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# Barriers to Accessing Mental Healthcare for Gay and Bisexual Men Living in Oklahoma

Joseph M. Currin[1,2] · Randolph D. Hubach[3] · Hugh C. Crethar[1] · Tonya R. Hammer[4] · Hang-Shim Lee[1] · Mary Larson[5]

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**Abstract**
The American College of Physicians has recently called for research to understand the potential causes of LGBT health disparities that exist when compared to their heterosexual counterparts. Barriers to accessing mental health care can be a cause of this disparity. To address this, the current study asked participants ($N = 209$) if they had received mental health care (MHC) over the past year and during their lifetime. Andersen's (1967) behavioral health model was used to predict healthcare utilization. A hierarchical logistic regression was conducted to predict MHC, in the past year (12) and during their lifetime (L). Both models were significant: for MHC-L, ($\chi^2(6) = 41.57$, $p < .001$), and for MHC-12 ($\chi^2(6) = 53.26$, $p < .001$). Both models had previous mental health diagnosis and disclosure of sexual orientation status as significant predictors. Individuals who more openly disclosed sexual orientation status were more likely to have used mental health services. Implications and limitations to the study are discussed.

**Keywords** LGBT mental health · LGBT health disparities · Stigmatization and mental health · Sexual orientation disclosure and mental health · LGBT rural health

The American College of Physicians has recently called for research to understand the potential causes of LGBT health disparities that exist when compared to their heterosexual counterparts (Daniel & Butkus, 2015). Research has demonstrated that gay and bisexual men experience a greater occurrence of mental health problems than their heterosexual counterparts including mood disorders, substance use, and suicidal ideation and attempts (e.g., Cochran, 2001; Newcomb & Mustanski, 2010). Meyer (1995, 2003) postulates this mental health disparity can be explained by minority stress, or the additional chronic stress encountered by individuals in a minority group. Research demonstrates the increased mood, anxiety, and substance use disorders that gay and bisexual men suffer are related to minority stress (e.g., Holloway, Padilla, Willner, & Guilamo-Ramos, 2014). While stigma exists across the United States towards gay and bisexual men, those living in the South appear to face more obstacles and greater disparities in mental and physical health than do their peers in the West, Midwest, and Northeast due to the unique social and religious customs unique to the South (Barton, 2012; Whitlock, 2013). Research shows that gay and bisexual men experience generalized anxiety, depression, and panic associated with the additional stress due to stigma (Hatzenbuehler, O'Cleirigh, Mayer, Mimiaga, & Safren, 2011; Lelutiu-Weinberger et al., 2013).

Depression, while being one of the most common mental illnesses suffered in the general population with a prevalence rate of 4.6% in a national probability sample (Hasin, Goodwin, Stinson, & Grant, 2005), has higher prevalence in gay and bisexual populations (Burns, Ryan, Garofalo, Newcomb, & Mustanski, 2014; Lelutiu-Weinberger et al., 2013; Meyer, 1995; Meyer, Dietrich, & Schwartz, 2008). Previous research has also highlighted a higher prevalence of post-traumatic stress disorder (PTSD) in gay and bisexual

✉ Joseph M. Currin
joe.currin@ttu.edu

1 School of Community Health Sciences, Counseling, and Counseling Psychology, Oklahoma State University, Stillwater, OK, USA

2 Department of Psychological Sciences, Texas Tech University, Lubbock, TX, USA

3 Rural Health, Oklahoma State University Center for Health Sciences, Tulsa, OK, USA

4 School of Community Health Sciences, Counseling, and Counseling Psychology, Oklahoma State University-Tulsa, Tulsa, OK, USA

5 Edmon Low Library, Oklahoma State University, Stillwater, OK, USA

men when compared to the general population (e.g., Burns et al., 2014; Mustanski, Garofalo, & Emerson, 2010; Traeger, O'Cleirigh, Skeer, Mayer, & Safren, 2012). Most studies focusing on minority stress and disparate outcomes among gay and bisexual men are conducted on urban samples. However, a few studies also look at the impact that stigma and minority stress can have on samples living in a socially conservative area as well (Fisher, Irwin, & Coleman, 2013). Information is needed to better understand the barriers that interfere with gay, bisexual, and other men who have sex with men (MSM) and their usage of their existing health care systems.

## Disclosing Sexual Orientation Status and/or Behavior

Compounded with the minority stress of being gay or bisexual is the stress associated with the decision to disclose a person's sexual orientation. Men who disclose they have sex with men to others often expect to be isolated from friends and family members, experience negative mental health outcomes, and possibly attempt suicide (Holloway et al., 2014). This process is known as "coming out." When a person self-discloses, or "comes out," this person becomes vulnerable to stigma and negative judgment of those individuals he/she chooses to disclose that information (Walls, Wisneski, & Kane, 2013).

Withholding sexual orientation status from a healthcare provider could prevent a client/patient from receiving specific services if the provider is unaware of his sexual orientation (Hollander, 2013). Thus for effective care to be given, a man might need to disclose his sexual orientation and/or behaviors with his mental and physical health care providers. Previous studies have shown that gay men are more apt to disclose their sexual orientation to their healthcare provider if they perceive that provider to be gay friendly or the provider identifies as gay or bisexual (Klitzman et al., 2007). While researchers have demonstrated most clients/patients would like the conversation about sexual orientation be initiated by their provider, they also want to know a clear health related reason for the inquiry (Stein & Bonuck, 2001).

However, unique challenges are ever-present for individuals who choose to disclose sexual orientation to healthcare providers in socially conservative areas. This includes the concern about whether that provider is open to providing care and has the knowledge of addressing the specific needs of a gay or bisexual man (Fisher et al., 2013; Preston, D'Augelli, Kassab, & Starks, 2007). Sexual orientations are not discussed within families or healthcare like they may be in more socially liberal settings. Most gay or bisexual men living in socially conservative areas have lower levels of self-acceptance, fewer family members and friends that are aware of their sexual orientation, and less connection to their communities than their socially liberal counterparts (Fisher et al., 2013). This desire to not disclose to healthcare providers could be due to feared stigmatization by not only family members and friends, but healthcare providers as well (Driskell et al., 2010). This additional stigma experienced by gay and bisexual men can impede disclosure of sexual orientation to providers and interfere with usage of healthcare services like mental health.

## Coping with Stigma

Nonheterosexual men sometimes cope with the feared stigmatization of family members and friends by engaging in HIV-risk related behaviors, including condomless sex and drug use (Preston et al., 2007; Shernoff, 2005). Prior research has shown that engaging in unprotected anal intercourse (UAI) can temporarily decrease feelings of isolation and loneliness due to stigma (Halkitis, Siconolfi, Fumerton, & Barlup, 2008; Hatzenbuehler et al., 2011; Hubach et al., 2012). Loneliness has also been shown to decrease condom use in rural men who have sex with men that are also HIV positive (Hubach, Dodge, Li, et al., 2015; Hubach, Dodge, Schick, et al., 2015). HIV-related stigma can even discourage men who have sex with men from getting tested for HIV due to the stigma from their local community as a whole as well as the gay community if they are diagnosed as positive for HIV (Golub & Gamarel, 2013). Individuals have described using drugs to regulate emotions and avoid the feelings of loneliness and isolation (Kelly, Bimbi, Izienicki, & Parsons, 2009; McDavitt et al., 2008). Even when controlling for variables like age and substance use, anxiety due to stigma still impacted individuals to engage in condomless sex and drug use (Lelutiu-Weinberger et al., 2013). The added stigma that can isolate rural men and impact their physical and mental health can potentially interfere with their use of the health care system.

## Behavioral Health Model

One way to understand who accesses health care and what barriers exist for others in accessing health care is through Andersen's Behavioral Health Model (BHM; Andersen, 1995, 2008; Andersen & Anderson, 1967). Proposed in the late 1960s (Andersen & Anderson, 1967), the BHM was originally designed to help facilitate an understanding of why families used health care resources. The goal of the model was to help promote equitable access of health care to all families by understanding predispositions to using health care and what enables or impedes the use of health care services (Andersen, 1995). The model demonstrated that a family's

*predisposed characteristics*, *enabling resources*, and *actual need* helped explain and predict health care usage (Andersen & Anderson, 1967).

Several recent studies have used the BHM to better understand utilization of health services by LGB individuals (Andersen, 2008; Simpson, Balsam, Cochran, Lehavot, & Gold, 2013). Using the BHM with sexual minority populations, providers can begin to understand what potential barriers exist that lead individuals to not access mental and physical health care services. This understanding can then aid providers in developing outreach programs and interventions to help underserved populations (Andersen, 1995). For instance, a study analyzing Veterans Health Administration (VHA) usage by LGB veterans in Washington state also observed a significant predictive predisposing characteristic variable (female), a significant predictive enabling resource variable (positive service connection), and two significant need variables (greater clinical need, non-military LGB related interpersonal trauma) in individuals who utilized the VHA for health care (Simpson et al., 2013). This study demonstrates how Andersen's BHM can help identify inequalities in predisposing characteristics and enabling variables. Once identified, existing strategies to reach sexual minorities can be augmented or new strategies can be designed and implemented to help mitigate the inequalities and increase usage of mental and physical healthcare services by sexual minority populations (Andersen, 1995).

To evaluate VHA usage by sexual minority veterans, Simpson et al. (2013) added a fourth block, *LGB-related Military Experiences*. This addition to the model considered three unique experiences that LGB veterans faced while in the military. This fourth block added to the BHM, *LGB-related Military Experiences,* included assessing the degree of anxiety regarding the need to conceal one's sexual orientation while in the military, trauma experienced in the military related to their sexual orientation, and presence of stressful event designed by military to discover or punish the individual due to sexual orientation. Based on a LGB veteran's unique *LGB-related Military Experiences* was theorized to impact their subsequent usage of the VHA.

Much like how sexual minority individuals in the military faced increased scrutiny for their sexual orientations from their peers in the military, individuals living in a primarily socially conservative state may face similar scrutiny due to their sexual orientation status from their peers in their communities (Fisher et al., 2013; Preston et al., 2004; Preston et al., 2007). LGB veterans face unique barriers to accessing VHA services due to experiences specific to being LGB and a veteran (Simpson et al., 2013). Similarly, gay and bisexual men who live in socially conservative environments might have similar unique barriers related to their sexual orientation including a pervasive stigma about being gay and/or bisexual (Pickett, 2010).

## Present Study

Geographers have long considered Oklahoma a southern, rural, socially conservative state based on the political, social, and religious climate that permeates the state as well as the geographic location (e.g., Brunn, Webster, & Archer, 2011; Tweedie, 1978; United States Census Bureau, 2010). Oklahoma is classified by the Human Rights Campaign as a high priority to achieve basic rights for LGBT individuals (Human Rights Campaign, 2017). This classification is due to the lack of basic protections including protection from discrimination in housing and work for LGBT individuals (Human Rights Campaign, 2017). The present study aimed to address the gap in the literature on unique barriers for accessing mental health services by gay and bisexual men who live in a socially conservative state that is not openly accepting of LGBT individuals like Oklahoma.

The model Simpson et al. (2013) developed for measuring healthcare use for LGB veterans was adapted to the current study. While Simpson and colleagues measured anxiety and concealment behaviors related to veterans' experiences, the current study measured anxiety and concealment behaviors for individuals in the general population (see Fig. 1). This adaptation to the model accounted for additional stressors and obstacles faced by gay men in the general population. The authors hypothesized that the additional block to the BHM, much like Simpson et al. (2013) addition, would highlight barriers to accessing mental health care for gay, bisexual, and other MSM who live in Oklahoma.

## Methods

### Participants

Participants needed to identify as a cisgender man who identified as gay, bisexual, or having had sex with a man, be at least 18 years of age, and live in Oklahoma to participate in the study. A cisgender man is a person who identifies as male and that is consistent with the sex he was assigned at birth. Participants had varying levels of rurality and were recruited from various social and sexual networking sites and applications (e.g., Facebook, Craig's List, Listservs, etc.), flyers posted at local establishments throughout the communities that service gay, bisexual, and other MSM, and at local community events (e.g., pride festivals, etc.). All efforts to protect confidentiality were taken and no specific identifying information of the participants was collected. Participants who completed the entire questionnaire received an Amazon gift card valued at $10. All procedures were reviewed and approved by the affiliated institution's institutional review board to ensure proper treatment of participants throughout the study.

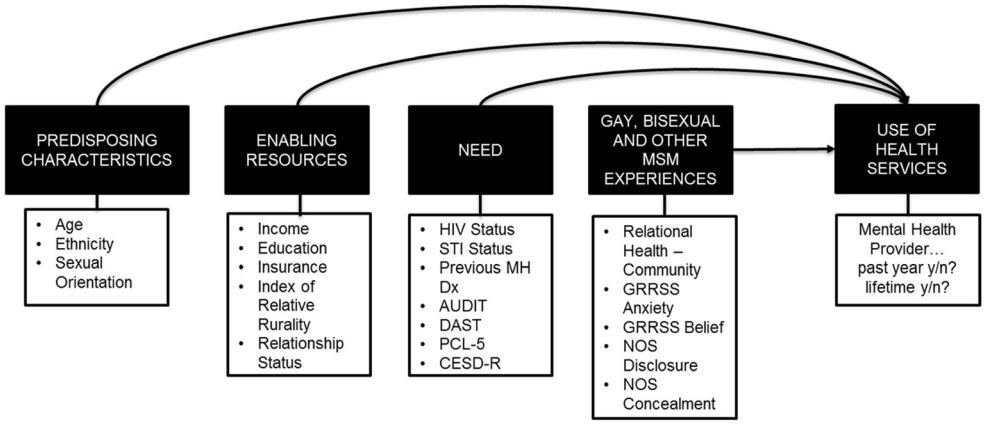


**Fig. 1** Proposed adapted BHM to account for factors related to living in a socially conservative state among gay, bisexual, and other MSM

## Procedures

Participants completed a set of measurements and demographic information utilizing an online survey service (Qualtrics). The link was provided in all methods of advertisement to ensure anonymity of the participant. The online questionnaire contained an informed consent document describing for the participant the purposes of the study and, if the participant consented, the participant completed the demographic information and measures. Once the participant completed the online questionnaire, the participant was given a link to a separate online questionnaire where the participant provided an email address if they chose to receive a gift card. The information in the study could not be matched with the email addresses provided for the receipt of the gift card so anonymity was ensured. This completed the participant's participation in the study. The entire study took a participant approximately 30 min to complete. All efforts to protect confidentiality were taken and no specific identifying information of the participants was collected. Participants who completed the entire questionnaire received an Amazon gift card valued at $10. All procedures were reviewed and approved by the authors' affiliated institution's institutional review board to ensure proper treatment of participants throughout the study.

## Outcome Variable

**Mental Healthcare Utilization** Just as in Simpson et al. (2013) study, participants answered yes or not to the following question, "During the past 12 months, have you used individual counseling services?" to assess their utilization of mental healthcare services over the past 12 months (MHC-12). To assess mental healthcare use over their lifetime (MHC-L), participants answered yes or not to the following question, "During your life, have you used individual counseling services?"

Both the MHC-12 and MHC-L were outcome variables for their respective models. All other variables were potential predictor variables for the logistic regression models. All variables grouped into the first three blocks of the proposed BHM (see Fig. 1) were to duplicate the constructs that were measured in previous studies (e.g. Simpson et al., 2013). The proposed additional block, *Gay, Bisexual, and other MSM Experiences*, contained measures that were comparative to the fourth block in Simpson et al. (2013) *LGB-related Military Experiences* block. The measures are presented in order by block below (*predisposing characteristics*, *enabling resources*, *need*, and *gay, bisexual, and other MSM Rural experiences*).

## Predisposing Characteristics Block

**Identity Characteristics** In the demographic section of the questionnaire, participants reported age, relationship status, gender identification, race, and ethnic identities.

**Sexual Orientation and Behaviors** Research suggests when assessing sexual orientation, a multidimensional assessment of sexual orientation that assesses sexual identification, sexual behavior, and sexual attraction should be used (Kinsey, Pomeroy, & Martin, 1948; Klein, Sepekoff, & Wolf, 1985; Vrangalova & Savin-Williams, 2012; Worthington & Reynolds, 2009). Vrangalova and Savin-Williams (2012) recommend assessing self-identified sexual orientation by asking one question having participants identify their sexual orientation, two questions identifying sexual attraction to men and women, and two questions requesting the number of male and female sexual partners (for details see Vrangalova & Savin-Williams, 2012).

## Enabling Resources Block

**Personal/Family** In the demographic section of the survey, participants indicated their highest level of attained education, income range, confirm whether or not they have medical insurance or have access to VHA services.

**Rurality** Currently, several techniques exist on assessing the rurality of where a participant resides. Researchers have chosen to define rurality based strictly on population (Kennedy, 2010; Oswald & Culton, 2003), relying on US Census Bureau classifications of rural or urban areas (Fisher et al., 2013; Preston et al., 2004; Preston et al., 2007), and more recently using Waldorf's (2007) Index of Relative Rurality (IRR; Hubach, Dodge, Schick, et al., 2015). There is an inherent problem in not using a continuous scale like the IRR to classify an area's rurality. Using discrete labels of rural, urban, metropolitan, micropolitan, etc. are delineated based on arbitrary definitions of what is to be classified as rural and urban (Waldorf, 2007). The main concern is the dichotomous classification that could be a difference of only 1 person. The IRR addresses this concern by assigning an index value from 0 (most urban) to 1 (most rural) based on four dimensions used in rurality measurements: population size, population density, remoteness, and built-up area (Waldorf, 2007; Waldorf & Kim, 2015). Using the IRR allows for a comparison of rurality based on subtle differences between areas instead of artificial categories based on arbitrary assumptions. Therefore, to assess a participant's rurality, the IRR was used by asking the participant to provide the county they currently reside. Then, the IRR value associated with the identified county was used.

## Need for Services Block

**Prior Conditions** Prior existing conditions of participants will be assessed in the demographic section of the survey. Participants will be asked to indicate if they have a preexisting medical diagnosis that requires ongoing treatment (e.g., HIV, diabetes, cancer, etc.) and/or a preexisting mental health diagnosis that requires ongoing treatment (e.g., Bipolar disorder, schizophrenia, etc.).

**Substance Use** Alcohol use was assessed by the Alcohol Use Disorders Identification Test (AUDIT; Saunders, Aasland, Babor, de la Fuente, & Grant, 1993). The AUDIT is a 10 question measure that assesses drinking consumption, behaviors, and alcohol related problems. The AUDIT correctly identified 92% of individuals with a previously diagnosed alcohol related disorder and excluded 94% of individuals who did not have an alcohol related disorder (Saunders et al., 1993). While the answer choices vary for each item on the AUDIT, a scoring key is provided to score the measure. An example of an item on the AUDIT is, "Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?" For that particular item, the participant would respond with: No, Yes but not in the last year, or Yes and in the last year. The Cronbach's alpha for the AUDIT for the current sample was .82.

Drug use was assessed by the Drug Abuse Screening Test-10 (DAST-10; Maisto, Carey, Carey, Gordon, & Gleason, 2000; Yudko, Lozhkina, & Fouts, 2007). The DAST-10 is a 10 question measure designed to assess the usage and problems associated with drug abuse. Higher scores on the DAST-10 indicate an increased likelihood of a drug use concern. Participants answer yes or no to each item on the DAST-10, and the answer is scored based on a key provided. An example of an item on the DAST-10 is, "Do you abuse more than one drug at a time?" The Cronbach's alpha for the DAST-10 was .77. The AUDIT and DAST-10 have been used in conjunction and were able to screen individuals as having only alcohol related diagnoses, only drug use diagnoses, or dual diagnosis in a clinical population (Maisto et al., 2000).

**Mental Health** To assess for depression symptoms in the sample, the Center for Epidemiological Study of Depression – Revised (CESD-R) 20 item questionnaire was used (Eaton, Smith, Ybarra, Muntaner, & Tien, 2004). Some examples of items were "Nothing made me happy," and "I wished I were dead." For each item presented, participants answered on a Likert scale from *0* (*Not at all*) to *4* (*Nearly every day for 2 weeks*). A higher score represented the participant reported more depression symptoms. The Cronbach's alpha is .92 for the CESD-R, and in the current sample was a .96.

To assess for PTSD, the PTSD Checklist-5 (PCL-5) updated for the Diagnostic & Statistical Manual – 5th edition (DSM 5) was used. The PCL-5 is a 20 item measure that has participants rate various symptomology of PTSD from a scale of *0* (*Not at all*) to *4* (*Extremely*). A higher score reflects a higher prevalence of PTSD symptoms. Sample questions on the PCL-5 are "In the past month, how much were you bothered by repeated, disturbing, and unwanted memories of the stressful experience?" and "In the past month, how much were you bothered by blaming yourself or someone else for the stressful experience or what happened after it?" Forthcoming psychometric work is expected to provide validation measures for the PCL-5 (National Center for PTSD, 2014) but is not yet available. The Cronbach's alpha for the current sample was .96.

## Gay, Bisexual, and Other MSM Rural Experiences Block

**Level of Outness** To assess the level of disclosure about sexual orientation and sexual behaviors as well as the amount of concealment, the Nebraska Outness Scale (NOS) was used (Meidlinger & Hope, 2014). The NOS is a 10-item scale that measures both the level of concealment and the level of disclosure regarding a person's sexual orientation and behaviors. The first five questions of the NOS have the participant rate from 100 to 0% in intervals of 10% of how aware the people are of the participant's sexual orientation. For example, "What percent of the people in your immediate family do you think are aware of your sexual orientation?" Answers were coded as

follows: 1 for 100%, 2 for 90%, 3 for 80%, etc. Higher scores on the NOS-Disclosure subscale represented less disclosure of sexual orientation and behaviors. The last 5 questions (the NOS-Concealment subscale) ask the participant how often the participant avoids discussing his sexual orientation in the same groups based on an 11 point Likert scale with *1* (*Never*), *6* (*Half the Time*), and *11* (*Always*). A higher score on this subscale represents more concealment of behaviors. An example is, "How often do you avoid talking about topics related to or otherwise indicating your sexual orientation with people at your work/school?" The NOS showed both significant convergent validity with the Outness Inventory ($r = .84$), discriminant validity with the Internalize Homophobia Scale ($r = -.45$), the Gay Related Rejection Sensitivity Scale ($r = -.20$) and predictive validity with the Quality of Life Inventory ($r = .20$) and Social Support Questionnaire ($r = .30$; for a full review see Meidlinger & Hope, 2014). The Cronbach's alphas were .80 for the NOS-Disclosure and .86 for the NOS-Concealment subscales.

**Community Connectedness** To measure how involved or connected a person is with a community, the community connectedness scale of the Relational Health Indices (RHI-C) was used. The RHI-C has 14 questions where the participant will rate on a Likert scale from *1* (*Seldom*) to *5* (*Always*) statements that describe how connected a person is to the community. An example of some questions are "I have a greater sense of self-worth through my connection to this community," and "There is a lot of backbiting and gossiping in this community." The RHI-C has an overall Cronbach's alpha of .87 (Liang et al., 1998). The Cronbach's alpha in the current sample is .85. A higher score on the RHI-C indicates a person is more connected to their community.

**Social Stigma/Rejection** The Gay-Related Rejection Sensitivity Scale (GRRSS) is a 14 item scale that measures an LGB individual's expectation of rejection by heterosexual peers (Pachankis, Goldfried, & Ramrattan, 2008). The GRRSS has a Cronbach's alpha of .80 (Pachankis & Goldfried, 2010), and for the current study the Cronbach's alpha was .94. The GRRSS is composed of two subscales. One subscale measures anxiety about being rejected due to sexual orientation status (GRRSS-Anxiety) and the other subscale measures the belief one was rejected due to sexual orientation status (GRRSS-Belief). Participants were presented a brief scenario and then rated both their anxiety about being rejected based on their sexual orientation on a scale from *0* (*Very unconcerned*) to *6* (*Very concerned*) and their belief that they would be rejected due to their sexual orientation *0* (*very unlikely*) to *6* (*very likely*). An example of one of the 14 scenarios is "You go to a party and you and your partner are the only gay people there. No one seems interested in talking to you. How concerned or anxious would you be that they don't talk to you because of your sexual orientation? [GRRSS-Anxiety Rating] How likely is it that they didn't talk to you because of your sexual orientation? [GRRSS-Belief Rating]" A higher score on the GRRSS-Anxiety subscale represents higher anxiety about being rejected due to sexual orientation and a higher score on the GRRSS-Belief subscale represents higher belief about being rejected due to sexual orientation.

### Data Analysis

**Bivariate Analysis** Bivariate analysis was conducted to identify which variables differed in mental health care use in both the 12-month interval as well as the lifetime interval. Independent *t* tests or chi-square tests of independence were used in analysis depending on variable type and an alpha level of $p < .05$ was used to determine significance.

**Multivariate Analysis** Only variables that demonstrated a significant difference in mental health care use were included as predictors of in the logistic regression models, as done in previous work (see Simpson et al., 2013). Hierarchical logistic regressions were conducted to determine the relationship for mental health care over the past 12 months (MHC-12) and mental healthcare over the life span (MHC-L). For each model that reliably predicts health care usage, the Wald statistic ($p < .05$) was used to determine significant predictors of each model. Consistent with Simpson and colleagues' study (2013), hierarchical regression was chosen so each variable in the adapted BHM can be examined separately as well as controlled. The blocks will be entered in the following order: (1) predisposed characteristics, (2) enabling factors, (3) perceived need, and (4) gay, bisexual, and other MSM experiences.

## Results

### Preliminary Analysis

The data were analyzed using IBM SPSS 21.0. No data were missing from the 209 cases, so all cases were included in the preliminary analysis. Bivariate and multivariate assumptions were met as data were within acceptable limits for all levels of independent variables for normality, kurtosis, and skewness. No cases needed to be removed due to having outliers, as all data fell within a standardized z-score of ± 3.3 (Tabachnick & Fidell, 1996).

### Participant Sociodemographics

Therefore, in total 209 cisgender men met the inclusion criteria and were included in the study. All participants identified as having a sexual orientation that was either gay, mostly

gay, or bisexual. No participants identified as heterosexual. The mean age for the sample was 34.6 years (SD 12.2 years). The majority of the sample identified as white (168, 80.4%), having an associate's degree or some college education (86, 41.1%), an income between $20,001 and $40,000 (65, 31.1%), and as single/never married (70, 33.4%). Furthermore, most identified as being HIV negative (160, 76.6%), having insurance (200, 95.7%), not having been diagnosed with a sexually transmitted infection (STI) in the past 2 years (187, 89.6%), having not been diagnosed with a mental illness in the past 2 years (133, 63.4%), and living in an urban county (105, 50.2%; see Table 1 for further demographic breakdown). For mental health care usage, 53 (25.4%) identified as receiving individual counseling in the past year and 135 (64.5%) identified as receiving individual counseling during their lifetime.

### Bivariate Associations

The bivariate analysis for variables associated with mental healthcare use in the past 12 months and lifetime for all variables are available in Table 2. The variables of insurance, previous mental health diagnosis in the past 2 years, PTSD symptoms reported on the PCL-5, depression symptoms reported on the CESD-R, beliefs that one would be rejected based on sexual orientation as reported by the GRRSS Belief subscale, and disclosure of sexual orientation were associated with mental health care use in the past 12 months. For lifetime use, only the variables of previous mental health diagnosis and disclosure of sexual orientation were significant.

### Multivariate Predictors

Both the model predicting lifetime mental healthcare use (MHC-L; $\chi^2(6) = 41.57$, $p < .01$, Nagelkerke $R^2 = .20$) and past year mental health care use (MHC-12; $\chi^2(6) = 53.26$, $p < .01$, Nagelkerke $R^2 = .32$) were significant in predicting use of mental health care using hierarchical logistic regression. The Hosmer and Lemesow Test demonstrated both the MHC-L model ($\chi^2(8) = 6.79$, $p = .55$) and the MHC-12 model ($\chi^2(8) = 11.48$, $p = .18$) did not lack significant fit. Therefore, both models demonstrated mental health use could be predicted for the current sample based on the variables used.

Both regression models predicted the odds of a participant not using mental health services. The MHC-L model contained two significant predictors, disclosing sexual orientation to others as measured by the NOS-Disclosure scale (OR = 1.21 [1.05, 1.40], $p = .005$) and having a previous diagnosis of a mental illness (OR = 0.16 [0.07, 0.38], $p < .001$). For every unit increase on the NOS-Disclosure scale the less a person disclosed their sexual orientation to others and the odds that they had not utilized mental health services in their lifetime increased 1.21 times. Having a previously diagnosed mental illness decreased the odds by 84% that they had not used mental health services in their lifetime. Therefore, individuals who had not been previously diagnosed with a mental health concern and/or have not disclosed their sexual orientation more used mental health services less in their lifetime.

The MHC-12 model also had the same two significant predictor variables: NOS-Disclosure scale (OR = OR = 1.24 [1.04, 1.49], $p = .017$) and having a diagnosis of a mental illness (OR = 0.15 [0.07, 0.32], $p < .001$). For every unit increase on the NOS-Disclosure the odds increased 1.24 times that they had not utilized mental health services in their lifetime. Having a previously diagnosed mental illness decreased the odds by 85% that they had not used mental health services in their lifetime. Similarly to the MHC-L model, individuals who had not been previously diagnosed with a mental health illness or had disclosed their sexual orientation less were less likely to have accessed mental health services (see Table 3 for complete breakdown of multivariate predictor variables for both models).

The total number of participants needed for the MHC-12 model to obtain power based on Peduzzi, Concato, Kemper, Holford, and Feinstein (1996) recommendations was 176, and for the MHC-L model was 111. Both mental health use logistic regression models had power. Finally, the addition of the *Gay, Bisexual, and other MSM Experiences* block into the model was significant for both the MHC-L model ($\chi^2(2) = 11.06$, $p = .004$) and for the MHC-12 model ($\chi^2(2) = 7.06$, $p = .03$).

## Discussion

The purpose of the current study was to add to existing research about mental health care use among gay and bisexual men by assessing a gay and bisexual male population residing in a predominantly socio-politically conservative state like Oklahoma. In addition, this study attempted to duplicate Simpson and colleagues' model addition to the BHM and highlight if there were unique barriers for gay, bisexual, and other MSM who reside in Oklahoma.

When controlling for a previous mental health diagnosis, in both the lifetime and previous 12 month models, the only other significant predictor was the level of disclosure about sexual orientation. Individuals who disclosed their sexual orientation and/or behaviors less with those in their life were also less likely to use mental health services in their lifetime and in the past year. While bivariate analysis did indicate other significant differences in mental health use based on having insurance, symptomology consistent with PTSD and Depression, and belief that one was being rejected due to their sexual orientation, only the level of disclosure was a significant predictor.

Gay and bisexual men living in Oklahoma who did not feel comfortable disclosing their sexual orientation in this sample appeared to be associated with not seeking mental health care

**Table 1** Demographic information and utilization of mental healthcare

| | | Used mental healthcare | |
|---|---|---|---|
| | Overall | Last 12 mos. | Lifetime |
| *N* | 209 | 53 | 135 |
| Age (SD) | 34.6 (12.2) | 34.2 (11.5) | 35.3 (11.7) |
| Ethnicity | | | |
| White | 168 | 43 | 113 |
| American Indian/Alaskan Native | 16 | 2 | 10 |
| Hispanic/Latino | 15 | 4 | 5 |
| Asian/Pacific Islander | 5 | 3 | 4 |
| Black | 2 | 0 | 2 |
| Other | 3 | 1 | 1 |
| Education level | | | |
| Less than HS | 3 | 1 | 2 |
| HS Diploma/GED Equiv. | 33 | 8 | 16 |
| Some college/associate's degree | 86 | 20 | 59 |
| Bachelor's degree | 50 | 16 | 36 |
| Master's degree | 32 | 7 | 19 |
| Doctorate degree | 5 | 1 | 3 |
| Income level | | | |
| $10,000 or less | 38 | 8 | 24 |
| $10,001 to $20,000 | 32 | 10 | 16 |
| $20,001 to $40,000 | 65 | 15 | 43 |
| $40,001 to $60,000 | 39 | 11 | 28 |
| $60,001 to $80,000 | 12 | 2 | 8 |
| Over $80,000 | 17 | 4 | 12 |
| Refuse to answer | 6 | 3 | 4 |
| Sexual orientation | | | |
| Bisexual | 10 | 4 | 8 |
| Mostly gay | 13 | 2 | 11 |
| Gay | 186 | 47 | 116 |
| Relationship status | | | |
| Single, never married | 70 | 22 | 44 |
| In a committed relationship | 28 | 6 | 14 |
| In a domestic partnership | 54 | 13 | 38 |
| Married | 36 | 10 | 23 |
| Separated/divorced/widowed | 13 | 1 | 9 |
| Other | 8 | 1 | 7 |
| Insurance (including VHA) | | | |
| Yes | 200 | 48 | 130 |
| No | 9 | 5 | 5 |
| Diagnosed mental illness past 2 years | | | |
| Yes | 76 | 39 | 69 |
| No | 133 | 14 | 66 |
| Residence | | | |
| Urban county | 105 | 29 | 67 |
| Periurban/rural county | 104 | 24 | 68 |

as often as their counterparts who are more open about disclosing their sexual orientation. Gay, bisexual and other MSM who live in the South face a more conservative environment due to controlling images about strict definitions of male sexuality based on social norms and religion (Barton, 2012; Whitlock, 2013). Individuals who face discrimination in their

**Table 2** Bivariate analysis of variables

| | Lifetime | | | | Past year | | | |
|---|---|---|---|---|---|---|---|---|
| Variables | *t* | $\chi^2$ | *df* | *p* | *t* | $\chi^2$ | *df* | *p* |
| Predisposed characteristics | | | | | | | | |
| Age | 1.15 | | 207 | .25 | − 0.25 | | 207 | .80 |
| Relationship status | | 8.45 | 8 | .39 | | 5.49 | 8 | .71 |
| Ethnicity | | 2.67 | 1 | .10 | | .025 | 1 | .87 |
| Enabling resources | | | | | | | | |
| Income | | 4.27 | 6 | .64 | | 3.74 | 6 | .71 |
| Education | | 6.98 | 6 | .32 | | 3.40 | 6 | .76 |
| Insurance | | 0.34 | 1 | .56 | | 4.53 | 1 | .03* |
| County IRR | − 0.10 | | 207 | .92 | − 1.14 | | 207 | .26 |
| Need | | | | | | | | |
| HIV status | | 2.60 | 2 | .27 | | 0.95 | 2 | .62 |
| STI status | | 0.71 | 1 | .40 | | 0.54 | 1 | .46 |
| Mental health diagnosis | | 25.85 | 1 | <.001** | | 42.51 | 1 | <.001** |
| AUDIT | − 0.36 | | 207 | .72 | 0.25 | | 75 | .80 |
| DAST | 0.79 | | 207 | .72 | 1.42 | | 207 | .45 |
| PCL-5 | 1.90 | | 207 | .06 | 3.52 | | 76 | .001* |
| CESD-R | 1.88 | | 207 | .06 | 2.65 | | 207 | .009* |
| Gay, bisexual and other MSM experiences | | | | | | | | |
| RHI-Community | 0.07 | | 207 | .94 | − 0.54 | | 207 | .59 |
| GRRSS-Anxiety | − 0.31 | | 207 | .75 | 1.88 | | 207 | .06 |
| GRRSS-Belief | − 0.80 | | 207 | .43 | 2.10 | | 207 | .03* |
| NOS-Disclosure | − 3.63 | | 207 | <.001** | − 3.01 | | 207 | .003* |
| NOS-Concealment | − 0.88 | | 207 | .38 | 1.06 | | 207 | .29 |

*Note*: *$p < .05$, **$p < .01$

communities for their sexual orientation (Fisher et al., 2013; Preston et al., 2004) may be less willing to seek health care, including mental health care, for the fear of having to disclose information they are not willing to disclose. This study is one of the first to highlight in a particular sample how lack of disclosing sexual orientation in general, not just to providers, can interfere with gay and bisexual men seeking mental health care services.

Previous researchers have documented the higher prevalence rates of health disparities that exist among gay and bisexual individuals (e.g., Meyer, 1995, 2003; Newcomb & Mustanski, 2010). The overall findings support that mental health care use in the current sample can be influenced by unique experiences that they face as gay and bisexual men living in Oklahoma. This is particularly salient in that these findings suggest the conservative environment our sample of gay and bisexual men find themselves living could be related to a disparity in mental health.

Important to note, however, is that a participant's rurality was not a significant predictor. Rurality did not impact the use of mental health services either in the past year or during a person's lifetime. The lack of difference could be due to the relatively hostile environment towards gay and bisexual men (and all members of the LGBT spectrum) that permeates the sociopolitical culture of Oklahoma, regardless of rurality (Human Rights Campaign, 2017).

## Implications

The current study informs mental health and health care providers about the unique struggles and obstacles that gay and bisexual men face when attempting to access mental health services. Many are hesitant to disclose sexual minority status (Politi, Clark, Armstrong, McGarry, & Sciamanna, 2009) due to prior experiences or possible fear of stigmatization. This fear of disclosure of sexual orientation should not prevent individuals from accessing mental health care.

The results from the current study demonstrate the impact fear of disclosing sexual orientation may be having on men who have sex with men in Oklahoma. Previous research shows that anxiety about rejection based on disclosure of sexual orientation and identifying with the gay community can lead to sexual risk taking behaviors (e.g., Preston et al., 2004), higher mental health concerns like depression (e.g., Cochran, 2001; Link & Haztenbuehler, 2016; Newcomb & Mustanski, 2010), and increased drug use (e.g., Lelutiu-Weinberger et al., 2013). Individuals tend to use avoidance as a strategy of coping with potential stigmatization when they have previously

experienced it (McDavitt et al., 2008). Participants in the current study may be avoiding disclosing sexual orientation and sexual behaviors based on previous negative experiences. Therefore, the unique social milieu of living in a conservative location like Oklahoma creates a potential barrier to accessing services. If individuals are not seeking mental health care due to fear of disclosing sexual orientation, then providers are unable to address these concerns and help alleviate the disparity that exists in health care.

Mental health providers are uniquely positioned to advocate for rural gay, bisexual, and other MSM due to mental health providers' willingness to have conversations around sexual health and sexual minority status. Rural LGBT mental health is heavily influenced by the sociocultural environment as well as the presence or lack of LGBT social support groups (Willging, Salvador, & Kano, 2006). Due to the potential isolation, mental health providers helping sexual minority men locate welcoming and friendly providers (Klitzman & Greenberg, 2002; Sherman, Kauth, Shipherd, & Street Jr., 2014) can help ensure that their clients receive services they might not otherwise receive if their sexual minority status is not known (Hollander, 2013) including information about HIV testing, PrEP, and local and community support groups. Counselors can help gay men navigate the culture of medicine of doctors and other health care providers who do not discuss client sexuality and sexual behaviors (Beehler, 2001; Mosack, Brouwer, & Petroll, 2013). Furthermore, counselors can provide training for providers of LGBT mental and medical care on how to promote the openness of their practices to facilitate confidential disclosure of sexual orientation within these practices to ensure proper care (Whitehead, Shaver, & Stephenson, 2016).

Research on mental health interventions for rural LGBT populations is sparse. A recent study describing the implementation of a program in rural New Mexico, called "LGBTQ Peer Advocate Intervention Program," was designed to train lay people from rural LGBTQ communities to connect individuals in need with pro-LGBTQ affirming services (Willging et al., 2016). Training peers to help connect isolated individuals from supportive, affirming communities can help reduce the health disparities that currently exist (Willging et al., 2006). Rural individuals in Oklahoma may benefit from the development of a similar program. Individuals in rural communities are aware of their healthcare needs and the barriers preventing them from seeking care. Research looking into how to help facilitate the care is necessary to understand how the specific sociocultural aspects of a given location influence help seeking behaviors for rural LGBT individuals (Kano, Silva-Bañuelos, Sturm, & Willging, 2016).

The results of the current study demonstrate the harm policy makers and advocates for anti-LGBT legislation can unintentionally cause when policies stigmatize LGBT individuals. Before the *Obergefell v. Hodges* (2015) decision on marriage equality, LGBT individuals living in states that specifically banned same-sex marriage demonstrated a 37% increase in mood disorders, 42% increase in alcohol use, and a 248% increase in generalized anxiety disorder compared to LGBT individuals living in states with no bans (Link & Haztenbuehler, 2016). After Massachusetts became the first state to allow same-sex marriage, there was a 15% decrease in costs associated with mental and medical health care among LGBT individuals (Hatzenbuehler et al., 2012).

Recent legislation passed in Tennessee allowing mental health providers to refer clients to other providers based on sexual orientation (Protecting, 2016) raise concerns again about how structural stigma will impact LGBT clients seeking mental health services in the state. When policies are disaffirming to LGBT individuals, the increase in actual and perceived stigma from providers can create barriers for service (Whitehead et al., 2016). If a person fears stigma from disclosing sexual orientation and policies that allow providers to refuse service based on sexual orientation, non-heterosexual individuals may be less inclined to seek out mental or medical

**Table 3** Logistic regression predictors of lifetime and past year mental healthcare use

| | Predictors | Lifetime OR (95% CI) | Past year OR (95% CI) |
|---|---|---|---|
| Step 1: | Enabling resources | | |
| | Having medical insurance | 0.36 [0.07, 1.84] | 2.76 [0.51, 14.91] |
| Step 2: | Need | | |
| | Previous mental health diagnosis | 0.16 [0.07, 0.38]* | 0.15 [0.07, 0.32]* |
| | PCL-5 score | 1.00 [0.97, 1.04] | 0.98 [0.95, 1.01] |
| | CESD-R score | 0.98 [0.96, 1.02] | 1.01 [0.98, 1.05] |
| Step 3: | Gay, bisexual, and other MSM experiences | | |
| | Level of disclosure | 1.21 [1.05, 1.40]* | 1.24 [1.04, 1.49]* |
| | GRRSS-Belief | 1.01 [1.00, 1.03] | 0.99 [0.97, 1.01] |

*Note*: *$p < .05$; OR = odds ratio; CI = confidence interval; PCL-5 = PTSD Checklist version 5; CESD-R = Center for Epidemiological Study of Depression – Revised scale; GRRSS-Belief = Gay Related Rejections Sensitivity Scale, Belief Subscale

health care. The perceived heterosexist care environment thus perpetuates the healthcare disparity that exists for LGBT individuals. The ability to predict mental health care use based on disclosure of sexual orientation in the current sample demonstrates how this barrier can impact health.

### Limitations

As in all studies, several limitations in this study are present. One is the sample collected was a convenience sample, and not a random sample. Underrepresented populations are difficult to reach due to a multitude of reasons. In the current study, access to the population being researched was hindered by location and level of disclosure about sexual orientations and behavior. In instances of hard to reach populations, convenience sampling via the internet is an efficient and cost effective way to access these hidden populations (Bowen, 2005; Mathy, Schillace, Coleman, & Berquist, 2002). All participants in the current study identified a sexual orientation (i.e. bisexual or gay) that was consistent with his attractions and/or behaviors. Previous studies have identified men who have identified as heterosexual but endorsed having same-sex attractions, behaviors, and/or fantasies (e.g. Currin, Hubach, Brown, & Farley, 2016; Vrangalova & Savin-Williams, 2012). There is a dearth of information about how men who have same-sex attractions, behaviors, and/or fantasies but identify as heterosexual access and use mental health services and if they are comfortable disclosing their behaviors so their providers.

Another limitation is the entire population sample came from Oklahoma. This could impact the generalizability of the study to the entire gay and bisexual men population in the United States. Very few studies look at mental health access of gay and bisexual men who reside in socially conservative states, so the information from this study informs future studies looking at sexual minority populations and health care access. While these findings may be generalizable to areas around Oklahoma, future studies looking at health care disparities in other socially conservative areas of the United States are warranted.

## Conclusion

These limitations notwithstanding, the current study adds to the knowledge of healthcare disparities that exist for gay men. Few studies address the barriers to mental healthcare gay men who live in socially conservative states face when attempting to access services. This study highlights the importance of establishing a welcoming, confidential, and nonjudgmental environment to ensure gay and bisexual men living in Oklahoma feel safe when seeking mental health care. This study adds to the literature of gay and men's mental health care disparities by highlighting the impact living in a predominantly socially conservative environment can have on a person's mental healthcare use. Individuals who did not disclose their sexual orientation or same-sex behaviors to friends and family members were less likely to use mental health services. To help alleviate concerns of potential clients about disclosure of sexual orientation and/or sexual behaviors, providers need to ensure that their policies and office environments are welcoming and accepting of all sexual orientations. Outreach organizations that engage in outreach to gay and bisexual men need to be cognizant that not all of them may have openly disclosed their sexual orientations. In order to access and help these hard to reach populations, it is imperative that these outreach organizations and providers that seek to provide care do not inadvertently force disclosure of a client's orientation. The current study demonstrates the need to consider the current sociopolitical climate specific to areas where individuals live when creating interventions and outreach programs to lessen the disparity that exists in health among all LGBT individuals.

## Compliance with Ethical Standards

**Conflict of Interest** The authors declare they have no conflict of interests.

**Ethical Approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Informed Consent** Informed consent was obtained from all individual participants included in the study.

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