau, 1997). While investigated with less frequency, there is evidence that
anti-bisexual attitudes and behaviors also exist in lesbian and gay communities (Burleson, 2005; Mohr & Rochlen, 1999). As such, bisexual individuals who may experience prejudice from heterosexual as well as lesbian and gay communities could be particularly at risk for mental health correlates of these negative experiences (Bonn, 2001). Indeed, data from a community survey suggested that respondents who identified as bisexual reported elevated levels of anxiety, negative affect, and depression relative to lesbian, gay, or heterosexual respondents (Jorm et al., 2002).

Meyer (1995; 2003) offered a framework for understanding stressors that may contribute to heightened mental health risks for sexual minority populations; specifically, he outlined the following four sources of minority stress: (a) experiences of stressful events and conditions that are external to the individual (i.e., prejudice), (b) expectations of these events (i.e., stigma), (c) concealment of sexual orientation, and (d) internalization of negative societal attitudes (i.e., internalized heterosexism/biphobia).

This minority stress framework has garnered support with lesbian/gay populations (Lewis et al., 2003; Mays & Cochran, 2001; Selvidge et al., 2008) and is beginning to be examined with bisexual populations (Brewster & Moradi, 2010).

**Perceived Experiences of Anti-Bisexual Prejudice**

Despite societal myths that bisexual individuals are victims of “half as much” negativity as lesbian and gay people, extant studies suggest that bisexual people experience relatively similar levels of sexual orientation based prejudice and violence (Herek, 2002; Herek, Gillis, & Cogan, 1999). Anti-bisexual prejudice has been conceptualized as unique relative to broader heterosexist prejudice, as it may come from both lesbian/gay and heterosexual people and take the form of beliefs that bisexual people are immature, cheaters, hypersexual, indecisive, diseased, trashy, or
unstable in their bisexual orientation (Ault, 1996; Burleson, 2005; Eliason, 1997; Hutchins & Kaahumanu, 1991; Pajor, 2005; Rust, 1992). Reported experiences of prejudice have been found to be associated significantly and positively with psychological distress for lesbian and gay people (e.g., Lewis et al., 2003) and bisexual individuals (Brewster & Moradi, 2010), and associated negatively with psychological well-being for lesbian and bisexual women (Selvidge et al., 2008). The sections that follow will describe the nature of anti-bisexual prejudice and its role as a stressor for bisexual individuals.

Anti-bisexual prejudice has been conceptualized to reflect at least two underlying dimensions; an instability dimension, which reflects the degree to which bisexuality is perceived as an unstable and illegitimate sexual orientation, and an interpersonal hostility dimension, which reflects the extent to which others are hostile toward bisexuality and bisexual persons (Mohr & Rochlen, 1999). The instability and interpersonal hostility dimensions were supported empirically in Mohr and Rochlen’s (1999) operationalization of lesbian, gay, and heterosexual individuals’ attitudes toward bisexuality. In that study, the instability factor reflected perceptions that bisexual individuals are confused, temporarily experimenting, or in denial about their true sexual orientation, whereas the interpersonal hostility factor reflected the views that bisexual individuals are amoral, sick, and a threat to society.

In addition to the instability and interpersonal hostility dimensions, a third dimension of prejudice termed “sexual irresponsibility” emerged in a study about anti-bisexual prejudice experiences reported by bisexual individuals (Brewster & Moradi, 2010). From the perspective of the bisexual participants in Brewster and Moradi’s
(2010) study, the instability dimension captured perceived experiences of being treated as if bisexuality is a transitory state, a reflection of sexual curiosity, or a product of sexual identity confusion. The interpersonal hostility factor reflected perceived experiences of being alienated, excluded, or treated negatively because of being bisexual. Finally, the sexual irresponsibility factor reflected perceived experiences of being treated as if bisexual people are hypersexual, STD vectors, and disloyal in romantic relationships. The following sections present a review of these three dimensions of anti-bisexual prejudice.

**Bisexuality as an illegitimate and instable sexual orientation.** Some research suggests that heterosexual as well as lesbian and gay people may regard bisexuality with skepticism and discredit its existence as a legitimate sexual orientation (e.g., Burleson, 2005; Rust, 1992). Specifically, some bisexual women and men report experiencing negative interactions with members of the lesbian and gay community because some community members endorse stereotypes that bisexual people are indecisive, “fence-sitters”, or emotionally immature (Ault, 1996; Burleson, 2005; Hutchins & Kaahumanu, 1991; Rust, 1992). Ault (1996) discussed that individuals who are not exclusively heterosexual are automatically viewed as lesbian or gay, yet persons who are not exclusively lesbian or gay are believed to have a sexual orientation that is less legitimate than a strictly same-sex orientation. Related to perceptions of bisexuality as illegitimate are views that bisexual orientations as instable (e.g., Burleson, 2005). Perceptions of bisexuality as instable may be apparent in expressions that bisexual people are merely “transitioning” to a strictly lesbian or gay orientation or in beliefs that bisexual people are only acting out sexual curiosities by engaging in
romantic relationships with people of the same and other gender (Brewster & Moradi, 2010). Prejudice manifested in the form of beliefs about the illegitimacy and instability of bisexuality may lead to negative psychological consequences for bisexual people, such as feelings of confusion, frustration, invalidation, and a lack of social support (e.g., Ault, 1996; Brown, 2002; Evans, 2003; Rust, 1992).

**Interpersonal hostility.** The existence of anti-bisexual attitudes among heterosexual populations was clearly captured by Herek’s (2002) national random digit dialing survey (N = 1,335). Attitudes towards bisexual women and men were assessed through 101-point feeling thermometers in which higher ratings indicated warmer feelings towards the target and lower ratings represented negative feelings. In addition to rating bisexual people, respondents were also asked to give thermometer scores for other groups including religious sects, lesbian/gay persons, people who inject illegal drugs, people with AIDS, racial/ethnic groups, and groups who are pro-choice or pro-life regarding abortion. Thermometer ratings for bisexual women and men were lower than ratings of all other groups except intravenous drug users. These findings illustrate the depth of heterosexual persons’ negative affect toward bisexual people.

Relatedly, Eliason (2001) examined the attitudes of heterosexual college students towards bisexual women and men. A questionnaire was administered to 229 self-identified heterosexual undergraduate students. Participants were administered the Beliefs about Sexual Minorities Scale (BSM; Eliason & Raheim, 1996) and additional statements regarding common bisexual stereotypes that the participants could either agree or disagree with. Themes in these items included hatred, disgust, moral disapproval, tolerance, and acceptance of sexual minority groups. Participants were
asked to report “how acceptable” they felt bisexual women and men were with four options: very acceptable, somewhat acceptable, somewhat unacceptable, and very unacceptable. Bisexual women were reported to be “somewhat unacceptable” or “very unacceptable” by 50% of the participants and bisexual men were seen as “somewhat unacceptable” or “very unacceptable” by 61% of the sample.

Interpersonal hostility toward bisexual people may also exist among lesbian/gay individuals (e.g., Ault, 1996; Burleson, 2005; Ochs, 1996; Rust, 1992; Stone, 1996). Mohr and Rochlen (1999) suggested that lesbian and gay people may view bisexual people as untrustworthy due to struggles with in-group (heterosexual) and out-group (LG) power dynamics; with bisexual persons representing an uncomfortable blurring of boundaries. Scholars have discussed that bisexual people, who represent a hybrid of heterosexual/homosexual identities, are sometimes denied access to sexual minority support groups and viewed as “heterosexual infiltrators” or fallen lesbian/gay people (Ault, 1996, p. 461; Rust, 1992). Thus, interpersonal hostility from lesbian/gay persons may stem from the perception that bisexual individuals are able to reap the benefits of heterosexuality without committing to the struggle against heterosexism (Ault, 1996; Burleson, 2005; Rust, 1992; Stone, 1996).

Such negative views of bisexuality can translate to interpersonal hostility toward bisexual people. Indeed, Mohr and Rochlen (1999) found that lesbian participants with high levels of anti-bisexual affect were likely to express an unwillingness to be best friends with a bisexual person. Similarly, there is a history of antagonism towards bisexual women in some radical and lesbian feminist movements (Ault, 1996; Rust, 1992). Some lesbian women have been purported to have a wide range of negative
beliefs regarding bisexuality, ranging from the view that bisexual women are disloyal to feminist causes to the belief that bisexuality as a whole “does not exist” (Ault, 1996; O’Connor, 1997). Brewster and Moradi (2010) found that interpersonal hostility toward bisexual persons reflected a unique dimension of perceived anti-bisexual prejudice; this interpersonal hostility was manifested in perceived experiences that heterosexual and lesbian/gay persons were alienating, marginalizing, and excluding bisexual people because of their sexual orientation. As such, prejudice manifested in the form of interpersonal hostility toward bisexual persons may promote feelings of psychological distress for bisexual individuals.

**Bisexual people as sexually irresponsible.** Bisexual people are sometimes stereotyped as promiscuous, disloyal, and irresponsible in their romantic relationships (Ault, 1996; Eliason, 1997, 2001; Spalding & Peplau, 1997). In an investigation of heterosexuals’ perceptions about bisexual individuals, Spalding and Peplau (1997) recruited 353 heterosexual undergraduate college students who were asked to read a description of bisexual, lesbian and gay, or heterosexual adults in the context of a dating relationship and then rate the couple, target person, and the target’s partner on various relationship-related characteristics. All of the couples in the vignettes were portrayed as dating for six months and feeling that their relationship was going very well. Participants rated each partner and their relationship on dimensions of monogamy, trust, sexual riskiness, sexual talent, and relationship quality. An ANOVA revealed that there was a significant main effect of sexual orientation on ratings of monogamy and relationship loyalty; specifically bisexual individuals were seen as more likely to concurrently date multiple partners and to cheat on their partner than were heterosexual
persons. Furthermore, bisexual persons were seen as more likely to give an STD to their partner than were heterosexual people.

Anti-bisexual prejudice related to perceptions of bisexual people as sexually irresponsible may inhibit some individuals from seeking romantic relationships with bisexual people. For example, when Eliason (2001) asked heterosexual college students how likely it was that they would ever have a sexual relationship with an attractive bisexual person, approximately half (52%) of the students rated this possibility as very unlikely with an additional quarter (25%) of the sample claiming that it was somewhat unlikely. These findings varied by participant’s gender; specifically, men’s regard for bisexual women was generally positive and men were significantly more likely than women to report that they would have a sexual relationship with a bisexual person of the other-gender. Heterosexual men’s willingness to date bisexual women has been attributed to pornography and the media, which often portray bisexual women as erotic objects, thus contributing to stereotypes that bisexual women are hypersexual (Eliason, 1997). However, when compared to women, men were more likely to endorse stereotypes of bisexuality related to non-monogamy and the spread of AIDS. Eliason (2001) suggested that sexual irresponsibility prejudice toward bisexual individuals may stem from a number of factors including a fear of AIDS and deeply engrained sexual taboos. Consistent with these findings, Brewster and Moradi (2010) found that a unique dimension of bisexual individuals’ perceived experiences of anti-bisexual prejudice was sexual irresponsibility which included experiences of being treated as if they were obsessed with sex, likely to have an STD, or cheaters in romantic relationships.
Taken together, the results of these studies support the existence of anti-bisexual prejudice manifested as perceived illegitimacy and instability, interpersonal hostility, and perceived sexual irresponsibility. Reported experiences of prejudice have been related to psychological distress for sexual minority groups (Lewis et al., 2003; Mays & Cochran, 2001; Meyer, 1995; Selvidge et al., 2008) and appear to be linked to psychological distress for bisexual individuals as well (Brewster & Moradi, 2010). There is also speculation (but no known research) that experiences of prejudice would also be related to lower levels of self-esteem and life satisfaction for bisexual persons (Bronn, 2001). But, further research is needed to advance understanding of experiences of anti-bisexual prejudice and their mental health correlates.

**Expectations of Anti-Bisexual Stigma**

Not surprisingly, repeated experiences of prejudice and discrimination can promote expectations of future maltreatment. This chronic vigilance for societal rejection, or the expectations of minority group members that they will be viewed negatively by others, is another form of minority stress (Meyer, 1995; 2003; Pinel, 1999). Expectation of stigma has been found to be associated significantly and positively with depressive symptoms (Brewster & Moradi, 2010; Lewis et al., 2003). This section discusses the nature of stigma and its role as a stressor for sexual minority individuals.

Members of stereotyped groups are often aware that their group membership plays a role in how others interact with them (Pinel, 1999). In a sample of lesbian women and gay men, Pinel (1999) found that awareness of such stigma was related to measures of self-consciousness and perceptions of discrimination. Specifically, awareness of stigma was correlated positively with private self consciousness (i.e., an
internal concern about the self) and public self-consciousness (i.e., concern about how others view oneself) as well as with perceptions of discrimination against one’s group (e.g., how much discrimination do lesbians face?) and perceptions of personal experiences of sexual orientation-based discrimination. Based on these findings, Pinel (1999) argued that high levels of stigma consciousness may have mental health consequences for members of marginalized groups. Indeed, experiences of heightened self-consciousness and self-monitoring have been posited to be stressful for group members, and related to heightened anxiety and lowered self-esteem (Link, 1987; Meyer, 1995; Ruggiero & Taylor, 1997). Also, chronic expectations that one will be discriminated against may be related to loss of perceived control in social situations (Ruggiero & Taylor, 1997). Thus, stigma consciousness may be related positively with indicators of psychological distress (e.g., anxiety) and related negatively with indicators of psychological well-being (e.g., self-esteem).

Meyer (1995) examined awareness and expectation of stigma among gay men. He argued that gay men maintain a level of chronic vigilance, or expectations that they will be the targets of violence, rejection, and discrimination because of their sexual orientations. Such vigilance requires the constant monitoring of environmental cues and requires a considerable amount of mental energy. Thus, Meyer (1995) posited that expectations of stigma are stressful for sexual minority persons and related to fear, mistrust, and a “sense of disharmony and alienation with general society” (Meyer, 1995, p. 41). Consistent with this perspective, Meyer (1995) found that expectation of stigma was related positively with several indicators of psychological distress including demoralization (sadness, dread, anxiety, helplessness, low self-esteem, confused
thinking), guilt (rational or irrational feelings of guilt), and suicidal ideation/intent. As such, a heightened awareness and expectation of societal stigma may be a stressor for sexual minority populations.

Lewis et al. (2003) expanded the work of Meyer (1995) by examining the role of stigma consciousness as a stressor with a sample of 204 lesbian, gay, and bisexual persons. The authors conducted a multiple regression with depressive symptomatology as the criterion variable, and stigma consciousness, stressful life events or circumstances related to being lesbian or gay, internalized heterosexism, and outness as a sexual minority person as predictors. Both stigma consciousness and experiences of gay-related stress were found to be uniquely associated with depressive symptoms. As such, a heightened awareness of anti-gay stigma was associated positively and uniquely with psychological distress.

While few studies have examined the role of anti-bisexual stigma consciousness as a stress variable, recent research suggests a parallel relation with distress for bisexual people. Specifically, Brewster and Moradi (2010) examined the role of minority stress variables in the mental health of over 650 bisexual individuals. The authors found that stigma consciousness was correlated positively with psychological distress. Moreover, when stigma consciousness was entered into a multiple regression with anti-bisexual prejudice experiences, outness, and internalized heterosexism, it was associated uniquely with psychological distress. Thus, stigma consciousness appears to be an important stressor for bisexual individuals.

**Internalized Biphobia**

Societal prejudice toward sexual minority individuals may be internalized by targets. Internalized heterosexism or internalized homophobia has been defined as the
self-internalization of negative beliefs about sexual minority persons by sexual minority persons (Meyer, 1995; 2003; Szymanski, 2004). For bisexual individuals, this experience has been termed internalized biphobia (Ochs, 2007). Generally, prior data with sexual minority persons link internalized heterosexism with anxiety, depression, substance abuse, eating disorders, and various forms of self-harm (DiPlacido, 1998; Meyer & Dean, 1998; Williamson, 2000). This section offers a review of internalized heterosexism and its role as a stressor for sexual minority individuals.

In a sample of gay men, Meyer (1995) found that internalized heterosexism was associated positively and significantly with several indicators of psychological distress including demoralization, guilt, sexual problems (e.g., inhibited sexual desire), preoccupation with the AIDS epidemic, and suicidal ideation. Other studies with gay men suggest similar relations of internalized homophobia, including positive relations with psychological distress, depression, loneliness, somatic symptoms, and distrust (Herek et al., 1997; Lock & Kleis, 1998). Similar research with lesbian women suggests that internalized heterosexism may be correlated with greater levels of psychological distress for this population. Specifically, internalized heterosexism among lesbian women has been linked to distress variables including loneliness (Szymanski & Chung, 2001) and depression (Szymanski, Chung, & Balsam, 2001). Internalized heterosexism also has been linked with social stress for lesbian women. Specifically, Szymanski et al. (2001) reported that internalized heterosexism was correlated negatively with social support, satisfaction with social support, and lesbian-specific social support.

Recent work by Frost and Meyer (2009) suggests that internalized heterosexism may be linked to relationship stress for sexual minority persons. With a sample of 396
lesbian, gay and bisexual participants, the authors examined the relation of internalized heterosexism with a number of variables including psychological distress and quality of relationships with others. Internalized heterosexism was associated positively with depressive symptoms, loneliness, interpersonal relationship strain, and sexual problems.

Fewer studies have directly examined the relations between internalized heterosexism and indicators of well-being (e.g., self-esteem), however, findings tend to suggest that these variables are related negatively. Specifically, Meyer and Dean (1998) found that internalized heterosexism was inversely related to self-esteem in a sample of gay men. Peterson and Gerrity (2006) examined the relationship between internalized heterosexism and self-esteem in undergraduate lesbian women. The authors found a significant and negative relation between the two variables. In another study with lesbian women, Szymanski and Chung (2001) reported that self-esteem and internalized homophobia were correlated negatively. Thus, higher levels of internalized heterosexism may be related to lower levels of self-esteem for lesbian women.

Though little research specific to bisexuality and internalized biphobia has been conducted, a recent literature review of internalized heterosexism in sexual minority groups found that across numerous studies internalized heterosexism was a stressor for bisexual individuals (Szymanski, Kashubeck-West & Meyer, 2008); it is important to note, however, that these studies assessed internalized heterosexism and not internalized biphobia. However, Brewster and Moradi (2010) found that internalized biphobia was correlated positively with psychological distress for bisexual individuals. Moreover, when internalized biphobia was entered in a multiple regression with stigma
consciousness, outness, and reported experiences of anti-bisexual prejudice, internalized biphobia emerged as uniquely associated with psychological distress.

**Concealment of Bisexual Orientation**

Concealment of sexual orientation is often conceptualized as a vigilant process of withholding information related to sexual identity in an effort to manage other individuals’ perceptions of the self (Selvidge et al., 2008). Within a context of anti-bisexual societal prejudice and stigmatization, bisexual individuals may be compelled to conceal their bisexual orientation (D’Augelli & Grossman, 2001; Lichtenstein, 2000; Stokes, Damon, & McKirnan, 1997; Stokes, McKirnan, & Burzette, 1993). There is some evidence that many bisexual men may conceal their bisexual identities to members of their family and social networks (Doll et al., 1992; Lichtenstein, 2000; Stokes et al., 1997; Stokes, McKirnan, & Burzette, 1993). Considering that male bisexuality has commonly been linked with HIV transmission in the popular media, it is possible that some bisexual men might conceal their orientations to avoid this stigma (Lichtenstein, 2000; Montgomery et al., 2003). While fewer studies directly examine concealment of bisexual orientation for women, scholars suggest that some bisexual women may choose to conceal their sexual orientations as a way to dissociate themselves from negative stereotypes about bisexuality, including associations with promiscuity and hypersexuality (Ault, 1996; Bronn, 2001; Eliason, 1997; Ochs, 2007).

Findings examining the link between concealment of sexual orientation, psychological distress, and psychological well-being have been mixed. Historically, many scholars believed that concealment of sexual orientation promoted psychological distress and that “coming out” (disclosing sexual minority status) was necessary for mental health – yet, disclosure issues are likely more complex than previously thought.
Indeed, some studies have found a negative association between active concealment and psychological well-being (Selvidge et al., 2008) and a positive association between outness and psychological well-being (Doll et al., 1992; Morris, Waldo, & Rothblum, 2001), while other studies suggest that being “out” (particularly in an unaffirming environment) may be linked with greater exposure to prejudice (Battle & Lemelle, 2002; Choi, Kumekawa, & Dang, 1999; Espin, 1993; Greene, 2000). Still other studies have found that outness as a sexual minority person is not necessary for some aspects of psychological well-being, including self-esteem and life satisfaction (Cain, 1991; Eldridge & Gilbert, 1990; Ellis & Riggle, 1995; McCarn & Fassinger, 1996), and is unrelated to psychological distress (Lewis et al., 2003). Specifically, Cain (1991) argued that the decision to come out is a largely individual process that is dependent on the perceived rewards and consequences of disclosure. Thus, the role of concealment as a mental health stressor is presently unclear and may be more closely linked to targets’ perceptions of the environmental climate toward sexual minority people.

Taken together, experiences of prejudice, stigma, internalized heterosexism, and identity concealment are each important variables in understanding the experiences of sexual minority people. While past studies about minority stressors have included some bisexual people, attention to the unique experiences of this population has been limited. Thus, the present study aims to gain a more complete understanding of minority stress in bisexual populations and clarify the role of such stress in mental health.

Mental Health Promoters

In recent decades there has been a push for research that attends to the unique experiences of individuals whose identities foster navigating multiple cultures (Benet-
Martinez & Haritatas, 2005; Collins, 2004; LaFramboise, Coleman, & Gerton, 1992).
Some scholars have argued that sexual minority persons must learn to live biculturally
in order to navigate between mainstream heterosexual society and sexual minority
culture (e.g., Brown, 1989; Collins, 2000; Collins, 2004; Dworkin, 2002). Bicultural
identity may be particularly relevant to bisexual individuals because this group exists at
the margins of both heterosexual and lesbian/gay culture (Dworkin, 2002). Biculturalism
has been defined as "the experience of living at the juncture of two cultures" (Tadmor,
Tetlock, & Peng, 2009, p. 105) and this identity has been linked to a number of
psychological outcomes, both negative and positive. While many studies have focused
on the potential challenges and stressors of identifying as bicultural (e.g., being
marginalized) others have highlighted the potential strengths of such identity as a
promoter of psychological well-being (Field, 1996; LaFromboise, Coleman, & Gerton,
1993; Rotosky et al., 2010; Suzuki-Crumly & Hyers, 2004). Specifically, Suzuki-Crumly
and Hyers (2004) hypothesized that because bicultural individuals have greater contact
with people from different cultures than monocultural persons they are better able to
interact with people both inside and outside of their cultural group. Moreover, diversity of
cultural perspectives can foster flexibility, innovation, and creativity (Leung, Maddux,
Galinsky, & Chiu, 2008). The following sections discuss two potential bicultural identity-
related mental health promoters for bicultural individuals: bicultural self-efficacy and
cognitive flexibility.

**Bicultural Self-Efficacy**

Bicultural competency refers to the ability to initiate and maintain relationships, as
well as satisfactorily behave and function, in both mainstream and heritage cultures
(David, Okazaki, & Saw, 2009). Consistent with such a definition, Raymond (2005, p.
describes the experience of being bisexual as having one’s “feet firmly planted in several worlds” simultaneously. While bicultural individuals may actively engage in the practices of two (or more) cultures, they may not feel competent or confident in these interactions; bicultural self-efficacy reflects the felt sense of competence in navigating multiple cultures (David et al., 2009). To this end, bicultural self-efficacy is a measurable manifestation of bicultural competency. Bandura (1977) theorizes that self-efficacy may impact psychological well-being when individuals feel as though they must meet external standards, values, or principles. As bicultural individuals must learn to navigate and interact in both mainstream and heritage cultures, a high level of perceived bicultural competency or bicultural self-efficacy may be associated with greater well-being. Indeed, in a study with bicultural college students, bicultural self-efficacy was found to be correlated positively with life satisfaction (David et al., 2009). The following paragraphs discuss available conceptualizations of bicultural self-efficacy and its potential links with indicators of mental health.

LaFromboise et al. (1993) set forth that to be biculturally competent one must know and understand two cultures and be able to function efficiently and productively within the context of both cultures. LaFromboise et al. (1993) termed this approach alternation, and posited that people can choose the manner and degree to which they will affiliate with various cultures. Moreover, LaFromboise et al.’s (1993) conceptualization suggests that it is possible to maintain a good relationship with both cultural groups without choosing between them or experiencing cultural strain. Bicultural competency is described by LaFramboise et al. (1993) as including the following six dimensions: (a) knowledge about cultural beliefs and values, (b) positive attitudes
toward both groups, (c) bicultural efficacy, (d) communication ability, (e) role repertoire, and (f) a sense of being grounded. As relevant to the present research, LaFramboise et al. (1993) defined bicultural efficacy as the “belief, or confidence, that one can live effectively, and in a satisfying manner, within two groups without compromising one’s sense of cultural identity” (p. 404). As discussed by LaFramboise et al. (1993), bicultural efficacy is useful in that it helps an individual adapt to the challenging task of developing and maintaining social support in both of their cultural groups; specifically, self-efficacious beliefs may work to facilitate the acquisition of essential communication skills and role repertoire. Thus, some cultural theorists suggest that bicultural self-efficacy can assist an individual in developing other dimensions of bicultural competency.

In an effort to elucidate the relation between bicultural self-efficacy, mental health, and ethnic identity, David et al. (2009) developed the Bicultural Self-Efficacy Scale (BSES). The development of the BSES was greatly informed by LaFramboise et al.’s (1993) theoretical model of bicultural competency, but focuses on self-perceptions of bicultural ability. The BSES subscales assess six dimensions of bicultural self-efficacy including (a) social groundedness, (b) communication ability, (c) knowledge, (d) positive attitudes, (e) role repertoire, and (f) bicultural beliefs. Initial factor structure and validity of the BSES items was assessed with a sample of 268 ethnic minority college students. BSES subscales were generally correlated negatively and significantly with a measure of psychological distress (including indicators of anxiety and anhedonia) and correlated positively and significantly with life satisfaction.

With a separate sample of 164 bicultural undergraduate students, David et al. (2009) examined the relations of the BSES with other indicators of mental health, self-
efficacy, and ethnic identity. BSES subscales were correlated positively and significantly with most indicators of collective self-esteem (i.e., positive attitudes toward one’s ethnic group). Moreover, most subscales of the BSES were correlated positively and significantly with the multidimensional ethnic identity measure in which higher scores indicate stronger ethnic identity development. Conversely all of the BSES subscales were correlated negatively with feeling of strain between two cultures. Taken together, these results suggest that greater levels of bicultural self-efficacy are associated with more positive perceptions of one’s ethnic group, higher degrees of ethnic identity, and lower feelings of bicultural strain. Regarding relations with mental health variables, the BSES was again correlated positively and significantly with life satisfaction and correlated negatively and significantly with a measure of depressive symptomatology. All BSES subscales were correlated positively and significantly (though, small to medium effect sizes) with a general indicator of self-efficacy as well as a measure of academic self-efficacy. This pattern suggests that high levels of bicultural self-efficacy are related to broader feelings of self-efficacy; but, the moderate effect sizes of these relations indicate that the BSES is assessing a unique construct. As a whole, bicultural self-efficacy appears to be related to some indicators of psychological well-being (e.g., life satisfaction, self-efficacy, collective self-esteem) and unrelated to indicators of psychological distress (e.g., depression, anxiety).

In a study that did not directly examine bicultural self-efficacy but offers some relevant findings, Suzuki-Crumly and Hyers (2004) investigated ethnic identity and psychological well-being with 66 bicultural Asian/White Americans and Black/White Americans. The authors argued that while the popular press often portrays bicultural
people as more tolerant and possessing the ability to interact with diverse populations, bicultural people may not necessarily be more competent in their intergroup relations. Instead, it is possible that intergroup competency may be a product of having a bicultural identified orientation. The survey participants could identify as a minority, non-identified, or bicultural and also reported their level of anxiety in interacting with members of their own minority culture, their own majority culture, and “other” groups; this intergroup anxiety measure was used as a proxy for intergroup competence. The authors found a general pattern that participants who were biculturally identified or minority identified (e.g., Asian) had higher levels of self-esteem and were more satisfied with life than were participants who did not define a cultural identity. Moreover, Asian/White participants who were biculturally identified were less depressed than those who were non-identified (although a reverse and non-significant pattern emerged for Black/White participants). In terms of intergroup competence, again, there was a pattern that Asian/White (but not Black/White) participants who were biculturally identified and minority identified reported lower anxiety in interacting with members of “majority” and “other” cultural groups than did non-identified participants. Although small cell sizes and the operationalization of intergroup competence as low anxiety make interpretation of these results tentative, these findings suggest a pattern that a minority or bicultural identity may be associated with lower depression and greater satisfaction with life, self-esteem, and competence in interacting with other groups.

From another paradigm, Benet-Martinez and Haritatos (2005) examined bicultural identity integration (BII) or the extent to which a bicultural person feels as though their identities intersect/overlap or are incompatible with one another (e.g., perceived cultural
distance). Individuals with a high level of BII are thought to have a cohesive sense of identity and have higher levels of bicultural competency than individuals with lower levels of BII. With 133 Chinese American individuals, a path analysis revealed that bicultural competency (operationalized as scoring above the sample median on both American and Chinese language and cultural orientation) and the personality trait of openness to new experiences both were related negatively with cultural distance (or feelings of cultural isolation, conflict, and incompatibility; low BII). Moreover, bicultural competency was related positively with openness to new experiences (i.e., feelings of flexibility). Thus, bicultural competency and flexibility with new experiences may both be associated with lower feelings of cultural distance for bicultural individuals.

Overall, these patterns of findings suggesting associations between bicultural self-efficacy or competence and psychological well-being may apply to bisexual individuals as well. As stated previously, scholars have postulated that there may be potential similarities in experiences for bicultural individuals and sexual minority persons (e.g., Brown, 1989; Collins, 2000; Collins, 2004; Dworkin, 2002; Raymond, 2005). Brown (1989) argued that sexual minority individuals are always simultaneous participants in lesbian/gay culture and heterosexual culture. Thus, sexual minority people must learn to live within a “matrix of complexity” (p. 449) and navigate both cultures. Specifically, Collins (2004) suggested that, analogous to bicultural persons who must learn to navigate within and between their two cultural groups, bisexual individuals are caught in the “borderlands” or margins between lesbian and gay culture and mainstream heterosexual culture and must adapt to live in both worlds. In this sense, being bicultural or bisexual places individuals in a “gray area” that can foster an ability to live fluidly and
outside of constraints of traditional identities (Dworkin, 2002, p. 191). Comfort with living in this gray area has been described as cognitive flexibility.

**Cognitive Flexibility**

Cognitive flexibility has been defined as “the awareness that in any situation there are options and alternatives available, the willingness to be flexible and adapt to situations, and the competence to be flexible” (Kim & Omizo, 2006, p. 247). However regarding biculturalism, it is less clear whether being bicultural contributes to a person’s ability to become cognitively flexible, or if cognitive flexibility leads to higher levels of bicultural competency. Some researchers posit that the relation between these two variables is likely reciprocal (Tadmor, Tetlock, & Peng, 2009). Indeed, studies have found that individuals who are more rigid and less open to new experiences are less likely to be biculturally competent and flexibly-minded (Benet-Martinez & Haritatas, 2005). Cognitive flexibility has been linked with a number of positive outcomes including satisfaction with life, general self-efficacy, bicultural competency, collective self-esteem, and general psychological well-being (Benet-Martinez & Haritatas, 2005; Kim & Omizo, 2005; Konik & Crawford, 2004; Riggle et al., 2008; Selvidge, Matthews, & Bridges, 2008). Thus, cognitive flexibility may be an important correlate of psychological well-being.

A cognitively flexible approach to life may be an important promoter of well-being for sexual minority people. Selvidge et al. (2008) explored the role of flexible coping in the mental health of 373 racially diverse lesbian and bisexual women. Flexible coping is a form of cognitive flexibility that refers to the ability to accurately assess a situation, choose from a wide variety of coping possibilities, discern a response, and respond appropriately to the stressor. As a significant part of flexible coping is related to the
assessment of situations and the ability to adjust behavior to situations, this flexibility is thought to be closely related to good self-monitoring ability. Selvidge and colleagues found that flexible coping was related positively and significantly with psychological well-being. Moreover, when included in a multiple regression with experiences of prejudice and concealment, flexible coping was found to be uniquely related to psychological well-being.

Further support for the role of cognitive flexibility in the promotion of mental health for sexual minority individuals was found in Riggle and colleague’s (2008) qualitative study with 350 lesbian women and 203 gay men. The results suggested that despite experiences of rejection from family members upon the disclosure of sexual orientation, participants were able to move outside of traditional conceptualizations of “family” to create a family of choice. Families of choice for sexual minority people are often composed of select affirming family members, partners, non-biologically related friends, colleagues, and members of the gay community. As such, sexual minority people often use cognitive flexibility to look for support outside of traditional sources (e.g., family and religious groups). In particular, one respondent commented that by “living outside of many of society’s expectations for male-female interactions, gay men are free to have closer, nonsexual friendships” (p. 213). Thus, flexibility may actually promote the development of close relationships, and in turn, stronger support networks.

Other participants reported that the process of coming out as a sexual minority person required an increase in self-awareness and a desire for authentic living. Indeed, participants noted that because being a sexual minority person is seen as taboo, this experience caused them to rethink other social and legal constructs and determine for
themselves whether these parts of society are positive or negative. Indeed, some
respondents felt that being a sexual minority person enabled them to be flexible and
insightful in their interpretations of meaning. In turn, this increased insight and flexibility
promoted feelings of self-acceptance, inner strength, and confidence for some
respondents.

Another theme that emerged from the participants was perceived freedom from
societal definitions of roles. Particularly, respondents noted that being a sexual minority
person promoted a sense of freedom from gender role stereotypes and expectations.
This freedom enabled respondents to be flexible in their self-expressions and was
reported to be “very empowering!” by one woman (p. 214); other participants noted that
freedom from gender roles lead them to feel more confident, independent, and strong.
Finally, Riggle et al. (2008) found that their participants were likely to be flexible in their
expressions of sexuality and the construction of intimate relationships. Indeed, one
participant noted that having an unconventional relationship structure was positive
because it provided the opportunity to create new rules of life and new forms of
relationships.

Morrow (2001) argued that one form of cognitive flexibility, gender role flexibility,
may be an important strength for sexual minority individuals. Indeed, individuals who
are able to perform a variety of roles across gender-defined expectations are likely to be
better equipped to deal with stressors. Morrow (2001) posited that gender role flexibility
can facilitate adjustment to life changes and is therefore a general promoter of well-
being for sexual minority people.
Cognitive flexibility is also thought to be a notable component of bisexual identity (Konik & Crawford, 2004; Zinik, 1985). Zinik (1985) proposed a flexibility model of bisexuality which posits that bisexuality is based upon interpersonal and cognitive flexibility including the capacity to experience a broad spectrum of same-sex and different-sex desires. Indeed, Worthington, Navarro, Savoy and Hampton (2008) found that bisexual people were more flexible in the exploration of their sexual orientations than were heterosexual or lesbian/gay individuals.

There is some evidence that individuals with a bisexual or nonexclusive sexual orientation may score higher on measures of cognitive flexibility than people who identify as lesbian/gay, or heterosexual (Konik & Crawford, 2004). Bisexual people may be free to “embrace the possibilities for actively deconstructing and re-creating” their visions of human behavior (Brown, 1989, p. 452). Living apart from heterosexual social scripts may foster the development of more creative approaches to relationships, original methods of coping with stress, and the ability to live life in a uniquely satisfying way (Brown, 1989; Riggle et al., 2008). As such, cognitive flexibility may contribute to overall life satisfaction and psychological well-being for bisexual individuals.

For example, Dworkin (2002) conducted a qualitative study with 27 bisexual women in which participants discussed the personal factors that contributed to the construction of their bisexual identities. Findings from this study further supported the role of cognitive flexibility in promoting psychological well-being among bisexual persons (Dworkin, 2002). As an example of this promotion of well-being, one of the respondents noted that as a biracial and bisexual woman she was “used to not fitting into a category that readily exists” (p. 101) and in turn, this experience lead her to be
able to think more freely and openly about her sexual orientation. Another biracial respondent explained that her bisexual identity relegated her to a “gray area” (p. 101) that keeps her outside of the box; she noted that this experience has helped her to live flexibly and fluidly. Similarly, a Latina respondent reported that her heritage often relegates women to traditional gender roles, yet she feels that her bisexuality enabled her to live outside of the “typical” path for her gender and live flexibly within her culture. Taken together, the stories shared by the women illustrated that living flexibly was related to feelings of self-acceptance, openness, and freedom from traditional gender roles.

A recent study by Rotosky, Riggle, Pascale-Hague, and McCants (2010) further supports the positive role of cognitive flexibility in the lives of bisexual persons. The authors conducted an online study and asked bisexual respondents to describe the positive aspects of their bisexual identity. Compiled qualitative data from 157 adult participants revealed perceptions of several dimensions of cognitive flexibility as positive to bisexual identity including (1) freedom from societal labels, freedom of sexual expression, and freedom to love without regard for sex/gender; (2) having a unique perspective compared to other people, and (3) having increased levels of insight and awareness compared to others.

The studies reviewed here illustrate that sexual minority group members may utilize cognitive flexibility as a way to navigate societal norms and create unique ways of interacting with the world. Several studies supported that the ability to live flexibly promoted feelings of freedom and self-acceptance (e.g., Brown, 1989; Riggle et al.,
and other studies demonstrated that cognitive flexibility was linked with indicators of psychological well-being (e.g., Riggle et al., 2008; Selvidge et al., 2008).

**Psychological Distress and Well-Being Aspects of Mental Health**

As a discipline, counseling psychology is dedicated to understanding and alleviating sources of distress and also understanding and promoting sources of well-being within diverse populations. The following section will discuss the importance of examining factors that may contribute to psychological distress and psychological well-being in bisexual populations.

**Psychological Distress**

An understanding of psychological distress and its sources in diverse populations is crucial in order to provide therapeutic interventions and mental health services for these populations. Research specific to marginalized groups highlights that minority stressors may be related to distress for some individuals. Specifically, the minority stress framework is grounded in the work of pioneering scholars in the area of psychological stress who theorized that disproportionate stress due to minority status may be linked to higher rates of psychological distress among minority populations (e.g., Allport, 1954). For sexual minority persons, it is important to gather further knowledge of how experiences of specific minority stressors (e.g., prejudice experiences, expectations of stigma, concealment of orientation, and internalized heterosexism) may translate to psychological distress. Research suggests that rates of some mental health concerns may be greater among sexual minority individuals than among heterosexual people because of sexual minority persons’ experiences of minority stressors. For example, compared to heterosexual people, sexual minority individuals may be at higher risk for mood, anxiety, and substance use disorders.
(Cochran & Mays 2000a; Gilman et al., 2001; Sandfort, de Graaf, Bijl, & Schnabel, 2001) and may engage in more suicidal ideation and attempts (Fergusson, Horwood & Beautrais, 1999; Gilman et al., 2001; Herrell et al., 1999; Cochran & Mays, 2000b). Unfortunately, in a recent content analysis of counseling psychology journals, Phillips et al. (2003) noted that there was a dearth of literature related specifically to the experiences of bisexual individuals. Thus, the proposed study responds to counseling psychology’s need for research on minority stressors and psychological distress experienced by bisexual people.

**Psychological Well-Being**

Many scholars have called for researchers to examine variables related to psychological well-being for minority populations (Goodman et al., 2004; Sandage, Hill, & Vang, 2003; Savin-Williams, 2008; Seligman, Steen, Park, & Peterson, 2005). Indeed, understanding factors that might contribute to positive functioning for marginalized groups is an important step in promoting psychological well-being for sexual minority persons. The nature of psychological well-being, however, has been widely debated (Ryff, 1989). Some scholars conceptualize psychological well-being as general happiness, satisfaction with life, self-acceptance, environmental mastery and other related variables. Most commonly, psychological well-being has been conceptualized as having two major components, (1) the experience of positive emotional affect and (2) cognitive judgment of well-being (Diener & Emmons, 1984; & Andrews & Withey, 1976). Self-esteem is thought to be a dimension of positive emotional affect involving self-acceptance and a basic feeling of self-worth (Rosenberg, 1965). A positive attitude toward oneself may promote self-actualization, maturity, and optimal functioning (Ryff,
Moreover, self-esteem is related negatively with expressions of psychological distress, including depression and anxiety (Rosenberg, 1965).

Cognitive judgment of well-being has been termed life satisfaction and has been found to be correlated positively to numerous dimensions of psychological well-being including high morale, happiness, and other measures of subjective well-being (Pavot & Diener, 1993; Pavot, Diener, Colvin, & Sandvik, 1991). The assessment of life satisfaction relies on respondents to determine the quality of their life according to their own chosen criteria, and is therefore a subjective evaluation of psychological well-being. As both bicultural self-efficacy and cognitive flexibility have been linked with dimensions of psychological well-being racial-ethnic and sexual minority populations (e.g., David et al., 2009; LaFromboise, Coleman, & Gerton, 1993; Riggle et al., 2008; Selvidge et al., 2008; Suzuki-Crumly & Hyers, 2004), these variables may play an important role in bisexual individuals’ psychological well-being as well. Thus, the proposed study aims to respond to calls for research regarding the psychological well-being of sexual minority individuals by examining the roles of cognitive flexibility and bicultural self-efficacy in promoting psychological well-being for bisexual persons.

**Purpose of the Study**

Despite a growing body of literature that examines the psychological distress and well-being of lesbian women and gay men, scholarly understanding of the experiences of bisexual individuals remains largely speculative. While prior research with sexual minority populations suggests that sexual orientation-based prejudice and stigma may contribute to psychological distress (e.g., Lewis et al., 2003; Meyer, 1995; 2003), little research has focused exclusively on bisexual persons. Moreover, despite calls to examine indicators of psychological well-being (e.g., Sandage, Hill, & Vang, 2003),
there is little work in this area pertinent to bisexual individuals. Within the available literature, some scholars suggest that both bicultural self-efficacy (Collins, 2000) and cognitive flexibility (Konik & Crawford, 2004) may be important aspects of bisexual peoples’ life experiences; moreover, both of these variables have been linked with mental health in broader multicultural literatures (e.g., David et al., 2009; Streufert & Nogami, 1989). Thus, the present study elucidates how mental health stressors (experiences of prejudice, perceptions of stigma, concealment of sexual orientation, and internalized biphobia) and mental health promoters (bicultural self-efficacy, cognitive flexibility) may be related to psychological distress and well-being in bisexual populations. Specifically, the current study had the following aims and hypotheses:

First, drawing from the minority stress model (Meyer, 1995; 2003), it was expected that perceived experiences of prejudice, perceptions of stigma, and internalized biphobia each would be related uniquely and positively to psychological distress and negatively to well-being. Because of mixed findings regarding concealment of sexual orientation and psychological symptoms, no specific hypothesis was made about this variable.

Secondly, regarding psychological well-being, it was expected that bicultural self-efficacy and cognitive flexibility each would be associated uniquely and positively with life satisfaction and self-esteem. Due to the scant availability of information about the links of bicultural self-efficacy and cognitive flexibility with psychological distress, no directional hypotheses were made with regard to psychological distress.
CHAPTER 2
METHODS

Participants

Data from 414 participants were analyzed in this study. Participants ranged in age from 18 to 80 years old (M = 34.30, SD = 14.01, Mdn = 31.00). Approximately 78% of the sample identified as White, 5% as Multi-racial, 6% as Hispanic/Latino, 4% as African American/Black, 2% as Asian American/Pacific Islander, 1% as Native American, and 4% as other races or ethnicities. About 53% of the sample identified as women, 37% as men, 1% as transwomen, 2% as transmen, and 7% as other genders (i.e., genderqueer, androgynous). Approximately 35% of participants had some college education, 34% had a college degree, 22% had a professional degree, 8% had a high school diploma, 1% had some high school education, and less than 1% had no high school education. Moreover, about 51% of participants identified as middle class, 24% as working class, 18% as upper-middle class, 5% as lower class, and 2% as upper class. Participants reported residing in 43 of the 50 United States, with most residing in the states of Florida (16%), California (13%), and New York (9%). No participants reported residing in Alaska, Arkansas, Hawaii, Kansas, Maine, New Hampshire, or Wyoming. A few participants (< 1%) resided in Canada and Mexico. In terms of sexual orientation, most of the sample placed themselves on a one to five continuum of exclusively lesbian or gay to exclusively heterosexual, with approximately 74% of the sample identifying their sexual orientation as bisexual, 10% as mostly lesbian or gay, 8% as mostly heterosexual, and less than 1% as exclusively lesbian gay (n = 1) or exclusively heterosexual (n = 1); an additional 7% of participants provided other sexual orientation labels including pansexual, non-monosexual, and queer; less than 1% described their
sexual orientation as asexual. Respondents who described their sexual orientations with classifiers other than “bisexual” were included in this study because bisexuality is conceptualized as a spectrum and bisexual individuals may not experience equal attraction to both genders (e.g., Rust, 2000). Along with these variations in sexual orientation, all participants affirmed that they self-identified as bisexual (described below).

**Procedures**

Participants were recruited through online electronic mailing lists, discussion boards, and virtual communities for bisexual or sexual minority individuals. The study was advertised as an examination of the life experiences of bisexual individuals. Participants were directed to an online survey that began with an informed consent page that asked respondents to affirm that they (1) identified as bisexual, (2) were 18 years of age or older, and (3) resided in North America. If respondents affirmed that they met these criteria and agreed to participate after reading the informed consent, they were prompted to complete the survey.

The internet has been a useful tool for collecting data from lesbian, gay, and bisexual samples (Moradi, Mohr, Worthington, & Fassinger, 2009). Even if such persons are not “out” broadly, they may feel comfortable being “out” online because the internet provides a shield of anonymity; thus, the internet is a viable resource for recruiting these underrepresented individuals (Mustanski, 2001). Additionally Riggle, Rostosky, and Reedy (2005) discussed that sexual minority-specific listserves and online message boards may be good recruitment venues because lesbian, gay, and bisexual people tend to view the internet as a safe place to connect with other sexual minority individuals. Furthermore, online surveys have been shown to yield similar responses as
traditional pen and paper methods while being more cost efficient (Gosling, Vazire, Srivastava, & John, 2004; Hiskey & Troop, 2002). In recent years, numerous studies have utilized online methodology as their primary means to recruit sexual minority participants (e.g., Carballo-Dieguez et al., 2006; Fernández et al., 2004; Wang & Ross, 2002).

In the present study, to reduce the risk of non-bisexual people participating, the survey link was distributed only to groups or networks that included bisexual individuals or bisexuality issues. Additionally, four validity questions asking participants to mark a particular response (e.g., Please mark “strongly agree”) were included within the survey to ensure that participants were responding attentively. A total of 762 surveys were submitted with a response to at least one item, but 21 submissions included a response only to the informed consent item and were deleted from the dataset. Of the remaining 741 entries, 322 were not usable because they were missing more than 20% of their survey responses (excluding demographic questions); a majority of these cases were missing over 75% of their survey responses. The proportion of these individuals who may have returned to complete the survey at a later time cannot be determined due to the anonymity of the survey. The remaining 419 cases were screened to identify participants who did not meet inclusion criteria or missed more than one validity check item. All participants met the specified inclusion criteria and most participants responded correctly to all six validity check items; however, five participants responded incorrectly to two or more validity check items and were removed from the dataset. These data cleaning procedures resulted in 414 participants.
Instruments

Predictor Variables

**Perceived anti-bisexual prejudice** was assessed with the 17-item Anti-Bisexual Experiences Scale (ABES; Brewster & Moradi, 2010). The ABES asks respondents to reflect on an experience described (e.g., People have assumed that I will cheat in a relationship because I am bisexual) and report how frequently they think that experience has occurred for them. Frequency of experiences is measured using a 6-point continuum (1 = never to 6 = almost all of the time) and respondents are asked to answer each item twice: once to assess their experiences of prejudice from lesbian or gay persons (ABES-LG) and again to assess their experiences of prejudice from heterosexual persons (ABES-H). Item ratings are averaged to yield overall ABES-LG and ABES-H scores, with higher scores indicating greater levels of perceived prejudice. Each scale is composed of three subscales: sexual orientation instability, sexual irresponsibility, and interpersonal hostility. ABES full-scale and subscale items have yielded Cronbach’s alphas ranging from .81 to .94 in samples of bisexual women and men; in terms of validity, ABES scores correlated positively with measures of stigma awareness in prior research (Brewster & Moradi, 2010. In the current study, given the interest in overall level of perceived prejudice, ABES-LG and ABES-H full-scale scores were utilized. The Cronbach’s alpha internal consistency reliabilities for ABES-LG and ABES-G were both .95.

**Perceived stigma**, or respondents’ perceptions of how others value their group, was assessed with the Public CSE subscale of the Collective Self-Esteem Scale (CSES; Luhtanen & Crocker, 1992). The CSE is a 4-item Likert-type measure (1 = strongly disagree to 7 = strongly agree). For example, participants are asked to rate
their level of agreement with “In general, others think that the social groups I am a member of are unworthy” while considering the bisexual community to be their social group. Items reflecting positive perceptions toward one’s social group are reverse scored and item ratings are averaged; thus, higher scores signify greater awareness of public devaluation. In terms of internal consistency reliability, Public CSE items yielded a Cronbach’s alpha of .79 in a sample of Latina/o lesbian and gay individuals (Zea, Reisen, & Poppen, 1999) and an alpha of .78 in a sample of predominately White bisexual people (Brewster & Moradi, 2010). Structural validity of the Public CSE subscale has been supported through factor analyses indicating that Public CSE items emerged as a distinct construct from other aspects of collective self-esteem (Luhtanen & Crocker, 1992). As expected, stigmatized groups reported greater perceived public devaluation of their group on the Public CSE subscale than did non-stigmatized groups (Richeson & Ambady, 2001). In the current study the Cronbach’s alpha for Public CSE items was .77.

Concealment or outness, that is, the degree to which respondents’ sexual orientation is known or talked about within different social spheres of their life, was assessed with the 10-item Outness Inventory (OI; Mohr & Fassinger, 2000). The measure asks participants to rate on a 7-point continuum (1 = person definitely does not know about your sexual orientation status to 7 = person definitely knows about your sexual orientation status, and it is openly talked about) how open they are about their sexual orientation to members of their social network (e.g., friends, coworkers, family). For the present study, an additional item “new lesbian/gay friends” was added to parallel an item examining outness with “new straight friends” resulting in a total of 11 OI items.
Moreover, the OI was modified to specifically assess outness as a bisexual person (e.g., “sexual orientation status” was changed to “bisexual orientation”). Item ratings are averaged to yield an overall score, with higher scores indicating greater levels of outness and lower concealment. Balsam and Mohr (2007) found a Cronbach’s alpha of .89 for OI items with their sample of bisexual individuals. Moreover, the Cronbach’s alpha internal consistency validity of the 11 item OI was .87 in a recent study with bisexual people (Brewster & Moradi, 2010). In terms of validity, prior studies have found that OI scores correlate positively with involvement in lesbian and gay communities for bisexual, lesbian, and gay individuals (Balsam & Szymanski, 2005; Mohr & Fassinger, 2000) and correlate negatively with the desire to keep sexual orientation private for samples of bisexual individuals (Balsam & Mohr, 2007). The Cronbach’s alpha internal consistency reliability in the current sample was .80.

**Internalized biphobia**, or respondents’ negative views and feelings about themselves as bisexual, was measured with the 5-item Internalized Homonegativity (IH) subscale of the Lesbian, Gay, and Bisexual Identity Scale (LGBIS). The LGBIS is a revised version of the Lesbian and Gay Identity Scale (Mohr & Fassinger, 2000) modified for use with bisexual individuals (Sheets & Mohr, 2009). For example, “I am glad to be a lesbian/gay person” is modified to read “I am glad to be a bisexual person.” Items are rated on a Likert-type scale (1 = disagree strongly to 7 = agree strongly). Appropriate items are reverse coded and item ratings are averaged, with higher scores indicating a greater level of internalized biphobia. With samples of bisexual individuals, Sheets and Mohr (2009) reported a Cronbach’s alpha of .77 and Brewster and Moradi (2010) reported an alpha of .85. Regarding validity, IH scores were correlated
negatively with self-esteem in a sample of lesbian and gay people (Mohr & Fassinger, 2000), and correlated negatively with life satisfaction in a sample of bisexual individuals (Sheets & Mohr, 2009). The Cronbach’s alpha for IH items in the present sample was .83.

**Cognitive flexibility** was assessed with the Cognitive Flexibility Scale (CFS; Martin & Rubin, 1995). The CFS is a 12 item measure that asks respondents to evaluate their ability to adapt to situations and consider alternative options in decision making (e.g., “I can find workable situations to seemingly unsolvable problems”). CFS items are rated on a Likert-type scale (1 = strongly disagree to 6 = strongly agree) and item ratings are averaged, with higher scores indicating greater levels of cognitive flexibility. CFS items have yielded acceptable internal consistency reliability in diverse populations. Specifically, CFS items produced a Cronbach’s alpha of .84 in a sample of Asian American participants (Kim & Omizo, 2005) and a Cronbach’s alpha of .77 in a sample of lesbian, gay, and bisexual individuals (Konik & Crawford, 2004). Validity of CFS scores is supported through their positive correlations with communication flexibility, perceptiveness, and attentiveness; moreover, CFS scores are correlated negatively with attitude rigidity (Martin & Rubin, 1995). In the present sample, Cronbach’s alpha for CFS items was .83.

**Bicultural self-efficacy** was assessed with the bicultural self-efficacy scale (BSES; David, Okazaki, & Saw, 2009). The BSES is a 26 item Likert-type measure (1 = strongly disagree to 9 = strongly agree) that assesses respondents’ perceived abilities to function competently in two cultures. The measure was modified to assess bicultural self-efficacy in heterosexual and sexual minority cultures (e.g., “I can communicate my
ideas effectively to both mainstream Americans and the same heritage culture as myself” was modified to “I can communicate my ideas effectively to both heterosexual individuals and lesbian/gay/bisexual people such as myself”). To score the measure, item ratings are averaged with higher scores indicating greater bicultural self-efficacy.

The BSES has six subscales: social groundedness, communication ability, positive attitudes toward both groups, knowledge of cultural beliefs and values, role repertoire, and bicultural beliefs; Cronbach’s alphas for these subscale items ranged from .69 to .91 in a sample of ethnic minority individuals (David et al., 2009). Regarding validity, the BSES subscale scores are correlated negatively with perceptions of bicultural conflict and separation; additionally, the BSES subscale scores are correlated positively with perceptions of positive evaluation of their social group by others (David et al., 2009). In the present sample, Cronbach’s alpha for BSES items was .92.

**Criterion Variables**

**Psychological distress** was measured with the Hopkins Symptom Checklist-21 (HSCL-21). The HSCL-21 (Green, Walkey, McCormick, & Taylor, 1988) is an abbreviated version of the 58-item Hopkins Symptom Checklist (Derogatis, Lipman, Rickels, Uhlenhuth & Covi, 1974). HSCL-21 items are rated on a 4-point continuum where 1 = not at all and 4 = extremely. Items assess how distressing or bothersome particular problems or complaints (e.g., “Feeling blue” or “A lump in your throat”) are to respondents. To score the measure, item ratings are averaged with higher scores reflecting greater psychological distress. In a recent study with sexual minority women, the HSCL-21 yielded a Cronbach’s alpha of .91 (Syzmanski & Owens, 2009) and its parent version HSCL-58 yielded a Cronbach’s alpha of .96 in a bisexual sample (Brewster & Moradi, 2010). In terms of validity, HSCL-21 scores are correlated as
expected with other measures of psychological distress (Kawamura & Frost, 2004; Moller, Fouladi, McCarthy, & Hatch, 2003) and the HSCL-21 has been utilized with diverse populations (Declan & Mizrashi, 2005; Komiya & Eells, 2001). Cronbach’s alpha in the present sample was .92.

Psychological well-being was assessed with the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffen, 1985) and the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965). The SWLS is a 5-item measure and each item is rated on a Likert type scale (1 = strongly disagree to 7 = strongly agree). Items are intended to capture overall satisfaction with life (e.g., “In most ways, my life is close to ideal”). To score the measure, item ratings are averaged with higher scores indicating greater life satisfaction. The SWLS yielded a Cronbach’s alpha of .84 in a recent study with racial-ethnic minority persons (David et al., 2009). As expected, the SWLS correlates negatively with measures of depressive symptomatology, negative affect, and general psychological distress and correlates positively with measures of subjective well-being (Pavot & Diener, 1991). The present data yielded a Cronbach’s alpha of .89.

The RSES is a 10-item measure which consists of statements reflecting perceived self-worth and self-acceptance (e.g., “On the whole, I am satisfied with myself). Each item is rated on a Likert type scale (1 = strongly disagree to 4 = strongly agree) where higher mean scores indicate greater levels of self-esteem. The RSES yielded a Cronbach’s alpha of .90 in a recent study with gay and bisexual men (Szymanski, 2009). In terms of validity the RSES correlates negatively with measures of anxiety and depression and correlates positively with other indicators of psychological well-being (Rosenberg, 1965). The current data yielded a Cronbach’s alpha of .90.
CHAPTER 3
RESULTS

Correlations

Bivariate correlations were computed to examine the relations among all variables of interest (Table 3-1). As expected for the minority stress variables, perceptions of anti-bisexual prejudice from heterosexual people (ABES-H), expectations of anti-bisexual stigma, and internalized biphobia were all correlated positively with psychological distress and correlated negatively with life satisfaction and self-esteem. But, the pattern of correlations was mixed for anti-bisexual prejudice from lesbian/gay people (ABES-LG) and for outness. Specifically, ABES-LG was correlated significantly and negatively only with life-satisfaction (and not with distress or self-esteem) and outness was correlated positively with life satisfaction and self-esteem (but not with distress).

Consistent with expectation, both posited mental health promoters (bicultural self-efficacy and cognitive flexibility) were correlated positively with life satisfaction and self-esteem and correlated negatively with psychological distress. Correlations among mental health stressing and promoting variables were also examined. ABES-H and ABES-LG, internalized biphobia, and expectations of stigma were each correlated negatively with bicultural self-efficacy whereas outness as bisexual was correlated positively with bicultural self-efficacy. Expectations of stigma, and internalized biphobia were each correlated negatively with cognitive flexibility whereas outness as bisexual was correlated positively with this variable.

Hypothesis 1: Mental Health Stressors

Hypothesis 1 posited that perceived experiences of prejudice, perceptions of stigma, and internalized biphobia each would be related uniquely and positively to
psychological distress and negatively to well-being. Because of mixed findings regarding a link between concealment of sexual orientation and psychological symptoms, no specific hypothesis was made about outness. To test Hypothesis 1, first, a simultaneous multiple regression analysis was conducted in which psychological distress was regressed on perceived experiences of anti-bisexual prejudice (ABES-LG and ABES-HT), expectations of stigma, internalized biphobia, and outness as bisexual. Results of the regression equation (Table 3-2) indicated that ABES-H, expectations of stigma, and internalized biphobia each accounted for unique positive variance in psychological distress, whereas ABES-LG accounted for unique negative variance and outness as bisexual was unrelated to distress.

Next, to evaluate the relations of minority stress variables with dimensions of psychological well-being, an additional simultaneous multiple regression was conducted in which life satisfaction was regressed upon experiences of anti-bisexual prejudice, expectations of stigma, internalized biphobia, and outness as bisexual. Results of the regression equation (Table 3-2) indicated that ABES-H, expectations of stigma, and internalized biphobia each accounted for unique negative variance in life satisfaction, whereas outness accounted for unique positive variance; ABES-LG was not related uniquely to life satisfaction.

Finally, a parallel simultaneous multiple regression was conducted in which self-esteem was regressed upon experiences of prejudice, expectations of stigma, internalized biphobia, and outness as bisexual. In this regression equation, ABES-H, expectations of stigma, and internalized biphobia accounted for unique negative
variance in self-esteem, whereas ABES-LG accounted for unique positive variance and outness as bisexual was unrelated to self-esteem (Table 3-2).

**Hypothesis 2: Mental Health Promoters**

Hypothesis 2 addressed the potential mental health promoters and posited that bicultural self-efficacy and cognitive flexibility each would be uniquely and positively associated with life satisfaction and self-esteem. Due to the scant availability of information about the links of bicultural self-efficacy and cognitive flexibility with psychological distress, no directional hypotheses with psychological distress were made. To test Hypothesis 2, first, a simultaneous multiple regression was conducted in which life satisfaction was regressed upon bicultural self-efficacy and cognitive flexibility. Results of this equation (Table 3-3) indicated that bicultural self-efficacy and cognitive flexibility both accounted for unique positive variance in life satisfaction.

Next, a parallel simultaneous multiple regression was conducted in which self-esteem was regressed on bicultural self-efficacy and cognitive flexibility. Results of this equation indicated that bicultural self-efficacy and cognitive flexibility both accounted for unique positive variance in self-esteem.

Finally, to explore the relations of bicultural self-efficacy and cognitive flexibility with psychological distress, an additional simultaneous multiple regression was conducted in which psychological distress was regressed upon these variables. The results of this equation indicated that cognitive flexibility accounted for unique negative variance in psychological distress, whereas bicultural self-efficacy was unrelated to distress.
Table 3-1. Correlations

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*Note. *p < .05; **p < .01; ***p < .001.
Table 3-2. Relations of mental health stressors with psychological distress and well-being

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Note. *p < .05; **p < .01; ***p < .001.

Table 3-3. Relations of mental health promoters with psychological distress and well-being

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Note. *p < .05; **p < .01; ***p < .001.
CHAPTER 4
DISCUSSION AND IMPLICATIONS

The current study responded to calls for research examining the life experiences of bisexual individuals (e.g., Phillips et al., 2003). Though some prior literature (largely qualitative and theoretical) suggests that experiences of prejudice, perceived stigma, concealment of bisexual orientation, and internalized biphobia may contribute to psychological distress for bisexual people, limited quantitative data speak to the applicability of minority stress theory (Meyer, 1995; 2003) with this population.

Moreover, sexuality scholars (Collins, 2000; Collins, 2004; Dworkin, 2002) have purported that bisexual individuals may experience heightened levels of cognitive flexibility and bicultural self-efficacy, both of which may promote psychological well-being. But again, this proposition has received limited empirical examination. The present study addressed the need for research on these proposed mental health stressors and promoters with bisexual populations. Results of the present study provide some support for the applicability of minority stress theory to bisexual people and also suggest that cognitive flexibility and bicultural self-efficacy are related positively to indicators of psychological well-being.

**Minority Stressors and Mental Health**

Minority stress theory posits that experiences of anti-bisexual prejudice, perceived stigma, internalized biphobia, and concealment of bisexual orientation each may be related uniquely with psychological distress. Past research with lesbian and gay populations has provided limited support for a positive relation between concealment of sexual orientation and distress, but offers support for links between the other three minority stress variables and psychological distress (e.g., Derlega, Griffin, & Krowinski,
2003; Mays & Cochran, 2001). The present study’s findings largely supported the
generalizability of the tenets of minority stress theory to bisexual individuals, with a few
divergent results. Consistent with minority stress theory, regression analyses indicated
that perceived anti-bisexual prejudice from heterosexual people, expectations of stigma,
and internalized biphobia each were related uniquely and positively with psychological
distress and negatively with dimensions of psychological well-being. Furthermore, the
effect sizes in these regression equations indicated that the minority stress variables
together accounted for between medium and large amounts of variance in the criterion
variables (Sink & Stroh, 2006). While acknowledging the limits of cross-sectional data in
assessing causal directions posited in minority stress theory, these relations suggest
that chronic minority stress (e.g., perceived prejudice, expectations of stigma, and
internalized negative attitudes about one’s bisexuality) may have a detrimental impact
on distress and well-being aspects of mental health. However, longitudinal research is
necessary to fully understand any temporal relations between minority stressors and
mental health.

Surprisingly, however, when examined concomitantly with other minority stress
variables, perceived prejudice from lesbian/gay individuals either did not account for
unique variance (in the case of life satisfaction) or accounted for unique variance in the
direction opposite to hypotheses (in the case of psychological distress and self-esteem).
Moreover, zero-order correlations suggested that perceived prejudice from lesbian/gay
people was unrelated to psychological distress and self-esteem, and was only
marginally negatively correlated with life satisfaction. These results seem to contradict
qualitative literature which suggests that prejudice from the lesbian and gay community
is a significant source of distress for bisexual people (e.g., Burleson, 2005; Rust, 1992). A potential explanation for the present findings may be that connection with sexual minority individuals and communities has some supportive functions. Specifically, to perceive anti-bisexual prejudice from lesbian/gay people, bisexual individuals are likely to have some sort of connection to or involvement with individuals from the sexual minority community. Though anti-bisexual prejudice from lesbian/gay people may be apparent to bisexual individuals, the potential benefits of connections with other sexual minority individuals (even if occasionally hurtful) may provide a buffer against distress and counterbalance or outweigh the sting of anti-bisexual prejudice. Indeed, psychological literature suggests that involvement in LGBT communities and social networks is related positively with dimensions of psychological well-being (Frable, Wortman, & Joseph, 1997; Swann & Spivey, 2004) and related negatively with symptoms of psychological distress (Frable et al., 1997; Herek et al., 1997; Meyer, 2003; Rosario et al., 2004). While there is limited attention to moderators or mediators of the association between perceived prejudice and psychological distress, such literature suggests that involvement in sexual minority communities may be a fruitful variable to investigate further.

Additionally, it is possible that bisexual individuals afford lesbian and gay people with a degree of leniency because of their “in-group” shared experiences of being marginalized by the larger heterosexual culture. Indeed, heterosexual culture rarely acknowledges a distinction between bisexual and lesbian/gay persons. For example, heterosexist legislative policies and religious doctrines which prevent same-sex marriages harm all sexual minority individuals, regardless of whether they are bisexual,
lesbian, gay, or queer. As such, bisexual people may feel that prejudice from heterosexual persons has greater weight and power to harm than prejudice from lesbian and gay people – thus, prejudice from heterosexual people may be associated with more distress than prejudice from other sexual minority individuals.

Beyond these tentative conceptual explanations, the observed role of perceived prejudice from lesbian/gay people (ABES-LG) in the regression equations could reflect a suppressor effect. Suppressor effects were defined by Horst (1941) as paradoxical patterns that arose sometimes when a predictor variable (V1) uncorrelated a criterion variable but correlated with a predictor already in a regression equation (V2), improved the overall prediction when included in the regression equation. Horst termed V1 a “suppressor variable” because it appeared to remove or suppress criterion-irrelevant variance from the initial predictor (V2). In the present data, the inclusion of ABES-LG in a regression equation when it has an insignificant yet positive correlation with the criterion variable (psychological distress), but is correlated positively and strongly with another predictor variable (ABES-H) appears to result in a net or negative suppression. In net suppression, two predictor variables and a criterion variable are all related positively, yet when included together in a regression equation the predictor variable with a weaker correlation (V1) will provide a “boost” in predictive ability for the other predictor (V2) and the sign of V1 will change (Paulhus et al., 2004). Net suppression might explain why ABES-LG appeared to be related negatively with psychological distress and related positively with self-esteem when included in the regression equations with ABES-H, a pattern that contradicts the expectations laid out by minority stress theory. According to Paulhus and colleagues (2004) suppression removes the
shared variance between two predictors. In the case of ABES-LG and ABES-H, once this shared variance is removed, ABES-LG has a negative association with distress and ABES-H has a positive association with distress. Thus, it may be that in removing the shared “discrimination” elements of these two predictors, that the positive LGBT community support (associated with ABES-LG) and the negative societal heterosexism (associated with ABES-H) are both magnified.

Regarding outness as bisexual, findings from this study provide mixed support for its role as a minority stress variable. Specifically, outness was correlated positively with life satisfaction and self-esteem, uncorrelated with distress, and related uniquely and positively only to life satisfaction when the other minority stressors were examined simultaneously. These results suggest that withholding or disclosing information about one’s bisexual status may not necessarily contribute to mental health. It is likely that the mere act of “being out” as bisexual is not nearly as important as the environment in which one chooses to be out or chooses to conceal their bisexuality. The present results also indicated that perceived anti-bisexual prejudice from lesbian and gay people and heterosexual people were both related positively with level of outness (between small and medium effect sizes). Thus, outness as bisexual may expose targets to additional prejudice, but outness itself does not appear to be linked consistently with mental health indicators.

**Bicultural Self-Efficacy, Cognitive Flexibility, and Mental Health**

Beyond support for minority stress theory, the current research also provided some of the first quantitative data regarding two potential promoters of well-being for bisexual people, bicultural self-efficacy and cognitive flexibility. Hypotheses with these variables were supported, in that, both bicultural self-efficacy and cognitive flexibility
were correlated positively with measures of psychological well-being and negatively with psychological distress.

The present results indicated that bicultural self-efficacy was correlated positively with self-esteem and life satisfaction and negatively with psychological distress; the strength of these associations were medium. When examined simultaneously with cognitive flexibility, bicultural self-efficacy also explained unique and positive variance in self-esteem and life satisfaction, but not in psychological distress. Such findings suggest that higher levels of bicultural self-efficacy among bisexual people may be linked with aspects of psychological well-being. Perhaps perceptions that one is able to fluently navigate both heterosexual and LGB culture ease social interactions with members of these groups, and in turn, result in increased self-esteem and life satisfaction.

Interestingly, there were small to medium negative correlations between bicultural self-efficacy and perceptions of anti-bisexual prejudice from lesbian/gay and heterosexual people. These correlations may suggest that bisexual people who feel more comfortable with heterosexual and LGB culture are targets of less prejudice from lesbian/gay and heterosexual people. Moreover, it could be that bisexual individuals who perceive themselves to be well-versed in the navigation of both cultures have learned to avoid individuals or situations in which they may encounter anti-bisexual prejudice. Bicultural self-efficacy and expectations of anti-bisexual stigma were also correlated negatively, a finding that suggests that bisexual individuals who are comfortable with both sexual minority and heterosexual cultures may perceive or expect less negative attitudes toward bisexual people. Conversely, it may be that bisexual individuals who are less expectant of rejection from heterosexual and lesbian/gay
people more readily form relationships and interact with these two cultures, and by doing so, gain bicultural self-efficacy. Moreover, internalized biphobia and bicultural self-efficacy were correlated negatively. Perhaps internalized prejudice can hinder the formation of relationships with heterosexual and/or lesbian/gay people and minimize the chances that a bisexual person will have strong bicultural self-efficacy. Conversely, feeling as though one is unable to navigate both lesbian/gay and heterosexual cultures (low bicultural self-efficacy) many promote feelings of internalized biphobia. Finally, bicultural self-efficacy had a small positive correlation with outness, suggesting that there is a positive link between openness about ones bisexuality and perceived ability to navigate lesbian/gay and heterosexual communities.

Findings of this study also provided support for the role of cognitive flexibility as a mental health promoter. Cognitive flexibility was correlated positively and strongly with life satisfaction and self-esteem and accounted for unique positive variance in both variables when considered as a simultaneous predictor along with bicultural self-efficacy. Interestingly, cognitive flexibility also was correlated negatively with psychological distress and accounted for unique negative variance in distress. Though the causal directionality of these relations cannot be determined through correlational data, these findings could suggest that cognitive flexibility acts as a mental health promoter for bisexual people.

Regarding relations with the minority stress variables, unlike bicultural self-efficacy, cognitive flexibility was uncorrelated with anti-bisexual prejudice experiences. However, similar to bicultural self-efficacy, cognitive flexibility was correlated negatively with expectations of stigma and internalized biphobia. It is possible that expectations of
rejection from others and self-rejection because of bisexual identity inhibit bisexual people from perceiving that they have choice or flexibility in situations (e.g., lower cognitive flexibility). Moreover, low cognitive flexibility may be a factor in expectations of stigma and internalized biphobia; indeed, if a bisexual person engages in rigid thinking (i.e., perceiving themselves as “bad” for being bisexual; perceiving all non-bisexual people as biphobic) this may heighten expectations of stigma and self-rejection. Like bicultural self-efficacy, cognitive flexibility was also correlated positively with outness as bisexual; such a pattern may suggest that there is a link between perceptions of choice and the ability/desire to reveal one’s bisexual orientation to others.

In general, both mental health promoting variables (bicultural self-efficacy and cognitive flexibility) accounted for large amounts of variance in self-esteem and satisfaction with life. Such results suggest that bicultural self-efficacy and cognitive flexibility are not redundant with each other in predicting dimensions of psychological well-being. It is important to note, however, that relations between cognitive flexibility and the criterion variables (self-esteem, life satisfaction, distress) were consistently stronger than relations between bicultural self-efficacy and the criterion variables. This pattern of findings with cognitive flexibility and bicultural self-efficacy may explain why when examined simultaneously, only cognitive flexibility emerged as a significant predictor of psychological distress; indeed, cognitive flexibility may have subsumed the relation between bicultural self-efficacy and distress.

Limitations and Implications for Research and Practice

Findings from the present study should be interpreted in light of a number of limitations. First, despite the strengths of internet recruitment (e.g., access to large numbers of potential participants, reducing oversaturation of local venues, facilitating
participation of individuals who are not comfortable “coming out” to researchers in-person), internet samples limit participation to individuals who have computer and internet access. Thus, findings of internet samples may not be generalizable beyond middle to upper-class populations. Indeed, most of the present study’s participants were college educated and identified as middle class. The sample was also comprised predominately of individuals who identified as White (78%). As such, the present findings must be interpreted with caution when considering their applicability to bisexual people who are not White and are at the lower or upper end of the socioeconomic spectrum. Also, while participants reported residing in 43 out of 50 states, the seven states that were not represented in this study tended to be rural (e.g., Alaska, Maine, Wyoming); therefore, findings from the present study may not generalize to bisexual people who reside in less populated regions of the United States. Research is needed to evaluate the replicability of the present findings with racially, ethnically, socioeconomically, and geographically diverse populations. Such efforts can inform future research and theory about bisexuality and its intersections with other sociodemographic identities.

Another limitation of the present study is the cross-sectional nature of the data. While one-time surveys of bisexual people can provide an insightful snapshot of their current life experiences, it is impossible to determine whether such patterns of results will persist over time. As such, longitudinal studies are needed to examine the stability of mental health promoting and distressing variables for bisexual people. Indeed, it is possible that the mental health impact of these variables may change with age, environmental context (e.g., a new job), and relational contexts (e.g., finding a
supportive romantic partner; fighting with family members). Longitudinal research and experimental designs can help to tease apart the complexities of mental health stressing and promoting variables. Moreover, such designs could also shed light on the directionality of relations between these variables and psychological distress and well-being.

The current study lays some groundwork for future research aimed at understanding the nuances of bisexual identity and other demographic variables. For example, in terms of gender identity, approximately 10% of the sample identified as transgender or other self-described genders beyond woman and man. While there are no current statistics regarding the prevalence of nontraditional gender identities within the general population of North America, the percentage of gender variant participants within this study seems noteworthy. Perhaps individuals who identify as bisexual, a sexual orientation that is generally categorized as more “fluid” than heterosexual or lesbian/gay orientations, allow themselves this same degree of flexibility with gender identity.

Relatedly, participants were permitted to specify an “other” option for their sexual orientations. Though in the informed consent all participants affirmed that they self-identified as bisexual, many respondents (7% of the sample) chose to report additional terms which they felt better captured their sexual orientations. Common descriptors included non-monosexual, queer, and pansexual – all terms which eschew the dichotomous connotations of bisexuality in favor of a more fluid and less gender-bound sexual orientation. While the percentage of participants who reported “other” sexual orientations was not large enough to warrant comparative analyses with strictly
bisexually-identified participants, it is important to assess whether these respondents may experience different forms of prejudice and stigma. Moreover, disassociating with the term "bisexual" and assuming a more fluid and noncategorical sexual orientation may help some participants deflect anti-bisexual prejudice. Thus, additional research should attend to the intersections of gender identities, bisexuality, and the borderlands between these identities.

Findings from the present study could also be used to guide the development of psychoeducational and therapeutic interventions aimed to improve the mental health of bisexual people. Similar to findings with lesbian/gay populations, minority stress variables appear to be related to psychological distress among bisexual people. Acknowledging perceived experiences of prejudice and stigma for bisexual clients and validating their emotions may be an important first step in redressing the impact of societal anti-bisexual attitudes. Moreover, mental health professionals should be well-versed in available community support for bisexual clients (e.g., LGBTQ community centers, Bisexual Resource Centers). Directing clients to such resources may counter feelings of isolation and alienation for some bisexual people.

Results provided some preliminary support for relations of cognitive flexibility and bicultural self-efficacy with greater life satisfaction and self-esteem and with lower psychological distress. Thus, developing and/or heightening cognitive flexibility and bicultural self-efficacy may be useful strategies for increasing psychological well-being and reducing distress. The finding that cognitive flexibility accounted for unique variance in both distress and well-being indictors suggests that cognitive flexibility might be a particularly fruitful point of intervention. Indeed, helping bisexual individuals realize that
their sexual identity may enable them to have a greater degree of flexibility in making decisions, building relationships, and interacting in the world could help to mitigate the potential stress of this sexual identity. Additionally, mental health professionals could work with their clients to reshape perceptions that being bisexual makes them “too different” from heterosexual and/or lesbian gay persons – and instead focus on bisexuality as a pathway to bicultural competence. Specifically, exploring how bisexual people can relate to the experiences of both heterosexual and lesbian/gay persons, they may be well-equipped to navigate both of these cultures. Thus, focusing on the positive aspects of bisexuality in therapy may be a way to promote the mental health of bisexual clients, and to lessen the impact of minority stressors. While the present data may point to fruitful possibilities for future mental health interventions, it is important to acknowledge the limitations of cross-sectional correlational data. Future research is needed to assess the posited directionality of such findings and inform the potential effectiveness of mental health interventions for bisexual client.
APPENDIX A
COGNITIVE FLEXIBILITY SCALE

INSTRUCTIONS: The following statements deal with your beliefs and feelings about your own behavior. Read each statement and respond by identifying what best represents your agreement with each statement.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Slightly Agree</th>
<th>Slightly Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

____ 1. I can communicate an idea in many different ways.
____ 2. I avoid new and unusual situations.
____ 3. I feel like I never get to make decisions.
____ 4. In any given situation, I am able to act appropriately.
____ 5. I can find workable solutions to seemingly unsolvable problems.
____ 6. I seldom have choices to choose from when deciding how to behave.
____ 7. I am willing to work at creative solutions to problems.
____ 8. My behavior is a result of conscious decisions that I make.
____ 9. I have many possible ways of behaving in any given situation.
____10. I have difficulty using my knowledge on a given topic in real life situations.
____11. I am willing to listen and consider alternatives for handling a problem.
____12. I have the self-confidence necessary to try different ways of behavior.
INSTRUCTIONS: Please answer each statement as carefully as possible. Please circle ONE of the numbers to the right of each statement to indicate your degree of agreement or disagreement. 1 = strongly disagree to 9 = strongly agree

1. I can count on both mainstream heterosexual people and people from LGBT culture.

2. I can communicate my ideas effectively to both mainstream heterosexual people and people from LGBT culture.

3. I have generally positive feelings about both my LGBT culture and mainstream heterosexual culture.

4. I am knowledgeable about the history of both mainstream heterosexual people and my LGBT cultural group.

5. I can develop new relationships with both mainstream heterosexual people as well as people from LGBT culture.

6. It is acceptable for an individual from LGBT culture to participate in two different cultures (for example, heterosexual culture and lesbian/gay culture).

7. I can communicate my feelings effectively to both mainstream heterosexual people and people from LGBT culture.

8. I am knowledgeable about the values important to mainstream heterosexual people as well as to LGBT culture.

9. I feel comfortable attending a gathering of mostly mainstream heterosexual people as well as a gathering of mostly people from LGBT culture.

10. An individual can alter his or her behavior to fit a particular social context.

11. I have a generally positive attitude toward both mainstream heterosexual people and LGBT culture.

12. It is acceptable for a mainstream heterosexual individual to participate in two different cultures (for example, heterosexual culture and lesbian/gay culture).

13. I have strong ties with mainstream heterosexual people as well as people from LGBT culture.

14. I am proficient in both mainstream heterosexual language and the language of LGBT culture (for example, knowing certain slang terms).

15. I can choose the degree and manner by which I affiliate with each culture.
16. I am knowledgeable about the gender roles and expectations of both mainstream heterosexual people and LGBT culture.

17. I feel at ease around both mainstream heterosexual people and people from the LGBT culture.

18. I have respect for both mainstream heterosexual culture and LGBT culture.

19. Being bisexual does not mean I have to compromise my sense of sexual identity.

20. I can switch easily between discussions with mainstream heterosexual people and people from LGBT culture.

21. I have an extensive network of mainstream heterosexual people as well as an extensive network of people from LGBT culture.

22. I take pride in both the mainstream heterosexual culture and LGBT culture.

23. I am confident that I can learn new aspects of both the mainstream heterosexual culture and LGBT culture.

24. It is possible for an individual to have a sense of belonging in two cultures without compromising his or her sense of sexual identity.

25. I am knowledgeable about the events celebrated both by mainstream heterosexual people and by the LGBT cultural group.

26. I feel like I fit in when I am with mainstream heterosexual people as well as people from LGBT culture.
APPENDIX C
SATISFACTION WITH LIFE SCALE

INSTRUCTIONS: Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

- 7 - Strongly agree
- 6 - Agree
- 5 - Slightly agree
- 4 - Neither agree nor disagree
- 3 - Slightly disagree
- 2 - Disagree
- 1 - Strongly disagree

____ In most ways my life is close to my ideal.

____ The conditions of my life are excellent.

____ I am satisfied with my life.

____ So far I have gotten the important things I want in life.

____ If I could live my life over, I would change almost nothing.
APPENDIX D
OUTNESS INVENTORY

INSTRUCTIONS: Use the following rating scale to indicate how open you are about your bisexual orientation to the people listed below. Try to respond to all of the items, but leave items blank if they do not apply to you. To indicate your response, please delete the bubble (0) from the appropriate place, and mark it with an X.

1 = person \textit{definitely does not know} about your bisexual orientation status.
2 = person \textit{might know} about your bisexual orientation status, but it is \textit{never talked about}.
3 = person \textit{probably knows} about your bisexual orientation status, but it is \textit{never talked about}.
4 = person \textit{probably knows} about your bisexual orientation status, but it is \textit{rarely talked about}.
5 = person \textit{definitely knows} about your bisexual orientation status, but it is \textit{rarely talked about}.
6 = person \textit{definitely knows} about your bisexual orientation status, and it is \textit{sometimes talked about}.
7 = person \textit{definitely knows} about your bisexual orientation status, and it is \textit{openly talked about}.

1. mother
2. father
3. siblings (sisters, brothers)
4. extended family/relatives
5. new straight friends
6. new lesbian/gay friends
7. work peers
8. work supervisors
9. members of your religious community (e.g., church, temple)
10. leaders of your religious community (e.g., minister, rabbi)
11. strangers, new acquaintances
APPENDIX E
INTERNALIZED BIPHOBIA

INSTRUCTIONS: For each of the following statements, mark the response that best indicates your experiences as a bisexual person. Please be as honest as possible in your responses.

1. I would rather be straight if I could
2. I am glad to be a bisexual person.
3. Bisexual lifestyles are not as fulfilling as heterosexual lifestyles.
4. I'm proud to be part of the bisexual community.
5. I wish I were heterosexual.
APPENDIX F
ROSENBERG SELF-ESTEEM SCALE

INSTRUCTIONS: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle SA. If you agree with the statement, circle A. If you disagree, circle D. If you strongly disagree, circle SD.

1. On the whole, I am satisfied with myself.
2.* At times, I think I am no good at all.
3. I feel that I have a number of good qualities.
4. I am able to do things as well as most other people.
5.* I feel I do not have much to be proud of.
6.* I certainly feel useless at times.
7. I feel that I’m a person of worth, at least on an equal plane with others.
8.* I wish I could have more respect for myself.
9.* All in all, I am inclined to feel that I am a failure.
10. I take a positive attitude toward myself.
APPENDIX G
COLLECTIVE SELF-ESTEEM SCALE

INSTRUCTIONS: We are all members of different social groups or social categories. Some of such social groups or categories pertain to gender, race, religion, nationality, ethnicity, and socioeconomic class. We would like you to consider your membership to the bisexual community, and respond to the following statements on the basis of how you feel about your membership in this group. There are no right or wrong answers to any of these statements; we are interested in your honest reactions and opinions.

Please read each statement carefully, and respond by using the following scale from 1 to 7: Strongly Disagree  Strongly Agree

1. Overall, bisexual people are considered good by others.
2. Most people consider bisexual people, on the average, to be more ineffective than other social groups.
3. In general, others respect bisexual people.
4. In general, others think that bisexual people are unworthy.
APPENDIX H
ANTI-BISEXUAL EXPERIENCES SCALE

INSTRUCTIONS: Please rate how often the experience reflected in each of the following items has happened to you personally. We are interested in your personal experiences as a bisexual individual and realize that each experience may or may not have happened to you. To tell us about your experiences, please rate each item using the scale below:

Check 1st bubble = If this has NEVER happened to you
Check 2nd bubble = If this has happened to you ONCE IN A WHILE (less than 10% of the time) Check 3rd bubble = If this has happened to you SOMETIMES (10%-25% of the time) Check 4th bubble = If this has happened to you A LOT (26%-49% of the time) Check 5th bubble = If this has happened to you MOST OF THE TIME (50%-70% of the time) Check 6th bubble = If this has happened to you ALMOST ALL OF THE TIME (more than 70% of the time)

Please answer each question TWICE, once to report how often you have had each experience with lesbian/gay people and again to report how often you have had the experience with heterosexual people.

1. People have addressed my bisexuality as if it means that I am simply confused about my sexual orientation
2. I have been excluded from social networks because I am bisexual
3. Others have pressured me to fit into a binary system of sexual orientation (i.e., either gay or straight)
4. When I have disclosed my sexual orientation to others, they have continued to assume that I am really heterosexual or gay/lesbian
5. People have not wanted to be my friend because I identify as bisexual
6. People have acted as if my sexual orientation is just a transition to a gay/lesbian orientation
7. People have acted as if my bisexuality is only a sexual curiosity, not a stable sexual orientation
8. People have assumed that I will cheat in a relationship because I am bisexual
9. Others have treated me negatively because I am bisexual
10. People have not taken my sexual orientation seriously because I am bisexual
11. People have denied that I am really bisexual when I tell them about my sexual orientation
12. People have treated me as if I am likely to have an STD/HIV because I identify as bisexual
13. People have stereotyped me as having many sexual partners without emotional commitments
14. When my relationships haven’t fit people’s opinions about whether I am really heterosexual or lesbian/gay, they have discounted my relationships as “experimentation”
15. Others have acted uncomfortable around me because of my bisexuality
16. I have been alienated because I am bisexual
17. People have treated me as if I am obsessed with sex because I am bisexual
APPENDIX I
HOPKINS SYMPTOMS CHECKLIST-21

INSTRUCTIONS: Below is a list of problems and complaints that people sometimes have. Please read each one carefully. After you have done so, please fill in one of the numbered spaces to the right that best describes HOW MUCH THAT PROBLEM HAS BOTHERED OR DISTRESSED YOU DURING THE PAST WEEK INCLUDING TODAY. Mark only one numbered space for each problem and do not skip any items.

1 = Not at all to 4 = Extremely

1. Difficulty in speaking when you are excited
2. Trouble remembering things
3. Worried about sloppiness or carelessness
4. Blaming yourself for things
5. Pains in the lower part of your back
6. Feeling lonely
7. Feeling blue
8. Your feelings being easily hurt
9. Feeling others do not understand you or are unsympathetic
10. Feeling that people are unfriendly or dislike you
11. Having to do things very slowly in order to be sure you are doing them right
12. Feeling inferior to others
13. Soreness of your muscles
14. Having to check and double check what you do
15. Hot or cold spells
16. Your mind going blank
17. Numbness or tingling in parts of your body
18. A lump in your throat
19. Trouble concentrating
20. Weakness in parts of your body
21. Heavy feelings in your arms or legs
LIST OF REFERENCES


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BIOGRAPHICAL SKETCH

Melanie Elyse Brewster was born in Miami, Florida and received her undergraduate degrees in criminology and psychology at the University of Florida. She obtained her PhD in counseling psychology at the University of Florida and completed her pre-doctoral clinical internship at the University of Utah in Salt Lake City. Her research focuses on minority stress within marginalized sexual groups. She received the 2008 Bisexual Foundation Scholarship Award from APA Society for the Psychological Study of Lesbian, Gay, and Bisexual Issues for her research on bisexual individuals' perceived experiences of anti-bisexual prejudice. She also received the 2010 Outstanding Graduate Student Award from the American Psychological Association Society of Counseling Psychology Section for Lesbian, Gay, Bisexual, and Transgender Issues. In addition to her research on bisexual issues, she is currently conducting research on the work experiences of transgender people, discrimination experiences of sexual minority women of color, and on feminist self-identification.