Application of Bisexuality Research to the Development of a Set of Guidelines for Intervention Efforts to Reduce Binegativity

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Binegativity (the stigmatization of bisexuality) from both heterosexual and lesbian/gay populations remains a prevalent and pervasive form of discrimination. Due to the unique content of binegativity, the invisibility of bisexuality in society, and the dual sources of binegativity from heterosexual and lesbian/gay populations, bisexual individuals experience distinct forms of stigmatization not experienced by lesbian women/gay men and have less access to supportive buffers from either community against minority stress. These differences between bisexuals' and lesbian women's/gay men's experiences of minority stress are theorized to explain the higher mental health symptomatology, lower sexual identity disclosure, and lower positive sexual identity development among bisexuals compared to lesbian women/gay men. This article reviews the literature examining bisexuals' experiences of minority stress and their effects on mental health and sexual identity development. Drawing on the broader prejudice reduction literature, we selectively review intergroup contact theory and multicultural theory as showing promise in their application to reduce binegativity via increasing positive intergroup contact and accurate information, respectively. We then propose a set of guidelines and suggestions for future research to develop interventions to reduce binegativity. Potential barriers to implementation are discussed.

Keywords: binegativity, bisexual, sexual minority, prejudice reduction, minority stress

Sexual minorities (bisexual, lesbian, gay, and other nonheterosexual individuals) are at risk for negative mental health (for meta-analysis see Meyer, 2003) and sexual identity outcomes (e.g., sexual identity concealment and internalized negativity; for reviews see Newcomb & Mustanski, 2010; Pachankis, 2007). Minority stress theory posits that this increased risk results from sexual minorities' exposure to unique stressors associated with their stigmatized sexual identities, referred to as minority stress (e.g., experiences of prejudice and discrimination; Meyer, 2003). Recent research has suggested that binegativity (the societal stigmatization of bisexuals) is prevalent and distinct from homonegativity (the societal stigmatization of lesbian women/gay men), making bisexuals'

experiences of minority stress substantially different from those of lesbian women/gay men (Balsam & Mohr, 2007; Brewster & Moradi, 2010). This literature demonstrates that bisexuals' experiences are distinct in several ways, including stigmatization from both heterosexual and lesbian/gay communities, the invisibility of bisexuality at a societal level, distinct negative stereotypes, and high rates of binegativity (e.g., Balsam & Mohr, 2007; Mohr & Rochlen, 1999).

Binegativity is associated with higher rates of mental health symptomatology (e.g., anxiety and depression; Balsam & Mohr, 2007; Brewster & Moradi, 2010; Jorm, Korten, Rodgers, Jacomb, & Christensen, 2002; Koh & Ross, 2006) and poorer sexual identity development compared to lesbian women/gay men (e.g., high internalized negativity, concealment, and sexual identity uncertainty; Balsam & Mohr, 2007; Brewster & Moradi, 2010; Sheets & Mohr, 2009). The unique stressors experienced by bisexuals have also been linked with decreased access to resources that might buffer the impact of binegativity (such as lesbian, gay, and bisex-

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ual [LGB] community connectedness and sexual specific social support; Balsam & Mohr, 2007; N. Cox, Vanden Berghe, Dewaele, & Vincke, 2010; Morris, Waldo, & Rothblum, 2001; Sheets & Mohr, 2009). The negative impact of bisexual minority stress on mental health, sexual identity development, and access to buffers make it vitally important to use research findings from the prejudice reduction and binegativity literatures to develop interventions aimed at reducing binegativity.

The goal of this article is threefold: (a) to review the growing literature on bisexual minority stress and its impact on mental health and sexual identity development, (b) to provide a selective review of the prejudice reduction literature for strategies relevant to reducing prejudice toward bisexuals, and (c) to integrate findings from these two distinct research areas in the development of a set of guidelines and suggestions for research on interventions to reduce binegativity.

Binegativity: Components and Sources

Binegativity has three major components, two of which are unique to the experience of bisexuals (compared to lesbian women/gay men; Brewster & Moradi, 2010; Mohr & Rochlen, 1999). These two unique components are (a) myths that bisexuality is an illegitimate and unstable sexual identity (e.g., bisexuals are confused about their sexual identities, experimenting, or in transition to or in denial of a true homosexual identity) and (b) myths that bisexuals are sexually irresponsible (e.g., bisexuals are sexually obsessed, carriers of sexually transmitted infections, and incapable of monogamous relationships). The third component of binegativity is a general hostility toward bisexuals, which is also a major component of homonegativity (Brewster & Moradi, 2010; Mohr & Rochlen, 1999). The myth that bisexuality is an illegitimate and unstable identity leads to the assumption that bisexuality is rare. However, bisexuals represent approximately 40% of the sexual minority population, and there are more than four million bisexuals in the United States alone (Gates, 2011; Pew Research Center, 2013).

Although much of the literature demonstrates that homonegativity is typically single-sourced (e.g., arises only from the heterosexual commu-

nity), research has demonstrated that binegativity is dual-sourced (i.e., expressed by both heterosexual and lesbian/gay populations; Brewster & Moradi, 2010; Kuyper & Fokkema, 2011). Thus, bisexuals experience stigmatization that is not only distinct in content from homonegativity but is also perpetrated and maintained by both heterosexuals and lesbian women/gay men.

Among the lesbian and gay community the instability component of binegativity includes two unique stereotypes about bisexuals: (a) that bisexuals do not engage in the fight for lesbian and gay equal rights and (b) that bisexuals identify as bisexual (instead of lesbian or gay) in order to avoid experiencing homonegativity and maintain their heterosexual privileges (Rust, 1993). The prevalence of these unique stereotypes and other binegative myths leads bisexuals to be excluded from and marginalized by the lesbian and gay community. Together, the high prevalence, unique components, and dual-sourced nature of binegativity have been theorized to explain bisexuals' lower connectedness to the lesbian/gay community, higher rates of mental health symptomatology, and lower rates of sexual identity disclosure (Balsam & Mohr, 2007; Brewster & Moradi, 2010).

Binegativity and the invisibility of bisexuality are reinforced through the rare depiction of bisexuals are in the media. When bisexuals are depicted, it is almost exclusively in negative ways that reinforce stereotypes and increase binegativity (Hequembourg & Brallier, 2009). For example, a content analysis of the number of LGB characters on TV found a stark underrepresentation of bisexuals, with only 5 min out of over 126 hr of TV programming from 20 of the most popular TV programs including a bisexual character, compared to 42 min including lesbian characters and over 4 hr including gay male characters. Additionally, none of these rare representations of bisexuals were positive, whereas over a third of the representations of lesbian women and gay men were positive (Stonewall, 2010). The infrequent depiction of bisexuals in the media is one way in which society renders bisexuality invisible.

Binary views of sexual orientation, in which heterosexuality and homosexuality are the only legitimate sexual orientations, dominate society's understanding of sexuality and are another way in which bisexuality is rendered an invisi-

ble and illegitimate sexual orientation (Ross, Dobinson, & Eady, 2010). As a result of society's binary view of sexual orientation, very little accurate and affirmative information about bisexuality is available (Ross et al., 2010). The invisibility of bisexuality is further increased as individuals use their binary views of sexual orientation to make assumptions about sexual orientation identity on the basis of the gender of one's current partner (Dyar, Feinstein, & London, 2015; Hequembourg & Brallier, 2009). This leads bisexuals in same-sex relationships to be categorized as lesbian/gay, whereas bisexuals in different-sex relationships are categorized as heterosexual. Thus, bisexuals' low visibility in society functions to reinforce and maintain binegativity by preventing access to supportive and accurate information about bisexuality.

Binegativity's Impact on Mental Health and Sexual Identity

Experiences of binegativity and lack of access to buffers against their negative impact are theorized to lead to poorer mental health among bisexuals compared to lesbian women and gay men, including higher rates of depression and anxiety (Jorm et al., 2002; Lehavot, 2012). Binegativity has also been linked with negative sexual identity development among bisexuals, including higher internalized negativity and sexual identity uncertainty, which are associated with decreased well-being (Balsam & Mohr, 2007; Brewster & Moradi, 2010). Higher sexual identity uncertainty has recently been linked to the frequency of assumptions of homosexuality despite explicit disclosure of a bisexual identity and is theoretically linked with similar assumptions of heterosexuality (Dyar et al., 2015). These assumptions function to challenge the legitimacy and validity of an individual's bisexual identity and result from binegative myths regarding the instability and illegitimacy of bisexuality (Dyar et al., 2015). The strong impact of binegativity on the mental health and sexual identity of bisexuals highlights the importance of applying the findings from this research to the development of interventions to decrease the prevalence of binegativity.

Binegativity's Impact on Access to Social Support

As previously noted, bisexuals experience stigmatization and exclusion by heterosexuals as well as by lesbian women/gay men. Being stigmatized by lesbian women and gay men can lead bisexuals to feel excluded from the lesbian/gay community (Brewster & Moradi, 2010; Sheets & Mohr, 2009). As a result, bisexuals report lower connectedness to the lesbian/gay community and access to social support specific to sexuality related issues compared to lesbian women/gay men (Balsam & Mohr, 2007; N. Cox et al., 2010; Morris et al., 2001). Lack of connectedness to the lesbian/gay community and the rarity of bisexual-specific communities leave bisexuals without access to coping resources typically available through sexual minority support networks, such as sexual-specific social support, sexual minority role models, and a nonstigmatizing environment (N. Cox et al., 2010; Kertzner, Meyer, Frost, & Stirratt, 2009).

The interaction between exposure to greater minority stress and lower access to coping resources is theorized to amplify the effects of stigmatization on mental health and sexual identity development among bisexuals (Meyer, 2003). Considering research findings from the intergroup relations literature more generally, there is evidence that experiencing rejection perpetrated by ingroup members (e.g., members of one's own racial or ethnic group) has a higher negative emotional impact than does rejection from outgroup members (e.g., members of another racial or ethnic group; Bernstein, Sacco, Young, Hugenberg, & Cook, 2010). Therefore, it is also possible that binegativity perpetrated by other sexual minorities (i.e., lesbian women and gay men) may have a more-detrimental impact on bisexuals than does binegativity perpetrated by heterosexuals. Together, the coping mechanisms that the lesbian/gay community could provide for bisexuals coupled with the amplified effects of experiencing binegativity from other sexual minorities indicate that it is important to target not only the heterosexual community but also the lesbian/gay community for reducing binegativity.

Taken together, the literature on binegativity suggests that it is a prevalent and distinct form of sexual minority stress. Binegativity reduces bisexuals' access to minority stress buffers and

has significant impacts on the mental health and sexual identity development of bisexuals. Addressing the detrimental impact of binegativity requires leveraging the binegativity and prejudice reduction literatures to develop interventions to reduce prejudice against bisexual individuals.

A Selective Review of Prejudice Reduction Theories and Tactics

Drawing on the broader prejudice reduction literature, we selectively review intergroup contact theory (i.e., positive intergroup contact reduces prejudice) and multicultural theory (i.e., accurate knowledge about outgroups reduces prejudice) before proposing a set of guidelines and suggestions for future research examining binegativity reduction techniques.

Intergroup Contact Theory

Intergroup contact theory suggests that prejudice derives in part from a lack of personal and positive contact between groups (e.g., Allport, 1954; Pettigrew, 1998). An extensive body of subsequent research has found that positive intergroup contact is an effective means for reducing prejudice toward various marginalized groups (e.g., Davies, Tropp, Aron, Pettigrew, & Wright, 2011; Hewstone & Brown, 1986; Pettigrew & Tropp, 2006). Moreover, intergroup contact in the form of friendship is increasingly viewed as a particularly effective means of reducing prejudice (e.g., Davies et al., 2011; Pettigrew, 1998).

Multiple studies have demonstrated that having lesbian/gay friends is related to lower sexual prejudice among heterosexuals (Bowen & Bourgeois, 2001; Herek, 1988; Herek & Capitanio, 1996). Replicating these findings and including bisexuals, Hinrichs and Rosenberg (2002) found that having LGB friends was associated with more positive attitudes toward LGB individuals. Bartos, Berger, and Hegarty (2014) reviewed 159 studies examining the efficacy of interventions directed at reducing prejudice toward LGB individuals among heterosexuals and demonstrated that intergroup contact reduced sexual prejudice. Although the majority of the intergroup contact work regarding sexual orientation has focused on heterosexuals' attitudes toward lesbian women/gay men,

intergroup contact theory would predict that contact between bisexuals and nonbisexuals has the potential to be associated with more-positive attitudes toward bisexuals.

In Bartos and colleagues' (2014) meta-analysis, the vast majority of studies used outcome measures that assessed attitudes toward either both gay men and lesbian women or LGB generally, whereas only one study specifically examined the impact of intergroup contact on attitudes among heterosexuals toward bisexuals. Morin (1974) examined the impact of a combined contact and education intervention on attitudes toward bisexuals, which resulted in reduced social distance toward bisexuals. The dearth of studies examining interventions designed to reduce binegativity further demonstrates the need for more research in this area.

Similarly, few studies have examined the efficacy of intergroup contact between bisexuals and lesbian women/gay men. In one study, S. Cox, Bimbi, and Parsons (2013) examined the relationship between contact and attitudes. They found that being friends with or socializing with a bisexual individual was not associated with more-positive attitudes and that more-frequent romantic/sexual contact with bisexuals, specifically dating and frequency of sexual contact, predicted higher binegativity. However, this study utilized a measure of attitudes toward bisexuals that confounded perceived acceptance of bisexuals by the lesbian/gay and heterosexual communities with individuals' attitudes toward bisexuals. Although little research has examined the impact of direct contact with bisexuals on attitudes toward bisexuals, intergroup contact has been effective in reducing prejudice toward lesbians and gay men (for a review see Bartos et al., 2014) and is likely to reduce binegativity. Further research is needed to determine the efficacy of direct intergroup contact interventions in reducing binegativity among heterosexuals and lesbian women and gay men.

Indirect Contact Theories

Direct contact is not always possible, and indirect contact between bisexuals and nonbisexuals via friendship may provide prejudice-reducing benefits. The extended contact theory (contact that is extended through a friendship) proposes that knowledge that one's friends from the same group have friends from another group

provides many of the same benefits of having direct cross-group friendships, such as reducing prejudice and increasing positive attitudes (Wright, Aron, McLaughlin-Volpe, & Ropp, 1997). Although studies of extended contacts' effects on binegativity have not yet been conducted, extended contact theory would predict that knowing a friend who identifies as the same sexual orientation as oneself (e.g., heterosexual, lesbian/gay) has bisexual friends could reduce binegativity.

Similarly, extended contact theory postulates that observing intergroup friendships on TV and in movies and books can function to reduce prejudice against outgroup members (referred to as vicarious contact; Lienemann & Stopp, 2013; Vezzali, Hewstone, Capozza, Giovannini, & Wölfer, 2014). In fact, vicarious contact and other forms of indirect contact may be more effective in reducing prejudice among more-biased individuals than among less-biased individuals, likely as a result of the higher potential for positive attitude change among more-biased individuals. Herek and Capitanio (1997) found that vicarious contact, through "Magic" Johnson's disclosure of his HIV infection, had the strongest effect on stigmatization of people with AIDS among individuals with high prejudice against people with AIDS. Several studies have demonstrated the effectiveness of vicarious contact via the media in reducing prejudice toward lesbian women/gay men among heterosexuals (Bonds-Raacke, Cady, Schlegel, Harris, & Firebaugh, 2007; Levina, Waldo, & Fitzgerald, 2000; Schiappa, Gregg, & Hewes, 2006).

Another theory of indirect contact posits that imagining contact with an outgroup member can reduce prejudice and increase positive attitudes toward outgroup members (e.g., Crisp & Turner, 2009; Turner, Crisp, & Lambert, 2007; Turner, West, & Christie, 2013). A recent meta-analysis of imagined contact studies found a significant reduction in implicit and explicit intergroup bias resulting from imagining contact (Miles & Crisp, 2014). A few studies have demonstrated that among heterosexuals imagined contact with gay men results in more-positive attitudes toward gay men (Lee & Cunningham, 2014; Miller, Markman, Wagner, & Hunt, 2013; Turner et al., 2007, 2013). No known imagined contact studies specific to bisexuality have been conducted; however, imagined contact may be an effective prejudice re-

duction technique. Imagined and vicarious contact techniques also have the added benefit of removing the burden of playing an active role in reducing prejudice from bisexuals.

Multicultural Education

Another promising theoretical approach to reducing binegativity is the multicultural approach (also called multicultural education). Multicultural education suggests that prejudice develops in part because of a lack of knowledge and understanding of other groups; therefore, by learning about outgroups, individuals will come to understand, respect, and have more positive attitudes toward outgroups (e.g., Banks & Banks, 2013). Bartos et al. (2014) analyzed 32 educational interventions designed to reduce sexual prejudice, finding that such interventions are successful in reducing prejudicial attitudes toward sexual minorities. However, few studies have specifically examined the effectiveness of educational techniques in reducing binegativity. Bronson (2005) found that providing fact-based information about bisexuality positively impacted perceptions of the stability of bisexuality but not overall tolerance of bisexuality, whereas personal story–based information did not improve attitudes toward bisexuals. Hugelshofer (2006) found that an LGB speaker panel that included a bisexual member and provided accurate information about bisexuality facilitated positive attitude change toward bisexuals. More recently, Dessel (2010) found that teachers who participated in an intergroup dialogue about LGB individuals reported significant positive change in attitudes toward bisexual students and parents. Researchers could build upon these interventions and examine their effectiveness in reducing binegativity.

Guidelines and Suggestions for Future Intervention Research

On the basis of the mental health and sexual identity challenges faced by bisexuals and the effectiveness of prejudice reduction techniques, we outline a set of guidelines and suggestions for future research aimed at reducing binegativity. Drawing on intergroup contact theory and multicultural education, we propose that future binegativity reduction research focus on addressing two major factors that underlie the

prevalence of binegativity and lack of support for bisexuals: (a) the prevalence of myths about bisexuals and bisexuality and (b) the invisibility of bisexuality (Brewster & Moradi, 2010; Mohr & Rochlen, 1999).

Because binegativity is prevalent in both heterosexual and lesbian/gay populations, interventions need to be targeted toward both communities. Given that the lesbian and gay community has the potential to provide unique support to the bisexual community because of their shared minority status, it is especially important to apply these interventions to the lesbian and gay community. The small amount of research that has examined the effectiveness of binegativity reduction techniques has not analyzed the effectiveness of these techniques for lesbian women and gay men compared to their effectiveness for heterosexuals. Therefore, researchers examining the effectiveness of binegativity reduction techniques should explore potential differences in effectiveness between the heterosexual and lesbian/gay community and use this information to develop more-effective prejudice reduction strategies that are targeted to varying groups.

We discuss guidelines and suggestions for future interventions aimed at reducing binegativity on the basis of two promising theoretical approaches: (a) intergroup contact theory and (b) multicultural education. Within intergroup contact theory, we focus on the indirect approaches, including imagined contact and vicarious contact. Both the multicultural education and indirect intergroup contact approaches demonstrate promise in reducing binegativity and have the added advantage of taking the burden of prejudice reduction efforts off bisexuals. Additionally, multicultural education and indirect intergroup contact have the potential to be applied in large-scale interventions through the use of the Internet and media to reduce binegativity.

On the basis of previous interventions that were successful in reducing bias against lesbian women/gay men and bisexuals, we propose that future research examine the effectiveness of three techniques based on indirect intergroup contact and multicultural theory: (a) imagined contact, (b) vicarious contact, and (c) Internet- and TV-administered multicultural education.

Indirect Intergroup Contact: Imagined Contact

Imagined contact has the potential to reduce binegativity because it has been used effectively to reduce bias toward other sexual minorities (e.g., Lee & Cunningham, 2014; Miles & Crisp, 2014; Turner et al., 2013). However, no known studies have examined the impact of imagined contact with a bisexual on binegativity. Existing imagined contact studies oriented toward decreasing bias toward gay men involve asking a participant to imagine engaging in an activity they enjoy with a gay man or having a conversation with a gay man (e.g., Miles & Crisp, 2014; Turner et al., 2013). Participants are specifically asked to imagine that the interaction is positive, relaxed, and enjoyable. Adapting such a technique to reflect imagined contact with bisexuals would be relatively simple, requiring researchers to ask participants to imagine having a positive, relaxed, and enjoyable interaction with a bisexual individual. Given that strategies that ask participants to imagine concrete and specific details about the interaction (Husnu & Crisp, 2011) and provide more-detailed instructions about the situation participants should imagine (Miles & Crisp, 2014) have a stronger impact on attitudes, an ideal imagined contact technique involving bisexuals would ask participants to imagine a number of specific details about the interaction and would provide detailed instructions for the imagined scenario. If effective in reducing binegativity, imagined contact techniques could be adapted for the Internet to access a larger proportion of the population.

Indirect Intergroup Contact: Vicarious Contact

A few studies have examined the impact that positive and negative portrayals of lesbian/gay TV or movie characters have on attitudes toward lesbian women/gay men, referred to as vicarious contact (Bonds-Raacke et al., 2007; Levina et al., 2000; Schiappa et al., 2006). Viewing progay media material has been shown to increase positive attitudes toward lesbian women/gay men, which persist over time (Levina et al., 2000). Bonds-Raacke and colleagues (2007) found that participants who were asked to recall a positive portrayal of a homo-

sexual character reported more-positive attitudes toward lesbian women/gay men than did those who were asked to recall a negative portrayal. In another study, more-frequent viewing of the TV show *Will & Grace* (which features a positive depiction of a gay main character) was associated with lower prejudice toward gay men (Schiappa et al., 2006). Furthermore, in their meta-analysis of interventions to reduce sexual prejudice, Bartos and colleagues (2014) found that viewing positive media portrayals of lesbian women/gay men had a positive effect on attitudes.

Given the promising prejudice reduction effects seen with positively portrayed lesbian/gay characters, researchers should experimentally examine the impact of viewing positive and negative portrayals of bisexuals on TV and in movies on binegative stereotype endorsement and attitudes toward bisexuals. Portrayals of bisexuals that are negative and reinforce binegative stereotypes (e.g., portrayals of bisexual characters as confused about their sexual orientation, sexually promiscuous, and likely to cheat in relationships) are likely to have a negative effect on viewers' attitudes toward bisexuals, increasing their endorsement of binegative stereotypes and attitudes. However, portrayals of bisexuals that are positive and counterstereotypic (e.g., portrayals of bisexuals as well-rounded individuals [not sexually obsessed] who aren't confused about their sexual orientations and who engage in committed monogamous relationships) are likely to have a positive effect on viewers' attitudes toward bisexuals. If research demonstrates that viewing negative portrayals of bisexual TV and movie characters increases binegativity, whereas positive portrayals reduce binegativity, this evidence could be utilized to increase the prevalence of positive portrayals of bisexuals in the media. Such a change could have a strong, widespread impact on attitudes toward bisexuals.

Multicultural Education

Interventions aimed at reducing sexual prejudice through education have been effective in reducing prejudice toward lesbian women/gay men (see Bartos et al., 2014) as well as bisexuals (Bronson, 2005; Morin, 1974). However, many traditional educational interventions are geared toward small groups (e.g., Cramer,

1997; Hugelshofer, 2006). An educational intervention could utilize the Internet to gain access to a larger proportion of heterosexual and lesbian/gay communities in order to dispel myths by spreading accurate information about bisexuality. Lin and Israel (2012) designed an intervention aimed at reducing internalized heterosexism in bisexual/gay men by dispelling stereotypes, examining the sources of stereotypes, and affirming participants' sexual minority identities.

Such an intervention could be adapted to dispel the myths and stereotypes surrounding bisexuality, incorporating bisexual-affirming, accurate information about bisexuality, including:

1. prevalence of bisexuality (e.g., approximately 2% of the U.S. population, or more than four million, which is 40% of the sexual minority population; Gates, 2011; Pew Research Center, 2013),

2. legitimacy of a bisexual identity (e.g., information regarding the prevalence of bisexuality as a long-term/lifelong identity [bisexuals identified and came out at similar ages as did other sexual minorities: median ages of 17 and 20, respectively; Pew Research Center, 2013; and bisexual arousal patterns indicated that attraction to two sexes is not only possible but scientifically demonstrated; e.g., Rosenthal, Sylva, Safron, & Bailey, 2011]),

3. concept of sexual orientation as being on a continuum, which supports the legitimacy of bisexuality and the inclusion of bisexuals, and

4. information demonstrating that bisexuals are no more likely to be sexually irresponsible than are heterosexuals or lesbian women/gay men (e.g., similar prevalence of infidelity in relationships and prevalence of bisexuals in committed monogamous relationships compared to lesbian women/gay men; Pew Research Center, 2013).

Given the accessibility of the Internet and its ability to reach large audiences (Mustanski, 2001), we advocate more research exploring the use of large-scale online interventions to reduce binegativity. In some studies, samples of thousands are not uncommon when utilizing the

Internet for data collection (e.g., Greenwald, Smith, Sriram, Bar-Anan, & Nosek, 2009; Musch & Reips, 2000; Sabin, Nosek, Greenwald, & Rivara, 2009). The Lin and Israel (2012) study cited earlier had 290 participants, demonstrating the effectiveness of Internet interventions in reaching large audiences even among minority populations. Utilizing online interventions also provides access to samples (e.g., general community samples, lesbian/gay samples) that have the potential to be more representative than are the samples traditionally used in this area of research (e.g., psychology students from a university subject pool).

TV provides another avenue for interventions to access large proportions of the population. Public service announcements (PSAs), such as the Think B4 You Speak campaign (www.thinkb4youspeak.com), are believed to have played a role in increasing awareness and sensitivity to the negative effects of homophobic remarks and decreasing their prevalence (Ad Council, 2012). This successful campaign could function as a model for a PSA designed to spread accurate information and dispel myths regarding bisexuality, which should be validated via pilot testing. Pilot testing would help to determine the most effective approach to spread accurate information about bisexuality without triggering backlash or disdain. The Think B4 You Speak campaign successfully utilized popular celebrities and appealing scripts (Ad Council, 2012), and similar approaches may be successful in reducing binegativity.

Barriers to Implementation

There are barriers to the implementation of these large-scale interventions to reduce binegativity, such as the dearth of research examining multicultural, imagined, and vicarious contact interventions to reduce binegativity. We hope that our review of the literature and our guidelines and suggestions will promote the adaption of existing effective interventions for use in reducing binegativity.

The very myths that these interventions would attempt to dispel also represent barriers to the implementation of these interventions. For example, the assumption that bisexuality is rare and thus interventions are not needed or worthwhile is a major potential barrier to the

implementation of interventions. To overcome these barriers, interventions should incorporate information that dispels these myths and brings the importance of these interventions to light. For example, highlighting that bisexuals represent about 40% of the sexual minority population (Gates, 2011; Pew Research Center, 2013) would counter arguments that binegativity interventions are unnecessary due to the rarity of bisexuality.

Changing the media's negative portrayal of bisexuals involves overcoming potential barriers, including the massive scale of the media industry and the divergent goals of the media industry and prejudice reduction efforts (e.g., decreased prejudice vs. increased capital). However, evidence of the deleterious impact of viewing negative portrayals of bisexuals and the binegativity-reducing impact of positive portrayals of bisexuals may be used to sway writers, producers, and production companies to reduce their negative portrayals of bisexuals and incorporate more positive portrayals. Additionally, such evidence, if effectively communicated to the public, could be utilized to mount political and social justice campaigns to press for changes in media portrayals of bisexuals. The first step toward initiating such a major change begins with research examining the effects of positive and negative media portrayals of bisexuals on binegativity.

Two specific barriers to implementation of interventions within the lesbian/gay community are (a) the myth that bisexuals do not engage in the fight for lesbian/gay equal rights (a component of the bisexuals as an unstable stereotype) and (b) the myth that bisexuals identify as bisexual to avoid stigmatization (Rust, 1993). To overcome the first barrier to binegativity reduction, interventions targeted toward lesbians/gay men should include information about the prevalence of bisexuals' engagement in equal rights activities. For example, a report by the Pew Research Center (2013) reveals that up to 40% of bisexuals engage in lesbian, gay, bisexual, and transgender (LGBT) rights activities, such as attending pride events and rights rallies/marches, donating to political organizations that support LGBT rights, and being members of LGBT organizations. Although the proportion of lesbians/gay men who engage in these activities ranges from 39%–72%, the rate of bisexual participation is likely to increase as bisexual

inclusion in the lesbian/gay community increases. To overcome the second barrier, interventions should address this myth utilizing information about the prevalence and stability of bisexuality and the prevalence of negative stereotypes and attitudes toward bisexuals.

Conclusion

Bisexuals face serious stigmatization, mental health, and sexual identity challenges as a result of the high prevalence of binegativity in both heterosexual and lesbian/gay populations. Research has revealed the components of binegativity and the profound negative impact that binegative experiences have on the mental health and sexual identity of bisexuals. It is timely to apply existing knowledge to the development and testing of interventions to reduce binegativity by countering prevalent myths about bisexuals and bisexuality and increasing the visibility of bisexuality. Given the dearth of research examining the efficacy of interventions in reducing binegativity, we look forward to researchers' examining prejudice reduction techniques arising from intergroup contact theory and multicultural education to make progress in reducing binegativity.

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