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## Attitude Heuristics of Mental Illness Proneness and Sexual Orientation

Summer McDonald  
Fort Hays State University, sdmcdonald3@mail.fhsu.edu

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ATTITUDE HEURISTICS OF MENTAL ILLNESS  
PRONENESS AND SEXUAL ORIENTATION

being

A Thesis Presented to the Graduate

Faculty of the Fort Hays State

University in Partial Fulfillment of

the Requirements for the Degree of

Master of Science

by

Summer McDonald

B.A., Fort Hays State University

Date \_\_\_\_\_

Approved \_\_\_\_\_

Major Professor

Approved \_\_\_\_\_

Chair, Graduate Council

The research described in this thesis utilized human subjects. The thesis prospectus was therefore examined by the Human Subjects Research Committee of the Psychology Department, Fort Hays State University, and found to comply with Title 45, Subtitle A – Department of Health, Education and Welfare, General Administration; Part 46 – Protection of Human Subjects.

\_\_\_\_\_ Date

\_\_\_\_\_  
Ethics Committee Chairman

## ABSTRACT

Every person unconsciously uses attitude heuristics to categorize individuals as either “good” or “bad.” The current study examines the question of whether or not age and gender play a role in the perceptions of lesbian, gay, bisexual and transgender individuals being more prone to mental illness because of their sexual orientation based on the observer’s attitude heuristics. The participants for this study will be 200 anonymous online individuals from across the United States. Participants will complete a survey designed to measure their attitudes toward sexual orientation, mental illness, simple core beliefs/values, and attitude heuristics based on generalized standards of “good” or “bad.” The survey includes the Homophobia Scale (HS), the Generalized Attitude Measure (GAM) and the Attitude Heuristics and LGBT Mental Illness Questionnaire. The study hypothesizes that 1) participants aged 18 – 34 will place LGBT persons in the “good” category and less prone to be mentally ill, than participants aged 35 – 65 who will place LGBT persons in the “bad” category and more prone towards mental illness, and 2) females will be more likely than males to place LGBT persons in the “good” category with less mental illness proneness. The data will be analyzed using a chi-square analysis to examine simple correlations.

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## INTRODUCTION

Lesbian, gay, bisexual and transgender (LGBT) mental health and acceptance has been a topic of controversy for decades. Various studies have been done in recent years to gain new knowledge and perspective. These studies include health risk behaviors within the LGBT community, perceptions of sexual orientation as a mental illness, perceptions of sexual orientation in a religious sense, as well as changing ideals of attitudes and behaviors by generational acceptance. Attitude heuristics are our ability to observe something and categorize that object or organism in a “good” or “bad” category based on those observations as well as any previous knowledge and personal values. They have been adapted via evolution as a means of survival and are often used unconsciously. This study will explore if and how attitude heuristics affect an individual’s beliefs and perceptions on whether those who identify as LGBT are more prone to developing a mental illness based on their LGBT sexual orientation. Do individuals consider LGBT more prone to developing a mental illness because of their LGBT orientation? Does the LGBT orientation automatically place them into a specific attitude heuristic category of “good” or “bad”? Does this category determine perceptions of LGBT mental illness proneness?

### **Previous Research**

A number of studies have found that LGBT mental health is negatively affected by discrimination, resulting in an increased number of mental illnesses such as depression, anxiety and suicidal attempts as compared to heterosexually self-identified individuals (Barber, 2009; Mizock, Harrison, & Russinova, 2015; Mereish & Poteat,

2015; Mustanski, Garofalo, & Emerson, 2010). These studies have concluded that LGBT individuals within mental health care settings or treatments showed a higher propensity for mental illness such as depression, anxiety and suicidal ideation and attempts than their heterosexual counterparts (Barber, 2009; Mizock et al., 2015; Mereish & Poteat, 2015; Mustanski et al., 2010). However, it has been found that LGBT persons outside mental health care settings or treatments show the same quality of life adaptiveness as heterosexuals outside of these settings (Fredriksen-Goldsen, Kim, Shiu, Goldsen, & Emler, 2014; Mustanski et al., 2010). In other words, LGBT individuals not experiencing discrimination or prejudice are just as susceptible to mental health issues as heterosexuals.

Multiple studies have been conducted to determine the relationship between mental and physical health of LGBT individuals. Previous results have already shown that there is a significant relationship between mental health and lesbian, gay, bisexual and transgender acceptance and discrimination, and that this relationship is predominantly positive and negative respectively. However, there has been insufficient identification of concrete factors that contribute to health risks of LGBT persons. External stressors (e.g. prejudice, discrimination) as well as internal stressors (e.g. internalized homophobia, concealment) are generally connected to poorer mental and physical health, and these two stressors tend to work in tandem (Mustanski et al., 2010; Mereish & Poteat, 2015). It has also been found that LGBT persons facing internalized homophobia experience comorbid mental disorders but also a reduction of confidence

and self-esteem and an increase in mood, anxiety, and substance use disorders (Anandampillai, 2015). Psychological distress can be categorized within the context of relational and cultural disconnection as defined by the relational cultural theory. This theory also conjectures that discriminatory relational disconnections can lead to self-shame (Mereish & Poteat, 2015).

### *Shame*

It has been understood that shame generally leads to poorer mental health and is detrimental to one's physical health (Mereish & Poteat, 2015). Internal stressors such as internalized homophobia (an LGBT individual's self-direction of sexual identity and orientation stigma) are positively related to shame along with poor mental health. Shame also has negative relational effects (e.g. difficulty experiencing connections), which can lead to a tendency to keep one's self separated, to an extent, while in a relationship, including keeping secrets or revealing little to no personal information (Mereish & Poteat, 2015). This lack of relationships and positive community and interpersonal support can lead to disconnections, withdrawal and avoidance of people and situations, ultimately exacerbating detrimental health effects (Mereish & Poteat, 2015).

### *Minority stress model and shame*

In many studies, the minority stress model is used to provide a framework of multiple processes that may lead to poorer mental and physical health among sexual minorities (Pandya, 2014; Mereish & Poteat, 2015; Mustanski et al., 2010). Mereish and Poteat (2015) used the minority stress model in combination with the relational cultural

theory (which theorizes that discriminatory relational disconnections can lead to shame) in order to mediate any associations between stressors minorities may face and psychological and physical distress. Their results indicated that external and internal stressors had negative associations with the mental and physical health of identified LGBT persons and were mediated through feelings of shame. These feelings of shame have detrimental effects on social, community and interpersonal relationships, which then results in increased mental and physical health problems.

#### *Health care of LGBT persons*

Previously conducted research of older lesbian, gay, bisexual and transgender individuals and their mental health care show a difference between the health care provided to persons identifying as LGBT and persons identifying as heterosexual (Tinney, J., Dow, B., Maude, P., Purchase, R., Whyte, C., & Barrett, C., 2015). It was discovered that the majority of LGBT individuals fear and expect to receive less satisfying and more discriminatory mental health care due to their identified sexual orientation and/or gender (Tinney et al., 2015). Another study researching LGBT aging in relation to mental illness and quality of life (QOL) was conducted and found that physical and mental QOL were negatively associated with discrimination of lesbian, gay, bisexual and transgender persons and chronic mental and physical conditions; it was also found to be positively associated with social support, social networks, activities, employment and income (Fredriksen-Goldsen et al., 2014).

The mental health QOL was also positively associated with a positive sense of one's sexual identity, but negatively associated with sexual identity disclosure (Fredriksen-Goldsen et al., 2014). It was verified in Mizock's and colleagues' (2015) study that participants experience stigma within the mental health system and that these issues were sometimes attributable to their identities of lesbian, gay, bisexual or transgender. In other words, in the participants' experiences, mental health clinicians often attribute the participants' mental illness to their sexual or gender identity.

#### *Severe mental illness*

Severe mental illness, or SMI, is generally referred to as having a severe and persistent mental illness, otherwise known as chronic mental illness, and refers to an individual with a diagnosed psychological disorder (Barber, 2009). Early studies of these disorders in LGBT individuals were limited by a lack of representative samples, tying into the previous research of the fear of discrimination if orientation were revealed. In the more recent data regarding SMI, it has been shown that LGBT persons have increasingly reported depression, anxiety, post-traumatic stress disorder (PTSD), substance abuse, as well as suicidality and behavioral disorders (Barber, 2009). The studies found significant differences between LGBT persons and heterosexual persons on the subjects of depression and anxiety disorders, but there were no significant differences in alcohol and substance abuse or dependence (Barber, 2009).

Mizock and colleagues (2015) performed a study using 32 participants with serious mental illnesses, recruiting them from a psychosocial rehabilitation center. Using

nonrandom sampling with participants selected from specific criteria, the research team developed a semi-structured interview guide in order to focus on several topics which were related to acceptance of SMIs and their subsequent topics of diagnoses, mistreatment, identity, symptoms, coping and resilience. Mizock et al. (2015) used a thematic analysis in order to identify themes within the interviews using a line-by-line coding process. The team also used a multi-case narrative approach, which allowed for a cross-comparison of multiple narratives via the participants' experiences with the SMI acceptance process.

The results show that there were a large number of double stigma experiences of SMI and lesbian, gay, bisexual and transgender identified persons within this sample. Social barriers in the form of family stigma, mental health system inadequacy, and relationship loss were also found to negatively affect LGBT mental health within the group sample and could be explained by the impact of stigma on the acceptance process of persons identified as having a mental illness and compounded by the double stigma LGBT individuals with mental illness experience.

As of 2009, it was unknown if LGBT individuals have a higher or lower incidence of SMI such as bipolar disorder, schizophrenia, et cetera, in comparison with heterosexuals (Barber, 2009); however, as previously discussed, it has since been shown to be the opposite, indicating that LGBT persons experience higher incidence of SMI. This could be accounted for as many of these disorders show first onset during adolescence or early adulthood, which is generally the time when individuals begin to

define their sexual identities and engage in sexual activities (Barber, 2009). It has also been found that LGBT youth experience higher rates of mental disorders and suicidality, and these issues have been gaining an increase in attention and reports via the media, targeting these problems as largely due to harassment and bullying because of sexual orientation and gender expression (Mizock et al., 2015).

#### *New health care services*

Tying into the mental health care services provided for LGBT, new practices are being implemented to make the system more person-centered rather than taking a directive, care-giving role (Pandya, 2014). Mental health professionals are now being trained and expected to exhibit care and respectful attitudes toward LGBT individuals (Anandampillai, 2015). Sexual histories are required to be taken by clinicians at the admittance of the patient, and assumptions of orientation and sexual activities should be avoided, in addition to confusing or discriminating against the individual's needs based upon the client's orientation, activity, or their mental illness (Barber, 2009). For example, a clinician should avoid making the assumption about taking the discriminatory stance toward an LGBT individual, who presents with symptoms of PTSD as being the result of childhood sexual abuse and thereby assuming that the individual self-identifies as lesbian, gay, bisexual or transgender because of that abuse (Barber, 2009). This avoidance of assumption can lead to greater acceptance within the mental health care services system as well as everyday understanding.



### *LGBT mental health service seeking*

In health care settings, it was found that a significant number of LGBT clients pre-screen potential therapists in search of gay-affirmative attitudes. In a previous study it was reported that 40% of gay and lesbian respondents only seek professional mental care services from someone of the same sexual orientation; 68% of lesbians reported they would only see a woman; 24% of gay men would only see a man; 66% of lesbian women preferred therapy with a gay or lesbian professional; and 80-89% of lesbian respondents would prefer to see a woman (Anandampillai, 2015). It could be hypothesized that these preferences are intended to avoid stigma, prejudice, and discriminatory bias based on their orientation. In conducting therapy with a professional of the same or similar orientation, the LGBT individual would likely feel more comfortable and understood whereas sessions with a heterosexual professional may lead to high negative attitude heuristics and increased stigma.

### *Stigma and its effects on LGBT mental illness*

The stigma placed upon lesbian, gay, bisexual and transgender persons can not only cause an increase in mental illness, but can also interfere with and slow the person's ability to recover from their mental illness (Mizock et al., 2015; Mustanski et al., 2010). When speaking of mental illness recovery, it is important to note that it does not involve symptom reduction alone, but also a process of living a meaningful and satisfying life. It is also important to note that while many LGBT persons suffer from depression, anxiety, substance abuse, et cetera, many lesbian, gay, bisexual and transgender individuals

experience higher levels of mental illness comorbidity with their psychological disorders (Barber, 2009; Mizock et al., 2015), which can ultimately complicate and prolong treatment. Therefore, the stigma LGBT persons are subjected to not only interferes with mental illness recovery, but could also reduce their social status and social network, as well as their self-esteem and confidence (Mizock et al., 2015).

Double stigma within the lesbian, gay, bisexual and transgender community could lead to issues of disclosure of mental health problems, which would ultimately interfere with a person's ability or desire to access mental health services. However, as discussed earlier, many who access these services report less satisfaction with treatment as well as discrimination within the mental health settings (Mizock et al., 2015). These discriminatory issues may come from the clinician, fellow patients, or both, and is ultimately detrimental. The building of rapport with LGBT persons within these settings is often disrupted by a variety of biases, including but not limited to clinical, religious, or personal values. These biases have been found to interfere with LGBT patients' participation, trust, and acceptance in the various mental health care settings while these patients often report being dehumanized or desexualized within the treatment settings, further interfering with recovery and treatment success (Mizock et al., 2015).

#### *Increased stigma of transgender/transsexual persons*

On the point of transgender or transsexual individuals, many face an increase in stigma and psychological stressors when compared to lesbian, gay, and bisexual persons, and may even experience these issues from their lesbian, gay, and bisexual peers (Mizock

et al., 2015; Mustanski et al., 2010). Accordingly, while lesbians, gay, and bisexual individuals do experience a high amount of prejudice and violence as compared to sexual and gender dominant groups (Mustanski et al., 2010), people who identify as transgender or transsexual may experience even higher rates of stigma (Mizock et al., 2015; Mustanski et al., 2010). While transgender or transsexual differs from lesbian, gay, and bisexual in that they are more prominently experienced as a sense of gender identity and expression rather than sexual orientation, many people consider these sexual orientations and identities to be similar or even the same. Transgender persons face an increased risk of mental health issues with many reporting or being observed as experiencing a mental illness as well as a history of substance abuse, eating disorders, negative body image, and anxiety and depressive disorders (Mizock et al., 2015). Additionally, previous studies have found that transgender or transsexual persons experience greater rates of mocking and bullying, job discrimination, and harassment by authority figures such as police. It is hypothesized that many LGBT who encounter these forms of stigma may have a tendency to internalize the stigma, ultimately creating self-stigma. This internalizing can cause further detrimental effects for one's mental health as well as treatment and recovery (Mizock et al., 2015; Mustanski et al., 2010).

Furthermore, attempted suicide among transgender or transsexual persons is estimated at 32% in prevalence (Mizock et al., 2015). This again ties back to the societal and peer stigmas, and the harassment and abuse that LGBT individuals are likely to be subjected to on a regular basis. In the case of transgender or transsexual, many are

diagnosed as having Gender Dysphoria (formerly Gender Identity Disorder), in which one experiences the condition of feeling one's emotional and psychological identity as male or female as the opposite to one's biological sex. In contrast, lesbianism, homosexuality and bisexuality are no longer considered a mental disorder according to the *Diagnostic and Statistical Manual of Mental Disorders – 5<sup>th</sup> Edition* (DSM-V) (Mizock et al., 2014).

#### *Support for LGBT mental health*

Various organizations advocate recognizing and validating the effect of LGBT discrimination and mental health disparities (Pandya, 2014). These organizations provide crisis intervention as well as suicide prevention services to LGBT individuals via phone support, online chat and text messaging. Due to lesbian, gay, bisexual and transgender mental health provision disparities, many face to face services can be accessed via local LGBT community centers (Pandya, 2014). It is noted that most clients seek services for depression, anxiety, relationship issues, medical issues, as well as substance and domestic abuse, which are consistent with previous research findings of LGBT persons being more susceptible to these risks (Pandya, 2014). Many of these community centers provide mental health services or can provide information for LGBT individuals to obtain services in an environment where they can feel safe and accepted.

#### *Acceptance of mental illness*

It has been understood from previous research that when one accepts one's mental illness, it increases one's recovery and the effectiveness of treatment as well as aids a

person in leading a satisfying and meaningful life despite their mental health issues (Mizock et al., 2015). By accepting their own mental illness, an LGBT person would likely have more success in treatment while reducing their own self-stigma as well as possibly reducing stigma and discrimination from peers.

It has been hypothesized that there are five core components within the self- and mental illness acceptance processes that one needs to complete: (a) an identity component – developing a positive sense of self; (b) a cognitive component – developing thoughts, beliefs, and awareness in accepting the mental illness; (c) an emotional component – experiencing emotions that signify acceptance; (d) a relational component – engaging in relationships with interactions that will promote acceptance of one’s mental illness; (e) a behavioral component – engaging in actions and behaviors that signify acceptance of the mental illness (Mizock et al., 2014).

There are also various facilitators and barriers that one needs to accept and circumvent in order to reach true acceptance: (a) emotional factors – one’s feelings, affect, and mood; (b) cognitive factors – one’s awareness, beliefs, and thoughts; (c) identity factors – developing a positive sense of self when confronted with mental illness; (d) behavioral factors – actions and activities; (e) spiritual or religious factors – one’s beliefs, practices and spiritual or religious connections; (f) relational factors – engaging and interacting with others in order to promote mental illness acceptance; (g) cultural factors – beliefs, stigma, practices and values associated with one’s demographic group and; (h) systemic factors – employment, healthcare, and government aid (Mizock et al.,

2015). In becoming aware of these facilitators and core components, LGBT persons could work to develop more efficient coping skills pertaining to their mental illness as well as experienced stigma and discrimination. Additionally, these core components possess key roles in how one's affects influence interactions with one's self and others.

### **The Affect Infusion Model**

The affect, or emotional input, of one's values and beliefs plays large parts in our daily interactions with and conclusions of other individuals. In the case of lesbian, gay, bisexual, and transgender persons, our social judgements of "good" and "bad" people are affected by the emotional input based on different values, beliefs, and biases (Forgas, 1994, 1995). The Affect Infusion Model (AIM) is a multi-process approach to one's social judgements and was developed to help predict how much the degree of emotional infusion into judgements varies along a processing continuum (Forgas, 1994, 1995). While the model helps us to study the role of affect and attitudinal heuristics, the ability to link affect to thinking and judgements is not yet completely understood, as existing explanations are within a more general theory of social judgement.

The AIM possesses four judgmental strategies characterized by different affect infusion potentials: (a) direct access – preexisting evaluations or (b) motivated processing – if a preexisting determination is present, there will be a highly predetermined and direct information search pattern. If a judgement requires constructive processing, one may use (c) a heuristic – a category of good or bad, or (d) a substantive – independent strategy to compute the outcome (Forgas, 1994, 1995). The AIM may also use affect-priming, meaning an emotion may indirectly influence heuristics and judgements during one's processing due to its influence on attention; or, affect-as-information, in which feelings and emotions can directly inform heuristics during fast judgements (Forgas, 1994, 1995).

### *Belief-bias effect*

Negative emotions and belief-bias can affect one's attitude toward a particular person or situation. Belief-bias effects occur when an individual performs accurately on reasoning tasks when a logical conclusion is consistent with their beliefs. If the conclusion is inconsistent with their beliefs, one may be less willing to accept or exhibit a positive attitude, thus placing that conclusion in the "bad" attitude heuristic category. This coincides with the common sense and cognitive dissonance theories, in which human beings are motivated not to act against their beliefs, as doing so could result in a negative outcome and emotional state (Goel & Vartanian, 2010). It has been found that emotions negatively impact our reasoning ability, as they have a detrimental effect regardless of whether they are manipulated through logical arguments, participant moods, or both. In fact, emotional content may have an effect on the reasoning process, as it may modulate belief-bias effects (Goel & Vartanian, 2010). One may say that our emotional states have profound effects on our attitude heuristics.

In processing events, if one genuinely believes that all corresponding information is false to our beliefs and contrasting information is also false, negative connotations in the latter may result in a more vigilant, systematic form of processing the information. This may have the effect of reducing belief influences on the reasoning process (Goel & Vartanian, 2010). In other words, if one believes that LGBT persons are more prone to mental illness *and* that an LGBT person's sexuality is *not* a mental disorder, then that individual may be more likely to place that LGBT person into the "good" category based



on the individual's emotional input and belief-bias in conjunction with their personal "good" and "bad" categories.

Goel and Vartanian (2010) found that when faced with a believable conclusion, participants of the study were able to reason logically without automatically judging the conclusion as valid. They found that emotions and beliefs interact with affect reasoning ability; that is, when emotions are aroused, they can have an effect on the influence of their beliefs during judgements. When the content of the situation is emotionally negative, one processes the situation longer, resulting in more accurate valid and invalid conclusion judgements (Goel & Vartanian, 2010).

#### *Affect heuristics*

Affect heuristics influence the processes of using underlying feelings and emotions associated with particular hazards in the formation of perceptions of risks and benefits, "good" and "bad" (Spence & Townsend, 2008). It is an emotion-based shortcut which we use to aid in decision making. Affect infusion is generally defined as the process by which emotionally loaded information exerts an influence on and becomes incorporated into judgmental processes and eventually has a large impact on one's judgmental outcome (Forgas, 1994, 1995). In terms of attitude heuristics, our emotional states at the time of observing and judging a person, situation, or object impacts whether we put them in the "good" or the "bad" category, which ultimately affects how we react and interact with that person, object, or situation. One's emotion elicited by one event or person influences judgments of another, unrelated target (Forgas, 1994, 1995).

It is theorized that images and representations in perceptual framework and understanding are tagged in varying degrees with a positive and a negative emotion or feeling, which are then used to guide our judgements and decision making. This is particularly important when these decisions are carried out spontaneously or with limited cognitive processing (Spence & Townsend, 2008). One could think of an affect heuristic as a part of our “fight-or-flight” mode. In conjunction with LGBT mental illness, if one feels negative emotions toward LGBT persons, one may consider LGBT persons as being more likely to possess or develop a mental illness, and consequently placing that person in the “bad” category. Thus, an individual may consider an LGBT person to be more of a risk to interact with or be more at risk for mental illness. If feelings and emotions are positive, an individual generally judges risks as low while judging benefits as high, and vice versa for negative feelings and emotions (Spence & Townsend, 2008).

### *Implicit attitudes*

Implicit attitudes also play a part in affect heuristics. Implicit attitudes are spontaneous associations which can be measured between attitude objects and their evaluations and judgements. They have generally been defined as inaccurately identified traces of past experiences that induce positive or negative thoughts, feelings, or actions toward objects, events, or persons (Spence & Townsend, 2008). In other words, our previous experiences with similar interactions are held as part of our judgement and attitude toward current interactions, both consciously and unconsciously. It is also important to note that one can hold more than one attitude toward the same interaction,

and that the attitude activated is dependent upon the situation and the cognitive ability and processing of the individual (Spence & Townsend, 2008). Implicit attitudes can be considered a measure of initial associations activated by an interaction, and these associations exist independently of truth. As an example, one may hold negative associations with LGBT persons based on the knowledge that AIDs is prominent in the LGBT community, even though heterosexual persons are as prone to AIDs as LGBT individuals. These negative associations could then affect our implicit attitudes toward LGBT persons and those affected by AIDs, placing these individuals in the “bad” attitude heuristic.

## **Theory of Prejudice**

The theory of prejudice states that prejudice arises from incongruence between group stereotypes and role characteristics (e.g. being attracted to someone of the same sex is wrong, men should be with women and vice versa) (Herek, 2007). In conjunction with sexual stigma – or a negative regard, inferior status, and a sense of relative powerlessness that is pushed upon non-heterosexual behavior, identity, community or relationship by society – prejudice can lead to an increase in mental health problems as discussed above. People throughout various cultures consider homosexual behaviors and desires to be negative attributes to possess relative to heterosexuality (Herek, 2007). Most are aware of the negative and controversial stereotypes that are attached to those who identify as lesbian, gay bisexual or transgender, and the stigma generally focuses on particular conditions or markers as bearing undesirable and abnormal traits as determined by society and cultural norms.

Prejudice and sexual stigma manifest not only within society, but individuals as well, creating and perpetuating sexual stigma and hence vast differences in status and power, otherwise known as heterosexism. Heterosexism is generally understood as a cultural ideology which works to the advantage of sexual majority groups (e.g. heterosexuals), even in the absence of prejudice and discrimination within societal or individual interactions (Herek, 2007). It is important to note, however, that as LGBT groups receive more legal protection, citizenship, and rights, discriminatory and prejudicial practices are becoming illegalized and less acceptable. LGBT individuals, particularly those with mental health issues, are afforded greater possibilities of receiving

the necessary mental health treatment they seek with less fear of negative effects and outcomes.

### **Age and Gender in Prejudice**

As explained above, prejudice plays a significant role in the perceptions of individuals, and these perceptions can lead to detrimental physical, emotional, and mental assumptions. There are various reasons for the prevalence of prejudicial views, with the most commonly known being religious views, cultural traditions and views, personal values, and societal values. Further, it has been speculated that an individual's age and gender may play a role in the degree and type of prejudice that people may exhibit. Studies suggest that those of an older generation possess more prejudicial views than those of a younger age, and that females are less prejudiced than males (McGee, 2016a, 2016b).

#### *Gender*

In studies investigating whether or not males and females possess different views toward homosexuality in the United States, data was taken from a Human Beliefs and Values survey distributed in 2011 (McGee, 2016a). In this survey, participants were asked how justifiable or unjustifiable they considered homosexuality. The results indicated that 27% of men and 22.8% of women considered homosexuality to never be justified. In contrast, 18% of men and 26.2% of women believed that homosexuality was always justified. After comparing the percentages, it was found that the ratio was 1.15:0.67 for women to men, respectively (McGee, 2016a). These results suggest that women exhibit somewhat less prejudice toward homosexuality – and possibly bisexuality

and transgenderism – than men. However, it is difficult to determine any reason(s) for this conclusion, as the survey did not incorporate decision reasons within its design. It may be speculated that in addition to the common religious and cultural norms that play a large part in one's values and beliefs, some may debate from an evolutionary perspective that females naturally possess more natural altruistic and emotionally accepting traits than males, who are by nature more brash and logically minded toward specific masculine traits (which naturally excludes homosexuality). Conversely, it may also be speculated that there are many cultural factors regarding gender and gender constructs that affect male and female points of view, such as with sexuality.

Additionally, research into homosexuality (predominantly conducted in the United States) since the 1970s has shown that female heterosexuals exhibit more positive attitudes toward the homosexual orientation, as well as have more positive attitudes toward other minority groups (Sharma, 2011). It has also been suggested by several other studies that heterosexual females possess strong affinities toward gay men with some studies finding heterosexual males having strong affinities toward lesbians (Sharma, 2011). Unfortunately, few studies have been conducted to explore attitudes toward bisexuality and transgenderism. However, those few that have been performed suggest that attitudes of heterosexual males and females toward bisexuals and transgender persons mirror attitudes toward homosexuals (Sharma, 2011).

*Age*

In another 2016 study conducted by McGee, a survey similar to the 2011 study of Human Beliefs and Values was distributed in the United States and required participants to again answer how justifiable or unjustifiable they considered homosexuality. The demographic target of this survey was participants' ages. It was revealed that participants whose aged 50 or older were the least accepting of homosexuality, ages 30 to 49 were intermediately accepting, and participants up to age 29 were the most accepting of homosexuality (McGee, 2016b). Unfortunately, there was no determination of the reason(s) for these results, as the survey did not include that factor within its design. Culture, religion, and environment may account for these results, though it is unlikely that they account for the entire opinion.

Furthermore, other research has shown that individuals who possess a more permissive attitude of sexual orientation tend to be younger in age (Sharma, 2011). These findings support McGee's previous results of younger persons being more tolerant of homosexuality than older individuals. It has also been found that tolerant attitudes toward LGBT have been increasing over time (Sharma, 2011), which one might expect to logically occur as younger generations grow up in societies with more interactions, acceptance, and understanding of LGBT persons and rights.

## HYPOTHESES

The relationship between views of mental illness and sexual orientation has been extensively researched. There has also been a substantial amount of speculation and attention from social media and multiple other information platforms discussing the discriminatory and prejudicial viewpoints concerning the LGBT community. However, there is a lack of research about how an individual's beliefs of sexual orientation, their categorization of a lesbian, gay, bisexual, or transgender person as "good" or "bad", and how prone an LGBT individual is to mental illness may relate to the individual's age and gender. It could be hypothesized that one's views toward homosexuals is related to one's age and gender. Another hypothesis is whether a person's view of homosexuality, bisexuality, or transgenderism as "good" or "bad" affects whether or not that person thinks that LGBT individuals are inclined to have a mental illness.

To assess the effects of attitude heuristics on people's beliefs about LGBTs' mental health, a homophobia scale, a generalized attitude measure, and a research-specific questionnaire examining an individual's beliefs concerning LGBT mental health and heuristic category was employed to determine if there is a positive correlation between attitude heuristics and beliefs of LGBTs' propensity toward mental illness. The Homophobia Scale was a measure used to aid in the determination of an individual's views and values of homosexuality and encompasses personal beliefs and opinions about homosexuals. The Generalized Attitude Measure was used to further measure personal beliefs and values in the determination of whether or not an individual considers LGBT



to be good or bad; right or wrong; and moral or immoral. Finally, the questionnaire developed for this study included questions as to whether or not LGBT individuals are viewed as “good” or “bad” people, and more or less prone to mental illness. Given the possibility of participants from ages 18 to 65, it was prudent to consider the differences in beliefs based upon participant generational groups (i.e. “Younger” and “Older”).

### **Hypothesis One**

Younger participants will be less likely than older participants to view LGBT individuals as prone to mental illness.

### **Hypothesis Two**

Younger participants will be more likely than older participants to categorize LGBT individuals as “good.”

### **Hypothesis Three**

Females will be more likely than males to categorize LGBT individuals as “good.”

### **Hypothesis Four**

Females will be less likely than males to view LGBT individuals as prone to mental illness.

## METHODOLOGY

### **Participants**

Participants were approximately 154 anonymous online participants who volunteered for the study via Mechanical Turk, an online survey platform provided by Amazon.com. Their age ranged from 18 to 65. Participants under the age of 18 or over the age of 65 were excluded to protect vulnerable age parties. Participants who did not fully complete the survey were also excluded, as incomplete data could negatively affect results. Participants were monetarily compensated for fully completing the online survey.

### **Measures**

Two separate measures and a single questionnaire were used in this research. The measures included a Homophobia Scale, a Generalized Attitudes Measure, and the Attitude Heuristics and LGBT Mental Illness Questionnaire developed to examine perceptions of LGBT propensity toward mental illness, as well as participant age and gender demographics.

#### *Homophobia Scale (HS)*

This study included a valid and reliable measure retrieved from the Handbook of Sexuality-Related measures (Fisher, Davis, Yarber, & Davis, 2011). The HS scale consisted of 25 statements on a 5–point Likert scale in regards to social avoidance and aggressive behaviors, and attitudinal items provided on various homophobia measures. The scale had a reliability coefficient of .94 and a construct validity of .66.

### *Generalized Attitude Measure (GAM)*

The GAM was a measure retrieved from <http://www.midss.org> and can be used for any attitude topic and as an evaluation of any general idea. The measure entailed 6 items of attitudinal opinions on negative and positive spectrums with a 7–point Likert scale used to determine how strongly one gravitates toward one spectrum over the other. The GAM was a highly reliable measure with alpha estimates above .90 and strong predictive validity and concurrent validity of .86 to .93 (McCroskey, 2006).

### *Attitude Heuristics and LGBT Mental Illness Questionnaire*

This developed questionnaire contained 15 questions concerning beliefs toward LGBT sexuality and mental illness along a 5–point Likert scale. The survey involved a brief demographics section requesting age and gender, followed by survey instructions.

### **Procedure**

Participants completed an anonymous online survey through Mechanical Turk. This survey encompassed questions about participants' belief of homosexuality, bisexuality and transgender as a sexual orientation; their belief of homosexuals, bisexuals, or transgender persons as “good” or “bad”; homosexuality, bisexuality, and transgenderism in a social context with interactions and attitudes; and LGBT persons as more prone to mental illness. As the study was to examine how heterosexuals view LGBT as a sexual orientation and proneness to mental illness, an option was included in the survey for participants to identify as heterosexual, LGBT, or other via write in as a screening process to determine any further differences in attitudes and beliefs that may be based on orientation. This could be used for further research in the future. Participants

acknowledged their consent by clicking *Continue* or *Accept*. They were informed of all foreseeable risks and benefits and were made aware that participation was voluntary. Participants were given all information about compensation for participation as well as the names and contact information for the FHSU Kelly Center and the FHSU Psychology Department Ethics review board at (785) 628 – 4403.

## RESULTS

An independent *t*-test was utilized to compare the means 154 participants of the two generation groups based on the age range of 18 to 65 and the gender groups based on the participants' gender of male or female. The comparisons were used to determine if there is a relationship between attitude heuristics and believed mental illness propensity of LGBT persons based on participants' age and gender. This was accomplished through the examination of the following dimensions: attitudes of LGBT persons being "good" or "bad", beliefs of mental illness proneness of LGBT persons, and general attitudes toward sexual orientation.

After conducting the analyses, there was a significant difference between the attitude heuristics of the generation in the age range of 18 – 34 ( $M = 21.21, SD = 7.57$ ) and the attitude heuristics of the generation in the age range of 35 – 65 ( $M = 18.02, SD = 8.50$ ), conditions;  $t(154) = 2.397, p = 0.018$ . These results suggest that the older generation displays less negative attitudes and categorizes LGBT individuals as "bad" less often than the younger generation.

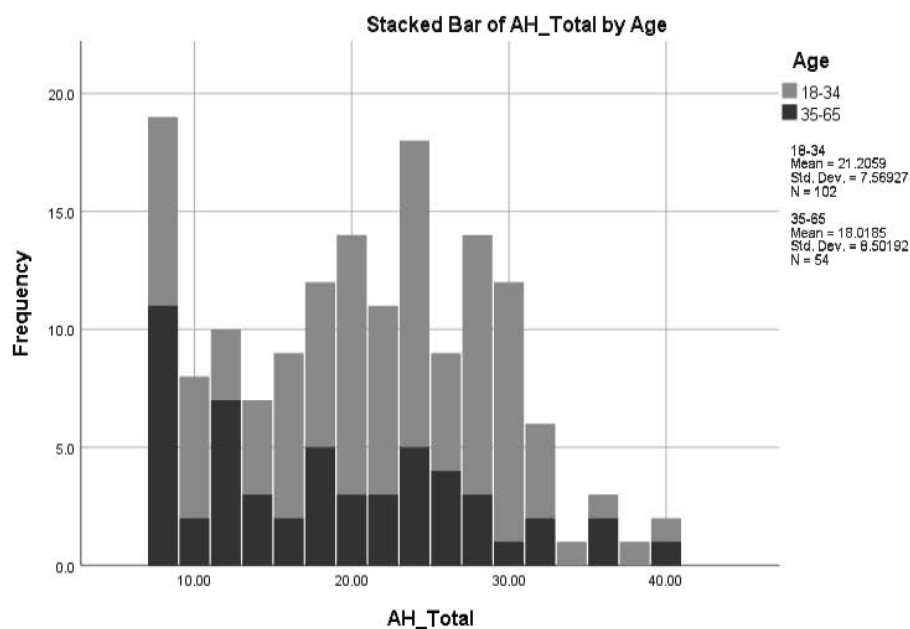


Table 1. *Attitude Heuristics Total by Age*

Additionally, a significant difference was found between the mental illness proneness beliefs of the generation in the age range of 18 – 34 ( $M = 20.42$ ,  $SD = 8.13$ ) and the mental illness proneness beliefs of the generation in the age range of 35 – 65 ( $M = 16.24$ ,  $SD = 7.49$ ), conditions;  $t(154) = 3.137$ ,  $p = 0.002$ . These results put forward that the younger generation, rather than the older generation, possesses a greater belief that LGBT persons are more prone to developing or possessing a mental illness than those who identify as heterosexual.

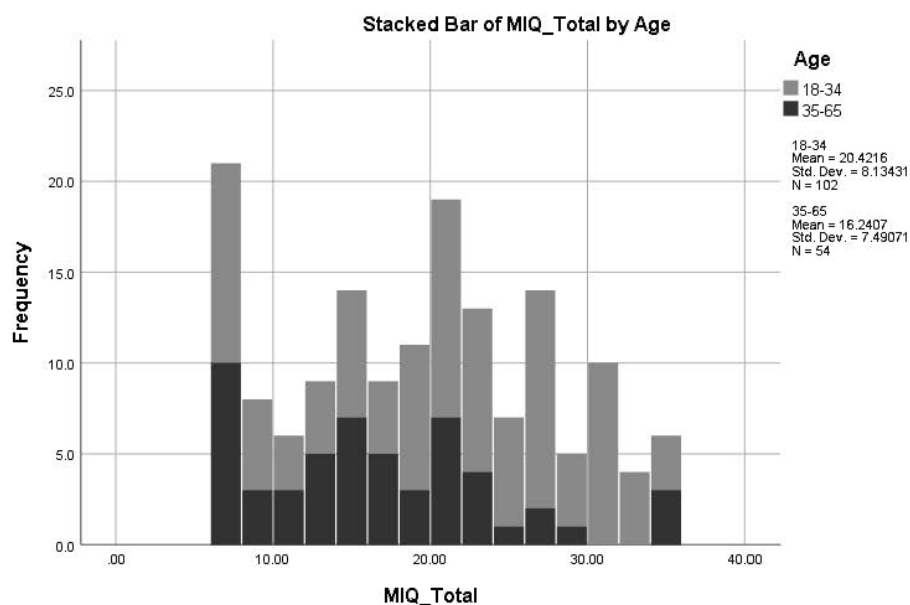


Table 2. *Mental Illness Proneness Total by Age*

In the analysis to determine the differences in general attitudes toward sexual orientation between the two generations, a significant difference was found between the younger generation aged 18 – 34 ( $M = 36.63$ ,  $SD = 23.54$ ) and the older generation aged 35 – 65 ( $M = 24.74$ ,  $SD = 21.64$ ), conditions;  $t(154) = 3.083$ ,  $p = 0.002$ . The results from this analysis propose that the younger generation possesses more negativity toward sexual orientation than the older generation.

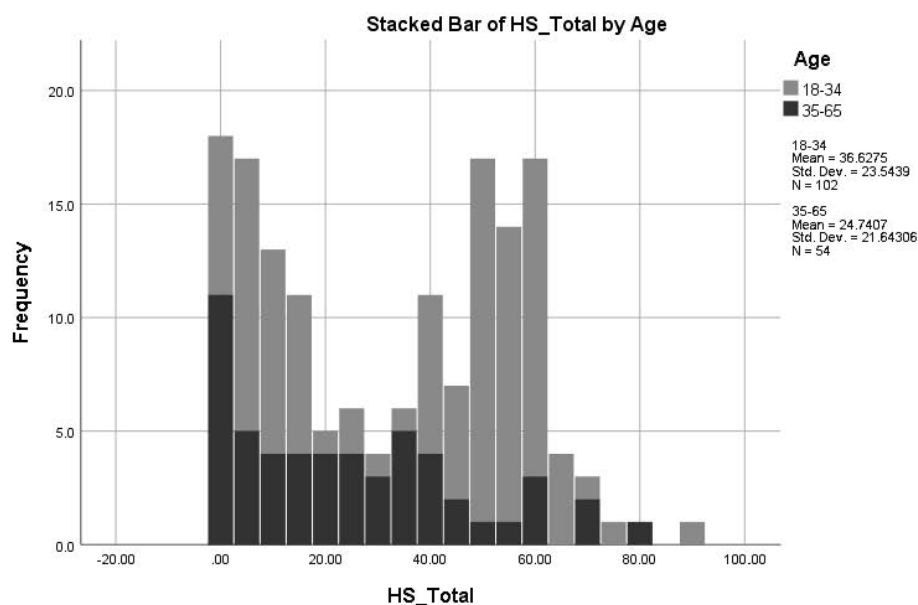


Table 3. *Homophobia Scale Total by Age*

These data results indicate that those in the age range of 18 – 34 possess more negative beliefs and attitudes toward LGBT than those who are aged 35 - 65, as well as more beliefs that LGBT individuals are more prone to possessing or developing a mental illness than those who identify as heterosexual. Thus, both hypothesis 1 and hypothesis 2 are rejected.

Likewise, an independent *t*-test was used to compare the means of the gender groups based on the participants' gender of male or female. There were two individuals who identified as "Other" in the survey; their results did not lend to any significant differences.

The comparisons of the analyses were used to determine if there is a relationship between attitude heuristics and believed mental illness propensity of LGBT persons



based on participants' gender. This was accomplished through the examination of the following dimensions: attitudes of LGBT persons being “good” or “bad”, beliefs of mental illness proneness of LGBT persons, and general attitudes toward sexual orientation.

A significant difference was found between the attitude heuristics of males ( $M=21.61$ ,  $SD = 7.45$ ) and females ( $M= 17.83$ ,  $SD = 8.37$ ), conditions;  $t(152) = 2.920$ ,  $p = 0.004$ . These results propose that males categorize LGBT persons in the “bad” category more often than do females.

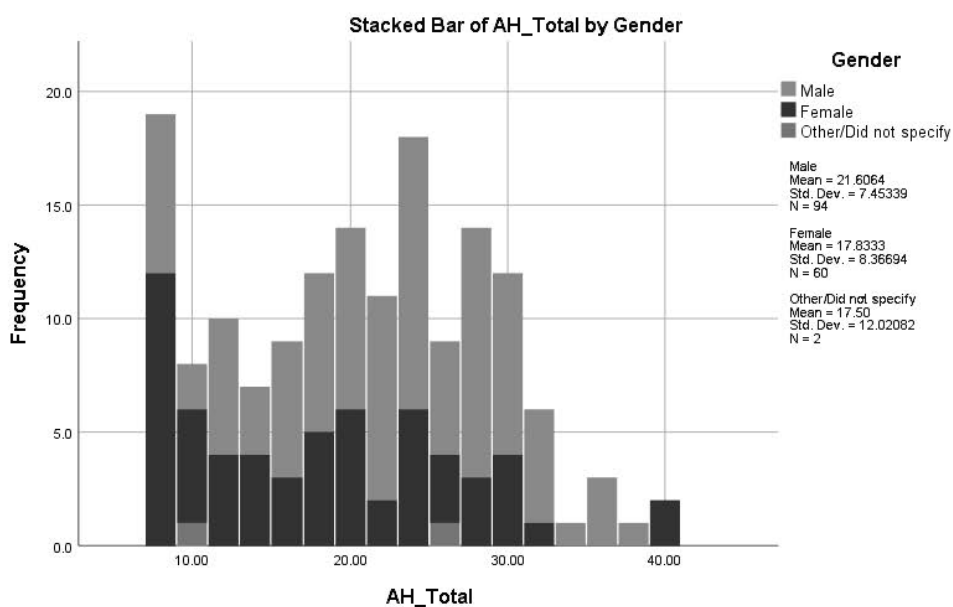


Table 4. *Attitude Heuristics Total by Gender*

Additionally, a significant difference was found between the mental illness proneness beliefs of males ( $M = 20.29$ ,  $SD = 7.96$ ) versus females ( $M = 16.82$ ,  $SD = 8.11$ ), conditions;  $t(152) = 2.618$ ,  $p = 0.010$ . The results from this analysis indicate that males

are more likely to believe that LGBT individuals are more predisposed to mental illness, while females are less likely to believe thus.

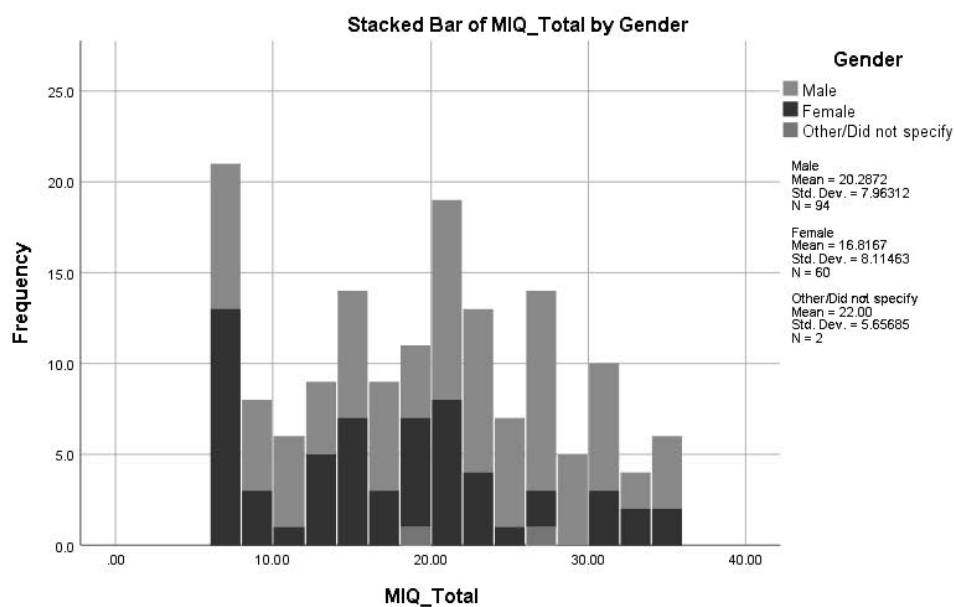


Table 5. *Mental Illness Proneness Total by Gender*

Finally, a significant difference was found between males' general attitudes toward sexual orientation ( $M = 38.62$ ,  $SD = 23.14$ ) and females' ( $M = 22.88$ ,  $SD = 20.89$ ), conditions;  $t(152) = 4.272$ ,  $p = 0.000$ . These data results suggest that males have a more negative general attitude toward sexual orientation as compared to females.

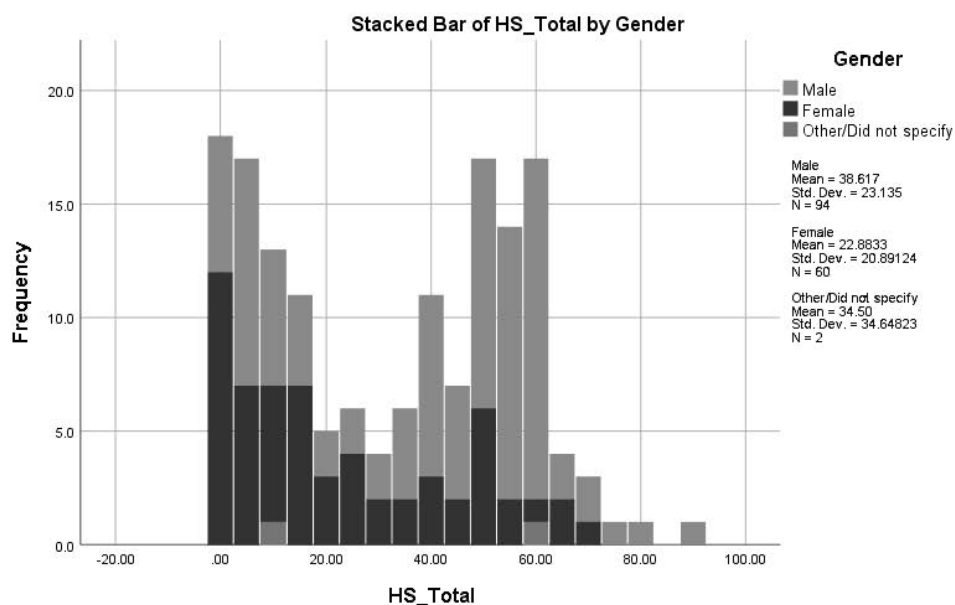


Table 6. *Homophobia Scale Total by Gender*

The results of these data analyses show that males tend to be less accepting of LGBT and possess more beliefs that LGBT persons are more susceptible to possessing or developing a mental illness when compared to females. Thus, the results support and accept hypotheses 3 and 4.

It was attempted to discover why these results were found, and thus population and orientation were investigated with age and gender. However, there was no statistical significance found in any of the subsequent results. When comparing the population of age and gender with the sexual orientation of age and gender, results were consistent.

## DISCUSSION

Previous research has already been conducted on LGBT mental illness. The purpose of this study was to further evaluate how attitude heuristics effect peoples' beliefs as to whether or not lesbian, gay, bisexual, and transgender individuals are more disposed to developing a mental illness. It was believed that specific categories of "good" or "bad" based on one's core beliefs and values would have an evident effect on individual perceptions of mental illness in the lesbian, gay, bisexual, and transgender community, as attitudes and beliefs drive peoples' views and interactions in society. Attitude heuristics and beliefs of LGBT mental illness proneness were assessed using a developed survey.

Taking into account the difference in societal views within each age and gender group, as well as the increase and improvement of research and understanding of mental health and lesbianism, homosexuality, bisexuality and transgenderism, the expected differences in LGBT mental health perceptions are surprising. It could be argued that those of an older age were raised within a society that was historically far more unaccepting of homosexuality and even considered it to be in and of itself a mental disorder. These assumptions add to the surprise of the unforeseen analysis results previously discussed. One could also assume that the formerly debated beliefs often led to extreme techniques in order to "treat" and "cure" persons identified as being homosexual or transgender of their sexual "confusion." Many of those methods are considered inhumane and are now illegal, and the DSM has removed homosexuality from

its list of disorders. However, many people still consider homosexuality and transgenderism to be unnatural and a result of mental health issues and/or an abusive history. Nevertheless, there could likely be participants contesting the belief that LGBT persons are more prone to mental illness based on sexual orientation, thus placing these persons in a more positive attitudinal heuristic category, as shown in the gender results of the analyses. This may be due to the increasing acceptance and understanding of lesbian, gay, bisexual, and transgender individuals as knowledge and beliefs become more progressive as time passes.

In the last two or three decades, LGBT persons have become “bolder” in their disclosure of their sexual orientations and identities, and with this newfound strength and acceptance within the LGBT community, acceptance within the rest of societal communities has increased as well. As a result, the majority of the younger participants were raised within a society where lesbianism, homosexuality, bisexuality and transgenderism is more acknowledged and accepted, thus resulting in more interaction with persons who identify as LGBT and potentially reducing the amount of stigma this newer generation will tolerate or engage in and leading to a more positive category.

However, the results of the analyses reveal that this is, surprisingly, not the case. Those of the younger generation (aged 18 – 34) were found to be less accepting of LGBT, possess more negative attitudes, beliefs, and actions toward LGBT based on the LGBT sexual orientation, and possess a belief that LGBT individuals are more prone to mental illness than those of the older generation (aged 35 – 65). These results were the

exact opposite of what many people would hypothesize based on today's progression concerning the lesbian, gay, bisexual, and transgender communities. With the cultural and societal progressions, one would likely expect the data results to have been the younger generation possessing more positive attitudinal heuristics, instead of the older generation.

In contrast, it was unsurprising that females, as compared to males, were found to be more accepting of the LGBT sexual orientation, had more positive attitudes, beliefs, and interactions with LGBT individuals, and were less likely to believe that homosexuals, bisexuals, and transgendered persons are more likely to possess or develop a mental illness. As discussed above, females tend to be more accepting of minority groups. This could be theorized as males possibly feeling more threatened or uncomfortable than females when confronted with these issues. Males are often taught in society that anything that may be effeminate when it should be masculine should be rejected. Additionally, one might argue that humans are evolved to dislike change and things that are considered "abnormal." Thus, being attracted to the same sex or experiencing a disconnect or disgust with your current sex would be considered "abnormal" in evolutionary terms, as these matters do not lend themselves positively to the evolution and expansion of the human race. One can, generally, not reproduce with a lover of the same sex.

## **Conclusion**

In conclusion, lesbian, gay, bisexual and transgender mental health is a little understood topic within the general population, though more research has been conducted within the last few decades. Due to these studies, more understanding has been obtained of the effects of prejudice and discrimination within societal and sexual minority communities in addition to an understanding of the effects of identifying as LGBT. It has been found that discrimination and prejudice not only from mainstream society but from LGBT peers has a detrimental effect on lesbian, gay, bisexual and transgender mental health and the attitudes presented by their communities; those who identify as transgender or transsexual are often exposed to double stigma (that is, stigma from the sexual majority – heterosexuals – as well as from their fellow sexual minority members – LGB). These stigmas often result in longer periods of mental illness and also prolong or negatively affect treatment and recovery.

It has also been found that mental health care services often vary based on sexual orientation, and thus many LGBT identified persons experience an increase in mental health problems due to fear of stigma, lack of understanding by non-LGBT persons, and a fear of disclosure as well as other external and internal stressors. In this study, it was expected to find that those of an older age tend to see lesbian, gay, bisexual or transgender individuals as being more prone to mental illness because of their sexual orientations and negative heuristics, whereas the younger age group are more likely to identify LGBT individuals as being as prone to mental illness as heterosexual persons

who are not exposed to discrimination or prejudice and have more positive heuristics. As discussed above, this was not the case as it was found that the younger generation actually displayed more negativity, prejudice, and discrimination toward LGBT.

### **Limitations and future research**

While numerous studies have been completed to investigate and/or determine differences between LGBT mental health and heterosexual mental health, as well as the effects of interpersonal and societal interactions, there are still limitations and necessity to more research that can be conducted. While the study suggested here could pave the way to understanding how perceptions change with generations and age, it is still a small sample and there are a number of variables that are difficult or impossible to control. For many, societal as well as cultural, ethnic, familial and religious views and traditions are paramount for their wellness and functioning, which may play a large role in acceptance, interactions, and attitudes concerning LGBT and sexual orientation in general. Moreover, survey research may not be generalizable.

In this study, the sample was of a smaller size than the previously discussed research, which resulted in a large confidence interval and made it difficult to generalize with the larger population. Also, the response rate, especially for the online survey, played a large part in determining the validity and the size of the confidence interval, which could lead to numerous sample and measurement errors. For future research, it would be advisable to gather data from a larger and more diverse sample and for a longer period of time, as survey research is generally less costly in terms of time and money.



Increasing the sample size in a future study would also reduce the size of the confidence interval, increasing the validity and reliability of the results, as well as gathering a broader set of data concerning lesbian, gay, bisexual and transgender mental health perceptions, understanding, and acceptance of not only the individuals but mental illness in general.

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## APPENDIX A

### *Homophobia Scale*

This questionnaire is designed to measure your thoughts, feelings, and behaviors with regards to homosexuality. It is not a test, so there are no right or wrong answers. Answer each item by circling the number after each question as follows:

- 1 Strongly agree**
- 2 Agree**
- 3 Neither agree nor disagree**
- 4 Disagree**
- 5 Strongly disagree**

- |  |           |
|--|-----------|
| 1. Gay people make me nervous.   | 1 2 3 4 5 |
| 2. Gay people deserve what they get.   | 1 2 3 4 5 |
| 3. Homosexuality is acceptable to me.  | 1 2 3 4 5 |
| 4. If I discovered a friend was gay I would end the friendship.                    | 1 2 3 4 5 |
| 5. I think homosexual people should not work with children.                        | 1 2 3 4 5 |
| 6. I make derogatory remarks about gay people.                                     | 1 2 3 4 5 |
| 7. I enjoy the company of gay people.  | 1 2 3 4 5 |
| 8. Marriage between homosexual individuals is acceptable.                          | 1 2 3 4 5 |
| 9. I make derogatory remarks like “faggot” or “queer” to people I suspect are gay. | 1 2 3 4 5 |
| 10. It does not matter to me whether my friends are gay or straight.               | 1 2 3 4 5 |
| 11. It would not upset me if I learned that a close friend was homosexual.         | 1 2 3 4 5 |
| 12. Homosexuality is immoral.  | 1 2 3 4 5 |
| 13. I tease and make jokes about gay people.                                       | 1 2 3 4 5 |
| 14. I feel that you cannot trust a person who is homosexual.                       | 1 2 3 4 5 |
| 15. I fear homosexual persons will make sexual advances towards me.                | 1 2 3 4 5 |
| 16. Organizations which promote gay rights are necessary.                          | 1 2 3 4 5 |
| 17. I have damaged property of gay persons, such as “keying” their cars.           | 1 2 3 4 5 |
| 18. I would feel comfortable having a gay roommate.                                | 1 2 3 4 5 |
| 19. I would hit a homosexual for coming on to me.                                  | 1 2 3 4 5 |
| 20. Homosexual behavior should not be against the law.                             | 1 2 3 4 5 |
| 21. I avoid gay individuals.   | 1 2 3 4 5 |
| 22. It does not bother me to see two homosexual people together in public.         | 1 2 3 4 5 |
| 23. When I see a gay person I think, “What a waste.”                               | 1 2 3 4 5 |
| 24. When I meet someone I try to find out if he/she is gay.                        | 1 2 3 4 5 |
| 25. I have rocky relationships with people that I suspect are gay.                 | 1 2 3 4 5 |

**APPENDIX B***Generalized Attitude Measure*

On the scales below, please indicate your feelings about "Homosexuality, Bisexuality, and Transgenderism." There are no right or wrong answers. Only circle one number per line.

**Numbers "1" and "7" indicate a very strong feeling.**

**Numbers "2" and "6" indicate a strong feeling.**

**Numbers "3" and "5" indicate a fairly weak feeling.**

**Number "4" indicates you are undecided or do not understand the adjective pairs themselves.**

- 1) Good 1 2 3 4 5 6 7 Bad
- 2) Wrong 1 2 3 4 5 6 7 Right
- 3) Harmful 1 2 3 4 5 6 7 Beneficial
- 4) Fair 1 2 3 4 5 6 7 Unfair
- 5) Wise 1 2 3 4 5 6 7 Foolish
- 6) Negative 1 2 3 4 5 6 7 Positive

## APPENDIX C

### *Attitude Heuristics and LGBT Mental Illness Questionnaire*

#### **Demographics:**

Please indicate your age range:      \_\_\_ 18-34  
    \_\_\_ 35-65

Please indicate your gender you identify as: -

\_\_\_\_\_

Please indicate your sexual orientation you identify as:

\_\_\_\_\_

What is the estimated population of your area (Example: 2,000)?

\_\_\_\_\_

The following are some statements that individuals may make about being gay, bisexual or transgender and/or associating with persons who identify as gay, bisexual or transgender. Please read each one carefully and decide the extent to which you agree with the statement and check the box that best reflects how much you agree or disagree with that statement. This survey is not a test and there are no right or wrong answers. Please answer as honestly as possible. **Note: When using the identifiers *homosexual and gay*, gay men and lesbians are both implied.**

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. Transgenderism is unnatural	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Bisexual individuals are more prone to mental illness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Homosexuals, bisexuals, and transgender persons are good people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Homosexuals have more mental illnesses than heterosexuals due to their sexuality.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- |   |                          |                          |                          |                          |                          |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 5. LGBT individuals do make good parents.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Homosexuals, bisexuals, and transgender persons are bad people.                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Homosexuality, bisexuality, and transgenderism are mental illnesses.                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. LGBT individuals do not make good parents.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Bisexuals have more mental illnesses than heterosexuals due to their sexuality.            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Homosexual individuals are more prone to mental illness.                                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. Homosexuality is unnatural.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. Transgender individuals are more prone to mental illness.                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13. LGBT individuals commit more crimes than heterosexual individuals.                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. Bisexuality is unnatural.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 15. Transgender persons have more mental illnesses than heterosexuals due to their sexuality. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



## APPENDIX D

*Institutional Review Board (IRB) Approval Letter*

**FORT HAYS STATE  
UNIVERSITY**

*Forward thinking. World ready.*

OFFICE OF SCHOLARSHIP AND SPONSORED PROJECTS

DATE: November 17, 2017

TO: Summer McDonald  
FROM: Fort Hays State University IRB

STUDY TITLE: [1144121-1] ATTITUDE HEURISTICS OF MENTAL ILLNESS PRONENESS AND SEXUAL ORIENTATION

IRB REFERENCE #: 18-043  
SUBMISSION TYPE: New Project

ACTION: APPROVED  
APPROVAL DATE: November 17, 2017  
EXPIRATION DATE: November 16, 2018  
REVIEW TYPE: Full Committee Review

Thank you for your submission of New Project materials for this research study. Fort Hays State University IRB has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a study design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

This submission has received Full Committee Review based on the applicable federal regulation.

Please remember that informed consent is a process beginning with a description of the study and insurance of participant understanding followed by a signed consent form unless documentation of consent has been waived by the IRB. Informed consent must continue throughout the study via a dialogue between the researcher and research participant. Federal regulations require each participant receive a copy of the signed consent document. The IRB-approved consent document must be used.

Please note that any revision to previously approved materials must be approved by this office prior to initiation. Please use the appropriate revision forms for this procedure.

All SERIOUS and UNEXPECTED adverse events must be reported to this office. Please use the appropriate adverse event forms for this procedure. All FDA and sponsor reporting requirements should also be followed.

Please report all NON-COMPLIANCE issues or COMPLAINTS regarding this study to this office.

Please note that all research records must be retained for a minimum of three years.

Based on the risks, this project requires Continuing Review by this office on an annual basis. Please use the appropriate renewal forms for this procedure.