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ORIGINAL PAPER

Does Location of Practice or Religiosity Predict Negative Physician Attitudes or Beliefs Toward LGB+ Individuals?

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Abstract

The purpose of this study is to extend the Sabin et al's. (Am J Public Health 105(9):1831–1841, 2015. https://doi.org/10.2105/AJPH.2015.302631) findings to examine the extent to which religiosity and/or geographic region is predictive of negative attitudes or beliefs toward lesbian, gay, bisexual, and asexual (LGB+) individuals. Secondary data from the Sexuality Implicit Association Test were analyzed. Data included only participants from 2013 to 2015 who identified "Healthcare – Diagnosing and Treating Practitioners" as their occupation ($n = 1376$). The results of a factorial ANOVA revealed significant group differences accounting for 22.4% of the variance in attitudes toward LGB+ individuals. Religiosity was a significant factor in determining negative attitudes toward LGB+ individuals. However, the study was underpowered (5.8%) to detect an effect of geographic location in determining negative attitudes toward LGB+ individuals. It is important to validate a tool that can adequately measure the common assumptions associated with both religion and geographic region. Additionally, medical educators need to learn how to recognize and address negative attitudes among their students.

Keywords Physician attitudes · Sexual and gender minority · Religiosity · Geographic location

Introduction

Increased religiosity as well as geographic location is often associated with negative attitudes toward LGBT+ individuals, particularly in the American south and/or rural areas. The literature specific to religiosity indicated that with a self-reported increase in religious observance there is also an increase in negative attitudes toward the LGBT+ population (Baker 2009; Loftus 2001; Prairie et al. 2017; Reibman

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2009; Sirota 2013; Wald and Calhoun-Brown 2018). In contrast, Prairie et al. (2017) also found that while some physicians in their study cited religious freedom as a justification to deny medical treatment to LGBT+ patients, other physicians spoke to their religious faith being prohibitive of discrimination. Research findings specific to geographic location are varied in determining its impact on discriminatory beliefs. For instance, Wald and Calhoun-Brown (2018) noted links between evangelicalism and regressive political movements have historical roots within Southern states. Ulrich-Schad and Duncan (2018) further noted a growing cultural divide with differences in values and attitudes between rural and urban areas.

Using the Sexuality Implicit Association Test (Sexuality IAT) 2006–2012, Sabin et al. (2015) examined medical providers' implicit and explicit attitudes toward gay and lesbian people using provider gender, race/ethnicity, and sexual identity as variables. They found that physicians have a strong bias toward treating patients with the same sexual orientation as themselves. From the Sexuality IAT, Sabin et al. (2015) determined "that education combined with intergroup contact had a medium effect on reducing sexual prejudice" (p. 1839). However, the Sexuality IAT was not modified to include metropolitan areas until 2013. Religiosity had been included since 2006, but was not included as part of the Sabin analysis. The purpose of this study was to extend the 2015 Sabin et al. findings to examine the extent to which geographic region and/or religiosity is predictive of negative attitudes or beliefs toward lesbian, gay, bisexual, and asexual (LGB+) individuals. It is important to note that the Sexuality IAT did not measure attitudes toward transexual persons in the implicit attitudes test. References within the article specific to the Sexuality IAT will use the acronym LGB+. Knowing whether negative attitudes or beliefs are endemic to certain geographic regions or religions is important because any potential intervention needs to be specific to the population it is meant to address.

Research Hypotheses

Prior research has found that "particular religious affiliation and increasing degree of religious observance and religiosity are associated with higher levels of homophobia and more negative attitudes toward homosexuals" (Sirota 2013, p. 223). Within the medical field, Wilson et al. (2014) noted that health professional students who reported less positive attitudes toward LGBT patients also reported higher levels of religiosity and lower levels of intergroup contact. Further, Prairie et al. (2017) found that physicians who believe they have the right to refuse treatment to LGBT+ patients, cited religious freedom as the justification to deny treatment. Thus, the first hypothesis is: When controlling for interpersonal contact with the LGB+ population and sexual orientation, the stronger a physician's religious beliefs or observations are, the more likely they are to hold negative attitudes or beliefs toward lesbian and gay individuals. See Fig. 1 for the path diagram.

Research findings vary specific to sexual prejudice and geographic location. In general, there is an association with living in a rural area and having negative attitudes or beliefs (Barton 2010; Bolzendahl and Myers 2004; Carter and Borch 2005; Lemelle and Battle 2004; Patten 2013; Sirota 2013; Swank et al. 2012). This

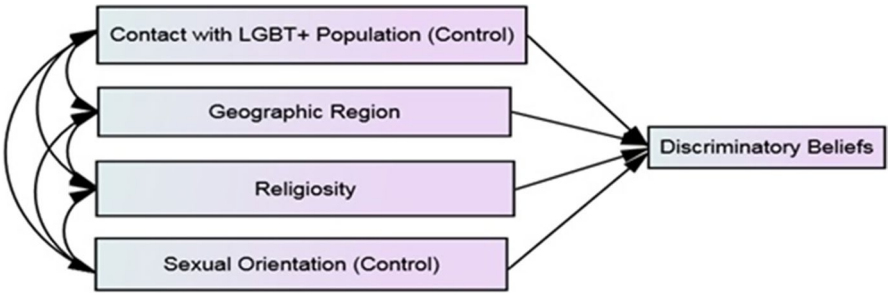

Fig. 1 Path diagram of hypothesized relationships

perspective serves as the basis for the second hypothesis: When controlling for interpersonal contact with the LGB+ population and sexual orientation, the less distance a physician's practice is from an urban center, the less likely they are to hold negative attitudes or beliefs against lesbian and gay individuals.

Background

Research has noted regional differences in religiosity and its impact on political and social influence within a community. In *Religion in the United States*, Wald and Calhoun-Brown (2018) noted a split within evangelicalism during the period between 1925 and 1933 which coincides with the *Scopes* trial and the end of Prohibition. Many evangelical denominations, predominately in the North, embraced modernity and a willingness to apply scientific inquiry to religious beliefs. In comparison, evangelicals within the "Bible Belt" became notorious for holding more conservative view points on gender norms and governments often tried to impose those views on the LGBT+ community (Barton 2010; Bolzendahl and Meyers 2004; Carter and Borch 2005; Lemelle and Battle 2004; Loftus 2001; Swank et al. 2012; Wald and Calhoun-Brown 2018). The "Bible Belt" includes the states of Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia (Barton 2010).

LGB+ individuals often deal with rejection or abuse from church or family members for not being able to "pray the gay away". Because of rejection, abuse, and the idea of facing eternal damnation Southern LGB+ individuals often struggle with depression, fear of hell, feelings of worthlessness, self-destructive behaviors, and suicidal thoughts (Barton 2010). Some authors argue that the key to decreasing discrimination in the Deep South and rural areas may involve interpersonal contact among younger generations. Eldridge et al. (2006) found that college students from Central Appalachia were more comfortable around LGBT+ individuals if they knew LGBT+ acquaintances, co-workers, friends, siblings within the same age group. While some authors did not find a significant correlation between heterosexism and

regional variation, they considered other variables significant including interpersonal contact (Herek and Glunt 1993; Lemelle and Battle 2004).

The study of prejudice between in-groups and out-groups stems from Gordon Allport's work involving the contact hypothesis (Allport 1954). In-groups and out-groups make up social groups to which an individual may feel like they belong or hold prejudicial feelings toward. Allport (1954) found that under the right conditions, contact can either increase or decrease prejudice toward others. For instance, prejudice can increase when individuals have only casual contact with out-group members, while prejudice tends to decrease when individuals have contact with true acquaintances from out-groups (Allport 1954). More recently, the Sexuality IAT measured both casual and interpersonal contact with true acquaintances (Nosek et al. 2007). The instrument asked participants whether they ever met a gay person; had friendly interactions with gay people on a regular basis; interacted with gay people on a regular basis; had a friend who is gay; and whether they have a family member who is gay. Sabin et al. (2015) stated that "intergroup contact was moderately effective in reducing negative attitudes toward sexual minorities" (p. 1839).

With intergroup contact, opportunities to interact with sexual minorities may be influenced by geographic location. According to Swank et al. (2012), there are two approaches researchers follow when studying the connection between heterosexism and regional variation. The first approach is that discriminatory behavior is spatialized between urban and rural communities (Bolzendahl and Myers 2004; Carter and Borch 2005; Loftus 2001; Rice and Coates 1995; Swank et al. 2012; Twenge 1997). The second approach examines regional differences in subcultures such as the "Deep South" or the "Southern effect" on gender norms (Bolzendahl and Myers 2004; Carter and Borch 2005; Eldridge et al. 2006; Rice and Coates 1995; Swank et al. 2012; Twenge 1997).

Regarding spatialized urban versus rural communities, Swank et al. (2012, p. 240), reported that "rural-living LGBs overwhelmingly described living in bleak and inhospitable social climates". This is consistent with the viewpoint that individuals who reside in rural communities tend to impose conservative gender and sexuality binaries on others more often than their urban counterparts. In comparison, individuals living in urban communities have increased opportunity for interpersonal contact which is due to LGBT+ individuals being more prevalent and visible in urban areas. Individuals residing in urban areas tend to have more positive attitudes toward LGBT+ individuals as a result of the increased opportunity for interpersonal contact (Barton 2010; Bolzendahl and Myers 2004; Carter and Borch 2005; Lemelle and Battle 2004; Patten 2013; Sirota 2013; Swank et al. 2012).

Methods

Sample and Data Source

The source of data is the Sexuality Implicit Association Test (Nosek et al. 2007) obtained from the public website, Project Implicit where participants are self-selected volunteers. Other examples of implicit association tests include race, gender, political

preference, and weight. Demographic questions included age, country of residence, ethnicity, gender, highest level of education, occupation, race, and sexual identity. The Sexuality Implicit Association Test began measuring geographic location in 2013. A dataset was created through the concatenation of available data from years 2013–2015 ($N=738{,}291$). Data were analyzed for those participants who identified "Healthcare – Diagnosing and Treating Practitioners (MD, Dentist)" as their occupation ($n=1376$).

Upon review of the metropolitan statistical area variable of the Sexuality IAT dataset, it was noted that rural areas were mislabeled as being urban populations. For instance, Millersville City, Tennessee has an approximate population of 6440 yet was listed as an urban area (U.S. Census Bureau 2010). The urban and rural definitions were updated utilizing the 2013 Rural–Urban Continuum Codes from the United States Department of Agriculture (USDA 2013) which breaks down the metropolitan area variable into nine distinct categories including urban, suburban, and rural areas.

Variables

Negative attitudes or beliefs were measured by two categorical variable items, attitudes, and warm versus cold feelings toward lesbian and gay individuals. Attitudes were measured by a 10-point Likert scale with responses ranging from "I strongly prefer gay people" to "I strongly prefer straight people." Attitude values were recoded to categorize values as 0 = prefer gay, 1 = equally prefer, and 2 = prefer straight. Warm/cold feelings toward lesbian and gay individuals were measured as 0–4 representing "coldest feelings", 5 represents "neutral feelings", 6–10 represents "warmest feelings". Feelings values were recoded to categorize values as 0 = 6–10 "warmest feelings", 1 = 0–4 "coldest feelings", and 2 = 5 "neutral feelings".

The independent variable, religiosity, is measured by the categorical variable, religionid. The values were broken down as follows: 1 = "not at all religious", 2 = "slightly religious", 3 = "moderately religious", and 4 = "strongly religious". Geographic location was measured by the recoded categorical variable, Rural Continuum Code 2013. Geographic location values were recoded to categorize values as 0 = 1–4 "Metro or Urban Adjacent to Metro" and 1 = 5–9 "All rural or Small Urban Areas". Interpersonal contact with LGB+ population was measured using three categorical values, regular contact, friend, and friendly contact on a regular basis and was recoded as follows: 0 = a participant answered that they have no interpersonal contact with LGB+ individuals and 3 = a participant answered yes to one or more of the questions pertaining to interpersonal contact. The variable sexuality is broken down into a 4-point scale, 1 "heterosexual", 2 "homosexual", 3 "bisexual", and 4 "asexual".

Results

Table 1 presents the descriptive statistics for this study including the attitudes and feelings of physicians ($N=1376$) who participated in the Implicit Attitudes Test within the USA. A mean of 2.04 ($SD=2.07$) indicated that physicians were less likely to have positive attitudes or beliefs toward working with LGB+ patients.

Fifty-five percent of physicians identified as female with 45% identified as male. Only 9% of participants identified as strongly religious, while 26.5% of participants identified as slightly religious. Specific to geographic location, 88% of the sample was from metropolitan areas with a population size of 250,000 or more. Seventy-six percent of physicians identified as heterosexual followed by 16% identifying as homosexual, and 8% identifying as bisexual. Ninety-three percent of physicians reported having at least one or more interpersonal contacts who identified LGB+.

The results of a factorial ANOVA, conducted in SPSS (IBM 2011) revealed significant group differences accounting for 22.4% of the variance in attitudes toward LGB+ individuals, F (12, 932) = 23.73, $p < .001$. When controlling for gender, religiosity was a significant factor in determining negative attitudes toward LGB+ individuals, [F (3, 932) = 16.87, $p < .001$], as was the number of LGB+ contacts of the physician [F (3, 932) = 17.24, $p < .001$]. However, the study was underpowered (5.8%) to detect an effect of geographic location in determining negative attitudes toward LGB+ individuals, F (2, 932) = .054, $p > .05$. See Table 2 for a summary of the Univariate Analysis of Variance.

Table 1 Participant characteristics ($N = 1376$)

Characteristic	*M*	SD
Attitudes/beliefs	2.04	2.07
	n	%
Sex		
Male	619	44.99
Female	757	55.01
Religiosity		
Not at all religious	199	21.06
Slightly religious	365	38.62
Moderately religious	254	26.88
Strongly religious	127	13.44
Contact with LGB+ population		
No contact with LGB+ people	93	6.76
Little contact—yes to one item	271	19.69
Some contact—yes to two items	717	52.11
Much contact—yes to three items	295	21.44
Sexuality		
Heterosexual	1040	75.58
Homosexual	224	16.28
Bisexual	104	7.56
Asexual	8	0.58
Geographic location		
Rural or small urban, non-metro	34	2.47
Adjacent metro	20	1.45
Metro	1322	96.08

Post hoc comparisons of the attitude index score revealed a wide variation in attitudes, with negative values representing negative attitudes/feelings and positive values representing positive attitudes/feelings. Female physicians had more positive attitudes ($M = 0.12$, $SD = 0.71$) than male physicians ($M = -0.24$, $SD = 0.85$). Regarding religiosity, physicians who identified as "not at all religious" ($M = 0.16$, $SD = 0.73$) and "slightly religious" ($M = .06$, $SD = 0.67$) had more positive attitudes that physicians who identified as "strongly religious" ($M = -0.52$, $SD = 1.02$). Physicians who identified as homosexual had more positive attitudes ($M = 0.46$, $SD = 0.67$) than physicians who identified as heterosexual ($M = -0.15$, $SD = 0.79$). Additionally, physicians who reported having at least three LGB+ contacts had more positive attitudes ($M = 0.14$, $SD = 0.70$) than physicians who reported "no contact" ($M = -0.75$, $SD = 0.86$).

Conclusion

The purpose of this study was to determine what effect religiosity and geographic location had on the extent to which physicians hold negative attitudes or beliefs toward LGB+ individuals. The results of a univariate ANOVA revealed a lack of support for the hypothesis that geographic location affected attitudes or beliefs toward lesbian and gay individuals. It is important to note that research findings have been varied in determining the extent to which negative attitudes and beliefs are influenced by geographic location (Barton, 2010; Bolzendahl and Myers 2004; Carter and Borch 2005; Loftus 2001; Sirota 2013). For example, most recently with a population of 335, Vicco, Kentucky became the smallest municipality to pass an ordinance banning discrimination against individuals based on gender identity and sexual orientation (Gray et al. 2016). However, in regards to religiosity, the current findings support the hypothesis that a physician's religious beliefs or observations affect their attitudes or beliefs toward lesbian and gay individuals.

The findings regarding positive attitudes of homosexual, bisexual, or asexual physicians are similar to findings reported by Sabin et al. (2015, p. 1834) who found, "lesbian and gay providers held implicit and explicit preferences for lesbian and

Table 2 One way analysis of variance for physician attitudes and feelings ($n = 945$)

Source	Mean square	*df*	*F*	*p*	Partial eta squared
Sex	28.282	1	57.78	< .001	.058
Religiosity	8.259	3	16.87	< .001	.052
Contact with LGB+ population	8.437	3	17.24	< .001	.053
Sexuality	11.339	3	23.17	< .001	.069
Geographic location	.026	2	0.05	0.95	.000
Error	.489	932			

$R^2 = .23$

gay people over heterosexual people. Patterns of implicit preferences were mixed among bisexual providers…." Additionally, the current study found that physicians who self-identified as homosexual, bisexual, or asexual physicians also had negative attitudes toward LGB+ individuals. A potential explanation could be physicians working in a non-supportive environment, adopting negative attitudes of the status quo especially if the physicians are not "out" among colleagues. With over half the nation lacking non-discrimination laws, not only are LGBT+ physicians adversely impacted, but also patients who could benefit from interacting with someone similar to themselves.

Recommendations

It is important to validate a tool that can adequately measure the common assumptions associated with both religions and geographic region. When analyzing minority stress by region, Swank et al. (2012) noted that quantitative studies are less consistent than qualitative studies. In the future, methodological triangulation of quantitative and qualitative methods may be helpful in adding to the knowledge base. Additionally, education is an important issue that needs to be addressed given prior research has shown it to be positively correlated with interpersonal contact by creating positive attitudes toward LGBT+ patients (Sabin et al. 2015). Yet, Chapman et al. (2012, p. 4) found that "16.5% of medical and nursing students indicated that lesbians should not become parents and 30.4% did not believe gay men should be able to adopt". Sanchez et al. (2006) found that medical students with increased clinical exposure to LGBT+ patients had higher knowledge scores and more positive attitudes than students with little to no clinical exposure. Therefore, it is important for medical educators to recognize stigmatizing behavior and negative attitudes among their students (Bonvicini and Perlin 2003; Chapman et al. 2012; Hollenbach et al. 2014; Kelly et al. 1987; Klamen et al. 1999; Lapinski et al. 2014; Obedin-Maliver et al. 2011; Röndahl et al. 2004; Sanchez et al. 2006).

Limitations

Distribution of participants is a limitation in this study in that out of 6207 physicians, 17 participated from rural areas and 183 participated from suburban areas. This imbalance limits the ability to explore the relationship between geographic location and physician attitudes and beliefs. Future recruitment efforts that target rural practitioners might be a potential solution. Additionally, the Sexuality IAT did not assess whether an LGB+ physician was "out" among friends, family, and/or colleagues. If an individual is not "out" among colleagues, they may feel pressure to fit within the status quo, which could explain why LGB+ physicians reported not having positive attitudes toward LGB+ individuals. Thus, it is recommended to introduce an additional variable designed to measure "outness" among LGB+ physicians.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Human and Animal Rights The article does not contain any studies with human participants performed by any of the authors.

References

Allport, G. W. (1954). *The nature of prejudice*. Cambridge, MA: Addison-Wesley Pub.

Baker, S. S. (2009). Where conscience meets desire: Refusal of health care providers to honor health care proxies for sexual minorities. *Women's Rights Law Report, 31*(1), 1–31.

Barton, B. (2010). "Abomination"—Life as a Bible belt gay. *Journal of Homosexuality, 57*(4), 465–484. https://doi.org/10.1080/00918361003608558.

Bolzendahl, C. I., & Myers, D. J. (2004). Feminist attitudes and support for gender equality: Opinion change in women and men, 1974–1998. *Social Forces, 83*(2), 759–789. https://doi.org/10.1353/sof.2005.0005.

Bonvicini, K. A., & Perlin, M. J. (2003). The same but different: Clinician-patient communication with gay and lesbian patients. *Patient Education and Counseling, 51*(2), 115–122. https://doi.org/10.1016/S0738-3991(02)00189-1.

Carter, J. S., & Borch, C. A. (2005). Assessing the effects of urbanism and regionalism on gender-role attitudes, 1974–1998*. *Sociological Inquiry, 75*(4), 548–563. https://doi.org/10.1111/j.1475-682X.2005.00136.x.

Chapman, R., Watkins, R., Zappia, T., Nicol, P., & Shields, L. (2012). Nursing and medical students' attitude, knowledge and beliefs regarding lesbian, gay, bisexual and transgender parents seeking health care for their children. *Journal of Clinical Nursing, 21*(1–8), 938–945. https://doi.org/10.1111/j.1365-2702.2011.03892.x.

Eldridge, V. L., Mack, L., & Swank, E. (2006). Explaining comfort with homosexuality in rural America. *Journal of Homosexuality, 51*(2), 39–56. https://doi.org/10.1300/J082v51n02_03.

Gray, M. L., Johnson, C. R., & Gilley, B. J. (Eds.). (2016). *Queering the countryside: New frontiers in rural queer studies*. New York (NY): New York University Press.

Herek, G. M., & Glunt, E. K. (1993). Interpersonal contact and heterosexuals' attitudes toward gay men: Results from a national survey. *Journal of Sex Research, 30*(3), 239–244. https://doi.org/10.1080/00224499309551707.

Hollenbach, A. D., Eckstrand, K. L., & Dreger, A. D. (Eds.). (2014). *Implementing curricular and institutional climate changes to improve health care for individuals who are LGBT, gender non-conforming, or born with DSD: A resource for medical educators*. Washington, DC: Association of American Medical Colleges.

IBM Corp. Released 2011. IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp.

Kelly, J. A., St Lawrence, J. S., Smith, S., Jr., Hood, H. V., & Cook, D. J. (1987). Medical students' attitudes toward AIDS and homosexual patients. *Academic Medicine, 62*(7), 549–556.

Klamen, D. L., Grossman, L. S., & Kopacz, D. R. (1999). Medical student homophobia. *Journal of Homosexuality, 37*(1), 53–63. https://doi.org/10.1300/J082v37n01_04.

Lapinski, J., Sexton, P., & Baker, L. (2014). Acceptance of lesbian, gay, bisexual, and transgender patients, attitudes about their treatment, and related medical knowledge among osteopathic medical students. *The Journal of the American Osteopathic Association, 114*(10), 788–796.

Lemelle, A. J., Jr., & Battle, J. (2004). Black masculinity matters in attitudes toward gay males. *Journal of Homosexuality, 47*(1), 39–51. https://doi.org/10.1300/J082v47n01_03.

Loftus, J. (2001). America's liberalization in attitudes toward homosexuality, 1973 to 1998. *American Sociological Review, 66*(5), 762–782.

Nosek, B. A., Smyth, F. L., Hansen, J. J., Devos, T., Lindner, N. M., Ratliff, K. A., et al. (2007). Pervasiveness and correlates of implicit attitudes and stereotypes. *European Review of Social Psychology, 18*, 36–88. Retrieved from https://www.projectimplicit.net/stimuli.html.

Obedin-Maliver, J., Goldsmith, E. S., Stewart, L., White, W., Tran, E., Brenman, S., et al. (2011). Lesbian, gay, bisexual, and transgender-related content in undergraduate medical education. *JAMA, 306*(9), 971–977.

Patten, E. (2013). *The black-white and urban rural divides in perceptions of racial fairness*. Washington, DC: Pew Research Center. Retrieved from http://www.pewresearch.org/fact-tank/2013/08/28/the-black-white-and-urban-rural-divides-in-perceptions-of-racial-fairness/.

Prairie, T. M., Wrye, B., & Murfree, S. (2017). Intersections of physician autonomy, religion, and health care when working with LGBT+ patients. *Health Promotion Practice*. https://doi.org/10.1177/1524839917738974.

Reibman, R. (2009). Patient wanted the doctor to treat her in the closet, but the Janitor wouldn't open the door: Healthcare provider rights of refusal versus LGB rights to reproductive and elder healthcare. *Temple Journal of Science Technology & Environmental Law, 28,* 65–92.

Rice, T. W., & Coates, D. L. (1995). Gender role attitudes in the southern United States. *Gender & Society, 9*(6), 744–756. https://doi.org/10.1177/089124395009006007.

Röndahl, G., Innala, S., & Carlsson, M. (2004). Nursing staff and nursing students' emotions toward homosexual patients and their wish to refrain from nursing, if the option existed. *Scandinavian Journal of Caring Services, 18*(1), 19–26. https://doi.org/10.1111/j.1471-6712.2004.00263.x.

Sabin, J. A., Riskind, R. G., & Nosek, B. A. (2015). Health care providers' implicit and explicit attitudes toward lesbian women and gay men. *American Journal of Public Health, 105*(9), 1831–1841. https://doi.org/10.2105/AJPH.2015.302631.

Sanchez, N. F., Rabatin, J., Sanchez, J. P., Hubbard, S., & Kalet, A. (2006). Medical students' ability to care for lesbian, gay, bisexual, and transgendered patients. *Family Medicine-Kansas City-, 38*(1), 21.

Sirota, T. (2013). Attitudes among nurse educators toward homosexuality. *Journal of Nursing Education, 52*(4), 219–227. https://doi.org/10.3928/01484834-20130320-01.

Swank, E., Frost, D. M., & Fahs, B. (2012). Rural location and exposure to minority stress among sexual minorities in the United States. *Psychology & Sexuality, 3*(3), 226–243. https://doi.org/10.1080/19419899.2012.700026.

Twenge, J. M. (1997). Attitudes toward women, 1970–1995 a meta-analysis. *Psychology of Women Quarterly, 21*(1), 35–51. https://doi.org/10.1111/j.1471-6402.1997.tb00099.x.

Ulrich-Schad, J. D., & Duncan, C. M. (2018). People and places left behind: Work, culture and politics in the rural United States. *The Journal of Peasant Studies*, *45*(1), 59–79.

United States Census Bureau. (2010). *Millersville City, TN QuickFacts*. Retrieved from https://www.census.gov/quickfacts/fact/table/millersvillecitytennessee,US/POP010210.

United States Department of Agriculture (USDA). (2013). *Rural-urban continuum codes*. Retrieved from http://www.ers.usda.gov/data-products/rural-urban-continuum-codes/.aspx.

Wald, K. D., & Calhoun-Brown, A. (2018). *Religion and politics in the United States*. Latham, MD.

Wilson, C. K., West, L., Stepleman, L., Villarosa, M., Ange, B., Decker, M., et al. (2014). Attitudes toward LGBT patients among students in the health professions: Influence of demographics and discipline. *LGBT Health, 1*(3), 204–211. https://doi.org/10.1089/lgbt.2013.0016.

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