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Differences in Discrimination and Mental Health Outcomes Between Sexual Minority and Majority Individuals

Kathryn Ellis

College of Saint Benedict
PROJECT TITLE: Mental Health Differences in Sexual Minorities and Sexual Majorities

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Abstract

The potential harmful effects of discrimination on sexual minority individuals have been related to many negative mental health outcomes. Much of the previous research has found that sexual minorities experience higher rates of psychological problems than sexual majorities (Faulkner & Cranston, 1998; Russell & Joyner, 2001). This study examined how discrimination based on sexual orientation is related to one’s mental health. It focused on how discrimination based on sexual orientation differed for those who are a sexual minority (any sexual orientation identification that is not heterosexual) as compared to those who are a sexual majority (anyone that identifies as heterosexual). The participants for this study, \((N = 119)\) were classified into two groups. Heterosexual participants identified as heterosexual \((n = 73)\) and non-heterosexual participants identified as a sexual minority \((n = 46)\). Sexual minority participants reported higher levels of discrimination and lower self-esteem than the sexual majority participants. Participants who identified as sexual minorities also reported lower levels of depression than sexual majority participants. There was no significant difference between the participants on attachment and social anxiety. Limitations and future implications are discussed.
Mental Health Differences in Sexual Minorities and Sexual Majorities

Researchers have been studying the relationships between the different kinds of discrimination can have on an individual’s mental and physical health for many years. Most studies have found a connection between discrimination and adverse health outcomes. Racism, sexism, and heterosexism are some types of discrimination associated with negative mental health outcomes.

Discrimination of racial minorities has been widely researched. Most studies researching racism and mental health outcomes find that people who self-report facing discrimination are more likely to have substance abuse, depression, low self-esteem, and anxiety than those with no perceived discrimination in Asian immigrants (Williams, Neighbors, & Jackson, 2003). Gee, Ryan, Laflamme, and Holt (2007) found that consistent, regular discrimination was a predictor of negative mental health, finding sporadic and infrequent discrimination in Asian immigrants. Another study found that if African Americans perceive an event as racist, sudden, and negative, they can exhibit symptoms of PTSD (Carter, 2007). Fryberg, Markus, Oyserman, and Stone (2008) did a study with Native Americans examining the outcomes associated with discrimination. They found that when Native Americans viewed Native-theme mascots, a form of racism, that they had higher levels of depression and lower self-esteem than those who did not view the mascots.

Cohen, Kessler, and Gordon (1995) discuss how the social stress theory can explain why racial discrimination can be so harmful. The theory suggests that discriminatory social events can become stressful when individuals view a circumstance as threatening. Also, racial discrimination can be experienced as an act of violence or assault on one’s sense of self, which is similar to other traumatic experiences (Bryant-Davis & Ocampo, 2005; Scurfield & Mackey, 2001). Carlson (1997) describes events that are psychologically and emotionally threatening to
an individual, and are also physically and/or life threatening, have the potential to produce traumatic stress. Based on those criteria, it is theorized that racial discrimination can be traumatic. Unfortunately, racism is a common form of discrimination and can elicit negative health outcomes for those experiencing it.

The negative impact of sexism is another widely researched topic. Research has shown a positive relationship between perceived sexism and women’s psychological stress (Moradi & Funderburk, 2006). The frequency of perceived sexism is related to a wide range of symptoms in women including: depressive, somatic symptoms, and overall distress greater than those due to everyday life events (Landrine, Klonoff, Gibbs, Manning, & Lund, 1995). Klonoff, Landrine, and Campbell (2000) found that women who reported having a low number of sexist events had the same psychological symptomology as men. But, women who reported experiencing a great number of sexist events had higher levels of depressive, anxious, and somatic symptoms than men.

Heterosexism is a topic that has recently been attracting a lot of attention. There is less research on the negative impact of heterosexism as compared to research on racism or sexism. Some research suggests that experiencing heterosexism as a sexual minority individual (i.e.: lesbian, gay, bisexual), is more harmful than sexism or racism (Szymanski, 2005) for several reasons. First, Hillier and Harrison (2004) suggest that people who are a racial minority most likely share their minority status with their parents and family who are able to affirm their minority identity. Family is an important source of social support because they can commonly share in the minority background (Ueno, 2005). This is almost never the case for people of sexual minorities. Even if the parents are supportive of their child, they are not able to relate to and affirm the child’s minority status in the same way they could for other marginalized social identities.
Second, being discriminated against as a sexual minority is potentially more damaging as the process of forming and accepting an LGB identity is typically a very stressful and challenging journey. This process involves accepting a nontraditional sexual orientation, reshaping one’s self-concept, and changing one’s relationship with society (Reynolds & Hanjorgiris, 2000). If you are a racial minority, for example, you do not have to go through this stressful and challenging process because you are a visible minority from birth.

Third, discrimination against sexual minorities can be more invisible but explicit than other kinds of discrimination. Given sexuality is an invisible identity, it is not obvious as to what someone’s sexual orientation is just by looking at them like it is for race and sex. Also, heterosexism is still socially acceptable in many social settings and generally people are more careful not to appear racist than they are to come off heterosexist. For example, most people would not make racist comments in front of an African American. However, since it is not obvious as to someone’s sexual orientation just by looking at them, sexual minority individuals are likely to be exposed to heterosexist comments by unknowing perpetrators (Sue, 2010). Sexual minorities who are exposed to heterosexist events are likely to feel ashamed, angry, or hurt in such situations (Carter, 2007). Being exposed to such discrimination is has potential to have many negative and lasting effects.

The potential harmful effects of discrimination on a sexual minority have been connected to many negative mental health outcomes. Much of the previous research has found that sexual minorities experience higher rates of psychological problems than sexual majorities (Faulkner & Cranston, 1998; Russell & Joyner, 2001). It has also been found that people of a sexual minority are more likely to use alcohol and drugs than the general population and they are more likely to abuse the substances (Weber, 2008). Weber (2008) found that 20-25% of gays and lesbians use
alcohol heavily, compared to 3-10% of the heterosexual population. Substance abuse and use can disconnect LGB people from any feelings of shame or anxiety they may be feeling due to their sexual orientation (Cabaj, 2000). People that have an alcohol or drug disorder reported experiencing more internalized homophobia (Szymanski, 2005). Alcohol and drugs can be a temporary relief from depression and any other negative feelings due to internalized homophobia (Weber, 2008).

Meyer (2003) found that sexual minorities were more likely to suffer from mental health concerns including depression and anxiety. Many sexual minority individuals interact in hostile environment of denial, discrimination, and abuse due to their sexual orientation. Because they have to live, work, or go to school in unfriendly atmospheres, it is not hard to believe that those individuals are at high risk to suffer from depression (Hillier & Harrison, 2004). The negative mental health issues sexual minorities deal with are likely to continue affecting them throughout their adult life (Harper & Schneider, 2003).

Another negative mental health outcome for sexual minorities is their likelihood to complete suicide is two to three times more likely than that of sexual majorities (Russell & Joyner, 2001). Nearly thirty percent of all successful suicides are related to issues around sexual identity (Gibson, 1989). Even more, of surveyed gay, lesbian, and bisexual youth, twenty-five to thirty percent admitted to attempting suicide with the mean age of attempt being 15.5 (Proctor & Groze, 1994). Being a sexual minority brings along many new and different stressors to the individual that contribute to the rising rate of suicide among sexual minorities (Kitts, 2005).

Sexual minorities who have strong social support, either through friends, family, or both, are much more likely to obtain a positive identity and can better defend themselves against negative mental health outcomes due to heterosexism (DiPlacido, 1998). D’Augelli (1998) found
that one third of sexual minorities have experienced verbal abuse from their family and one in four has experienced physical abuse or threats from a peer. It is rare for homosexual couples to have immediate and lasting support of their relationship from their family (Laird & Green, 1996). Same-sex couples tend to also have to defend and explain their relationship to their friends and family (Rich, 1980). Knowing how important social support is to sexual minorities, it is easy to believe the research indicating sexual minorities are at a greater risk for mental health issues than sexual majorities.

Given that researchers studying racism and sexism have found that discrimination is related to negative mental health including depression and traumatic stress (Carlson, 1997), it is reasonable to assume heterosexist discrimination could have a similar impact. Also, many studies indicate that people facing discrimination based on their sexual orientation will experience more harmful effects than those facing any other kind of discrimination. This harmful effect has been shown in previous studies to be linked to higher rates of psychological problems such as depression, suicide, and substance abuse in sexual minorities. Given these prior findings, the purpose of this study was to continue to investigate how discrimination based on sexual orientation is related to one’s mental health. More specifically, this study investigated the following hypotheses:

1. There will be a difference between sexual minority individuals and heterosexual participants in self-reported discrimination, with sexual minority participants reporting higher levels of discrimination.

2. There will be a difference between sexual minority individuals and heterosexual participants in self-reported self-esteem, with sexual minority participants reporting lower levels of self-esteem.
3. There will be a difference between sexual minority individuals and heterosexual participants in self-reported depression, with sexual minority participants reporting higher levels of depression.

4. There will be a difference between sexual minority individuals and heterosexual participants in self-reported attachment, with sexual minority participants reporting more ambivalent and avoidant attachment styles.

5. There will be a difference between sexual minority individuals and heterosexual participants in self-reported social anxiety, with sexual minority participants reporting higher levels of social anxiety.

**Method**

**Participants**

The participants for the study, \( N = 119 \), were individuals ages 18 and older. In the overall sample, most of the participants were White American \( n = 109 \) and female \( n = 77 \). The participants were also mainly Catholic \( n = 61 \) with the next highest identifying as having no religious affiliation \( n = 19 \). The sample was divided into two groups. The first group of participants identified as heterosexual \( n = 73 \). The participants were recruited from two small, Catholic, and liberal arts colleges located in central Minnesota. These participants were recruited through the participant pool of an Introduction to Psychology course (PRIA). The participants in Heterosexual participants were mainly White American \( n = 68 \). The other races represented were Black American not Hispanic \( n = 1 \), Asian/Asian American \( n = 3 \), and Latino/a \( n = 1 \). This group was made up of 73% females \( n = 53 \) and 27% males \( n = 20 \). The majority of the participants in this group came from middle income families \( n = 50 \), with only a small portion from low income families \( n = 16 \) and even fewer from high income families \( n = 7 \). The
political values for Heterosexual participants was pretty evenly distributed between those who are conservative \((n = 21)\), in the middle \((n = 27)\), and those who are liberal \((n = 24)\), per their self-report. As expected, most of the participants identified as Catholic \((n = 48)\). The other religious affiliations represented in this group were Lutheran \((n = 10)\), other Christian \((n = 7)\), religion not listed, \((n = 3)\), and no religious affiliation \((n = 5)\). The average age of participants in this group was \(M = 18.74 \ (SD = .84)\).

The second group of participants identified as gay, lesbian, bisexual, or any other non-heterosexual orientation \((n = 46)\). These participants were recruited through snowball sampling techniques via email and social networking contacts and contained individuals from different locations around the country. This group of participant was also made up of mainly White Americans \((n = 40)\). The other races in this group were those of more than one ethnicity \((n = 2)\) and other race not listed \((n = 3)\). Gender for this group was evenly distributed between females \((n = 23)\) and males \((n = 22)\). The different sexual orientations represented in this group were those who identified as gay \((n = 23)\), lesbian \((n = 16)\), bisexual \((n = 2)\) and queer \((n = 2)\). Like Heterosexual participants, Non-heterosexual participants had participants who were mostly from middle income families \((n = 24)\), with the rest coming from low income families \((n = 11)\) and high income families \((n = 10)\). Most of the participants indicated being liberal in their political values \((n = 41)\) with only a few in the middle \((n = 3)\) and conservative \((n = 1)\). There was more diversity in level of education for Non-heterosexual participants with participants only graduating high school \((n = 1)\), some college \((n = 12)\), a Bachelor’s Degree \((n = 11)\), some graduate school \((n = 6)\), a Master’s Degree, \((n = 11)\), and a Ph.D \((n = 4)\). There was a wide range of religious affiliations represented in this group: Catholic \((n = 12)\), Lutheran \((n = 3)\), Baptist \((n
DIFFERENCES IN DISCRIMINATION

= 1), other Christian \((n = 9)\), religion not listed \((n = 6)\), and no religious affiliation \((n = 14)\). The average age of participants in this group was \(M = 36.80\) \((SD = 14.25)\).

Materials

**Schedule of Sexist Events.** The Schedule of Sexist Events (SSE, Klonoff & Landrine, 1995) is a 20-item Likert-type measure that identifies to what extent women have been treated differently or unfairly because of their gender on a six-point scale ranging from “1 = If the event has never happened to you” to “6 = If the event happened almost all of the time.” The SSE was modified to fit the current study by changing the wording of items from “because you are a woman” to “because of your sexual orientation.” Examples of items on this scale include “How many times have you been treated unfairly by your family because of your sexual orientation?” and “How many times have you been called a discriminatory name because of your sexual orientation?” Higher scores indicated being treated in a heterosexist way more frequently. The Schedule of Sexist Events was chosen for this study to measure whether discrimination based on sexual orientation impacts mental health.

The Schedule of Sexist Events has shown high internal reliability with Cronbach’s alphas above .90. The SSE has a test-retest reliability of \(r = .70\) (Klonoff & Landrine, 1995). In previous research, this scale was correlated with two well-known and widely used measures of stressful events: the Hassles-F, which measures the frequency of daily minor, stressful events, and the PERI-LES, which measures the frequency of major stressful events (Klonoff & Landrine, 1995). For this study, the SSE had high internal reliability with Cronbach’s alpha of \(\alpha = .96\).

**Self-Esteem Measure.** The Rosenberg Self-Esteem Scale (RSES, Rosenberg, 1965) is a 10-item Likert-type measure that identifies individual differences in self-esteem on a four-point scale ranging from “1 = strongly agree” to “4 = strongly disagree.” The RSES was chosen for
this study to measure whether an individual’s level of self-esteem is related to prior experiences of discrimination due to sexual orientation. Examples of items on this scale include “I feel that I have a number of good qualities,” and “I feel I do not have much to be proud of.” Higher scores indicate higher self-esteem.

The Rosenberg Self-Esteem Scale is frequently used to assess one’s self-esteem. This scale has high reliability and test-test correlations that range from .82 to .88 (Rosenberg, 1965). The RSES has very similar patterns of correlation with the Physical Appearance Scale (r = .55, .58, .43) and the Scholastic Competence Scale (r = .48, .41, .47). (Harter, 1988), demonstrating good validity of the measure. In this study, the RSES had high internal reliability with a Cronbach’s alpha of $\alpha = .82$.

**Adult Attachment Measure.** The Adult Attachment Scale (AAS, Collins & Read, 1990) is an 18-item Likert-type measure that identifies individual differences in one’s attachment in relationships on a five-point scale ranging from “1 = not at all characteristic of me” to “5 = very characteristic of me.” The AAS was chosen for this study to measure how an individual’s attachment in relationships is related to prior experiences of discrimination due to sexual orientation. The AAS contains three subscales: Close, Depend, and Anxiety. The Close subscale measures how comfortable one is with closeness and intimacy. An example of a Close subscale question is “I am somewhat uncomfortable being close to others.” The Depend subscale measures to what extent an individual is comfortable depending on others to be available when they are needed. An example of a Depend subscale measure is “I find it difficult to allow myself to depend on others.” The Anxiety subscale measures to what extent a person worries about being abandoned or unloved. An example of an Anxiety subscale questions is “In relationships, I often worry the my partner will not want to stay with me.”
These scales have shown good internal consistencies ($\alpha = .75$) for the Depend items, ($\alpha = .72$) for the Anxiety items, and ($\alpha = .69$) for the Close items. The AAS also has shown test-retest reliability with correlations above .70 (Collins & Read, 1990). The AAS was based off of and correlated with the well-known Hazan and Shaver’s (1987) measure of attachment. The AAS also has high concurrent validity with the Adolescent Relationship Questionnaire (Domingo & Chambliss, 1998). In this study, the AAS had adequate internal reliability for each subscale: ($\alpha = .82$) for the Depend items, ($\alpha = .65$) for the Anxiety items, and ($\alpha = .80$) for the Close items.

**Social Anxiety Measure.** The Social Interaction Anxiety Scale (SIAS, Mattick & Clarke, 1998) is a 20-item Likert-type measure that identifies individual differences in the extent of one’s anxiety in social situations on a five-point scale ranging from “1 = not at all” to “5 = extremely.” The SIAS was chosen for this study to measure how an individual’s social anxiety is related to prior experiences of discrimination due to sexual orientation. Examples of items on this scale are “I find it easy to make friends my own age,” and “I feel I’ll say something embarrassing when talking.” Higher scores indicate greater levels of social anxiety.

This scale has shown to have good internal consistency ($\alpha > 0.90$) as well as good test-retest reliability ($r > 0.91$) (Peters, Sunderland, Andrews, Rapee, & Mattick, 2012). It has also proven to have good construct validity with correlations to the Social Phobia Scale (Mattick & Clarke, 1998). For this study, the SIAS had high internal reliability with Cronbach’s alpha of $\alpha = .85$.

**Depression Measure.** The Center for Epidemiologic Studies Depression Scale (CES-D, Radloff, 1977) is a 20-item Likert-type measure that identifies individual differences in one’s depressive symptoms on a four-point scale ranging from “1 = rarely or none of the time” to “4 = most or all of the time.” The CES-D was chosen for this study to measure whether a person’s
depressive symptoms are related to prior experiences of discrimination due to sexual orientation. Examples of items on this scale are “I was bothered by things that don’t usually bother me,” and “I felt hopeful about the future.”

The CES-D has good internal consistency above .87. This scale has a test-retest reliability of .62 (Roberts, Andrews, Lewinsohn, & Hops, 1990). Validity was demonstrated by correlating well with other well-known and established depression scales, the Zung Depression Scale ($r = .90$) and the Beck Depression Inventory ($r = .81$) (Seto, Cornelius, Goldschmidt, Morimoto, & Day, 2005). For this study, the CES-D had high internal reliability with Cronbach’s alpha of $\alpha = .91$.

**Demographic Questions.** Twelve demographic questions were included in the survey to get a better understanding of the characteristics of the sample. Items included age, gender, sexual orientation, and marital status.

**Procedure**

The survey was administered using a secure, online survey program. Upon entering the study using an online link, participants first gave consent to participate in the study and then completed the measures. The online link included the twelve demographic questions, the Social Interaction Anxiety Scale, the Center for Epidemiologic Studies Depression Scale, the Adult Attachment Scale, the Rosenberg Self-Esteem Scale, and the Schedule of Sexist Events. The surveys were counterbalanced to control any order effects. No identifying information was attached to the survey to ensure anonymity. The survey took participants approximately 20 minutes to complete.

Non-heterosexual participants that were recruited via snowball sampling had the choice to be placed in a drawing to receive one of two Target gift cards as compensation. The
heterosexual participants that were recruited from the university setting received credit for an Introduction to Psychology course in return for their participation in the study.

Results

The first hypothesis of this study was that individuals who identify as a sexual minority would experience higher levels of discrimination. This hypothesis was tested using the modified Schedule of Sexist Events scores as a measure of frequency of discrimination events. Using an independent samples t-test, this hypothesis was supported, \( t(119) = -6.57, p < .05 \). The mean for heterosexual participants was \( M = 53.46 \) (\( SD = 13.94 \)) and the mean for non-heterosexual participants was \( M = 76.38 \) (\( SD = 23.31 \)). This means that non-heterosexual individuals report experiencing higher levels of discrimination than heterosexual individuals.

The second hypothesis, that individuals who identify as a sexual minority would report having lower levels of self-esteem, as self-reported on the RSES, was also supported, using an independent sample t-test, \( t(119) = 5.32, p < .05 \). The mean for heterosexual participants was \( M = 22.68 \) (\( SD = 5.65 \)) and the mean for non-heterosexual participants was \( M = 17.59 \) (\( SD = 3.72 \)). These results indicate that non-heterosexual individuals report having lower self-esteem than heterosexual individuals.

The third hypothesis, that individuals who identify as sexual minorities would report higher scores of depression, as measured with the CES-D, was not supported. Using an independent samples t-test, there was a significant difference, \( t(119) = 2.43, p < .05 \). However, the differences seen were not in the direction predicted in that the mean for heterosexual participants was \( M = 37.25 \) (\( SD = 9.36 \)) and the mean for non-heterosexual participants was \( M = 32.80 \) (\( SD = 9.24 \)). These scores indicate that those who identify as a sexual majority reported
higher scores of depression than those who identify as a sexual minority, which is opposite of the original hypothesis.

The fourth hypothesis was that individuals who identify as a sexual minority would report lower scores of attachment indicating more ambivalent and avoidant attachment as measured by the AAS. This hypothesis was not supported based on the overall scores or in any of the three subscale scores: Close, $t(119) = -1.37, p > .05$, Depend, $t(119) = -.81, p > .05$, and Anxiety, $t(119) = .89, p > .05$. For the Close subscale, the mean for heterosexual participants was $M = 3.63$ ($SD = .80$) and the mean for non-heterosexual participants was $M = 3.83$ ($SD = .73$). For the Depend subscale, the mean for heterosexual participants was $M = 3.19$ ($SD = .85$) and the mean for non-heterosexual participants was $M = 3.32$ ($SD = .82$). For the Anxiety subscale, the mean for heterosexual participants was $M = 2.61$ ($SD = .64$) and the mean for non-heterosexual participants was $M = 2.49$ ($SD = .86$). The results for this hypothesis were not significant. These scores indicate that there were no significant differences in attachment between heterosexual and non-heterosexual individuals.

The last hypothesis, that those who identify as a sexual minority would report having higher social anxiety, as measured by the SIAS, was also not supported, $t(119) = -.39, p > .05$. The mean for heterosexual participants was $M = 45.81$ ($SD = 13.8$) and the mean for non-heterosexual participants was $M = 46.66$ ($SD = 5.56$). There were no significant differences in the social anxiety scores for those who identify as a sexual minority compared to those who identify as a sexual majority.

**Exploratory Results**

Correlations were run with the non-heterosexual participants’ data to examine the relationships between self reported discrimination and the other mental health outcomes. Even
though some of the hypothesis did not yield significant results, the significant correlations between the SSE and the AAS Close subscale, the RSES, and the SIAS show that there is some relationship present. These results can be seen in Table 1.

Table 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. AAS Close</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. AAS Depend</td>
<td>.686**</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. AAS Anxiety</td>
<td>-.145</td>
<td>-.399**</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. RSES</td>
<td>-.437**</td>
<td>-.520**</td>
<td>-.429**</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. CES-D</td>
<td>-.133</td>
<td>-.255</td>
<td>.352*</td>
<td>.485**</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. SIAS</td>
<td>-.430**</td>
<td>-.408**</td>
<td>.317*</td>
<td>.483**</td>
<td>.342*</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>7. SSE</td>
<td>-.297*</td>
<td>-.250</td>
<td>.196</td>
<td>.259*</td>
<td>.562**</td>
<td>.304*</td>
<td>--</td>
</tr>
</tbody>
</table>

Note. AAS Close = Close subscale of the Adult Attachment Scale, AAS Depend = Depend subscale of the Adult Attachment Scale, AAS Anxiety = Anxiety subscale of the Adult Attachment Scale, RSES = Rosenberg Self-Esteem Scale, CES-D = Center for Epidemiologic Studies Depression Scale, SIAS = Social Interaction Anxiety Scale, and SSE = Schedule of Sexist Events.

* Indicates a correlation at the p < .05 level
** Indicates a correlations at the p < .01 level

These results indicate a significant relationship between self-reported discrimination and self-esteem, depression, and social anxiety. Although a causal link cannot be stated, these relationships indicate an important connection between discrimination and various mental health outcomes.

**Examination of Non-heterosexual outcome scores to previous samples.** Data from other studies that used the same outcome measures used in this study were looked at, specifically
any study doing research with other minority groups, to compare the means of the sexual
minority group, non-heterosexual participants, in this study.

Overall, other minority samples from other studies look similar to the current sample on
the outcome measures. The Collins and Read, (1990) did not specify the race or ethnicity of its
participants. There is limited research with minority groups using the AAS so comparison was
difficult. The individuals in a study by Catz, Gore-Felton, and McClure, (2002) study, which
assessed depression using the CES-D, were HIV positive, African American women, showed
similar results. Tummala-Narra, Inman, and Ettigi, (2011) measured self-esteem using the RSES
with Asian Indians, also found similar results to this study. The other study that measured self-
esteeem with the RSES with minority adolescents, with the majority of the participants identifying
as Black or Latino/a, again had comparable results, (Martin-Nemeth Penckofer, Gulanick,
Velsor-Friedrich, & Bryant, 2009). Hsu and Alden, (2008) measured social anxiety, using the
SIAS, in first generation Chinese-American students and had results that were much lower than
the mean for this study. The Schedule of Racist Events, which is scale the Schedule of Sexist
Events was modified from, looked at racist events experienced by African-American individuals
and also had a much lower mean score than this study. The means for the sexual minority
individual group in this study and the comparison means can be found below in Table 2.

Table 2
Comparisons of non-heterosexual participants mean scores with other minority samples

<table>
<thead>
<tr>
<th>Measures</th>
<th>M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adult Attachment Scale</strong></td>
<td></td>
</tr>
<tr>
<td>Non-heterosexual participants Close</td>
<td>3.83 (.73)</td>
</tr>
<tr>
<td>Non-heterosexual participants Depend</td>
<td>3.32 (.82)</td>
</tr>
<tr>
<td>Non-heterosexual participants Anxiety</td>
<td>2.49 (.86)</td>
</tr>
<tr>
<td>Collins and Read, (1990) Close</td>
<td>3.53 (.80)</td>
</tr>
<tr>
<td>Collins and Read, (1990) Depend</td>
<td>3.05 (.78)</td>
</tr>
<tr>
<td>Collins and Read, (1990) Anxiety</td>
<td>2.70 (.85)</td>
</tr>
<tr>
<td><strong>Center for Epidemiologic Studies Depression Scale</strong></td>
<td></td>
</tr>
<tr>
<td>Non-heterosexual participants</td>
<td>32.80 (9.24)</td>
</tr>
</tbody>
</table>
Another finding was a significant difference in political values between heterosexual participants and non-heterosexual participants, *t*(119) = -7.02, *p* < .05. The mean for heterosexual participants was *M* = 4.04 (SD = 1.48) and the mean for non-heterosexual participants was *M* = 5.78 (SD = .95) indicating non-heterosexual participants reported more liberal political values than heterosexual participants.

There was also a significant difference in weekly alcohol consumption, *t*(119) = -3.60, *p* < .05. The mean for heterosexual participants was *M* = 1.56 (SD = .62) and the mean for non-heterosexual participants was *M* = 2.02 (SD = .75). This result indicates that the participants in non-heterosexual participants consume more alcohol on a weekly basis than the participants in heterosexual participants. This finding, that non-heterosexual individuals consume more alcohol than heterosexual individuals, is a common finding, (Cabaj, 2000). Even though this finding is backed by previous research, it should be looked at cautiously because many of the participants in heterosexual participants were not of drinking age.

**Discussion**

The overall purpose of this study was to explore if people who identify as a sexual minority face more discrimination and have worse mental health outcomes than those who
identify as heterosexual, hypothesizing that those who do identify as a sexual minority face more discrimination and have more serious mental health outcomes than those who identify as a sexual majority. The first hypothesis, that sexual minority individuals will report higher levels of discrimination than sexual majorities was supported in this study. This finding is important because previous research has found that discrimination based on sexual orientation can be negative for an individual’s mental health, family support, and self-acceptance (Hershberger & D’Augelli, 1995). It has also been found that heterosexist discrimination is very common among sexual minority individuals and can potentially lead to long-term, negative mental health problems (Herek, Gillis, Cogan, & Glunt, 1997). Previous research has also found that those who are discriminated against based on their sexual orientation have more negative psychological problems than those who do not face discrimination on a daily basis (Faulkner & Cranston, 1998; Russell & Joyner, 2001).

This finding is also important because previous research has found that experiencing heterosexism could be more damaging than experiencing racism or sexism (Szymanski, 2005). Unlike someone who is African American, people who identify as sexual minorities are unable to directly relate to their family about being discriminated against. Even if the family is supportive, they would not be able to relate to them (Hillier & Harrison, 2004), as they are likely heterosexual. Also, sexual minority individuals have to go through a journey and a discovery process of forming and accepting an LGB identity. This is typically a very stressful and challenging process that involves accepting a nontraditional sexual orientation, reshaping one’s self-concept, and changing one’s relationship with society (Reynolds & Hanjorgiris, 2000). People who are heterosexual typically do not have to go through this stressful and challenging journey when developing their sexual orientation identity.
In this study, the hypothesis that sexual minority individuals would have lower self-esteem than those of sexual majorities was also supported. This study’s findings suggest that people of sexual minorities report less self-esteem than sexual majorities. Having these negative feelings about oneself can be harmful and can affect many areas of one’s life. One explanation for this finding is that discrimination based on sexual orientation can have long-term effects on one’s self-image (Harper & Schneider, 2003). Much of society still views that same-sex sexual orientation as sinful or wrong. Not having social support can be very damaging to one’s mental health. Also, those who are in same-sex couple typically find themselves having to defend their relationship to family, friends, and others (Rich, 1980).

Internalized homophobia, the process of unconsciously accepting heterosexist societal messages into one’s self-concept, may also explain this finding (Szymanski & Kashubeck-West, 2008). Living in a society where many people do not accept your lifestyle can be exhausting and can take a toll on one’s mental health (Reilly & Rudd, 2006) as such messages can cause one to internally believe heterosexist values. Researchers have found that those who suffer from higher degrees of internalized homophobia report having lower self-esteem, which can potentially lead to more psychological distress over time (Kashubeck-West & Szymanski, 2008).

Additionally, self-esteem is usually a more stable and permanent feature of one’s self-concept and is often based on social interactions with family and peers, in contrast, depression and anxiety are more fluid experiences that are dependent on current circumstances (Barlow & Durand, 2009). One explanation for why the hypotheses on depression and social anxiety were not supported may be due to how the consequences of discrimination may be manifesting themselves in different ways, such as low self-esteem, which was supported. Many of the participants in the sexual minority group were older adults who are most likely no longer
struggling to “come out” or questioning their sexual orientation. So instead of feeling depressed or experiencing anxiety, as they most likely were during that earlier time of identity development, their negative emotions may now be more internalized and have affected their self-esteem, which is a more core aspect of one’s being and personality.

The hypothesis that sexual minorities will report more symptoms of depression than sexual majorities did yield significant results, however not in the direction that was hypothesized. This study found results indicating that sexual majorities are more depressed than sexual minorities. Since other studies are consistent with the original hypothesis, this finding was unexpected. Meyer (2003) and Hillier and Harrison (2004) both found that sexual minority individuals report having higher levels of depression than those who are heterosexual. However, one explanation for these results may be reflective of the age of the sample in heterosexual participants as more college-age students suffer from depression than any other age group. In 2008, 8.7% of 18-25 year olds suffered from depression, versus 7.4% of 19-49 year olds and only 4.5% of those 50 years old or older (SAMHSA, 2008). Heterosexual participants had an average age of 19 for the participants where non-heterosexual participants had an average age of 37. This difference in age could be the reason for not finding a significant difference in depression in the same direction as the hypothesis.

Another possible explanation for why depression was found in the direction not hypothesized could be due to the potential stereotype threat faced by non-heterosexual participants. When taking the survey, non-heterosexual participants may have feared that if they report honestly on mental health conditions that it would reflect poorly on the entire non-heterosexual population. This is especially likely as homosexuality used to be considered a psychological disorder, which is a very difficult stigma to eliminate (Zucker & Spitzer, 2005).
Bosson, Haymovitz, and Pinel (2004) found that when sexual minorities were observed in a situation and then asked about the same situation, stereotype-threatened participants exhibited more anxiety but self-reported no change in anxiety. Although this study tested anxiety, these findings on stereotype threat relate to the self-reporting of depression.

The last two hypotheses, that sexual minorities have more ambivalent and avoidant attachment and experience more social anxiety than sexual majorities also did not yield significant results. Neither hypothesis was supported indicating there is no difference on these two variables between the groups.

There is a significant amount of research on attachment theory but very little relating it to discrimination based on sexual orientation. Attachment theory suggests that the early attachment experiences are most important and influential in forming attachment style and social functioning later in life. Experiences in childhood are what shape whether or not we feel worthy of love, care, or a relationship (Zhang & Labouvie-Life, 2004). Based on that research, it is assumed that attachment does not change much after it is developed in childhood. This could be one reason no significant results were found in this study. If most people’s attachment is formed in childhood and changes very little after that, then discrimination would have less influence over one’s base attachment style.

As previously stated, there was no significant difference in experiences with social anxiety between the groups. Meyer (2003) found that sexual minority individuals report higher levels of anxiety than sexual majorities, so the lack of significant results in the current study were unexpected. One explanation as to why there was not a significant difference in social anxiety could be due to the difference in the age of the Heterosexual participants and Non-heterosexual participants. As mentioned previously, heterosexual participants had an average
participant age of 18 whereas non-heterosexual participants had an average participant age of 37. One study that put participants in stressful social situations found that the older adult participants were less anxious than the young adult participants (Teachman & Gordon, 2009). If the average age was consistent between the groups, the results may have been in support of previous research.

This study also found some interesting exploratory results. The correlations done with the non-heterosexual scores between the outcome measures, specifically how they correlated with the Schedule of Sexist Events, did yield many significant results. The SSE had a negative correlation with the AAS Close subscale indicating that the more comfortable participants reported being close and intimate with a partner, the less discrimination was experienced by this non-heterosexual participants. The reason for this result could be that, as mentioned earlier, attachment style is formed very early in life, (Zhang & Labouvie-Life, 2004). Because of that theory and research that backs it up, it should be assumed that all AAS subscales would be negatively and significantly correlated with the SSE. The Depend and Anxiety subscales did not yield significant correlations.

There was a significant, positive correlation between the RSES and the SSE which indicates that participants that reported more discrimination also reporting having higher self-esteem. This result is opposite of what is expected when talking about discrimination and self-esteem. One explanation for this correlation could be that many of the participants in the non-heterosexual group were older adults, (Barlow & Durand, 2009). They may feel more discrimination, but because they are no longer in that struggle to come to terms with their sexual orientation, they are better able to handle the discrimination they face and not allow it to negatively affect their self-esteem.
It was unexpected that the hypothesis that sexual minority individuals would report being more depressed was not supported. After additional analysis of the non-heterosexual participants’ scores, it was found that there was a significant, positive correlation between the non-heterosexual participants’ self-reported depression and discrimination. This indicates that the more discrimination the participant’s faced, the more depressed they were. It is not possible to know if the discrimination is what caused the depression, but there is a correlation between the two. This result is important as it does find results previous research has found that there is a relationship between discrimination and depression, (Hillier & Harrison, 2004).

There was a significant, positive correlation between the non-heterosexual SIAS and SSE scores, indicating that as participant’s reported experiencing more discrimination they reported experiencing greater levels of social anxiety. This finding was important as it shows that there is some relationship between those two variables. Since the hypothesis stating that sexual minority individuals would report higher levels or social anxiety than sexual majority individuals, it was helpful to find that there was a significant relationship between social anxiety and discrimination for the non-heterosexual participants, even though again, cause cannot be stated. This result is consistent with previous research that has also found that experiencing high levels of discrimination is related to higher levels of social anxiety, (Meyer, 2003).

Other studies, specifically ones that dealt with other minority groups, that used the same measures as this study were looked at to compare the mean scores to see if the minority groups were similar on the same measures. One study measured depression of HIV+, African American women, (Catz et al., 2002). This sample of women yielded a very similar mean score as the participants in the non-heterosexual group. This indicates that, like previous research has found,
there is a relationship between different kinds of discrimination and depression, (Gee, Ryan, Laflamme, & Holt, 2007).

Two different studies were looked at that measured self-esteem. One measured the self-esteem of Asian Indians and the other of minority Adolescents, (Tummala-Nara et al., 2011; Nemeth et al., 2009). These studies with different minority groups also yielded overlapping results of the non-heterosexual participants of this study. Again, this is important as it indicates there are similarities in how discrimination relates to many different minority groups.

This study compared the social anxiety of the non-heterosexual participants to another study who measured social anxiety of first generation Chinese-American students, (Hsu & Alden, 2002). Unlike depression and self-esteem, these results were not at all similar to the results of this study. The non-heterosexual participants in this study reported almost twice as high of scores on social anxiety than the first generation Chinese-American students. Like mentioned earlier, researchers have begun to find support and research indicating that experiencing heterosexism as a sexual minority can be more harmful to mental health outcomes than experiencing racism or sexism, (Reynolds & Hanjorgiris, 2000).

The non-heterosexual participants’ scores on discrimination were compared to the original sample of the Schedule of Sexist Events, which was African-American participants, (Landrine & Klonoff, 1995). The scores for the non-heterosexual participants were again much higher than that of the racial minority scores. Since the Schedule of Sexist Events was modified specifically for this study, the SSE was the only study that these discrimination scores could be compared with. The uneven results could be due to the fact that, although the scales are similar, they are in fact different and measure different kinds of discrimination.
Sexual minorities reported having more liberal political values than sexual majorities. This suggests that sexual minorities, out of necessity, are their own advocates and that they support the political values that endorse their rights. Traditionally, many conservative groups are against LGBT rights such as same-sex marriage or equal protection (Yarhouse & Burkett, 2002). Another finding was that sexual minorities reported consuming more alcohol on a weekly basis than those of sexual majorities. This result has been found in previous research indicating that people of sexual minorities may cope and self-medicate because of the discrimination they face everyday that is not experienced by sexual majorities (Cabaj, 2000). Also, sexual minorities that suffer from an alcohol or drug disorder reported experiencing more internalized homophobia than those sexual minorities who do not have a substance abuse disorder (Szymanski, 2005).

Limitations

While the findings of the current study are an important step forward in understanding the experience of non-heterosexual individuals, there are several important limitations to consider. First, there are several limitations in regard to the sample. One of these limitations was the age discrepancy between the two groups. Since there was a difference between the age ranges, age differences could be an unintended variable in some of the results.

For example, the finding that the heterosexual group reported more depression symptoms than the non-heterosexual group may be the result of an error or limitation in the study due to the age difference of the participants in each group or some other variable unaccounted for. Since the heterosexual participants were mostly college-aged and the non-heterosexual participants ranged from 18 years old to 67 years old, these results could be indicating that college-aged students are more likely to show symptoms of depression than older adults.
Another limitation was that this study used convenience sampling. The sample for this study is not representative of the entire population. This causes some limitations in interpreting the results that were found because the findings may not represent the entire population. The sample of heterosexual participants came entirely from a small, liberal arts college in central Minnesota. There are many different expectations and experiences of someone living in a small-town in the Midwest compared to someone from a big city, the West Coast, or the East Coast. The non-heterosexual participants were recruited through snowball sampling techniques starting again in Minnesota. It is possible that some of the participants were not from the Midwest area, but the majority most likely came from the Midwest, which presents similar limitations as with the heterosexual population in relating the results to people living on either coast or in a large city.

Also, this study was entirely self-report and used a non-experimental, survey methodology. It is possible that people may not have been entirely honest in their responses, which may have altered some of the results. This is particularly important and possible when difficult questions were asked of an oppressed and marginalized group of people. There is a great chance that the non-heterosexual participants did not answer as honestly or put less extreme responses than actually felt or experienced because of the nature of the questions. Also, with a non-experimental methodology, cause cannot be stated. Even though the results indicate significant differences between heterosexual participants and non-heterosexual participants on some of the variables, it is not possible to know if those variables caused the results of another variable.

Implications and Future Directions
These results may be important in clinical settings where non-heterosexual clients are seeking services. As a helping professional, it is important to understand what the differences may be in clients who are sexual minorities, sexual majorities, or with those who are confused and questioning their sexual orientation. People who are sexual minorities face many more challenges and discrimination on a daily basis than those who are sexual majorities (Faulkner & Cranston, 1998) and such discrimination may impact self-esteem. Understanding the differences and how the discrimination may be affecting your client is essential to help clients. It is important to be educated in multicultural issues in order to be successful in helping clients in the best way possible and not causing harm.

One direction that could next be explored is studying the differences in discrimination and mental health outcomes in people of sexual minorities who are still in the journey of coming out and accepting their sexual orientation compared to those sexual minorities who have been out for many years. This study found that there may be some difference in these variables and age and it would be beneficial to better understand this relationship.

Another direction could be examining the relationship between where a person is in the coming out process and whether that impacts self-esteem, depression, or other mental health outcomes. Since it was unclear due to the age discrepancy, further research in this direction could indicate if those who are still questioning or coming to terms with their sexual orientation may experience depression where as those who have been out for a while no longer show symptoms of depression but instead have low self-esteem, or if these two variables typically occur at the same time. It is unclear in this study if these two mental health outcomes are related in any way, it could be advantageous to see if they are in fact correlated in any way.
In order to avoid some of the limitations in this study, it would be beneficial to get a more balanced and representative sample. Although some results in this study were in congruence with previous studies, the difference in the age of participants in each group may have accounted for some of the results that were not found to be significant in this study.

Overall, it is important for psychologists to understand the negative impacts of discrimination for non-heterosexual individuals. The discrimination they face can be quite damaging to many aspects of their mental health, self-esteem, and may interrupt their lives in negative ways. Understanding how and why discrimination is so damaging to non-heterosexual individuals is an important step in decreasing or eliminating the discrimination.
References


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