USING THE GAY-RELATED REJECTION SENSITIVITY SCALE TO PREDICT MENTAL HEALTH OUTCOMES OF GAY, BISEXUAL, AND OTHER MEN WHO HAVE SEX WITH MEN

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Title of Study: USING THE GAY-RELATED REJECTION SENSITIVITY SCALE TO PREDICT MENTAL HEALTH OUTCOMES OF GAY, BISEXUAL, AND OTHER MEN WHO HAVE SEX WITH MEN

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Abstract: Previous researchers in the social and health sciences have reported that people who identify as men who have sex with men (MSM) as at risk for various mental health concern and face additional challenges when living in cultures which induce feelings of minority stress. Because of this, some MSM may feel anxious about rejection or believe they will be rejected based on their sexual identity. This is known as gay-related rejection sensitivity. The impact rejection sensitivity has on MSM mental health in Oklahoma was investigated to understand how rejection sensitivity impacts positive psychological constructs such as hope and self-compassion, as well as clinical issues such as anxiety, depression, and internalized homophobia. Additionally, researchers investigated if living in a more rural area predicted higher levels of reported rejection sensitivity. These research questions were addressed using regression models. Analyses revealed that higher levels of gay related rejection sensitivity predicted decreased self-compassion, and hope agency, as well as increased feelings of depression and anxiety, even when controlling for factors such as county of residence, level of income, and age.
Higher levels of gay-related rejection sensitivity did not predict lower hope pathways or increased internalized homophobia. Finally, level of rurality did not predict higher levels of gay related rejection sensitivity. Researchers propose continued investigation into the impact that rejection sensitivity might have on MSM populations and address limitations, implications, and discussion of the current study.

Keywords: rejection sensitivity, MSM, mental health, hope, self-compassion, depression, anxiety, rural issues

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CHAPTER I

INTRODUCTION

Research relating to lesbian, gay, bisexual, transgender (trans), queer, and other sexual or gender diverse (LGBTQ+) issues is not limited only to recent publications. Starting in the late 1800's, social scientists have attempted to understand and quantify issues relating to sexual/affectional orientation and gender identity/expression, despite pushback from others in their fields, the dominant culture, and at times even political or governmental bodies. This was reflected in the work of Havelock Ellis in England, Magnus Hirschfield in Germany, Sigmund Freud in Austria, or Alfred Kinsey in the United States (Hirschfeld & Rodker, 1935; Kinsey 1948; Shapiro & Powell, 2017). Despite this early research, most research activity reflected the interest and attitudes of the era, which was generally hostile to the LGBTQ+ population. It is only relatively recently that LGBTQ+ people have been even marginally accepted in the western world. To understand the disparities in mental health outcomes experienced by men who have sex with men (MSM), it is important to acknowledge the history of social, political, and medical discrimination against LGBTQ+ people which directly contributed to these disparities. Until the release of the DSM-III-R in 1973, identifying as gay or acknowledging same-sex attraction was still included as a disorder in the American Psychiatric Association's Diagnostic and Statistical Manual of

Mental Disorders (DSM; Drescher, 2015; Shapiro & Powell, 2017; Wilson, 1993). Before this time, identifying as LGBT or engaging in same-sex behaviors or diverse gender expression often resulted in forced treatment, hospitalizations, aversion therapy, and even electroconvulsive therapy (ECT; Shapiro & Powell, 2017). After the DSM change, clinicians slowly moved to begin to acknowledge that societal stress and internalized homophobia may be contributing to mental health concerns for the LGB populations (Mayer et al., 2008).

The Minority Stress Model

Some of the reasons that LGBTQ+ people might have disparities in health outcomes has been attributed to the minority stress theory. Meyer (1995) originally developed this model in 1995 for gay men and expanded upon in 2003 to include lesbian women and bisexuals. Research in this area has been historically focused on sexual orientation while omitting gender identity, although researchers are beginning to adapt the minority stress model for the transgender community as well (Bockting, Miner, Swinburne Romine, Hamilton, & Coleman, 2013; Hendricks & Testa, 2012). Researchers of this theory posit that because of their identity, minority groups (specifically LGBTQ+ people) experience increased conflict, victimization, stigma, and danger when interacting with various systems which have a history of discrimination and erasure of LGBTQ+ people. Minority Stress Theorists argue that it is because of these experiences with oppression and discrimination that LGBTQ+ have higher levels of stress and negative mental health outcomes (Hatzenbuehler, 2014; Meyer, 1995, 2003; Mirowsky & Ross, 1989; Pearlin, 1989). Across LGBTQ+ populations, minority stress and its outcomes contribute to worse social determinants of health (Fredriksen-Goldsen et al., 2014; Logie 2012; Marmot et al., 2008; World Health Organization, 2010).

LGBTQ+ Mental Health Concerns

The term "LGBTQ+" is an umbrella term. While each group under the umbrella is affected by minority stress and the mental health outcomes it can cause, they are not all affected in the same way. Researchers are beginning to understand that all groups in the LGBTQ+ community are at higher risk for physical and psychiatric diagnoses, but it is useful to break down which mental health issues are more prevalent for the different groups under this umbrella. For the current study focusing on the MSM population, it is most useful to review previous literature focused on gay men, bisexual men, or MSM. For instance, researchers have found support that gay men experience depression and anxiety disorders, substance use, suicidal thoughts, and self-harm more than heterosexual men (Cochran, Mays, & Sullivan, 2003; Gilman et al., 2001; King et al., 2008). In a 2017 study, Lee, Oliffe, Kelly, and Ferlatte reported that gay men are three times more likely than heterosexual men to experience depression, which is also a risk factor for suicide and supports previous research on this topic (King et al., 2008). Gay men are also at a greater risk than heterosexual men for body image concerns or distress, especially if they have been exposed to great minority stress factors such as internalized homophobia, stigma for being gay, or experiences of physical aggression (Kimmel & Mahalik, 2005).

Historically there has been very little published research on mental health in bisexual people. Despite this, some researchers have concluded that bisexuals experience a greater amount of distress than those who identify as lesbian or gay when compared to their heterosexual peers (Burns, Ryan, Garofalo, Newcomb, & Mustanski, 2015; Kerr, Santurri, & Peters, 2013). Bisexual youth were more likely to have a PTSD diagnosis than other sexual minority youth in a study conducted by Burns et al. (2015). In a national study conducted by

Ward, Dahlhamer, Galinsky, & Joestl (2014), 11% of 18-64-year-old bisexual people reported that they experienced serious psychological distress in the past 30 days. Bisexuals also reported an even higher frequency of alcohol and tobacco use than those who identified as lesbian or gay in the same national survey (Ward, Dahlhamer, Galinsky, & Joestl, 2014). There is a need for further research focused on specific mental health concerns for male or gender diverse bisexual people.

Mental Health in Rural LGBTQ+ People

Researchers note that rural areas are commonly associated with traditional gender roles, heteronormativity, conservatism, and religious fundamentalism, and rural residents often report negative perceptions of LGBTQ+ people (Barefoot, Rickard, Smalley, & Warren, 2015; Barton, 2012). Rural areas often do not have any LGBTQ+ spaces where a person in the LGBTQ+ community could anticipate an experience free of stigma, including both physical or mental health service providers (Martos, Wilson, Gordon, Lightfoot, & Meyer, 2018) Anticipating or experiencing stigma related to an LGBTQ+ identity is an aspect of minority stress which can be a barrier for some LGBTQ+ people to accessing mental health care, especially those who identify as trans or non-binary, and those in rural areas might be more likely to anticipate such stigma (Currin et al., 2018; Whitehead, Shaver, & Stephenson, 2016). Mental health disparities exist between those in the LGBTQ+ community who live in urban areas and those who live in rural areas, often as a result of living in a more hostile environment towards holding an LGBTQ+ identity (Barefoot, Rickard, Smalley, & Warren, 2015; Horvath, Iantaffi, Swinburne-Romine, & Bockting, 2014; Willging, Salvador, & Kano, 2006). These differences could be linked to social determinates of health such as being less open about their LGBTQ+ identity, being less

accepting of their own identity, and having lower social engagement (Fisher, Irwin, & Coleman, 2014). Rural LGBTQ+ people reported significantly more elevation on a depression assessment than their urban peers (Fisher, Irwin, & Coleman, 2014). Although there is strong evidence that LGBTQ+ people in rural areas have specific mental health needs, the research on this population to date is limited and more investigation is needed.

Rejection Sensitivity

A desire for acceptance and a desire to avoid rejection was identified as an underlying motive for human behavior over 80 years ago (Horney, 1937) and discussed at length by humanistic psychologists (Maslow, 1987; Rogers, 1959). There have been numerous psychological researchers who have examined reactions to an experience of rejection. Many of these researchers have concluded that experiencing rejection leads to participants feeling depressed, angry, or jealous (Buckley, Winkel, & Leary, 2004; Leary, Koch, & Hechenbleikner, 2001; Smart-Richman & Leary, 2009). Meta-analyses of rejection research have helped researchers find patterns when participants experience rejection. In their meta-analysis of rejection literature, Gerber & Wheeler (2009) claim that "rejection frustrates basic psychological needs" and that "rejection makes individuals feel bad [and] ready to act to restore control or belonging" (p. 468).

Because experiencing rejection is often perceived as psychologically painful, some individuals develop a sensitivity to rejection experiences categorized by anxious anticipation or belief that they will be rejected in various social interactions. This is known as "rejection sensitivity," which is a cognitive-affective processing disposition that can have negative implications for mental health, as claimed by Downey & Feldman (1996) in an influential article detailing how rejection sensitivity affects intimate relationships. Over the past 2

decades there has been a wealth of literature detailing the impacts rejection sensitivity can have on a person's functioning and interpersonal relationships (London, Downey, Bonica, & Paltin, 2007; Mendoza-Denton et. al, 2002; Park, 2007; Pietrzak, Downey, & Ayduk, 2005, Watson & Nesdale, 2012). Importantly, this construct has been evaluated more recently as it relates to those in the LGBTQ+ communities and how sensitivity to rejection intersects with an LGBTQ+ identity.

Pachankis, Goldfried, & Ramrattan (2008) extended the construct of rejection sensitivity to better understand the mental health and interpersonal functioning of gay men. The authors argued this was a necessary extension of the construct, as gay men experience higher rates of "social anxiety, such as fear of negative evaluation and social avoidance and distress" (p.306), and hypothesize that these increased levels of anxiety are as a response to the unique stressors gay men face as "devalued and sometimes rejected members of society" (2008, p. 306). These findings were replicated and built upon by several researchers who investigated the various, unique ways in which gay-related rejection sensitivity can negatively impact the health of gay men (Denton, Rostosky, & Danner, 2014; Feinstein, Goldfried, & Davila, 2012; Pachankis, 2014; Pachankis, Hatzenbuehler, & Starks, 2014).

To better understand these experiences, Pachankis, Goldfried, & Ramrattan (2008) developed the Gay-Related Rejection Sensitivity Scale (GRRSS). The scale presents respondents with 14 items based on hypothetical scenarios (e.g. Some straight colleagues are talking about baseball. You force yourself to join the conversation, and they dismiss your input) and asks the respondents to evaluate the scenario based on how anxious/concerned they would feel that the scenario occurred because they were gay, as well as how likely they believe the scenario occurred because they were gay. After conducting a factor-analysis on

the items of the scale, the researchers found "that the data were adequately fit with a one-factor solution accounting for 46.35% of the variance" (Pachankis, Goldfried, & Ramrattan, 2008, p. 310). Cronbach's alpha for the items was .91, showing high internal consistency. The authors also established convergent and discriminant validity of the GRRSS by comparing it to scales measuring related constructs. The researchers determined the measure to be valid and a useful tool for understanding how men experience gay-related rejection sensitivity. The importance of ongoing use of this scale to quantify rejection-sensitivity for gay men is summarized by the authors, who "found that rejection of an important aspect of one's self is associated with unfortunate internal and interpersonal consequences, potentially shifting someone's experience of self, others, and everyday life" (Pachankis, Goldfried, & Ramrattan, 2008, p. 315).

Some theorists have identified positive psychological factors relevant to an LGBTQ+ identity which should not be overlooked despite the empirical evidence which supports the psychological and health effects minority stress can have on the lives of LGBTQ+ people. Some researchers go so far as to claim that the strengths of the LGBT community are often undervalued and that the minority stress model is over-emphasized (Lytle, Vaughan, Rodriguez, & Shmerler, 2014). In fact, some researchers have fundamentally changed how they choose to examine the field of psychology in response to a desire to emphasize adaptive or growth-fostering aspects of the human experience rather than the stressful or negative. This branch of psychological research has thus been appropriately dubbed "positive psychology," which is based on a core focus "to recognize the importance of complementary, alternative perspectives on the human experience that do not pathologize individuals'

experiences, beliefs and actions while helping them focus on their strengths" (Seligman & Csikszentmihalyi, 2000, as cited in Lytle et al., 2014, p. 335).

Positive Psychology Perspective

The positive psychology movement has adopted a three-pillar model to emphasize strengths in individuals. The three pillars are listed as: positive subjective experiences, character strengths, and positive social institutions. Positive subjective experiences are experiences which an individual perceives as growth fostering, enjoyable, or meaningful. These experiences can happen in everyday life as well as a therapeutic setting. Character strengths are defined as personality traits or individual characteristics which are adaptive and healthy, such as having a good work ethic, for example. Importantly, character strengths are not seen as innate or unchangeable and it is possible for someone to further develop their strengths. Finally, positive social institutions facilitate expression and contact with these character strengths to encourage positive subjective experiences.

Lytle et al. (2014) have expanded on the positive psychology model to include ways in which positive psychologists can incorporate the concept of minority stress while still maintaining a strengths-based perspective. The researchers incorporate these three pillars into the minority stress model in the following way:

> "individual-level strengths (e.g., character strengths and subjective positive experiences), along with community-level strengths (e.g., LGBT-affirming positive social institutions) can serve to neutralize the negative impacts of minority stress – thus creating a positive subjective experience of resilience" (p. 336).

While rurality might be a barrier for individuals to experience those community-level strengths that the authors mention, each individual person may be able to cultivate character strengths in order to build psychological resilience. Two critical positive psychological strengths which have been identified in the literature are hope and self-compassion.

The construct of hope has been the subject of intensive psychological research over the past 3 decades, including the introduction of "hope theory" by Snyder, Rand, and Sigmon (2002). While hope theorists address many aspects of individual functioning using the construct of hope, they also emphasize the role that hope plays in a positive psychological framework. Snyder claims that previous research efforts to evaluate a series of hope scales (including the Children's Hope Scale, the Trait Hope Scale, and the State Hope Scale) demonstrate that hope is positively correlated with positive affect and negatively correlated with negative affect (Snyder, Hoza, et. al, 1997; Snyder, Rand, & Sigmon, 2002). Individuals with higher affective experiences of hope may also have an increased sense of self-worth and low levels of depression (Snyder, Hoza, et al., 1997; Snyder et al., 1996) as well as feel more confident and energized by their individual goals (Snyder, Harris, et al., 1991).

The Adult Hope Scale (AHS) is a scale used to measure feelings of hope in individuals over the age of 18. It is a 12 item scale which is broken into two subscales (hope agency and hope pathway, which investigate a respondent's sense of goal directed energy and goal directed planning, respectively) based on Snyder's cognitive model of hope as well as hope theory. Each item is rated using an 8 point Likert-type scale by the participant, spanning from "definitely false" to "definitely true." The authors claim that "the psychometric characteristics of the Hope Scale suggested that it possesses acceptable internal consistency and temporal stability" and that "studies on convergent validity reveal a pattern of predicted

correlations with concepts that are similar to the theorized process of hope" (Snyder, Harris, et. al, 1991, p. 582). Babyak, Snyder, & Yoshinobu (1993) conducted a two-factor analysis on the measure, as well as other psychometric tests, further supporting its use in measuring hope in adults.

Self-compassion is defined by Neff (2003a) as "being open to and moved by one's own suffering, experiencing feelings of caring and kindness toward oneself, taking an understanding… and recognizing that one's experience is part of the common human experience" (p. 224). It has since been identified by psychological researchers as important in buffering against painful psychological experiences and increasing an individual's sense of overcoming adversity (Leary et. al, 2007; MacBeth, & Gumley 2012; Neff, Kirkpatrick, & Rude, 2007). Self-compassion has also been reported to be significantly correlated with positive mental health outcomes such as lower levels of depression and anxiety (Neff 2003a; Neff 2003b).

Considering self-compassion can act as such a strong factor in overcoming adversity, it is important to be able to measure it in research in a reliable and valid way. Neff (2003a, Neff 2016) created the Self-Compassion Scale (SCS) for this purpose. While this scale came under some scrutiny in the years following its publishing in 2003, the author of the scale published a follow-up article systematically defending both the scale's validity and theoretical coherency (Neff, 2016). The scale is a 26 item scale based on a six-factor model including self-kindness versus self-judgment, common humanity versus isolation, and mindfulness versus over-identification. A confirmatory factor analysis found the data fit adequately well (NNFI = .90; CFI = .91), with factor loadings significantly differing from

zero ($p < .001$; Neff 2003a). The measure was also determined to have high construct validity when compared to measures evaluating similar constructs.

Research Statement

Previous literature shows that LGBTQ+ persons, especially MSM living in rural areas, have unique mental health care considerations due to minority stress associated with their identity and social marginalization (Cochran & Mays, 2007; Cochran, Mays, & Sullivan, 2007; McLaughlin, Hatzenbuehler, Xuan, & Conron, 2012). Because identifying as gay can cause an individual to experience rejection based on their identity, gay men may experience anxiety related to the threat of rejection based on this identity, known as gay-related rejection sensitivity (Feinstein, Goldfried, & Davila, 2012). Gay-related rejection sensitivity has been connected to the construct of internalized homophobia by researchers in the past (Pachankis, Goldfried, & Ramrattan, 2008) Both gay-related rejection sensitivity and internalized homophobia are argued to cause individuals to experience a myriad of unpleasant mental health states, such as depression or anxiety (Igartua, Gill, & Montoro, 2009). Additionally, positive psychological constructs such as hope and self-compassion are hypothesized to be inversely related to experiences of anxiety and depression in individuals. More information is needed on how the construct of gay-related rejection sensitivity interacts with both positive and negative mental health experiences, especially for rural MSM populations. Therefore, a number of research questions and hypotheses have been proposed:

1. Does a higher score on the Gay-Related Rejection Sensitivity Scale (in both subscales) predict lower levels of positive psychological experiences including

hope (measured by the Adult Hope Scale) and self-compassion (measured by the Self-Compassion Scale, Abbreviated)

Hypothesis: A higher score on the Gay-Related Rejection Sensitivity Scale (in both subscales) will predict lower levels of positive psychological experiences including hope (measured by the Adult Hope Scale) and self-compassion (measured by the Self-Compassion Scale, Abbreviated).

2. Does a higher score on the Gay-Related Rejection Sensitivity Scale (in both subscales) predict higher levels of reported anxiety (as measured by the NIH Anxiety Short Form) and depression (as measured by the Center for Epidemiologic Studies Depression Scale)?

   Hypothesis: A higher score on the Gay-Related Rejection Sensitivity Scale (in both subscales) will predict higher levels of reported anxiety (as measured by the NIH Anxiety Short Form) and depression (as measured by the Center for Epidemiologic Studies Depression Scale).

3. Does a higher score on the Gay-Related Rejection Sensitivity Scale (in both subscales) predict higher levels of internalized homophobia (as measured by the Revised Internalized Homophobia Scale or IHP-R)?

   Hypothesis: A higher score on the Gay-Related Rejection Sensitivity Scale (in both subscales) will predict higher levels of internalized homophobia (as measured by the Revised Internalized Homophobia Scale or IHP-R).

4. Does a participant's level of rurality (as defined by the index of relative rurality or IRR) predict a higher score on the GRRSS?

Hypothesis: A participant's level of rurality (as defined by the by the index of relative rurality or IRR) will predict a higher score on the GRRSS.

CHAPTER II

METHODOLOGY

Participants

Participants were eligible for the study if they were a male, resident of the state of Oklahoma, 18 years of age or older, identified as having sex with another male within the past year, and agreed to give consent to the study. Previous research has identified internet-based directed marketing and purposive approaches optimal for recruitment of MSM respondents (Raymond et al., 2010). Participants were recruited through electronic advertisements placed on a variety of social and sexual networking websites targeted toward MSM. Flyers were also displayed in various facilities that serve gay, bisexual, and other MSM throughout Oklahoma. These included faith-based organizations, medical and social service providers, libraries, and rural-based colleges. following pages.

Procedures

The study was open for participation from May 2018 until October 2018 and was distributed through an online survey platform. The questionnaire also outlined participant's rights through an informed consent document. The survey took approximately 45 minutes to complete and contained items pertaining to demographic

information, general physical health, sexual health and mental health. Upon completion, participants were compensated with a $20 gift card. The study was approved by the Institutional Review Boards of the associated universities conducting the investigation and was directed by the Center for Rural Health at Oklahoma State University's Center for Health Sciences

Measures

The following measures are grouped by whether they were used as a predictive variable on an outcome variable in a regression model and are detailed further in Appendix C.

Predictive Variables

Gay-Related Rejection Sensitivity Scale

A participant's level of gay-related rejection sensitivity was measured using the Gay-Related Rejection Sensitivity Scale (GRRSS; Pachankis, Goldfried, & Ramrattan, 2008). This scale is composed of 14 items which each detail a short scenario illustrating a rejection experience which respondents are instructed to reflect on (e.g. Some straight colleagues are talking about baseball. You force yourself to join the conversation, and they dismiss your input). The respondent then evaluates each hypothetical scenario based on how likely they believe a scenario happened because they were gay and how much anxiety they would feel as a result of this rejection scenario. While this is a relatively new scale, the authors of the scale as well as other researchers have deemed it a reliable and valid measure to use when investigating gay-related rejection sensitivity (Feinstein, Goldfried, & Davila, 2012; Pachankis, Goldfried, & Ramrattan, 2008).

Subsequently, it has been posited that neither expectations of rejection without anxiety nor expectations of anxiety without rejection should be a sufficient prerequisite to enable feelings of rejection sensitivity. Said differently, both anxiety and belief comprise equal parts of gay related rejection. Because of this, and following recommendations by Pachankis and colleagues, the final construct of gay related rejection was derived by the product of the belief and anxiety subscales for each item, then dividing the sum of the 14 resulting scores by 14 (Pachankis et al., 2008).

Index of Relative Rurality

Level of rurality was measured using the Index of Relative Rurality (IRR; Waldorf, 2007). The IRR scale was developed to allow for more nuance when evaluating rurality and uses a variety of factors such as population size, distance from urban areas, population density, and percentage of urban residents to assign an area a value from 0-1, with 0 being "most urban" and 1 being "most rural." The IRR has been used in recent publications with a focus on the health of rural LGBT people because of this additional level of richness in evaluating rurality (Hubach et al., 2015; Johnson, & Gatlin, 2017).

Outcome Variables

Adult Hope Scale

The construct of hope was measured using the Adult Hope Scale (AHS) which is based on Snyder's cognitive theory of hope (Snyder et. al, 1991). It is a 12-item scale which is broken into two subscales (hope agency and hope pathways). Each item is rated using an 8-point Likert-type scale by the participant, spanning from "definitely false" to "definitely true." The authors of the scale as well as other researchers have reported its

psychometric properties to be reliable and valid and have encouraged its use to measure hope (Babyak, Snyder, & Yoshinobu, 1993; Snyder et. al, 1991). The AHS has been widely used since its creation in the early 90's and has been adapted for numerous languages to meet various diverse needs (Gana, Daigre, & Ledrich, 2013; Pacico, Bastianello, Zanon, & Hutz, 2013).

Self-Compassion Scale

Self-compassion was measured using the Self-Compassion Scale (SCS) developed by Neff (2003a). This scale's psychometric properties have been the subject of numerous articles, ultimately justifying its use for measuring feelings of self-compassion (Neff, 2016). The scale is a 26-item scale based on a six-factor model measuring self-kindness versus self-judgment, common humanity versus isolation, and mindfulness versus over-identification. The scale was selected for this study because of its brevity, wide usage in other psychological studies, and significant evidence for its psychometric integrity.

Revised Internalized Homophobia Scale

Feelings of internalized homophobia were measured using the 5 item Revised Internalized Homophobia Scale (IHP-R) (Herek, Gillis, & Cogan, 2009). The scale is an updated version of the original 9 item scale from Herek, Cogan, Gillis, and Glunt (1998), which is based on Meyer's minority stress model (1995) as well as the DSM-III-R diagnostic criteria for ego-dystonic homosexuality (American Psychological Association, 1980). The IHP-R was created to allow researchers to use the scale with a wider variety of LGBTQ+ individuals rather than only gay men. It asks respondents to rank questions

about their sexuality (e.g. “I wish I wasn’t gay/bisexual”) on a 5-point Likert-type scale ranging from “strongly disagree” to “strongly agree.” The authors of the IHP-R report strong internal reliability, internal consistency, and construct validity for measuring feelings of internalized homophobia in adults (Herek, Gillis, & Cogan, 2009).

Research Design and Data Analysis

Each research question was addressed using linear regression models. For research questions 1-3, participant’s scores on the GRRSS were used as a predictive factor for the participant’s scores on the Adult Hope Scale and the Self-Compassion Scale (Abbreviated), the NIH Anxiety Short Form and Center for Epidemiologic Studies Depression Scale, and the Revised Internalized Homophobia Scale, respectively. The scale’s total scores were calculated by totaling the participants responses of their Liker-type items, except for the Adult Hope Scale which was split into its two sub-scales (agency and pathways). Research question 4 was addressed using the Index of Relative Rurality as the predictive variable and the total score on the GRRSS as the outcome variable. County of residence, level of education, and age were all considered possible confounding variables for this population based on previous research and were therefore controlled for in each regression analysis. For the purposes of these analyses, results are considered significant if the regression model has a p-value less than .05. Coefficients, t-scores, and p-values for the predictor variables are reported. See Appendix B for descriptive statistics as well as statistical tables related to each research question.

CHAPTER III

RESULTS

Participant Sociodemographics

The final sample included 156 MSM residing in Oklahoma. Participants ranged in age from 19-69 years old, with the mean age of the sample being 35.38 with a standard deviation of 12.33. The sample was predominantly made up non-Hispanic (91%), White-identified (77.5%) men. The men were diverse in their level of education, with 14 of the men having a high school diploma, 69 having some higher education, 32 completing a bachelor's degree, and 40 men having some level of education beyond a bachelor's degree. Importantly, the participants also were geographically diverse, with 71 different Oklahoma zip codes across 17 different counties represented in the sample, which span from urban areas such as Tulsa and Oklahoma City to rural areas of the state.

Research Question 1

Research question 1 was written as follows: Does a higher score on the Gay-Related Rejection Sensitivity Scale (in both subscales) predict lower levels of positive psychological experiences including hope (measured by the Adult Hope Scale) and self-compassion (measured by the Self-Compassion Scale, Abbreviated)? It was addressed using a linear regression controlling for county of residence, level of education, and age.

Gay-related rejection sensitivity was a significant predictor of lower self-compassion (β = -.008, t = -2.403, p = .017) for the linear regression model (F= 4.021, p = .004). Additionally, increased scores on the GRRSS also predicted lower hope agency (β = -.007, t = -2.732, p = .001) in the linear regression model (F= 5.007, p = .001). Conversely, higher scores on the GRRSS did not significantly predict scores on the hope pathways scale when controlling for county of residence, level of education, and age (p = .159).

Research Question 2

Research question 2 was written as follows: Does a higher score on the Gay-Related Rejection Sensitivity Scale (in both subscales) predict higher levels of reported anxiety (as measured by the NIH Anxiety Short Form) and depression (as measured by the Center for Epidemiologic Studies Depression Scale)? This research question was addressed using a linear regression controlling for county of residence, level of education, and age. Gay related rejection sensitivity was a significant predictor of higher levels of anxiety (β = .002, t = 3.349, p = .001) in the linear regression model (F= 8.856, p < .001). Higher scores on the GRRSS also predicted higher levels of depression (β = .002, t = 3.856, p < .001) in the linear regression model (F= 7.802, p < .001).

Research Question 3

Research question 3 was written as follows: Does a higher score on the Gay-Related Rejection Sensitivity Scale (in both subscales) predict higher levels of internalized homophobia (as measured by the Revised Internalized Homophobia Scale or IHP-R)? This research question was addressed using a linear regression controlling for county of residence, level of education, and age. The regression analysis revealed that

gay related rejection sensitivity was not a significant predictor of higher levels of internalized homophobia ($p = .249$).

Research Question 4

Finally, research question 4 was written as follows: Does a participant's level of rurality (as defined by the index of relative rurality or IRR) predict a higher score on the GRRSS? The regression analysis revealed that level of rurality was not a significant predictor of higher reports of gay related rejection sensitivity ($p = .251$).

CHAPTER IV

DISCUSSION

The initial research hypothesis was partially supported by the results; a higher level of gay-related rejection sensitivity did significantly predict lower levels of self-compassion as well as lower levels of hope agency but did not predict lower levels of hope pathways. This was true even when controlling for demographic factors including race, geographic location, and level of education. These results are important for several reasons. Previous research efforts have illustrated the detrimental effects rejection-sensitivity can have, but very few have made a connection between rejection-sensitivity and positive psychological experiences. Identity-based rejection-sensitivity, such as gay-related rejection sensitivity, must reflect a social structure where certain identities are valued and others are not, and that holding a marginalized identity makes one susceptible to rejection. The threat of rejection creates a heightened level of anxiety and negative cognitions that decrease an individual's level of self-compassion as well as their motivational hope that things can change. Having these heightened fears of rejection has a negative impact on self-compassion. Individuals may be over-identifying with their negative thoughts or feelings when experiencing rejection-sensitivity, which some

theorists have proposed as a foil to cultivating self-compassion (Neff, Kirkpatrick, & Rude, 2007).

Interestingly, while a higher score on the GRRSS predicted lower scores of hope agency, a higher score on the GRRSS was not predictive of lower scores of hope pathways. In hope theory, the constructs of hope agency and hope pathways are distinct constructs. Geraghty, Wood, & Hyland (2010) define hope agency as the motivation a person might feel to move their life in a goal-oriented direction, whereas hope pathways refers to cognitive flexibility and the ability to problem-solve when making goal-oriented changes or decisions. The results of this study indicate that a higher level of gay-related rejection sensitivity impacts an individual's feelings of motivation to make change, but not their ability to overcome obstacles or creatively problem-solve when making goal-oriented decisions. This could allude to the adaptability that individuals who hold a marginalized identity in a hostile area of the country must employ to meet their needs.

Higher levels of both anxiety and depression were predicted by higher scores on the GRRSS, meaning the second hypothesis of this study was supported by the results. This result is in line with what other rejection-sensitivity researchers have found when investigating how identity-based rejection-sensitivity can impact a person's overall well-being (Feinstein, Goldfried, & Davila, 2012). These results also align with previous research in the field of positive psychology, which have indicated that positive psychological experiences can serve as buffers against experiencing mental distress. Since higher scores on the GRRSS predicted lower levels of experiencing positive psychological feelings of hope or self-compassion, it theoretically followed that individuals would experience higher levels of anxiety and depression. Additionally, an

affective sense of anxiety is integral to the definition of rejection-sensitivity as a cognitive-affective phenomenon.

Critically, the results of this study did not indicate that a higher score on the GRRSS was predictive of higher levels of internalized homophobia as measured by the IHP-R scale. While this result did not support the third hypothesis of this study, it raises some important questions about the nuanced relationship between rejection-sensitivity and internalized homophobia. Pachankis, Goldfried, and Ramrattan (2008), when creating the GRRSS, theorized that gay-related rejection sensitivity would be intimately linked with a sense of internalized homophobia. The researchers went so far as to claim that "the rejection sensitivity construct seems to particularly befit an examination of the interpersonal concerns of gay men given the role of internalized homophobia as an organizing schema that may guide the interpersonal expectations and perceptions of gay men in interactions with heterosexual others." This is especially relevant when considering the rejection experiences many LGBTQ+ people have in their own families during the coming out process. From a theoretical model, their argument is meritorious. Internalized homophobia can cause individuals to perceive or interpret ambiguous interpersonal situations as critical of their non-heterosexual orientation (Meyer, 1995), which seems to be aligned with the internalized belief aspect of rejection-sensitivity that an individual will be rejected as a result of their non-heterosexual identity. Pachankis, Goldfried, and Ramrattan (2008) did find that internalized homophobia played a mediating role in rejection sensitivity and cited understanding the mediational role internalized homophobia plays as integral to understanding their new gay-related rejection sensitivity scale.

Despite the empirical evidence which would lead the researchers of the current study to conclude that higher scores on the GRRSS would predict higher scores on the IHP-R, the results do not support that conclusion. While this is clearly an important finding, there are some potential reasons for these results. Pachankis, Goldfried, and Ramrattan (2008) used a more thorough assessment of internalized homophobia, the Internalized Homophobia Scale (IHS), in their original article. This scale is 26 items as opposed to the 5 item IHP-R used in the current study. Perhaps using the short form of the scale led to a type 2 statistical error (that is, not finding a relationship where one exists). There may have been items found in the IHS which were integral to the results of the Pachankis, Goldfried, and Ramrattan's (2008) study. The current study chose a more abbreviated scale to measure internalized homophobia for practical reasons as participants were completing a battery of assessments and researchers were concerned with participant fatigue. Additionally, one of the 5 items on the IHP-R concerns a desire to seek professional help to change an individual's sexual orientation to straight. There have been several states in recent years which have attracted national attention for legally banning so-called "conversion" therapy because it has been concluded to be unethical and potentially harmful by an overwhelming number of psychological researchers and theorists. Participants of this study may have come across this news and been exposed to the problematic nature of conversion therapy, leading them to refrain from endorsing the item on the scale despite still possibly feeling a desire or want to be straight. This is a possible psychometric issue of the IHP-R scale which may require further investigation as a result of the recent national exposure to conversion therapy bans which were not present when the IHP-R was formulated.

Next, internalized homophobia is developed as a result of living in an environment which devalues non-heterosexual identities, and a decrease in levels of subjective internalized homophobia could reflect overall national trends of increasing acceptance of LGBTQ+ identities. This is particularly salient in the current study, as Oklahoma is a mostly rural state with strong conservative beliefs, whereas Pachankis' study used urban men living in New York City in the development of the scale. It is possible, then, that men living in more rural and/or conservative parts of the country perceive internalized homophobia and gay related rejection differently. Perhaps men living in rural and conservative areas are less inclined to internalize homophobia and rejection because they are more routinely exposed to it- a possible "steeling effect" (Rutter, 2012). More research focused on internalized homophobia in geographic diverse populations will help ensure continued understanding of what barriers LGBTQ+ people are experiencing in their lives.

The results of the current study do not indicate that individuals who are living in more rural areas endorse higher levels of gay-related rejection sensitivity, which does not support the final research hypothesis. These results are important to understand, as previous researchers have indicated that gay men living in a more rural areas are less mentally healthy, often theorized to be a result of living in areas with higher levels of social conservatism and stigma against LGBTQ+ people, experiencing discrimination based on sexual orientation, or feeling isolated from the larger LGBTQ+ community (Gottschalk, 2007). Additionally, living in these environments could contribute to developing internalized homophobia as argued by Meyer (1995) and gay-related rejection sensitivity as theorized by Pachankis, Goldfried, and Ramrattan (2008).

Importantly, the results of the current study need to be evaluated in context. One possible hypothesis for these findings is that the urban areas of Oklahoma may not be significantly more accepting of gay men than the rural areas of Oklahoma, whereas the attitude difference between people in rural and urban areas of a state like New York might be much more pronounced. Additionally, MSM living in rural areas of a "blue state" such as New York benefit from statewide legislation often spearheaded by representatives of progressive urban areas, whereas rural MSM in Oklahoma do not benefit from progressive state legislation offering additional protections for their identities. These considerations would help explain why gay men in Oklahoma are experiencing gay-related rejection sensitivity in both rural and urban areas at a level that is not statistically significant different. Additionally, there have been numerous developments in social connectivity facilitated through technology in the past decade. It could be possible that more rural gay men are staying connected to the overarching LGBTQ+ community through online or electronic mediums as opposed to in-person settings. This sense of community connection which circumvents geographic location could also contribute to a decrease in the difference in experiencing gay-related rejection sensitivity in men living in rural areas as contrasted with men living in urban areas. Ultimately, more research is necessary to understand how the ongoing push for full LGBTQ+ rights on the national stage are affecting diverse geographic areas of the country, such as the state of Oklahoma.

Implications

The current findings indicate that gay related rejection sensitivity can predict higher levels of clinical concerns for mental health treatment, such as feelings of anxiety

and depression, as well as lowers protective psychological traits such as feelings of hope and self-compassion. These findings could be relevant in mental health treatment for MSM, especially when assessing for the impact that a client's environment and culture has on their mental health. Recent research articles have investigated the impact that increased societal acceptance of LGBTQ+ people has on their mental health. One recent article focused on the significant decrease in suicides in states which adopted same-sex marriage (Raifman, Moscoe, Austin, & McConnell, 2017). Continued increases in broader societal acceptance of LGBTQ+ people may decrease a person's anxiety or belief that they will be rejected based on their identity, which could impact their overall sense of wellbeing. Additionally, as more research is needed on the construct of rejection sensitivity, especially as it relates to specific identity markers. Some research has investigated how this construct affects people of color (Mendoza-Denton et. al, 2002), however there are many more marginalized identity markers which could contribute to a person's anxiety or belief that they will be rejected. Increased research on this construct could have a meaningful impact on the field of psychology, but more specifically could contribute to theories of multicultural psychology and the minority stress model.

Limitations

There were some limitations in the design of this study which should be considered when interpreting results. Firstly, most of the participants who completed the survey self-identified as white and non-Hispanic. Since these responses are from archival data, it was not possible to continue recruiting more participants to possibly have a more racially diverse group. Generalizing the results of this study to other groups or other geographic areas of the country beyond the unique state of Oklahoma should be only be

done with caution. Additionally, the researchers chose to use the 5 item IHP-R for evaluating feelings of internalized homophobia as opposed to a longer and more thorough measure such as the 26 item Internalized Homophobia Scale (IHS). This was a practical choice as the participants were completing a larger battery of assessments and the researchers wanted to be cognizant of potential burnout. Because internalized homophobia is so integral to the underlying theory of gay-related rejection sensitivity, more empirical data is needed to validate the construct as originally developed by Pachankis, Goldfried, & Ramrattan (2008), especially considering the current study did not find scores on the GRRSS to be predictive of scores on the IHP-R. Additionally, there have been many national and cultural shifts in the years since the IHP-R was published and it may be possible that the underlying theory may need to be reevaluated or the measures for the construct updated.

Further Directions and Conclusion

The current study was designed to build upon previous research focused on the concept of gay-related rejection sensitivity. Specially, researchers were interested to know if increased feelings of gay-related rejection sensitivity predicted higher levels of depression, anxiety, and internalized homophobia, lower levels of positive psychological states such as hope and self-compassion, and finally if living in more rural areas predicted higher levels of gay-related rejection sensitivity. The researchers conducted regression analyses to answer these questions and found that higher levels of gay-related rejection sensitivity do predict higher reports of feelings of depression and anxiety, as well as predict lower reports of hope agency and self-compassion. Despite some limitations of the study, these results contribute to the field of research dedicated to

improving the overall health and wellness of the MSM population. These results indicate that sexual identity-based rejection is an important part of understanding why MSM people experience higher levels of depression and anxiety than their exclusively heterosexual peers. Continued research in this area is warranted to further understand the impact gay-related rejection may have on the mental health of MSM.

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APPENDICES

APPENDIX A

EXTENDED REVIEW OF THE LITERATURE

LGBTQ History and Antecedents to Current Health Disparities

Research relating to lesbian, gay, bisexual, transgender, and queer (LGBTQ) issues is not limited only to recent publications. Starting in the late 1800's, social scientists attempted to understand and quantify issues relating to sexual/affectional orientation as well as gender identity and expression, despite pushback from others in their fields, the dominant culture, and at times even political or governmental bodies, such as the work of Havelock Ellis in England, Magnus Hirshfield in Germany, Sigmund Freud in Austria, or Alfred Kinsey in the United States (Shapiro & Powell, 2017; Hirschfeld & Rodker, 1935; Kinsey 1948). Despite this early research, most research activity reflected the interest and attitudes of the times which were generally hostile to the LGBT population, and it is only relatively recently that LGBTQ people have been even marginally accepted in the United States. To understand current disparities in health care access, utilization, and its effects on the LGBT community, it is important to acknowledge the history of social, political, and medical discrimination against LGBT people which directly contributed to the current disparities.

Sexual relationships between members of the same sex were outlawed in every state, even in private, until Illinois became the first state to repeal these restrictions in 1961 (Fradella, 2002; Kane, 2003). Seven years later in 1969, patrons of the Stonewall Inn, a mob-run facility which attracted transgender people, gay men, street youth, and lesbians rose up against the police who would routinely harass, assault, and jail them for their membership in this group, sparking an international LGBTQ movement (Arriola, 1995; Shapiro & Powell, 2017). The events which sparked the Stonewall uprising were not unique to this place and time however, for decades LGBTQ people were forced to hide their identities out of fear of being assaulted, outed, or losing their homes, families, or jobs (Arriola, 1995; Shapiro & Powell, 2017). At this time, legal protections for LGBTQ people were extremely sparse (Shapiro & Powell, 2017).

In fact, identifying as gay or acknowledging same-sex attraction was still included in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM) until the release of the DSM-III-R in 1973 (Drescher, 2015; Wilson, 1993; Shapiro & Powell, 2017). Before this time, identifying as LGBT or engaging in same-sex behaviors or divergent gender expression often resulted in forced treatment, hospitalizations, aversion therapy, and even electroconvulsive therapy (ECT) (Shapiro & Powell, 2017). After the DSM change, clinicians slowly moved to begin to acknowledge that societal stress and internalized homophobia may be contributing to mental health concerns for this population (Mayer et al., 2008). Gender dysphoria, which is a diagnosis used when working with transgender populations, is still in the DSM today (American Psychiatric Association, 2013). Knowing that the legal, cultural, and medical systems actively discriminated against their identities, LGBTQ people experienced a wide variety

of barriers when trying to access healthcare structures for both physical and mental health concerns (Mayer et al., 2008). Notably, substance abuse concerns for this population, especially alcohol abuse, may have developed out of a historical lack of safe spaces for this population besides bars or clubs (Bux, 1996).

These disparities continued throughout the following decades, despite slow but steady increasing social support the broader gay rights movement. There might be no clearer image of the disparities in access to professional health care for the LGBTQ community than when the HIV/AIDS epidemic was at its peak in the 1980's (Morison, 2001; Oster, 2005; Mayer et al., 2008). Early names for the HIV epidemic included stigmatizing language, such as "gay-related immune deficiency" (CDC 1982). The public health crisis which followed the spread of the HIV virus shed light on the various systemic ways in which LGBT lives were devalued by the culture, government, and even medical institutions of the United States (Smith, 1998). The HIV pandemic prompted researchers to more thoroughly investigate the needs of LGBTQ+ people and the ways in which they might have different experiences related to their health. Meyer's (1995) minority stress model was created in the wake of the HIV epidemic and is considered a foundational theory for understanding the unique stressors and outcomes LGBTQ+ people face.

Current Health Disparities

The Minority Stress Model.

Some of the reasons that LGBT people might have disparities in health outcomes has been attributed to the minority stress theory Meyer originally developed in 1995 for gay men, and expanded upon in 2003 to include lesbian women and bisexuals. Meyer

claims that because of their identity, minority groups (specifically LGBT people) experience increased conflict, victimization, stigma, and danger when interacting with various systems which have a history of discrimination and erasure of LGBT people, and because of this have higher levels of stress and negative mental health outcomes (Hatzenbuehler; Meyer, 1995, 2003; Mirowsky & Ross, 1989; Pearlin, 1989). Minority stress is impacted further by real or perceived deficits in social support, especially considering LGBT youth and the coming out process (Ryan, Huebner, Diaz, & Sanchez 2009; Ryan, Russell, Huebner, Diaz, & Sanchez, 2010), experiences with discrimination (Mays & Cochran, 2001), and physical or sexual violence (Feinstein, Goldfried, & Davila, 2012; McLaughlin, Hatzenbuehler, & Keyes, 2010).

Experiencing significant minority stress related events can also negatively impact physical health outcomes for the LGBT population (Lick, Durso, & Johnson, 2013; Hatzenbuehler 2014), including worse overall health outcomes as well as putting members of this community at heightened risk for specific diseases. Political or institutional discrimination (such as banning same-sex marriage in the past) has been correlated with higher rates of mental health distress and diagnoses in LGBT people (Hatzenbuehler, McLaughlin, Keyes, & Hasin, 2010; Wight, LeBlanc, & Lee Badgett, 2013), and discriminatory laws still exist in many states related to job security, housing, and other areas of life. Research in this area has been historically focused on sexual orientation while omitting gender identity, although researchers are beginning to adapt the minority stress model for the transgender community as well (Bockting, Miner, Swinburne Romine, Hamilton, & Coleman, 2013; Hendricks & Testa, 2012). Across LGBTQ populations, minority stress and its outcomes contribute to worse social

determinants of health (Fredriksen-Goldsen et al., 2014; Logie 2012; Marmot et al., 2008; World Health Orginization, 2010). Avoiding a potentially stigmatizing or hostile interaction (in other words, avoiding minority stress) as a result of interacting with a historically heterosexist system, such as the medical system, could help explain some of the current disparities in health care LGBT people experience.

Current Access to Care

Although stigma and discrimination undoubtedly contribute to health disparities and are both integral aspects of the minority stress model, access to care has more dimensions which can pose barriers to access for the LGBTQ+ population. LGBTQ+ persons are at a higher risk for living in poverty than those who identify as heterosexual according to the Williams Institute (Lee Badgett, Durso, & Schneebaum, 2013). LGB people are also more likely to uninsured or unemployed than heterosexual people, and transgender individuals are more likely to be uninsured than all cisgender people (including those who identify as LGB), which limits this subsection of LGBTQ+ people from accessing potentially expensive medical interventions or treatments (Daniel & Butkus, 2015). Because of the high cost of treatment, more than 50% of people who identify as trans have used attempted to self-deliver hormone therapy without the aid of a physician or using hormones obtained through illegal means (Daniel & Butkus, 2015). Each group under the LGBTQ+ umbrella term may have different wants and needs from their medical providers. For example, gay men may have more need for HIV/AIDS related interventions, whereas trans people may be seeking more services related to biological transition. Other intersectional identities, such as having multiple minority identities, may also contribute to a real or perceived lack of access to a competent

provider (Malebranche, Peterson, Fullilove, & Stackhouse, 2004)

LGBTQ+ community health centers often offer low or not cost health-related services for members of the local community such as HIV screenings and services, counseling, or substance use programs (Martos, Wilson, & Meyer, 2017). However, these community health centers are predominantly located in coastal states near highly concentrated LGBTQ+ populations, and in fact 13 states are completely devoid of any such specialized community health services (Martos, Wilson, & Meyer, 2017). This does not mean that LGBTQ+ individuals living in these states cannot find competent care through other interventions or systems, but it does highlight the potential struggles that LGBTQ+ people living in these states may experience when attempting to access competent and affirming care.

Recent literature

Considering the theoretical, historical, and research base, the United States Department of Health and Human Services included lesbians and gay men as a population group experiencing health disparities in Healthy People 2010: Understanding and Improving Health (2000) and again in their Healthy People 2020 goals (2010). In addition, The American College of Physicians has also called for research investigating health disparities that disproportionately affect the LGBTQ community (Daniel & Butkus, 2015). Johnson (2013) argues that psychologists must expand their research focuses to include health outcomes as well as disparities. Historically there has been a deficit of research in LGBT health; Boehmer (2002) found that literature focusing upon LGBT health comprised only 0.1% of all articles published in MEDLINE from 1980-1999. In addition, over half of those article focused upon HIV and STDs in men who

have sex with men (MSM) (Boehmer, 2002). Only ten years ago, Mayer et al. (2008) argued that because of the historical barriers to care the LGBT population has face over time, that "clinicians and public health researchers are only now learning about the range of health disparities and unique clinical issues affecting LGBT people."

Since the 2000's researchers have conducted studies in various health related fields in order to better understand the specific ways in which LGBT persons experience health disparities. Researchers in this area have discovered that LGBT people are at a higher risk for both certain physical and mental health concerns (Cochran & Mays, 2007; Cochran, Mays, & Sullivan, 2007). Sexual minorities (LGB) are more likely to have a disability and more likely to have an earlier onset of a disability (Fredriksen-Goldsen, Kim, & Barkan, 2012). LGBT people in general are more likely than the general population to have psychiatric diagnoses (McLaughlin, Hatzenbuehler, & Keyes, 2010; McLaughlin, Hatzenbuehler, Xuan, & Conron, 2012; Cochran, Mays, & Sullivan, 2003), substance abuse concerns (Boehmer, Miao, Linkletter, & Clark, 2012; McCabe, Hughes, Bostwick, West, & Boyd, 2009; Hughes & Eliason, 2002), and suicidal ideation/behavior (Haas et al., 2010; Halady, 2013; Mereish, O'Cleirigh, & Bradford, 2014).

Of course, with the term LGBT being an umbrella term, not each of the populations under this umbrella term experience health disparities in the same ways. While researchers are beginning to understand that the LGBT community is at higher risk for physical and psychiatric diagnoses, it is useful to break down which issues are more prevalent for the different groups under this umbrella. Because physical and mental health are often correlated, disparities in both of these realms of wellness will be discussed.

Gay men and health issues. According to the Center for Disease Control and Prevention (CDC), men who have sex with men (MSM) account for 56% of the 1.1 million people living with HIV in the United States, despite MSM to be only 4% of the males in the country, the CDC estimates (CDC, 2017). The CDC also reports that people of color are at increased risk for HIV exposure, and young black men aged 13-24 are currently at the highest risk. The CDC also claims that social stigma and substance use increase risk for contracting HIV, which previous researchers have indicated are prevalent issues for this community (Boehmer, Miao, Linkletter, & Clark, 2012; McCabe, Hughes, Bostwick, West, & Boyd, 2009). Beyond HIV, gay men are also at higher risk for other physical health concerns than heterosexual men. For example, since gay men are more likely to engage in substance use, including alcohol and tobacco, they may have more risk for consequences of drug use such as various cancers, cardiovascular diseases, respiratory illnesses, and other illnesses commonly associated with tobacco, alcohol, and other drug use (Ostrow, & Stall, 2008).

Mental health disparities also exist for gay men when compared to heterosexual men. Researchers have found support that gay men experience depression and anxiety disorders, substance use, suicidal thoughts, and self-harm more than heterosexual men (Gilman et al., 2001; Cochran, Mays, & Sullivan, 2003; King et al., 2008). In a 2017 study, Lee, Oliffe, Kelly, and Ferlatte reported that gay men are three times more likely than heterosexual men to experience depression, which is also a risk factor for suicide and supports previous research on this topic (King et al., 2008). Gay men are also at a greater risk than heterosexual men for body image concerns or distress, especially if they

have been exposed to great minority stress factors such as internalized homophobia, stigma for being gay, or experiences of physical aggression (Kimmel & Mahalik, 2005).

Bisexual people and health issues. Historically there have been few research studies published which focus exclusively on bisexual health. This is an important emerging area of research, as many researchers have noted that bisexual identified individuals face specific health issues separate from not only the general population but also different from the rest of the queer community. Bisexual women often report overall lower physical health than heterosexual women, including higher incidences of reporting several health problems, including digestive complaints, back problems, and chronic fatigue syndrome (Cochran & Mays, 2007) In one national sample, bisexual women were found to be at a greater risk for obesity than straight women (Ward, Dahlhamer, Galinsky, & Joestl, 2014).

In terms of mental health disparities, many researchers have come to the conclusion that bisexuals experience a greater amount of distress than those who identify as lesbian or gay (Burns, Ryan, Garofalo, Newcomb, & Mustanski, 2015; Kerr, Santurri, & Peters, 2013). Bisexual youth were more likely to have a PTSD diagnosis than other sexual minority youth in a study conducted by Burns et al. (2015). In a national study conducted by Ward, Dahlhamer, Galinsky, & Joestl (2014), 11% of 18-64 year old bisexual people reported that they experienced serious psychological distress in the past 30 days. Bisexuals also reported an even higher frequency of alcohol and tobacco use than those who identified as lesbian or gay in the same national survey (Ward, Dahlhamer, Galinsky, & Joestl, 2014). Bisexual women are more likely to have experienced depression, anxiety, anger, suicidal ideation and suicide behaviors when

compared to both heterosexual identified women as well as lesbian women (Bostwick et al., 2010; Kerr, Santurri, & Peters, 2013). Bisexual women experience a higher amount of disordered eating behaviors when compared to heterosexual women (Koh & Ross, 2006).

Trans people and health issues. Trans issues are only recently beginning to receive attention in research, and there is still a deficit of information about how health disparities affect this population. Stromusa (2014) notes the significant barriers that trans people face when trying to access affirming health care. In 2011, Grant et al. published a comprehensive overview of the outcomes of the National Transgender Discrimination Survey, which aimed to explore the ways in which those who identify as trans might experience minority stress and discrimination. The researchers found that 41% of trans people had attempted suicide at some point compared to the national average of 1.6%. Other estimates of trans suicide rates also show that this population is at serious risk for suicidal ideation and behaviors (Clements-Nolle, Marx, & Katz, 2006; Grossman, & D'augelli, 2007). According to Grant et al. (2011), the rates of trans people who had a suicide attempt increased for those individuals who had also experienced additional minority stress events such as losing a job to bias (55%), were bullied or harassed (51%), or experienced sexual assault (64%). This sample was also more than 4 times more likely to be living off of less than 10,000$ a year than the general population and had double the rate of unemployment. Trans people also reported being HIV positive at 4 times the national average, with trans people of color being at even higher risk (Grant et al., 2011; Herbst et al., 2008). 50% of responders claimed to have taught their doctor about issues specific to trans health. Because of these various issues, Reisner et al. (2015) support the Fenway Model as one way of providing gender affirming, comprehensive, clinical care

for trans people. Avera, Zholu, Speedlin, Ingram, & Prado (2015) also support using a wellness model with this population going forward.

Trans people are also at risk for a variety of mental health issues when compared to cisgender (non-trans) people. In a national study of trans people in the United States, trans people reported high rates of clinical depression (44% of the sample), anxiety (33% of the sample), and somatization (27.5% of the sample) (Bockting, et al., 2013). Because trans people often see seeking health care services as potentially dangers or stigmatizing, 52% of trans people reported psychological distress in the past year which they did not seek mental health service for (Shipherd., Green, & Abramovitz, 2010). Su et al. (2016) report that compared to LGB individuals, people who identify as trans were more likely to report discrimination (a cause of minority stress), symptoms of depression, and suicide attempts. Since research on minority stress theory has been historically focused on the LGB populations and less often on trans populations, more research is needed to understand how trans people experience mental health.

Rural LGBT issues. All rural people, not only those in the LGBT community, face barriers to accessing mental health service and experience higher rates of mental health issues such as depression, substance abuse, and domestic violence (Smalley et al., 2010). These disparities between rural and urban health also hold true for LGBTQ+ people living in rural areas, and it is critically important to acknowledge that many LGBTQ+ people living in rural areas may have different needs than those living in an urban area (Eberhardt & Pamuk, 2004). LGBT people living in a rural area are often overlooked in research and may be a harder to reach population to recruit for research studies (Johnson, & Gatlin, 2017). Of the recent research available, many of the researchers have focused

solely on men and sexual health topics (Johnson, & Gatlin, 2017). However, many researchers in this area find that living in a rural area presents a variety of barriers for LGBT people to access healthcare, including mental health services (Willging, Salvador, & Kano, 2006; 2006).

Researchers note that rural areas are commonly associated with traditional gender roles, heteronormativity, conservatism, and religious fundamentalism, and rural residents often report negative perceptions of LGBT people (Barefoot, Rickard, Smalley, & Warren, 2015; Barton, 2012). These areas often do not have any LGBT specific health care options where a person in this community could anticipate an experience free of stigma (Martos, Wilson, Gordon, Lightfoot, & Meyer, 2018) Anticipating or experiencing stigma related to an LGBT related identity is an aspect of minority stress which can be a barrier for some LGBT people to access health care, especially those who identify as trans or non-binary, and those in rural areas might be more likely to anticipate such stigma (Currin et al., 2018; Whitehead, Shaver, & Stephenson, 2016). Mental health disparities exist between those in the LGBTQ+ community who live in urban areas and those who live in rural areas, often as a result of living in a more hostile environment towards holding an LGBTQ+ identity (Barefoot, Rickard, Smalley, & Warren, 2015; Horvath, Iantaffi, Swinburne-Romine, & Bockting, 2014; Willging, Salvador, & Kano, 2006). These differences could be linked to social determinates of health such as being less open about their LGBTQ+ identity, being less accepting of their own identity, and having a lower social engagement (Fisher, Irwin, & Coleman, 2014). Rural LGBTQ+ reported significantly more elevation on a depression assessment than their urban peers (Fisher, Irwin, & Coleman, 2014). Trans male individuals in rural areas report higher

scores on generalized distress, depression, and somatization scores than those in urban areas (Horvath et al., 2014). Although there is strong evidence that LGBTQ+ people in rural areas have specific mental health needs, the research on this population to date is limited and more investigation needs to be done to fully understand how rural LGBTQ+ people experience mental health concerns.

Measuring Rurality. There are varying perspectives on how to measure rurality presented in the literature, from simply looking at population size (Oswald & Culton, 2003; Oswald & Masciadrelli, 2008), using the United States Census Bureau classifications (Rowan, Giunta, Grudowski, & Anderson, 2013; Wienke & Hill, 2013), or zip code (Fisher, Irwin, & Coleman, 2014). However, there are various concerns which are addressed as limitations when operationally defining rurality in this way, including arbitrary cut offs for different categories or lacking nuance in subtle difference, which is why Wladorf (2007) has suggested using the Index of Relative Rurality (IRR) to allow for more discretion and richness when evaluating an area's level of rurality. This is done by assigning an area an index value ranging from the most urban to most rural (0-1) based on population size, density, distance to metropolitan areas, and percentage of urban residents. The IRR has been used in recent publications with a focus on LGBT people (Hubach et al., 2015; Johnson, & Gatlin, 2017).

Rejection Sensitivity

A desire for acceptance and a desire to avoid rejection was identified as an underlying motive for human behavior over 80 years ago (Horney, 1937) and discussed at length by humanistic psychologists (Maslow, 1987; Rogers, 1959). There have been numerous psychological researchers who have examined reactions to an experience of

rejection. Many of these researchers have concluded that experiencing rejection leads to participants feeling depressed, angry, or jealous (Buckley, Winkel, & Leary, 2004; Leary, Koch, & Hechenbleikner, 2001; Smart-Richman & Leary, 2009). Meta-analyses of rejection research have helped researchers find patterns when participants experience rejection. In their meta-analysis of rejection literature, Gerber & Wheeler (2009) claim that "rejection frustrates basic psychological needs" and that "rejection makes individuals feel bad [and] ready to act to restore control or belonging."

Because experiencing rejection is often perceived as psychologically painful, some individuals develop a sensitivity to rejection experiences categorized by anxious anticipation or belief that they will be rejected in various social interactions. This is known as "rejection sensitivity," which is a cognitive-affective processing disposition that can have negative implications for mental health, as claimed by Downey & Feldman (1996) in an influential article detailing how rejection sensitivity affects intimate relationships. Over the past 2 decades there have been a wealth of literature detailing the impacts rejection sensitivity can have on a person's functioning and interpersonal relationships (London, Downey, Bonica, & Paltin, 2007; Mendoza-Denton et. al, 2002; Park, 2007; Pietrzak, Downey, & Ayduk, 2005, Watson & Nesdale, 2012). Importantly, this construct has been evaluated more recently as it relates to those in the LGBTQ+ communities and how sensitivity to rejection intersects with an LGBTQ+ identity.

Pachankis, Goldfried, & Ramrattan (2008) extended the construct of rejection sensitivity to better understand the mental health and interpersonal functioning of gay men. The authors argued this was a necessary extension of the construct, as gay men experience higher rates of "social anxiety, such as fear of negative evaluation and social

avoidance and distress," and hypothesize that these increased levels of anxiety are as a response to the unique stressors gay men face as "devalued and sometimes rejected members of society" (2008). These findings were replicated and built upon by several researchers who investigated the various, unique ways in which gay-related rejection sensitivity can negatively impact the health of gay men (Denton, Rostosky, & Danner, 2014; Feinstein, Goldfried, & Davila, 2012; Pachankis, 2014; Pachankis, Hatzenbuehler, & Starks, 2014).

To better understand these experiences, Pachankis, Goldfried, & Ramrattan (2008) developed the Gay-Related Rejection Sensitivity Scale (GRRSS). The scale presents respondents with 14 items based on hypothetical scenarios (e.g. Some straight colleagues are talking about baseball. You force yourself to join the conversation, and they dismiss your input) and asks the respondents to evaluate the scenario based on how anxious/concerned they would feel that the scenario occurred because they were gay, as well as how likely they believe the scenario occurred because they were gay. After conducting a factor-analysis on the items of the scale, the researchers found "that the data were adequately fit with a one-factor solution accounting for 46.35% of the variance" (Pachankis, Goldfried, & Ramrattan, 2008). Cronbach's alpha for the items was .91, showing high internal consistency. The authors also established convergent and discriminant validity of the GRRSS by comparing it to scales measuring related constructs. The researchers determined the measure to be valid and a useful tool for understanding how men experience gay-related rejection sensitivity. The importance of ongoing use of this scale to quantify rejection-sensitivity for gay men is summarized by the authors, who "found that rejection of an important aspect of one's self is associated

with unfortunate internal and interpersonal consequences, potentially shifting someone's experience of self, others, and everyday life" (Pachankis, Goldfried, & Ramrattan, 2008).

The Positive Psychology Perspective

Some theorists have identified positive psychological factors relevant to an LGBTQ+ identity which should not be overlooked despite the empirical evidence which supports the psychological and health effects minority stress can have on the lives of LGBTQ+ people. Some researchers go so far as to claim that "strengths that could be ascribed to the LGBT experience have been overlooked within training and practice" (Lytle, Vaughan, Rodriguez, & Shmerler 2014) in favor of a hyper-focus on the minority stress model. In fact, some researchers have fundamentally changed how they choose to examine the field of psychology in response to a desire to emphasize adaptive or growth-fostering aspects of the human experience rather than the stressful or negative. This branch of psychological research has thus been appropriately dubbed "positive psychology," which is based on a core focus "to recognize the importance of complementary, alternative perspectives on the human experience that do not pathologize individuals' experiences, beliefs and actions while helping them focus on their strengths" (Seligman & Csikszentmihalyi, 2000). The positive psychology movement has adopted a three-pillar model to emphasize strengths in individuals. The three pillars are listed as: positive subjective experiences, character strengths, and positive social institutions. Positive subjective experiences are experiences which an individual perceives as growth fostering, enjoyable, or meaningful. These experiences can happen in everyday life as well as a therapeutic setting. Character strengths are defined as personality traits or individual characteristics which are adaptive and healthy, such as having a good work

ethic, for example. Importantly, character strengths are not seen as innate or unchangeable and it is possible for someone to further develop their strengths. Finally, positive social institutions facilitate expression and contact with these character strengths to encourage positive subjective experiences.

Lytle et al (2014) have expanded on the positive psychology model to include ways in which positive psychologists can incorporate the concept of minority stress while still maintaining a strengths-based perspective. The researchers incorporate these three pillars into the minority stress model in the following way:

> "individual-level strengths (e.g., character strengths and subjective positive experiences), along with community-level strengths (e.g., LGBT-affirming positive social institutions) can serve to neutralize the negative impacts of minority stress – thus creating a positive subjective experience of resilience."

While rurality might be a barrier for individuals to experience those community-level strengths that the authors mention, each individual person may be able to cultivate character strengths in order to build psychological resilience. Two critical positive psychological strengths which have been identified in the literature are hope and self-compassion.

Hope

The construct of hope has been the subject of intensive psychological research over the past 3 decades, including the introduction of "hope theory" by Snyder, Rand, and Sigmon (2002). While hope theorists address many aspects of individual functioning using the construct of hope, they also emphasize the role that hope plays in a positive

psychological framework. Snyder claims that previous research efforts to evaluate a series of hope scales (including the Children's Hope Scale, the Trait Hope Scale, and the State Hope Scale) demonstrate that hope is positively correlated with positive affect and negatively correlated with negative affect (Snyder, Hoza, et. al, 1997; Snyder, Rand, & Sigmon, 2002). The outcomes increasing personal feelings of hope include "having elevated feelings of self-worth and low levels of depression" (Snyder, Hoza, et al., 1997; Snyder et al., 1996) and "feeling more inspired, energized, confident, and challenged by goals" (Snyder, Harris, et al., 1991).

The Adult Hope Scale (AHS) is a scale used to measure feelings of hope in individuals over the age of 18. It is a 12 item scale which is broken into two subscales (hope agency and hope pathway, which investigate a respondent's sense of goal directed energy and goal directed planning, respectively) based on Snyder's cognitive model of hope as well as hope theory. Each item is rated using an 8 point Likert-type scale by the participant, spanning from "definitely false" to "definitely true." The authors claim that "the psychometric characteristics of the Hope Scale suggested that it possesses acceptable internal consistency and temporal stability" and that "studies on convergent validity reveal a pattern of predicted correlations with concepts that are similar to the theorized process of hope" (Snyder, Harris, et. al, 1991). Babyak, Snyder, & Yoshinobu (1993) conducted a two-factor analysis on the measure, as well as other psychometric tests, further supporting its use in measuring hope in adults.

Self-Compassion

Self-compassion is defined by Neff (2003a) as "being open to and moved by one's own suffering, experiencing feelings of caring and kindness toward oneself, taking an

understanding… and recognizing that one's experience is part of the common human experience." It has since been identified by psychological researchers as important in buffering against painful psychological experiences and increasing an individual's sense of overcoming adversity (Leary et. al, 2007; MacBeth, & Gumley 2012; Neff, Kirkpatrick, & Rude, 2007). Self-compassion has also been reported to be significantly correlated with positive mental health outcomes such as lower levels of depression and anxiety (Neff 2003a; Neff 2003b).

Considering self-compassion can act as such a strong factor in overcoming adversity, it is important to be able to measure it in research in a reliable and valid way. Neff (2003a, Neff 2016) created the Self-Compassion Scale (SCS) for this purpose. While this scale came under some scrutiny in the years following its publishing in 2003, the author of the scale published a follow-up article systematically defending both the scale's validity and theoretical coherency (Neff, 2016). The scale is a 26 item scale based on a six-factor model including self-kindness versus self-judgment, common humanity versus isolation, and mindfulness versus over-identification. A confirmatory factor analysis found the data fit adequately well (NNFI = .90; CFI = .91), with factor loadings significantly differing from zero ($p < .001$; Neff 2003a). The measure was also determined to have high construct validity when compared to measures evaluating similar constructs.

APPENDIX B

Result Tables

Table B1

Descriptive Statistics of Participant Demographics (N = 156)

Variable	Frequency (n)	Percent(%)
Gender		
Male	154	98.7
Transgender (Male to Female)	2	1.3
Sexual Orientation		
Heterosexual/Straight	1	.6
Mostly Heterosexual	1	.6
Bisexual	7	4.5
Mostly Gay	11	7.1
Gay	136	87.2
Relationship Status		
In a committed relationship	24	15.4
In a domestic relationship	34	21.8
Married to a man	29	18.6
Married to a woman	1	.6
Single	61	39.1
Separated	2	1.3
Divorced	2	1.3
Widowed	3	1.9
Race		
White (Not Hispanic)	121	77.6
Black/African American	4	2.6
Asian/Pacific Islander	1	.6
American Indian/Alaskan Native	17	10.9
Another Race	7	4.5
Biracial/Multiracial	6	3.8
Education		
No GED	1	.6
High School or GED	14	9
Some College/AA degree/Technical School	69	44.2
Undergraduate Degree	32	20.5
Some Graduate School	10	6.4
Master's Degree	25	16
Doctoral/Medical/Law degree	5	3

County of Residence		
Tulsa	67	42.9
Cleveland	24	15.4
Washington	22	14.1
Wagoner	11	7.1
Comanche	9	5.8
Woodward	5	3.2
Stephens	4	2.6
Sequoyah	3	1.9
Pottawatomie	2	1.3
McIntosh	2	1.3
Logan	1	.6
Seminole	1	.6
Okfuskee	1	.6
Washita	1	.6
Tillman	1	.6
Major	1	.6
Grant	1	.6
Age		
Range: 19-69, M=35.385, SD=12.334, N=156		
19	4	2.6
20	3	1.9
21	6	3.8
22	4	2.6
23	10	6.4
24	4	2.6
25	5	3.2
26	6	3.8
27	5	3.2
28	8	5.1
29	7	4.5
30	5	3.2
31	4	2.6
32	7	4.5
33	2	1.3
34	8	5.1
35	9	5.8
36	7	4.5
37	1	.6
38	3	1.9
39	3	1.9
40	2	1.3
41	4	2.6
42	2	1.3
43	1	.6
45	4	2.6
47	1	.6

48	4	2.6
49	3	1.9
50	2	1.3
51	3	1.9
52	3	1.9
53	1	.6
55	2	1.3
57	1	.6
59	2	1.3
62	1	.6
63	5	3.2
66	1	.6
67	2	1.3
69	1	.6
Total	156	100

Table B2
Regression Coefficients for GRRSS predicting Hope (Agency)

Variable	*B*	*SE B*	β	*t*	*p*
Constant	20.158	2.114		9.535	.000
Age	.016	.030	.042	.533	.595
Education	.808	.275	.233	2.941	.004
Level of Rurality	5.749	3.503	.127	1.641	.103
GRRSS Score	-.007	.003	-.212	-2.732	.007

Table B3
Regression Coefficients for GRRSS predicting Hope (Pathways)

Variable	*B*	*SE B*	β	*t*	*p*
Constant	24.496	1.865		13.136	.000
Age	.020	.242	.062	.752	.453
Education	-.001	.242	.000	-.006	.995
Level of Rurality	2.828	3.090	.074	.915	.362
GRRSS Score	-.005	.002	-.193	-2.389	.018

Table B4
Regression Coefficients for GRRSS predicting Self-Compassion

Variable	*B*	*SE B*	β	*t*	*p*
Constant	17.489	2.722		6.425	.000
Age	.119	.039	.245	3.046	.003
Education	.050	.354	.011	.142	.887
Level of Rurality	7.865	4.510	.137	1.744	.083
GRRSS Score	-.008	.003	-.189	-2.403	.017

Table B5
Regression Coefficients for GRRSS predicting Anxiety

Variable	*B*	*SE B*	β	*t*	*p*
Constant	3.965	.409		9.685	.000
Age	-.021	.006	-.277	-3.629	.000
Education	-.088	.053	-.126	-1.656	.100
Level of Rurality	-2.164	.678	-.237	-3.191	.002
GRRSS Score	.002	.001	.249	3.349	.001

Table B6
Regression Coefficients for GRRSS predicting Depression

Variable	*B*	*SE B*	β	*t*	*p*
Constant	1.895	.364		5.214	.000
Age	-.017	.005	-.254	-3.292	.001
Education	-.030	.047	-.048	-.626	.532
Level of Rurality	-1.739	.602	-.217	-2.887	.004
GRRSS Score	.002	.000	.290	3.856	.000

Table B7
Regression Coefficients for GRRSS predicting Internalized Homophobia

Variable	*B*	*SE B*	β	*t*	*p*
Constant	8.824	1.944		4.539	.000
Age	-.025	.028	-.076	-.910	.364
Education	.095	.253	.031	.375	.708
Level of Rurality	-3.220	3.221	-.081	-1.000	.319
GRRSS Score	.005	.002	.165	2.034	.044

Table B8
Regression Coefficients for IRR predicting GRRSS

Variable	*B*	*SE B*	β	*t*	*p*
Constant	210.465	63.824		3.297	.001
Age	1.744	.938	-.153	1.859	.065
Education	-10.108	8.552	-.098	-1.182	.239
Level of Rurality	-1.258	109.499	-.001	-.011	.991

APPENDIX C

MEASURES

Demographics Questionnaire

1. How old are you?
    - [Text Box]
2. What is your ethnicity?
    - Hispanic
    - Not of Hispanic Origin
3. What is your race?
    - Black/African American
    - White
    - Asian/Pacific Islander
    - American Indian/Alaskan Native
    - Another Race/Ethnicity
    - Biracial/Multiracial
    - Decline to Answer
4. What is the highest level of education you have completed?
    - No formal education
    - Highschool or GED
    - Some College/AA degree/Technical School Train

- College Graduate (BA/BS)
- Some graduate school
- Master's Degree
- Doctorate/Medical/Law Degree
- Decline to answer

5. Are you: (Select one)
    - Male
    - Female
    - Transgender (male to female)
    - Transgender (female to male)
6. During the last 12 months, what was your total personal income from all sources? (Select one)
    - $10,000 or less
    - $10,001 to $20,000
    - $20,001 to $40,000
    - $40,001 to $60,000
    - $60,001 to $80,000
    - Over $80,000
    - Decline to Answer
7. Describe your relationship status (Select one).
    - In a committed relationship (not married and not living together)
    - In a domestic relationship (living with committed partner)
    - Married to a Man

- Married to a Woman
- Single/never married/Never in a long term committed relationship
- Separated
- Divorced
- Widowed
- Other
- Decline to answer

8. How long have you been in the relationship? (if indicated)
    - Less than 6 months
    - More than six months to 1 year
    - More than 1 year to 3 years
    - More than 3 years to 10 years
    - More than 10 years
9. What is your zipcode?
    - [textbox]
10. What COUNTY do you live in? (ex: STILLWATER is in PAYNE county)
    - [drop-down list of counties in Oklahoma to select]
11. Do you have sex with men?
    - No
    - Yes
12. Do you have sex with women?
    - No
    - Yes

13. Select from the following list the term that best describes your sexual orientation:
    - Heterosexual
    - Mostly heterosexual
    - Bisexual
    - Mostly gay
    - Gay

Gay-Related Rejection Sensitivity Scale (GRRSS)

All bulleted items are measured on a 6-point Likert-type scale (For **anxiety** questions: 1 = very unconcerned, 6 = very concerned; for **belief** questions: 1 = very unlikely, 6 = very likely))

1. You bring a male partner to a family reunion. Two of your old-fashioned aunts don't come talk to you even though they see you.
    - How concerned or anxious would you be that they don't talk to you because of your sexual orientation?
    - How likely is it that they didn't talk to you because of your sexual orientation?
2. A 3-year old child of a distant relative is crawling on your lap. His mom comes to take him away.
    - How concerned or anxious would you be that the mom took him away because of your sexual orientation?
    - How likely is it that the mom took him away because of your sexual orientation?

3. You've been dating someone for a few years now, and you receive a wedding invitation to a straight friend's wedding. The invite was addressed only to you, not you and a guest.
    - How concerned or anxious would you be that the invite was addressed only to you because of your sexual orientation?
    - How likely is it that the invite was addressed only to you because of your sexual orientation?
4. You go to a job interview and the interviewer asks if you are married. You say that you and your partner have been together for 5 years. You later find out that you don't get the job.
    - How concerned or anxious would you be that you didn't get the job because of your sexual orientation?
    - How likely is it that you didn't get the job because of your sexual orientation?
5. You are going to have surgery, and the doctor tells you that he would like to give you an HIV test.
    - How concerned or anxious would you be that he gave you an HIV test because of your sexual orientation?
    - How likely is it that he gave you an HIV test because of your sexual orientation?
6. You go to donate blood and the person who is supposed to draw your blood turns to her co-worker and says, "Why don't you take this one?"

- How concerned or anxious would you be that she asked her co-worker to draw your blood because of your sexual orientation?
- How likely is it that asked her co-worker to draw your blood because of your sexual orientation?

7. You go get an STD check-up, and the man taking your sexual history is rude towards you.
    - How concerned or anxious would you be that he is rude towards you because of your sexual orientation?
    - How likely is it that he is rude towards you because of your sexual orientation?
8. You bring a guy you are dating to a fancy restaurant of straight patrons, and you are seated away from everyone else in a back corner of the restaurant.
    - How concerned or anxious would you be that you were seated there because of your sexual orientation?
    - How likely is it that you were seated there because of your sexual orientation?
9. Only you and a group of macho men are on a subway train late at night. They look in your direction and laugh.
    - How concerned or anxious would you be that they are laughing at you because of your sexual orientation?
    - How likely is it that they are laughing at you because of your sexual orientation?

10. You and your partner are on a road trip and decide to check into a hotel in a rural town. The sign out front says there are vacancies. The two of you go inside, and the woman at the front desk says that there are no rooms left.
    - How concerned or anxious would you be that she lied to you because of your sexual orientation?
    - How likely is it that she lied to you because of your sexual orientation?
11. 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 no one talks to you because of your sexual orientation?
    - How likely is it that no one talked to you because of your sexual orientation?
12. You are in a locker room in a straight gym. One guy nearby moves to another area to change clothes.
    - How concerned or anxious would you be that he moved to another area to change because of your sexual orientation?
    - How likely is it that he moved to another area to change because of your sexual orientation?
13. Some straight colleagues are talking about baseball. You force yourself to join the conversation, and they dismiss your input.
    - How concerned or anxious would you be that they dismissed your input because of your sexual orientation?

- How likely is it that they dismissed your input because of your sexual orientation?

14. Your colleagues are celebrating a co-worker's birthday at a restaurant. You are not invited.
    - How concerned or anxious would you be that they did not invite you because of your sexual orientation?
    - How likely is it that they did not invite you because of your sexual orientation?

Adult Hope Scale

Each item is rated on a 1-8 Likert-type scale

Instructions: Read each item carefully. Using the scale shown below, please select the number that best describes YOU:

(1 = Definitely False, 2 = Mostly False, 3 = Somewhat False, 4 = Slightly False, 5 = Slightly True, 6 = Somewhat True, 7 = Mostly True, 8 = Definitely True).

1. I can think of many ways to get out of a jam.
2. I energetically pursue my goals.
3. I feel tired most of the time.
4. There are lots of ways around any problem.
5. I am easily downed in an argument.
6. I can think of many ways to get the things in life that are important to me.
7. I worry about my health.
8. Even when others get discouraged, I know I can find a way to solve the problem.

9. My past experiences have prepared me well for my future.
10. I've been pretty successful in life.
11. I usually find myself worrying about something.
12. I meet the goals that I set for myself.

Self-Compassion Scale, Abbreviated

Self-Compassion Scale – Abbreviated (Likert 1 – not at all like me, 2 – unlike me, 3 – Sometimes like me, 4 – like me, 5-very much like me)

In answering the following questions please be honest and accurate, and trust your first response. Rate your responses below:

(Likert type answers; 1 = not at all like me, 2 = unlike me, 3 = Sometimes like me, 4 = like me, 5 = very much like me)

1. When times are really difficult, I tend to be tough on myself.
2. When I screw up, I try to remind myself that other people make mistakes.
3. I'm disapproving and judgmental about my own flaws and inadequacies.
4. I try to be kind to myself when I'm feeling emotional pain.
5. When I'm down, I remind myself that there are lots of other people in the world feeling like I am.
6. When I'm really struggling, I tend to feel like other people must be having an easier time of it.
7. When I fail at something that's important to me, I tend to feel alone in my failure.
8. I try to be understanding and patient toward the parts of my personality I don't like

NIH Anxiety Short-Form

(Never = 1, Rarely = 2, Sometimes = 3, Often = 4, Always = 5)

In the past 7 days….

1. I felt uneasy
2. I felt nervous
3. Many situations made me worry
4. My worries overwhelmed me
5. I felt tense
6. I had difficulty calming down
7. I had sudden feelings of panic
8. I felt nervous when my normal routine was disturbed.

Center for Epidemiologic Studies Depression Scale – Revised (CESD-R)

Instructions: Below is a list of the ways you might have felt or behaved. Please circle the boxes to indicate how often you have felt this way in the past week or so.

(0 = Not at all or less than 1 day, 1 = 1-2 days, 2 = 3-4 days, 3 = 5-7 days, 4 = Nearly every day for 2 weeks)

1. My appetite was poor.
2. I could not shake off the blues.
3. I had trouble keeping my mind on what I was doing.
4. I felt depressed.
5. My sleep was restless.

6. I felt sad.
7. I could not get going.
8. Nothing made me happy.
9. I felt like a bad person.
10. I lost interest in my usual activities.
11. I slept much more than usual.
12. I felt like I was moving too slowly.
13. I felt fidgety.
14. I wished I were dead.
15. I wanted to hurt myself.
16. I was tired all the time.
17. I did not like myself.
18. I lost a lot of weight without trying to.
19. I had a lot of trouble getting to sleep.
20. I could not focus on the important things.

Revised Internalized Homophobia Scale (IHP-R)

(5-point response scale ranging from 1 (disagree strongly) to 5 (agree strongly).

1. I wish I weren't gay/bisexual.
2. I have tried to stop being attracted to men in general.
3. If someone offered me the chance to be completely heterosexual, I would accept the chance.
4. I feel that being gay/bisexual is a personal shortcoming for me.

5. I would like to get professional help in order to change my sexual orientation from gay/bisexual to straight.

APPENDIX D

Oklahoma State University Institutional Review Board

Date:	04/15/2019
Application Number:	ED-19-45
Proposal Title:	The impact of Gay-Related Rejection Sensitivity on Mental Health
Principal Investigator:	Brendon Glon
Co-Investigator(s):	
Faculty Adviser:	Tonya Hammer
Project Coordinator:	Randolph Hubach
Research Assistant(s):	
Processed as:	Not Human Subjects Research

Status Recommended by Reviewer(s): Closed

Based on the information provided in this application, the OSU-Stillwater IRB has determined that your project does not qualify as human subject research as defined in 45 CFR 46.102 (d) and (f) and is not subject to oversight by the OSU IRB. Should you have any questions or concerns, please do not hesitate to contact the IRB office at 405-744-3377 or irb@okstate.edu.

Sincerely,
Oklahoma State University IRB

VITA

Brendon Joseph Glon

Candidate for the Degree of

Doctor of Philosophy

Dissertation: USING THE GAY-RELATED REJECTION SENSITIVITY SCALE TO PREDICT MENTAL HEALTH OUTCOMES OF GAY, BISEXUAL, AND OTHER MEN WHO HAVE SEX WITH MEN

Major Field: Counseling Psychology

Biographical:

Education:

Completed the requirements for the Doctor of Philosophy in Counseling Psychology at Oklahoma State University, Stillwater, Oklahoma in July, 2020.

Completed the requirements for the Master of Science in Counseling Psychology at Oklahoma State University, Stillwater, Oklahoma in 2016.

Completed the requirements for the Bachelor of Arts in Psychology and English at Saint Louis University, Saint Louis, Missouri, in 2015.

Experience:

Completed APA accredited Doctoral Internship Program in Health Service Psychology at Illinois State University's Student Counseling Services, Normal, Illinois, 2020

Professional Memberships:

Albert Schweitzer Fellowship, Fellow for Life, Tulsa, Oklahoma, 2018-2019