

This article was downloaded by: [University of Michigan], [Michael R. Woodford]

On: 05 October 2012, At: 07:47

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Journal of LGBT Youth

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/wjly20>

Predictors of Heterosexual College Students' Attitudes Toward LGBT People

Michael R. Woodford ^a, Perry Silverschanz ^b, Eric Swank ^c, Kristin S. Scherrer ^d & Lisa Raiz ^e

^a School of Social Work, University of Michigan, Ann Arbor, Michigan, USA

^b Department of Psychology and School of Social Work, University of Michigan, Ann Arbor, Michigan, USA

^c Department of Social Work, Morehead State University, Morehead, Kentucky, USA

^d School of Social Work, Rutgers, the State University of New Jersey, New Brunswick, New Jersey, USA

^e College of Social Work, the Ohio State University, Columbus, Ohio, USA

Version of record first published: 05 Oct 2012.

To cite this article: Michael R. Woodford, Perry Silverschanz, Eric Swank, Kristin S. Scherrer & Lisa Raiz (2012): Predictors of Heterosexual College Students' Attitudes Toward LGBT People, *Journal of LGBT Youth*, 9:4, 297-320

To link to this article: <http://dx.doi.org/10.1080/19361653.2012.716697>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.tandfonline.com/page/terms-and-conditions>

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae, and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

Predictors of Heterosexual College Students' Attitudes Toward LGBT People

MICHAEL R. WOODFORD

School of Social Work, University of Michigan, Ann Arbor, Michigan, USA

PERRY SILVERSCHANZ

Department of Psychology and School of Social Work, University of Michigan, Ann Arbor, Michigan, USA

ERIC SWANK

Department of Social Work, Morehead State University, Morehead, Kentucky, USA

KRISTIN S. SCHERRER

School of Social Work, Rutgers, the State University of New Jersey, New Brunswick, New Jersey, USA

LISA RAIZ

College of Social Work, the Ohio State University, Columbus, Ohio, USA

This study identifies the predictors of U.S. heterosexual undergraduate and graduate college students' attitudes toward lesbian, gay, bisexual, and transgender (LGBT) people as a group rather than toward individual identities. Findings suggest that affirming LGBT attitudes are most strongly associated with liberal political ideology and whether one believes in biological causation of transgender identity. Understanding sexual orientation as biological and having LGB friends, LGB immediate family members, and transgender friends are also important, but to a lesser degree. Age, gender, and select races/ethnicities and select religious affiliations are marginally associated with LGBT attitudes. These findings clarify areas to target for improvement in campus climate for LGBT

Received 15 June 2011; revised 20 January 2012; accepted 10 April 2012.

This study was funded by the National Center for Institutional Diversity, University of Michigan, and the Curtis Center, School of Social Work, University of Michigan. Thanks to the advisory committee and our research partners. Gratitude also to the anonymous reviewers for their feedback on this manuscript.

Address correspondence to Michael R. Woodford, School of Social Work, University of Michigan, 1080 South University Avenue, Room 2736, Ann Arbor, MI 48109-1106. E-mail: michwood@umich.edu

persons, and implications for campus programs and research are discussed.

KEYWORDS *Attitudes, campus climate, college students, discrimination, gender expression, gender identity, heterosexual, sexual minorities*

Lesbian, gay, bisexual, and transgender¹ (LGBT) individuals experience discrimination and oppression, which can negatively affect their well-being (Harper & Schneider, 2004; Meyer, 2003; Stotzer, 2009). While some of these discriminatory practices involve blatant hostility and violence, most emerge in subtle mistreatment and biases (Nadal, Rivera, & Corpus, 2010). This discrimination is based in heterosexism, or the presumption that only heterosexual relationships are valid and acceptable. Upholding traditional gender roles and rules is a central component of heterosexist assumptions and worldviews (Kitzinger, 2001). In addition, heterosexism underpins both homophobia and transphobia (Woodford & Bella, 2003).

Although heterosexism is a pervasive societal issue, university campuses are increasingly high-profile sites given recent suicides of gay college students, such as Rutgers University freshman Tyler Clementi (Knickerbocker, 2010). Indeed, heterosexist incidents have been documented on college campuses throughout the country (Champagne, 2002; Knickerbocker, 2010; Rankin, 2003; Silverchanz, Cortina, Konik, & Magley, 2008; Woodford, Howell, Silverschanz, & Yu, 2012; Yost & Gilmore, 2011). In a 14-university study of campus climate for LGBT students, approximately 30 percent of respondents reported experiencing harassment because of their sexual orientation or gender identity, and 51 percent reported keeping silent about their sexuality or gender identity (Rankin, 2003). Heterosexism creates a hostile environment for LGBT students, and that can negatively affect their mental and physical health, academic performance, and identity development (Nadal et al., 2010; Rankin, 2003; Woodford et al., 2012). Further, heterosexist acts may also negatively affect heterosexual students (Silverchanz et al., 2008).

Making campuses welcoming and inclusive spaces for LGBT students is a priority for many universities nationwide (Messinger, 2009, 2011). Accordingly, many institutions implement LGBT speakers bureaus, ally/safe space programs, and other educational programs that aim to promote awareness, understanding, and acceptance of LGBT people (Draughn, Elkins, & Roy, 2002; Poynter & Tubbs, 2008; Rankin, 2005). Such programs often focus on LGBT people as a group, rather than focusing on each identity individually. Yet there is concern that these programs are often not based on a systematic understanding of campus climate for LGBT students (Draughn et al., 2002). Heterosexual students' attitude toward LGBT people is a useful indicator of campus climate.

Little is known about the nature of heterosexual students' perceptions toward LGBT people as a whole. A plethora of studies investigate students'

attitudes toward lesbian and gay people; most are conducted with specific subgroups of students (e.g., psychology students, social work students), thereby limiting their applicability to the general campus climate. Further, campus-climate studies that include attitudinal measures tend to assess old-fashioned homophobia, such as, "As far as I am concerned, homosexuality is immoral" (Yost & Gilmore, 2011, p. 1334), which does not capture the subtle biases that are more characteristic today (Nadal et al., 2010). Moreover, and most important, given that LGBT campus climate programs generally focus on fostering acceptance of the entire LGBT community rather than each group separately, research on attitudes toward this population as a whole is useful in informing these programs and improving the institutional climate for LGBT students. LGBT people are affected by heterosexism. Therefore, studying attitudes toward the LGBT population can also help advance understanding of the nature of this complex and often nuanced system of oppression.

This study examines U.S. heterosexual students' attitudes toward LGBT people and identifies demographic, attitudinal, and contextual predictors of their views. Unlike previous studies, we examine the role of respondents' gender expression as an antecedent of their LGBT attitudes. This study is also unique as we explore the impact of the role of etiology of transgender identity on students' attitudes toward LGBT people.

LITERATURE REVIEW

Our theoretical model is informed by the premises of the social learning and human ecological models of development (Bandura, 1977; Bronfenbrenner, 1979) and the input-environment-output model of student development (Astin, 1993). Social learning and human ecology frameworks emphasize that human behaviors and thoughts are inevitably tied to the acts of observing and modeling the behaviors, attitudes, and emotional reactions of others. Accordingly, we assume that college students' perspectives toward LGBT individuals are established, nurtured, and sometimes revised through the interpretive process of trying to understand and evaluate the social cues that come from the individuals, communities, and social institutions surrounding them. Astin's (1993) model acknowledges that students' characteristics and precollege experiences, as well as college experiences, such as exposure to curriculum on heterosexism, influence their competencies, including values and beliefs.

Demographic Factors: Age, Gender, Gender Expression, Race, and Religion

Studies suggest that age is not significantly related to college students' attitudes toward LGB people (Lambert, Ventura, Hall, & Cluse-Tolar, 2006; Negy & Eisenman, 2005; Raiz & Saltzburg, 2007; exception: Jenkins, Lambert, & Baker, 2009) and transgender people (Claman, 2008). Gender, however,

has consistently been found to be a significant factor, with female students reporting more positive attitudes toward sexual minorities (Jenkins et al., 2009; Kite & Whitley, 1996; Lambert et al., 2006) and transgender people (Claman, 2008; Hill & Willoughby, 2005; Nagoshi et al., 2008) than their male counterparts.

In addition to dichotomous characterizations of gender identity (as male or female), other dimensions of gender previously explored have produced inconsistent findings (Nagoshi et al., 2008; Theodore & Basow, 2000; Whitley, 2001). For example, among male students, adherence to perceptions that one fits traditional gender roles, and that such roles are important, predicted homophobia (Theodore & Basow, 2000). In contrast, among male and female students, self-perceived masculinity and femininity was not significantly associated with genderism (discrimination against those who do not display traditional gender conformity) or transphobia (“emotional disgust toward individuals who do not conform to society’s gender expectations” [Hill & Willoughby, 2005, p. 533]).

Examining gender-specific antecedents of transphobia and homophobia, Nagoshi and colleagues (2008) found mixed results concerning the role of personal attributes of femininity and masculinity. Gender expression, or the ways that people convey their gender role and identity, through behavior, clothing, hairstyle, vocal intonation, or other embodied characteristics, has not been examined as a predictor of attitudes toward any sexual-minority group or transgender individuals. Although atypical gender expression is often considered a characteristic of LGBT persons, individuals who identify as heterosexual may also display atypical gender expression, and students with atypical gender expression may hold more affirming attitudes toward LGBT people than those who embody more traditional gender norms.

Studies of race and attitudes toward gays and lesbians among college students have produced mixed results (Jenkins et al., 2009; Logie, Bridge, & Bridge, 2007; Long & Millsap, 2008; Negy & Eisenman, 2005; Raiz, 2006; Raiz & Saltzburg, 2007). Some have reported that bivariate associations between race and heteronormative opinions disappear when researchers control for educational, religious, and contextual factors (Schulte & Battle, 2004; Swank & Raiz, 2007). As a predictor of attitudes toward transgender individuals, ethnicity was not significant in one study (Claman, 2008). Results concerning religious affiliation have also been inconsistent in previous studies (Claman, 2008; Logie et al., 2007; Maher, Sever, & Pichler, 2008; Schulte & Battle, 2004). Given the varied results of previous studies, it is important to examine the role of race and religious affiliation in students’ LGBT attitudes.

Attitudinal and Framing Factors: Political Ideology and External Attributions

Cultural frames are generally conceived as belief systems that provide “tacit theories about what exists, what happens, and what matters” (Gitlin, 1980,

p. 6). Every society has a large number of different frames that transmit messages either justifying or contesting the status quo. Conservative frames often prioritize deference to conventional standards, whereas liberal and radical frames see these standards as unfair, exploitative, silly, or archaic.

When exploring the political identifications of nonstudent populations, people who see themselves as open-minded liberals or left-wing radicals often are more supportive of homosexuality (Herek, 2002). A similar relationship was found concerning Irish university students' support for lesbian and gay human rights (Morrison, Speakman, & Ryan, 2009). At the bivariate level, Claman (2008) found that conservative students held significantly more negative attitudes about transgender people than did liberal students and other political groups (e.g., nonvoters). However, this relationship was not enduring in multivariate analysis.

Attribution theory holds that disenfranchised people who are viewed as inferior and who have personally brought on their lower statuses will be evaluated more harshly than those who obtained the stigmata due to outside forces such as biology (Heider, 1958). Studies have found greater contempt for gay and lesbian people when homosexuality was thought to be a choice (Eldridge, Mack, & Swank, 2006; Wills & Crawford, 2000). Likewise, other studies posit that homosexuality is considered less deviant if it is seen as a natural part of life or if gay and lesbian people are seen as "born that way" (Haslam, Rothschild, & Ernst, 2002; Hewitt & Moore, 2002; Schulte, 2002; Swank & Raiz, 2007). Among the studies located concerning opinions about transgender people among college students (Claman, 2008; Hill & Willoughby, 2005; Nagoshi et al., 2008), only Claman (2008) assessed the role of attributions of transgender identity on attitudes. However, she did so only at the bivariate level, finding a positive correlation between endorsement for biological etiology of transgender identity and supportive attitudes toward transgender people. Clearly, this factor requires additional study.

Contextual Factors: Intergroup Experiences and Educational Content

Social networks convey beliefs, values, norms, and identities. Intergroup contact theory asserts that social prejudices are related to the amount of contact a person has with members of stigmatized groups (Pettigrew & Tropp, 2006). The role of intergroup contact frequently has been confirmed in studies of sexual orientation prejudice (Basow & Johnson, 2000; Hinrichs & Rosenberg, 2002) and transprejudice (Claman, 2008; Hill & Willoughby, 2005). Many studies find that contact with LGB individuals of equal social statuses is most important in reducing intergroup prejudice (Allport, 1954). When exploring different types of interpersonal contact, having gay siblings or friends seems to have greater positive influence on attitudes than contact with sexual-minority parents, strangers, or acquaintances (Eldridge et al., 2006; Swank & Raiz, 2007).

Educational settings are an important socializing agent for college students. Among the general collegiate populace, classes that have discussions, films, and factual information on gay matters often lessen antipathy toward gay people (Guth, Lopez, Rojas, Clements, & Tyler, 2004; Hinrichs & Rosenberg, 2002; Rye & Meaney, 2009). Nevertheless, some studies suggest that courses on human sexuality may lessen antigay prejudice only among women (Finken, 2002), have inconsistent results (Noland, Bass, Keathley, & Miller, 2009), or have no impact at all (Eldridge et al., 2006). Given these mixed results, further research is needed to clarify the role of exposure to LGBT content on students' attitudes toward LGBT persons.

To better understand the nature of contemporary prejudice toward LGBT people on college campuses, and to inform campus-climate interventions, we examine multivariate covariates of U.S. heterosexual undergraduate and graduate students' perceptions of LGBT people.

METHOD

Data for the current study were taken from a larger investigation concerning institutional climate at a large public research university located in the Midwest. The university's antidiscrimination policy includes protections based on sexual orientation, gender identity, and gender expression. An advisory committee consisting of students, staff, faculty, and alumni who identified as LGBT or allies assisted with the study, including survey development. No reference was made to LGBT issues or subjects in recruitment and informed consent materials. The study received institutional review board approval.

Participants

The sample for the current analysis was drawn from a census of sophomore and junior undergraduates ($N = 11,342$) and 8,000 randomly selected graduate students. Both full-time and part-time students were eligible to participate. Just over 5,000 students activated the survey link and 3,762 agreed to participate. However, due to missing data (433 students provided partial responses and 761 did not answer any questions) the sample was reduced to 2,568. Sexual orientation was assessed through the question, "What is your sexual orientation?" Students selected from seven options (*Completely lesbian or gay*, *Mostly lesbian or gay*, *Bisexual*, *Mostly heterosexual*, *Completely heterosexual*, *Asexual*, and *Not listed, please specify*). For this study, the sample was limited to self-reported *Completely heterosexual* students who were U.S. citizens ($n = 1,817$).

The analytical sample was primarily female (63%) and White/European American (78%) with an average age of 23 years. Approximately 60% of

respondents were undergraduate students. All demographic information about the sample is displayed in Table 1.

Procedures

We conducted a cross-sectional study using an anonymous online survey. The survey was formatted and administered by a company contracted through the university's student services administration to conduct student satisfaction and learning outcome surveys. Distribution procedures followed those employed by the university for its campus-wide student surveys: specifically, using official university e-mail addresses, the registrar's office contacted students three times. An invitation to join the study was distributed first and this included a link to the survey website. Reminder e-mails including a link to the survey were sent 7 and 14 days after the initial e-mail. All messages were signed by the university's vice president of student affairs. Participants were offered an opportunity to enter a raffle for one of fifty \$50 cash cards.

Measures

LGBT SOCIAL ATTITUDES

We could not locate a scale that addressed attitudes toward all four groups included in LGBT. Although scales are available to assess attitudes toward gays and lesbians (e.g., Morrison & Morrison, 2002; Hudson & Ricketts, 1980), bisexuals (e.g., Mohr & Rochlen, 1999), and transgender people (e.g., Hill & Willoughby, 2005), using a combination of these scales would have created excessive respondent burden, especially in a survey that was already extensive. In addition, we wanted a scale that reflected biases known to exist on the host campus (e.g., "Bisexuality is a phase"). Therefore, in consultation with the staff of the university's LGBT office and our research advisory committee, we constructed the LGBT Social Attitudes Scale. In addition to minimizing respondent burden, we employed language used by college students (e.g., *gay* or *lesbian* rather than *homosexual*, a term that is still used in many extant scales). Moreover, we formulated items that moved away from explicit moralistic judgments of LGBT people because college students may not endorse overtly anti-LGBT items (e.g., "Being gay is a sin") but may sanction subtle biases (e.g., "Feminine men make me uncomfortable"). Finally, given popular attention to public policy issues affecting the LGBT community (e.g., the legal recognition of same-sex relationships), we sought to construct a scale that reflected this contemporary dialogue.

After reviewing related scales, we selected or adapted relevant items and created several additional items. This resulted in 18 items, which were reduced to 15 following pretesting with the advisory committee and a group of recent graduates. The 15-item scale was administered in this study.

TABLE 1 Descriptive Statistics for Sample and Independent Variables

Continuous Variables		<i>n</i>	<i>M</i>	<i>SD</i>
Age		1,817	22.84	6.00
Political ideology ^a		1,738	4.63	1.32
Sexual orientation—biological ^b		1,715	4.25	1.75
Transgender person—biological ^b		1,698	4.33	1.61
Categorical Variables		<i>n</i>	%	
Sex	Female	1,136	62.5	
	Male	681	37.5	
Atypical gender expression	Yes, all of the time	8	0.4	
	Yes, most of the time	18	1.0	
	Yes, some of the time	179	9.9	
	No, never	1,598	88.6	
University affiliation	Undergraduate	1,121	61.7	
	Masters	696	38.3	
	Doctoral	310	17.1	
Race/ethnicity	Black/African American	68	3.7	
	Asian/Asian American/Pacific Islander	197	10.8	
	Hispanic/Chicano(a)/Latino(a)	41	2.3	
	Biracial/multiracial	57	3.1	
	White/European American	1,415	77.9	
	Other race/ethnicity not listed	43	2.1	
Religious affiliation	Agnostic	205	11.3	
	Atheist/none	308	17.0	
	Jewish	114	6.3	
	Protestant ^c	368	20.3	
	Roman Catholic	412	22.7	
	Other Christian ^d	263	14.5	
	Other non-Christian ^e	83	4.6	
	Religion not listed	59	3.3	
Contact with LGBT people	LGB friends	No	381	22.3
		Yes	1,327	77.7
	LGB acquaintances	No	446	26.1
		Yes	1,260	73.9
	LGB immediate family	No	1,588	93.0
		Yes	119	7.0
	LGB extended family	No	1,197	70.4
		Yes	503	29.6
	Transgender friends	No	1,590	93.3
		Yes	115	6.7
	Transgender acquaintances	No	1,432	83.9
		Yes	275	16.1
	Transgender immediate family	No	1,701	99.7
		Yes	5	0.3
	Transgender extended family	No	1,676	98.5
		Yes	26	1.5
For-credit courses with content on LGBT people/issues	No	1,085	64.0	
	Yes	609	36.0	

Note. LGB = lesbian, gay, and bisexual; LGBT = lesbian, gay, bisexual, and transgender.

^a1 = *extremely conservative*; 7 = *extremely liberal*.

^b1 = *strongly disagree*; 7 = *strongly agree*.

^cConsists of Baptist, Church of Christ, Episcopalian, Lutheran, Methodist, Presbyterian, and United Church of Christ/Congregational.

^dConsists of Eastern Orthodox, Latter-Day Saints/Mormon, Quaker, Seventh-Day Adventists, and other Christian denominations.

^eConsists of Buddhist, Hindu, Muslim, and Other non-Christian denominations.

However, we removed one highly skewed item, and an exploratory factor analysis identified five other problematic items, which were subsequently removed.

The final scale consists of nine items, representing a brief, comprehensive measure of overall LGBT sentiment, with a Cronbach's alpha of 0.87, indicating very good internal reliability. Respondents rated each item using a seven-point Likert scale (1 = *Strongly disagree*, 7 = *Strongly agree*). After reverse-scoring two items, scores were summed and averaged to create a composite score. Higher scores represent more affirming attitudes. See the Appendix for the items used in the scale.

Independent Variables. With the exception of age, all demographic variables were measured categorically. After defining gender expression (as noted previously), one item asked, "Would you consider your gender expression on campus to be different from society's expectations based on your assigned sex at birth?" Responses consisted of "Yes, some of the time," "Yes, most of the time," "Yes, all of the time," and "No, never." Due to the skewed distribution (89% chose "No, never"), responses to this item were dichotomized into "typical" ("No, never") and "atypical" gender expression (all other responses). Respondents self-identified their race/ethnicity from a list, and the largest groups were retained for multivariate analysis (Black/African American, Asian/Asian American/Pacific Islander, Hispanic/Chicano(a)/Latino(a), Biracial/multiracial, White/European American, and other race/ethnicity not listed). Respondents also self-identified religious affiliation, selecting from a list of options that were collapsed into eight categories: agnostic, atheist/none, Jewish, Protestant, Roman Catholic, Other Christian, Other non-Christian, and religion not listed. The group "religion not listed" was excluded from multivariate analysis.

Political ideology was assessed using a seven-point Likert scale queried (1 = *Extremely conservative*, 7 = *Extremely liberal*). One question each assessed views concerning biological causation of sexual orientation and transgender identity: "Sexual orientation is genetically predetermined" and "A transgender person is born that way"; both employed a seven-point Likert scale (1 = *Strongly disagree*, 7 = *Strongly agree*). One question each inquired about contact with LGB friends, acquaintances, immediate family members, and extended family members (no, yes). Similar questions were asked concerning transgender individuals. Given the very low number of respondents with transgender family members, either immediate or extended, for the regression analysis we created the variable transgender family member (no, yes). The survey also asked whether the respondent had taken any for-credit courses with content on LGBT individuals/communities (no, yes).

Analysis

We used SPSS Statistics 17.0 for data analysis. Descriptive analyses were performed for all variables. Correlations were conducted between continuous

variables to evaluate for multicollinearity, and no concerns were identified. To identify factors that predict students' LGBT social attitudes we performed multiple linear regression. All independent variables previously described were included in the model as we were interested in their controlled effects on the outcome.

RESULTS

We report descriptive statistics for the independent variables in Table 1. Intercorrelations among the continuous variables are shown in Table 2. The mean score for LGBT social attitudes scale was 5.30 ($SD = 1.17$). Approximately 14% of the sample scored below the scale's midpoint, and an estimated 50% of the respondents scored 5.56 or above. Mean scores on individual items ranged from 4.36 to 5.87, indicating that views were not extremely polarized.

Table 3 presents the regression results. The model represented a total of 59% of the variance in heterosexual students' attitudes toward LGBT people, $F(24, 1867) = 116.19, p < .001$. As displayed in Table 3, students' LGBT social attitudes were significantly associated with particular demographics, each of the attitudinal and framing items, and select social contact factors. Specifically, controlling for all variables in the model simultaneously, among the demographic variables, more affirming LGBT attitudes were associated with being older, being female rather than male, identifying as White/European American rather than Black/African American, and identifying as atheist or not having a religion versus being affiliated with Protestant, Roman Catholic, other Christian, or other non-Christian religion. Each of these covariates made a marginal though significant contribution to the outcome.

Each of the attitudinal and framing factors was significantly and independently associated with LGBT attitudes, all in a positive direction. Being more liberal in one's political ideology was associated with having more affirming LGBT attitudes. The same trend existed with respect to endorsement of biological causes for sexual orientation and transgender identity. The magnitude of political ideology was considered moderate (and

TABLE 2 Correlations Between Continuous Variables

	1	2	3	4	5
1. LGBT social attitudes	—	0.10***	0.62***	0.37***	0.50***
2. Age		—	0.06*	0.06*	0.07**
3. Political ideology			—	0.24***	0.34***
4. Sexual orientation—biological causation				—	0.39***
5. Transgender—biological causation					—

Note. LGBT = lesbian, gay, bisexual, and transgender.

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

TABLE 3 Multiple Linear Regression Analysis for Variables Predicting Domestic Heterosexual College Students' LGBT Social Attitudes ($n = 1,479$)

Variable	B	SEB	β
Demographics			
Age in years	0.01	0.00	0.04*
Sex (ref. female)	-0.18	0.04	-0.08***
Race/Ethnicity (ref. White)			
Black/African American	-0.51	0.12	-0.08***
Asian/Asian American/Pacific Islander	-0.11	0.08	-0.03
Hispanic/Chicano(a)/Latino(a)	-0.16	0.14	-0.02
Biracial/multiracial	-0.05	0.12	-0.01
Religion (ref. atheist/none)			
Agnostic	0.09	0.08	0.02
Jewish	-0.10	0.09	-0.02
Protestant	-0.34	0.07	-0.12***
Roman Catholic	-0.29	0.07	-0.11***
Other Christian	-0.51	0.07	-0.16***
Other non-Christian	-0.26	0.13	-0.04*
Atypical gender expression (ref. no)	0.04	0.06	0.01
Attitudes and framing factors			
Political ideology	0.38	0.02	0.42***
Sexual orientation—biological	0.08	0.01	0.12***
Transgender—biological	0.18	0.01	0.24***
Social Contact and Education (ref. no)			
LGB friends	0.35	0.05	0.12***
LGB acquaintances	0.06	0.05	0.02
LGB immediate family members	0.30	0.08	0.06***
LGB extended family members	0.08	0.05	0.03
Transgender friends	0.21	0.08	0.05**
Transgender acquaintances	0.05	0.06	0.01
Transgender family member	-0.15	0.16	-0.02
For-credit courses with LGBT content	0.07	0.04	0.03

Notes. ref. = reference group; LGBT = lesbian, gay, bisexual, and transgender.

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

the largest among all predictors) while all other attitudinal factors were weak in effect size; however, finding the effect size of the etiology of transgender identity to be twice that of the etiology of sexual orientation is noteworthy.

Among the social contact variables, three variables were statistically significant, each at a low level of magnitude. Students with LGB friends, LGB immediate family members, and transgender friends reported more affirming LGBT attitudes than those without such social contacts.

LIMITATIONS

This study has several noteworthy strengths, for example, a large sample, inclusion of both graduate and undergraduate students, use of an anonymous online survey to collect sensitive information, and no reference to LGBT

topics in recruitment materials, which might have discouraged highly biased students from participating. However, it also has noteworthy limitations, some of which suggest directions for future research.

The cross-sectional nature of this study precludes the temporal-ordering requirements of causality. Potential problems with item wording and measurement error exist, despite the pretesting that was implemented to minimize these issues. Further, social desirability is another concern. Making the survey anonymous and using Likert scales for attitudinal items as we did can help address this potential problem; however, future studies would benefit by including a social desirability measure. Another concern is missing data among the analytical sample for select predictors. For example, 6.4% of the participants did not answer the question concerning etiology of transgender identity. We wonder whether some of these individuals had never considered this question, or were unsure of how to respond, and hence declined to provide a response. Future studies should include an "Unsure" response to capture these students.

As is common with anonymous Internet-based surveys (Dillman, Smyth, & Christian, 2009), we were unable to determine if students who did not activate the survey link received the e-mail invitation/reminders or if they were not interested in joining the study. Though official university e-mail addresses were used to recruit participants, it is possible that some students may not use their university account or may check it infrequently. Based on the number of students in the sampling frame, the final response rate is 13.3%. Based on the number of students who activated the survey link, however, the final response rate is 51.3%. It is possible that nonrespondents might have differed from respondents (the anonymous nature of our design prevented exploration of this possibility). Percentages of males, graduate students, and Black/African American students were lower in the original sample than in the university's overall rates.

In terms of generalizability, the students who attend this university may not reflect the attitudes of more politically conservative students or students attending smaller institutions or institutions located in other parts of the country. In addition, along theoretical lines, a comprehensive list of independent variables does not guarantee that all extraneous or confounding variables were eliminated. For instance, while interpersonal contact variables were examined, including measures that assess the quality of the relationship could be equally insightful. Differentiating between conservative and liberal religious views alongside religious affiliation would also be important. Other framing variables could be added as well, such as perceptions of acceptable gender presentation. Finally, in this study we did not examine LGBT identities as cultural constructs with meanings that vary based on social and historical context (Rust, 1996a, 1996b). Future studies that address this issue may also inform campus initiatives to improve the climate for LGBT communities.

DISCUSSION AND IMPLICATIONS

To the best of our knowledge this research represents one of the first systematic studies to examine heterosexual students' attitudes toward LGBT people as a group rather than as separate identity cohorts. Both sexual-minority and transgender populations experience discrimination and oppression in communities and on college campuses, even with contemporary growing acceptance of diversity. Many institutions of higher education countrywide offer programs to promote acceptance by heterosexuals and boost social inclusion for LGBT students collectively. Concern has been expressed that LGBT ally programs and similar initiatives are not necessarily developed based on a systematic understanding of the institutional climate for LGBT students generally (Draughn et al., 2002). Heterosexual college students who are U.S. citizens are a highly privileged group (Broido & Reason, 2005); therefore, understanding their opinions about LGBT people can provide important insights into the nature of contemporary prejudice among socially advantaged groups. Further, the results can inform efforts to create (more) affirming and inclusive campus climates for LGBT students as well as more broad understandings of contemporary heterosexism.

Among respondents, overall we found attitudes toward LGBT people to be more affirming than nonaffirming. Although this may be an encouraging sign, caution is needed. First, on average, according to the seven-point scale we used, attitudes were only *somewhat* affirming. Second, not all respondents in our sample had affirming attitudes; an estimated 14% reported negatively biased views. These findings suggest that enough students endorse anti-LGBT bias to negatively impact the climate of this particular campus for LGBT people.

Furthermore, studies indicate that the presence of positive attitudes does not eliminate the presence of anti-LGBT incidents (Burn, 2000; Woodford, Howell, Kulick, & Silverschanz, in press). Among a sample of heterosexual male students, Burn (2000) investigated the relationship between antigay attitudes and calling heterosexual peers *fag*, *queer*, and other heterosexist slurs—words that can create a hostile and unsafe environment for LGBT students even when they are not the target of these slights (Silverchanz et al., 2008). Burn found that among those who practiced antigay behaviors, such as calling heterosexual peers *fag*, only 50% held strong antigay views; in other words, even students who were not overly prejudiced participated in these forms of heterosexism. Among Oberlin College's students, staff, and faculty, Norris (1992) found liberal attitudes toward sexual minorities alongside widespread victimization of LGB members of the university community. More recently, this pattern was also found among students, staff, and faculty at Dickinson College (Yost & Gilmore, 2011). In short, as these studies suggest, although reported attitudes may be not be prejudiced or overly prejudiced, heterosexism remains.

In terms of the antecedents of students' attitudes toward LGBT people, our results accentuate the importance of political ideology. Consistent with earlier research (Hopwood & Connors, 2002; Morrison et al., 2009), we found that being more liberal in one's views is associated with having more positive views toward LGBT people. Given the powerful influence of this variable in previous studies, this result was anticipated. This finding presents both a challenge and an opportunity for educators, as students holding liberal views tend to be more open to new experiences and more affirming of stigmatized groups than are their more conservative counterparts.

To improve the campus climate for LGBT students, it will be important for educational programs to effectively engage politically conservative students. Encouraging conservative students to participate in existing LGBT awareness programs may be beneficial. But we believe that specialized programs are needed. Intergroup dialogue offers promise (Dessel, Woodford, Routenberg, & Breijak, in press). Research conducted with highly religious public school teachers who participated in an intergroup dialogue program with LGB community members found that participating teachers' attitudes toward sexual minorities became more accepting compared to those of the comparison group (Dessel, 2010). This pedagogy has been used extensively on college campuses with respect to race and gender, and has been found to be more effective in facilitating student learning, including increased understanding, better relationship building, and improved intergroup collaboration than traditional class instruction (comparison group) and no intervention (Nagda, Gurin, Sorensen, & Zúñiga, 2009). While learning outcomes concerning sexuality and gender identity and expression were not examined, exploratory research concerning liberal-conservative dialogue documented positive learning outcomes, including "seeing others in a new way" (Hess, Rynczak, Minarik, & Landrum-Brown, 2010, p. 195). These studies point to the potential of intergroup dialogue as an intervention to encourage politically conservative students to critically reflect on their LGBT attitudes and to develop understanding of LGBT people and their experiences, possibly resulting in more affirming views.

Supplementing these targeted programs, other initiatives, including less resource-intensive ones, are needed. Educational programs that reach all students may be useful, for example, as part of freshman orientation or required first-year seminars. Moreover, spaces need to be created that allow for conversations about attitudes concerning LGBT people (and other marginalized groups). Research suggests that students in attitudinally diverse networks are less resistant to attitude change than those in attitudinally similar systems (Levitán & Visser, 2009). Having opportunities in courses and other settings to discuss personal opinions, even though differing, may facilitate positive attitude change.

Faculty and staff play a pivotal role in creating these spaces. Pro-LGBT faculty and staff, including those identifying as politically conservative who

disclose their opinions with students through discussions or symbols (e.g., safe space stickers, text on syllabi), may encourage politically conservative (and other) students to critically examine their own attitudes and possibly change their perspectives. Collaborating with politically conservative LGBT allies in the development of targeted programs is recommended. Research into the causal factors of politically conservative students' opinions is also suggested.

The results also highlight the consequence of attribution of cause for sexual orientation and transgender identity, particularly for the latter. Similar to related studies (Claman, 2008; Eldridge et al., 2006), we found believing in biological causation is associated with affirming attitudes toward LGBT people. Clearly, conceptual frameworks about the cause of transgender identity and sexual orientation are pivotal factors to consider in understanding attitudes toward LGBT people and in educating about LGBT people. Interestingly, beliefs about the attribution of cause of transgender identity are especially critical given the importance of their effect on the outcome among our sample. Some may believe that measures inquiring about the causation of sexual orientation and about the causation of transgender identity are tapping into the same construct; however, our results suggest differences exist in these constructs ($r = 0.39$, $p < .001$). While it is unknown how many educational programs address causation of sexual orientation *and* transgender identity, based on our experiences we believe that programs tend to overlook the cause of transgender identity. Our findings indicate that it is especially important to integrate material on this topic.

Although not as influential as political ideology and the "attribution of cause" variables, this study underscores the value of social networks. As suggested by other studies (Basow & Johnson, 2000; Claman, 2008; Hill & Willoughby, 2005; Hinrichs & Rosenberg, 2002), we find a positive association between one's social networks and affirming attitudes toward LGBT people. Having LGB friends or immediate family members was associated with more accepting LGBT attitudes, whereas having LGB acquaintances or extended family members was insignificant. Further, a similar positive relationship was observed in terms of transgender friends but not other social contacts with transgender persons (possibly due to the small number of respondents with transgender family members). These results support the longstanding assertion that intergroup contact is most powerful among people who share similar levels of power (Allport, 1954) and reinforce the importance of relationship closeness.

These results concerning social contacts suggest institutions should support initiatives that enable LGBT students and heterosexual students to develop friendships. Although LGBT student organizations and similar initiatives that target LGBT students are important in providing support to these students, our findings imply it would be beneficial to supplement these programs with ones that bring together LGBT and heterosexual students. LGBT

and ally groups, such as gay–straight alliances, are a viable option. These findings also have implications for campus educational interventions that involve one-time or periodic exposure to LGBT people, such as speaker panels and guest presentations by LGBT persons. Our results suggest that interventions involving extended contact with LGBT peers, with the hope that heterosexual students may develop friendships with LGB or transgender participants (Guth et al., 2004), may be more effective in promoting understanding of and inclusion for LGBT students than simple one-time educational efforts. Again, intergroup dialogue on sexual orientation and gender identity is a viable option (Dessel, 2010; Dessel et al., in press; Dessel, Woodford, & Warren, 2011).

Even though sociodemographics alone are insufficient to understand attitudes, our findings indicate that age, sex, select racial/ethnic identities, and some particular religious affiliations still matter (though most with minimal effect). It is possible that older college students may have more affirming views toward LGBT people because they may have more exposure to diverse ideas and people and have developed better critical thinking skills than their younger peers. In the process, they may have had an opportunity to challenge biases they held as younger people as they develop their social views (Lottes & Kuriloff, 1994).

Compared to female students, male students may have less affirming opinions toward LGBT people presumably as a reflection of their privileged status in society. That is, it is possible that female students possess more accepting, supportive LGBT attitudes because sexism and genderism make them more aware of the oppression and prejudices which other groups face. It is also possible that male students' adherence to traditional constructions of gender, especially masculinity, may help account for our findings regarding sex. Male students tend to define masculinity based on "rigid and limited gender norms for men" that specify men are not supposed to be gay or effeminate (Harris & Edwards, 2010, p. 45). Gender lessons taught in early life can remain intact for college-age males, who may be prejudiced toward others (especially other males) who violate traditional gender norms. Although not all members of the LGB community violate traditional gender norms, it is a commonly held stereotype. Campus interventions targeting male heterosexual students could help improve the climate for LGBT students. Formative research on the best avenues for encouraging change is needed in this regard.

We interpret our finding regarding Black/African American students with caution given the low number of students from this community included in this study. Although attitudes within some segments of the African American community are becoming more accepting of LGBT people, it is possible that norms within the larger African American community that emphasize church, family, and procreation may help to explain our finding that Black/African American students were less affirming of LGBT people than White/European American students (Mason, 2009; Parks, 2010).

Likewise, the norms of particular religious groups may not be affirming of LGBT people, and being a member of these groups may foster and support individual prejudices (Hopwood & Connors, 2002). Future research is needed to examine these factors. It will be particularly important to more closely examine opinions among religiously affiliated students given that college students often critically examine religious teachings on sexuality and other controversial topics as part of their religious identity development (Fowler, 1981). These studies should investigate the role of religiosity given that this variable tends to offer more explanatory value in understanding attitudes toward sexual minorities than religious affiliation or tradition (Walls, 2010).

Interestingly, we found gender expression and exposure to LGBT content in courses not significantly related to attitudes. Previous studies have produced mixed results about the explanatory value of various concepts related to the respondent's own gender expression (Nagoshi et al., 2008; Theodore & Basow, 2000; Whitley, 2001). Several factors may account for our finding. Simply, our data about gender identity may lack sufficient variability to demonstrate significance in controlled analysis in that only approximately 10% of the sample indicated atypical gender expression. Moreover, students with unconventional gender expression may also be students who have more liberal political views, and the consequence of political ideology on the outcome may overpower the effect of gender expression. Additional research is needed to address the relationship of one's own gender expression with attitudes.

Our finding concerning educational content was contrary to what we expected. We did not control for area or discipline of study, which may be an important factor (exposure to LGBT content among students in the natural sciences would likely be much lower than students in the social sciences, for example). Further, we wonder if the types of content offered and the way the content is delivered are related factors. There is some evidence that a sizable segment of faculty retain prejudice against sexual minorities (Hogan & Rentz, 1998; Sears, 2002; Woodford, Brennan, Gutiérrez, & Luke, 2012). Although we did not assess these variables, it could be that discipline and different pedagogic tools could effect greater change in different contexts.

CONCLUSION

Heterosexism occurs on campuses throughout the country. Nevertheless, many universities are committed to creating safe, accepting, and inclusive environments for LGBT students. What emerges from this analysis is a profile of students with *somewhat* affirming LGBT social attitudes and, moreover, important information for promoting inclusive campuses for LGBT students. It is striking how many of our findings concerning predictors corroborate the results of earlier studies about students' attitudes toward sexual minorities, as well as the few studies that exist

concerning attitudes toward transgender people. This suggests that select predictor variables, such as political ideology, causation beliefs, and social contact with minority group members, are fairly consistent predictors of students' attitudes concerning sexual orientation and gender expression/identity. We found that political views and beliefs about the cause of transgender identity and sexual orientation play a critical role, as does one's social network. We also found that specific demographic groups may be less tolerant of LGBT people than others. In some situations, such as the college campus examined herein, transforming the climate from being *somewhat* affirming to being fully affirming and celebratory of LGBT people is an ongoing institutional goal. Addressing the programmatic recommendations outlined in this article will undoubtedly help to realize this result.

NOTE

1. In this study the term *transgender* refers to people whose gender identity, expression, or behavior is different from those typically associated with their assigned sex at birth. This definition was included in the survey instrument.

REFERENCES

- Allport, G. W. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley.
- Astin, A. W. (1993). *Assessment for excellence: The philosophy and practice of assessment and evaluation in higher education*. New York, NY: American Council on Education and Macmillan.
- Bandura, A. (1977). *Social learning theory*. New York, NY: General Learning Press.
- Basow, S., & Johnson, K. (2000). Predictors of homophobia in female college students. *Sex Roles, 42*(5–6), 391–404. doi:10.1023/A:1007098221316
- Broido, E. M., & Reason, R. D. (2005). The development of social justice attitudes and actions: An overview of current understandings. *New Directions for Student Services, 2005*(110), 17–28. doi:10.1002/ss.162
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Burn, S. N. (2000). Heterosexuals' use of "fag" and "queer" to deride one another: A contributor to heterosexism and stigma. *Journal of Homosexuality, 40*(2), 1–12. doi:10.1300/J082v40n02_01
- Champagne, J. (2002). The easy way out: Gays and lesbians in academia. *GLQ: A Journal of Gay and Lesbian Studies, 8*(1–2), 227–240. doi:10.1215/10642684-8-1-2-227
- Claman, E. E. (2008). *An examination of the predictors of attitudes toward transgender individuals* (Doctoral dissertation). Columbus, OH: Ohio State University. Retrieved from http://rave.ohiolink.edu/etdc/view?acc_num=osu1218227559
- Dessel, A. (2010). Effects of intergroup dialogue: Public school teachers and sexual orientation prejudice. *Small Group Research, 41*(5), 556–592. doi:10.1177/1046496410369560

- Dessel, A., Woodford, M. R., Routenberg, R., & Breijak, D. P. (in press). Heterosexual students' experiences in sexual orientation intergroup dialogue courses. *Journal of Homosexuality*.
- Dessel, A., Woodford, M. R., & Warren, N. (2011). Intergroup dialogue courses on sexual orientation: Lesbian, gay and bisexual student experiences and outcomes. *Journal of Homosexuality*, 58(8), 1132–1150. doi:10.1080/00918369.2011.598420
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2009). *Internet, mail, and mixed-mode surveys: The tailored design method*. Hoboken, NJ: Wiley.
- Draughn, T., Elkins, B., & Roy, R. (2002). Allies in the struggle: Eradicating homophobia and heterosexism on campus. *Journal of Lesbian Studies*, 6(3/4), 9–20. doi:10.1300/J155v06n03_02
- Eldridge, V., Mack, L., & Swank, E. (2006). Explaining comfort with homosexuals in rural America. *Journal of Homosexuality*, 51(2), 39–56. doi:10.1300/J082v51n02_03
- Finken, L. L. (2002). The impact of a human sexuality course on anti-gay prejudice: The challenge of reaching male students. *Journal of Psychology and Human Sexuality*, 14(1), 37–46. doi:10.1300/J056v14n01_03
- Fowler, J. W. (1981). *Stages of faith: The psychology of human development and the quest for meaning*. San Francisco, CA: Harper and Row.
- Gitlin, T. (1980). *The whole world is watching: Mass media in the making and unmaking of the New Left*. Berkeley, CA: University of California Press.
- Guth, L. J., Lopez, D. F., Rojas, J., Clements, K. D., & Tyler, J. M. (2004). Experiential versus rational training: A comparison of student attitudes toward homosexuality. *Journal of Homosexuality*, 48(2), 83–102. doi:10.1300/J082v48n02_05
- Harper, G. W., & Schneider, M. (2004). Oppression and discrimination among lesbian, gay, bisexual, and transgendered people and communities: A challenge for community psychology. *American Journal of Community Psychology*, 31(3–4), 243–252. doi:10.1023/A:1023906620085
- Harris, F., III, & Edwards, K. E. (2010). College men's experiences as men: Findings and implications from two grounded theory studies. *Journal of Student Affairs Research and Practice*, 47(1), 43–62. doi:10.2202/1949-6605.6085
- Haslam, N. L., Rothschild, Z., & Ernst, D. (2002). Are essentialist beliefs associated with prejudice? *British Journal of Social Psychology*, 41(1), 87–100. doi:10.1348/014466602165072
- Heider, F. (1958). *The psychology of interpersonal relations*. New York, NY: Wiley.
- Herek, G. M. (2002). Heterosexuals' attitudes toward bisexual men and women in the United States. *Journal of Sex Research*, 39(4), 264–274.
- Hess, J. Z., Rynczak, D., Minarik, J. D., & Landrum-Brown, J. (2010). Alternative settings for liberal-conservative exchange: Examining an undergraduate dialogue course. *Journal of Community and Applied Social Psychology*, 20(2), 156–166. doi:10.1002/casp.1032
- Hewitt, E., & Moore, L. (2002). The role of lay theories about the etiologies of homosexuality in attitudes toward lesbians and gay men. *Journal of Lesbian Studies*, 6(3), 59–72. doi:10.1300/J155v06n03_06
- Hill, D. B., & Willoughby, B. L. B. (2005). The development and validation of the genderism and transphobia scale. *Sex Roles*, 53(7–8), 531–544. doi:10.1007/s11199-005-7140-x

- Hinrichs, D. W., & Rosenberg, P. J. (2002). Attitudes toward gay, lesbian, and bisexual persons among heterosexual liberal arts students. *Journal of Homosexuality*, 43(1), 61–84. doi:10.1300/J082v43n01_04
- Hogan, T. L., & Rentz, A. L. (1998). Fear of AIDS among faculty members and student affairs administrators. *NASPA Journal*, 35(3), 217–224. doi:10.2202/1949–6605.1055
- Hopwood, M., & Connors, J. (2002). Heterosexual attitudes to homosexuality: Homophobia at a rural Australian university. *Journal of Gay and Lesbian Social Services*, 14(2), 79–94. doi:10.1300/J041v14n02_07
- Hudson, W. W., & Ricketts, W. A. (1980). A strategy for the measurement of homophobia. *Journal of Homosexuality*, 5(4), 357–372. doi:10.1300/J082v05n04_02
- Jenkins, M., Lambert, E. G., & Baker, D. N. (2009). The attitudes of Black and White college students toward gays and lesbians. *Journal of Black Studies*, 39(4), 589–613. doi:10.1177/0021934707299638
- Kite, M. E., & Whitley, B. E., Jr. (1996). Sex differences in attitudes toward homosexual persons, behavior, and civil rights: A meta-analysis. *Personality and Social Psychology Bulletin*, 22(4), 336–353. doi:10.1177/0146167296224002
- Kitzinger, C. (2001). Sexualities. In R. K. Unger (Ed.), *Handbook of the psychology of women and gender* (pp. 272–285). New York, NY: Wiley.
- Knickerbocker, B. (2010, October 3). Tyler Clementi suicide: Reaction is swift and widespread. *Christian Science Monitor*. Retrieved from http://find.galegroup.com.proxy.lib.umich.edu/gtx/infomark.do?&contentSet=IAC-Documents&type=retrieve&tabID=T004&prodId=STND&docId=CJ238542392&source=gale&srcprod=STND&userGroupName=lom_umichanna&version=1.0
- Lambert, E. G., Ventura, L. A., Hall, D. E., & Cluse-Tolar, T. (2006). College students' views on gay and lesbian issues: Does education make a difference? *Journal of Homosexuality*, 50(4), 1–30. doi:10.1300/J082v50n04_01
- Levitan, L. C., & Visser, P. S. (2009). Social network composition and attitude strength: Exploring the dynamics within newly formed social networks. *Journal of Experimental Social Psychology*, 45(5), 1057–1067. doi:10.1016/j.jesp.2009.06.001
- Logie, C., Bridge, T. J., & Bridge, P. D. (2007). Evaluating the phobias, attitudes, and cultural competence of Master of Social Work students toward the LGBT populations. *Journal of Homosexuality*, 53(4), 201–221. doi:10.1080/00918360802103472
- Long, W., & Millsap, C. A. (2008). Fear of AIDS and homophobia scales in an ethnic population of university students. *Journal of Social Psychology*, 148(5), 637–640. doi:10.3200/SOCP.148.5.637-640
- Lottes, I. L., & Kuriloff, P. J. (1994). The impact of college experience on political and social attitudes. *Sex Roles*, 31(1–2), 31–54. doi:10.1007/BF01560276
- Maher, M. J., Sever, L. M., & Pichler, S. (2008). How Catholic college students think about homosexuality: The connection between authority and sexuality. *Journal of Homosexuality*, 55(3), 325–349. doi:10.1080/00918360802345065
- Mason, C. N. (2009). *At the crossroads: African-American attitudes, perceptions, and beliefs toward marriage equality*. Washington, DC: National Black Justice Coalition.

- Messinger, L. (2011). A qualitative analysis of faculty advocacy on LGBT issues on campus. *Journal of Homosexuality*, 58(9), 1281–1305.
- Messinger, L. (2009). Creating LGBTQ-friendly campuses. *Academe*, 95(5), 39–42.
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations. *Psychological Bulletin*, 129(5), 674–697. doi:10.1037/0033-2909.129.5.674
- Mohr, J. J., & Rochlen, A. B. (1999). Measuring attitudes regarding bisexuality in lesbian, gay male, and heterosexual populations. *Journal of Counseling Psychology*, 46(3), 353–369. doi:10.1037//0022-0167.46.3.353
- Morrison, M. A., & Morrison, T. G. (2002). Development and validation of a scale measuring modern prejudice toward gay men and lesbian women. *Journal of Homosexuality*, 43(2), 15–37. doi:10.1300/J082v43n02_02
- Morrison, T. G., Speakman, C., & Ryan, T. A. (2009). Irish university students' support for the human rights of lesbian women and gay men. *Journal of Homosexuality*, 56(3), 387–400. doi:10.1080/00918360902728871
- Nadal, K. L., Rivera, D. P., & Corpus, M. J. (2010). Sexual orientation and transgender microaggressions: Implications for mental health and counseling. In D. W. Sue (Ed.), *Microaggressions and marginality: Manifestations, dynamics, and impact* (pp. 217–240). Hoboken, NJ: Wiley.
- Nagda, B.A., Gurin, P., Sorensen, N., & Zúñiga, X. (2009). Evaluating intergroup dialogue: Engaging diversity for personal and social responsibility. *Diversity and Democracy*, 12(1), 4–6.
- Nagoshi, J., Adams, K., Terrell, H., Hill, E., Brzuzy, S., & Nagoshi, C. (2008). Gender differences in correlates of homophobia and transphobia. *Sex Roles*, 59(7–8), 521–531. doi:10.1007/s11199-008-9458-7
- Negy, C., & Eisenman, R. (2005). A comparison of African American and White college students' affective and attitudinal reactions to lesbian, gay and bisexual individuals: An exploratory study. *The Journal of Sex Research*, 42(4), 291–298. doi:10.1080/00224490509552284
- Noland, R. M., Bass, M. A., Keathley R. S., & Miller, R. (2009). Is a little knowledge a good thing? *American Journal of Sexuality Education*, 4(2), 139–157. doi:10.1080/15546120903001399
- Norris, W. P. (1992). Liberal attitudes and homophobic acts: The paradoxes of homosexual experience in a liberal institution. *Journal of Homosexuality*, 22(3–4), 81–120. doi:10.1300/J082v22n03_04
- Parks, C. W. (2010). A window illuminating the reservations of black men who have sex with men in fully embracing the institution of same-sex marriage. *Journal of Gay and Lesbian Social Services*, 22(1–2), 132–148. doi:10.1080/10538720903332446
- Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, 90(5), 751–783. doi:10.1037/0022-3514.90.5.751
- Poynter, K. J., & Tubbs, N. J. (2008). Safe zones: Creating LGBT safe space ally programs. *Journal of LGBT Youth*, 5(1), 121–132.
- Raiz, L. (2006). College students' support of rights for members of the gay community. *Journal of Poverty*, 10(2), 53–67. doi:10.1300/J134v10n02_04

- Raiz, L., & Saltzburg, S. (2007). Developing awareness of the subtleties of heterosexism and homophobia among undergraduate, heterosexual social work majors. *Journal of Baccalaureate Social Work, 12*(2), 53–69.
- Rankin, S. (2003). *Campus climate for sexual minorities: A national perspective*. New York, NY: National Gay and Lesbian Task Force Policy Institute.
- Rankin, S. R. (2005). Campus climates for sexual minorities. *New Directions for Student Services, 2005*(111), 17–23. doi:10.1002/ss.170
- Rust, P. (1996a). “Coming out” in the age of social constructionism: Sexual identity formation among lesbian and bisexual women. *Journal of Lesbian Studies, 1*(1), 25–54. doi: 10.1300/J155v01n01_04
- Rust, P. (1996b). Sexual identity and bisexual identities: the struggle for self-description in a changing sexual landscape. In B. Beemyn & M. Eliason (Eds.), *Queer studies: A lesbian, gay, bisexual and transgender anthology* (pp. 64–87). New York, NY: New York University Press.
- Rye, B. J., & Meaney, G. J. (2009). Impact of a homonegativity awareness workshop on attitudes toward homosexuality. *Journal of Homosexuality, 56*(1), 31–55. doi:10.1080/00918360802551480
- Schulte, L. (2002). Similarities and differences in homophobia among African Americans and Caucasians. *Race, Gender, and Class, 9*(4), 71–93.
- Schulte, L. J., & Battle, J. (2004). The relative importance of ethnicity and religion in predicting attitudes towards gays and lesbians. *Journal of Homosexuality, 47*(2), 127–142. doi:10.1300/J082v47n02_08
- Sears, J. T. (2002). The institutional climate for lesbian, gay, and bisexual education faculty. *Journal of Homosexuality, 43*(1), 11–37. doi:10.1300/J082v43n01_02
- Silverschanz, P., Cortina, L. M., Konik, J., & Magley, V. J. (2008). Slurs, snubs, and queer jokes: Incidence and impact of heterosexist harassment in academia. *Sex Roles, 58*, 179–191. doi:10.1007/s11199-007-9329-7
- Stotzer, R. (2009). Violence against transgender people: A review of United States data. *Aggression and Violent Behavior, 14*(3), 170–179. doi:10.1016/j.avb.2009.01.006
- Swank, E., & Raiz, L. (2007). Explaining comfort with homosexuality among social work students. *Journal of Social Work Education, 43*(2), 257–279. doi:10.5175/JSWE.2007.200500560
- Theodore, P. S., & Basow, S. A. (2000). Heterosexual masculinity and homophobia: A reaction to self? *Journal of Homosexuality, 40*(2), 31–48. doi:10.1300/J082v40n02_03
- Walls, N. E. (2010). Religion and support for same-sex marriage: Implications from the literature. *Journal of Gay and Lesbian Social Services, 22*(1), 112–131. doi:10.1080/10538720903332420
- Whitley, B. E., Jr. (2001). Gender-role variables and attitudes toward homosexuality. *Sex Roles, 45*(11–12), 691–722. doi:10.1023/A:1015640318045
- Wills, G., & Crawford, R. (2000). Attitudes toward homosexuality in Shreveport-Bossier City, Louisiana. *Journal of Homosexuality, 38*(3), 97–116. doi:10.1300/J082v38n03_06
- Woodford, M., & Bella, L. (2003). Are we ready to take a stand? Educating social work students about heterosexism – fostering anti-oppressive practice. In W. Shera (Ed.), *Emerging perspectives on anti-oppressive practice* (pp. 413–430). Toronto, Canada: Canadian Scholars Press.

- Woodford, M. R., Brennan, D. J., Gutiérrez, L., & Luke, K. P. (2012). U.S. graduate social work faculty's attitudes toward lesbian, gay, bisexual, and transgender people. *Journal of Social Service Research*. Advance online publication. doi:10.1080/01488376.2012.666936
- Woodford, M. R., Howell, M. L., Kulick, A. & Silverschanz, P. (in press). Heterosexual male undergraduates and the perpetuation of sexual orientation microaggressions on campus: "That's so gay!" *Journal of Interpersonal Violence*.
- Woodford, M. R., Howell, M. L., Silverschanz, P., & Yu, L. (2012). "That's so gay!" Examining the covariates of hearing this expression among gay, lesbian, and bisexual college students. *Journal of American College Health*, 60(6), 429–434. doi:10.1080/07448481.2012.673519
- Yost, M. R., & Gilmore, S. (2011). Assessing LGBTQ campus climate and creating change. *Journal of Homosexuality*, 58(9), 1330–1354. doi:10.1080/00918369.2011.605744.

APPENDIX

Attitudes Toward Lesbian, Gay, Bisexual, and Transgender People

Please indicate your level of agreement with the following items.

1. It is perfectly okay for people to have intimate relationships with people of the same sex.
2. I feel very comfortable around masculine-looking women.
3. Marriage should be equally available to both heterosexual and same-sex couples.
4. Bisexuality is not usually a phase but rather a stable sexual orientation.
5. I would sign my name to a petition asking the government to protect the employment rights of lesbian, gay, bisexual, and transgender people.
6. Same-sex couples should have their relationships legally recognized through civil unions.
7. Lesbian, gay, bisexual, or transgender individuals who are out of the closet should be admired for their courage.
8. If I found out a friend was changing sex, I could no longer be his or her friend.*
9. Feminine men make me uncomfortable.*

Notes. Scored 1 = *strongly disagree*, 7 = *strongly agree*.

*Reverse-coded items.

CONTRIBUTORS

Michael R. Woodford is an Assistant Professor of Social Work, University of Michigan, who investigates contemporary sexual prejudice, anti-LGBT behaviors, and health disparities.

Perry Silverschanz is a lecturer with the Department of Psychology and School of Social Work, University of Michigan. Her work examines heterosexist harassment and its covariates as well as students' attitudes toward sexual minorities.

Eric Swank is an Associate Professor of Social Work at Morehead State University who studies the links between heterosexist prejudice, discrimination, and political activism.

Kristin S. Scherrer is an Assistant Professor of Social Work at Rutgers University. Her work addresses aging and the life course, GLBTQ sexualities, and family relationships.

Lisa Raiz is an Associate Professor in the College of Social Work at the Ohio State University with interests in social justice and health care.