

GAY MEN, MINORITY STRESS AND ROMANTIC RELATIONSHIPS

A Dissertation

Presented to

The Graduate Faculty of The University of Akron

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

Michael J. Andorka

August, 2013

GAY MEN, MINORITY STRESS AND ROMANTIC RELATIONSHIPS

Michael J. Andorka

Dissertation

Approved:

Accepted:

Advisor
Dr. Linda Subich

Department Chair
Dr. Paul Levy

Committee Member
Dr. Suzette Speight

Dean of the College
Dr. Chand Midha

Committee Member
Dr. Dawn Johnson

Dean of the Graduate School
Dr. George R. Newkome

Committee Member
Dr. Kuldhir Bhati

Date

Committee Member
Dr. Robert C. Schwartz

ABSTRACT

Gay men experience, internalize, and expect more stigma than do their lesbian and bisexual men/women peers (Herek, 2009; Balsam & Mohr, 2007). Subsequently, it is important to investigate gay men's beliefs about themselves, such as the stereotypical assumption of gay men's inability to have or maintain romantic relationships (Meyer & Dean, 1998; Peplau, 1991). Using a combination of the minority stress model (specifically, experienced discrimination, stigma consciousness, internalized heterosexism and self-concealment) and self-efficacy theory, two path models were constructed to explore this association with the novel relationship constructs of relationship self-efficacy and optimism. The investigation improved past research by the measurement of the minority stress variables, the use of a sample of only gay men, and the use of social media data collection. To test these models, 522 participants were collected. Although both models were outright rejected, three surprising findings emerged. First, the self-efficacy mediation model was supported after a slight alteration to include a direct path from internalized heterosexism to relationship optimism. Secondly, a positive path emerged from experiences of discrimination to relationship self-efficacy. Thirdly, support was found for using an exploratory feminist model which included experiences of discrimination as antecedents to proximal stress processes of minority stress. The findings are discussed in terms of contributions to and future directions for the minority stress model and the inclusion of feminist theory in the

exploration of gay men's concerns regarding relationships. Limitations, future directions, and contributions to the field of Counseling Psychology are discussed.

DEDICATION

To Tio Jose.

ACKNOWLEDGEMENTS

Getting a Ph.D in psychology is not an easy process. I would not have been able to make it without the love and support of several of my mentors, teachers, supervisors, family and friends.

First and foremost, I want to thank my mom and dad. Your love and support have taught me the most important lessons on how to be a caring, considerate, passionate, and hard-working future psychologist. You have sacrificed much in your life to help with my career success. I love you with all of my heart. To my sister Teresa: thank you for all your love and encouragement over the years. You demonstrated your belief in me when I oftentimes questioned my belief in myself.

My high school English teachers initially supported my education. Without the guidance and care from Mrs. Moluse, Mrs. Mazur, and Ms. Gallagher, I doubt I would have had much impetus (or confidence) to pursue college yet alone a Ph.D. Your wise words and gentle counsel are tools that I carry with me to this day. My high school theatre director, Mrs. Valerie Farschman, was another influential figure in my young years. Although I did not fulfill my acting aspirations, the artful lessons I have learned from you invigorate my creative energy and enhance my capacity for empathy with my clients.

During my college years, three influential women deserve special mention. My main support came from Nicole Craven as a mentor, a confidant and a friend. I will not

ever forget your role in making me feel comfortable in my own skin. Mary Kate Castor also helped me see my passion to want more from my life; I still think about our talks and your gentle nudges. My undergraduate research advisor, Dr. Tracy Tylka, was instrumental to my career, as I doubt I would have thought graduate school was an option without your support.

To my graduate faculty: Dr. Speight, Dr. Bhati, and the late Dr. Rogers strongly influenced and helped develop my critical thinking skills. Dr. Rogers once told me that if I completed graduate school thinking I know less than when I started, then the faculty were successful. You are most definitely right. To Dr. Subich and Dr. Johnson: the graduate program would be non-existent without your dedication, hard work, and passion with working with graduate students. You are invaluable.

To my clinical supervisors: my love for clinical work has increased ten-fold under your collective wings. Dr. Drogosz, Dr. Hayden, Dr. Chen and Dr. Craig, you have inspired me to be the best clinician I can. Thank you.

Lastly, to my graduate school friends...especially Adrienne and Haley. There were many Subway and Bob Evans experiences that kept me going. I know for sure that I would not have made it through graduate school without your love, kindness and support. I look forward to our continued friendship.

TABLE OF CONTENTS

	Page
LIST OF TABLES	xi
LIST OF FIGURES	xii
CHAPTER	
I. STATEMENT OF THE PROBLEM	1
Sexual prejudice	2
Mental health sequelae associated with discrimination	4
Institutional discrimination and discrimination related to LGB relationships	6
Summary and extension	7
II. REVIEW OF THE LITERATURE	9
Minority stress model	9
Research on multiple constructs of the minority stress model	11
Research on relationship constructs among gay men	17
Qualitative research	17
Minority stress constructs with limited or lack of research with LGB relationships	33
Summary on gay men's relationships and minority stress	39
Extending the minority stress model: Gay men and relationship optimism and self-efficacy	41
Summary and Hypotheses	49

III. METHODOLOGY	59
Participants	59
Instruments	60
Procedures	66
Data Analyses	72
IV. RESULTS	75
Missing by design and multiple imputation	75
Data modification	79
Descriptive statistics	81
Hypothesis one	83
Hypothesis two	88
Exploratory model	89
Summary	90
V. DISCUSSION	94
Interpretations of the findings – Hypothesis one	96
Direct effect of internalized heterosexism on relationship optimism	97
Positive path from experiences of discrimination to relationship-self-efficacy beliefs	98
Interpretation of the findings – hypothesis two	104
Alternative exploratory model	105
Improvements upon past research	107
Limitations	109
Future research directions	113

Implications for practice and conclusions for Counseling Psychology	114
REFERENCES	118
APPENDICES	132
APPENDIX A: NUNGESSER’S HOMOSEXUAL ATTITUDES INVENTORY (NHAI)	133
APPENDIX B: HETEROSEXIST HARRASSMENT, REJECTION, AND DISCRIMINATION SCALE (HHRDS)	135
APPENDIX C: STIGMA CONSCIOUSNESS QUESTIONNAIRE (SCQ)	137
APPENDIX D: NEED FOR PRIVACY SUBSCALE OF THE LESBIAN AND GAY IDENTITY SCALE (LGIS)	138
APPENDIX E: OPTIMISM ABOUT RELATIONSHIPS SCALE (OARS)	139
APPENDIX F: RELATIONSHIP SELF-EFFICACY SCALE (RSEBS)	140
APPENDIX G: CONSENT FORM	141
APPENDIX H: DEMOGRAPHICS QUESTIONNAIRE	145
APPENDIX I: QUALTRICS SURVEY	147
APPENDIX J: IRB APPROVAL	167

LIST OF TABLES

Table	Page
1. Path analysis fit indices based on Kline (2011)	73
2. Descriptive statistics for independent and dependent variables	82
3. Correlations between independent and dependent variables	82
4. Mediation effects with hypothesis one	84
5. Model differences based on relationship status for whole model	85
6. Model differences based on relationship status for the path coefficient of discrimination - relationship self-efficacy beliefs	86
7. Hierarchical regression with relationship self-efficacy as a criterion	87

LIST OF FIGURES

Figure	Page
1. The minority stress model	10
2. Proposed minority stress model with relationship self-efficacy beliefs as a mediator	56
3. Proposed minority stress model predicting relationship self-efficacy and relationship optimism separately	57
4. Model specified by hypothesis one	92
5. Adjusted model specified by hypothesis one	92
6. Initial adjustment of model specified by hypothesis two	93
7. Exploratory model specified by feminist theory	93
8. Meyer's (2003) original model, highlighting coping and social support	100

CHAPTER I

STATEMENT OF THE PROBLEM

Congruent with the tenets of counseling psychology, Speight and Vera (2008) reinforced the need for research examining the effects of oppression in the everyday lives of minority group members. As such, this investigation aims to explore non-clinical gay men's internalization of negative stereotypes about gay men's relationships.

Research supports LGB individuals experience heterosexism and discrimination based on their sexual orientation (Mays & Cochran, 2001). Further, it is known that gay men experience more discrimination and harassment than their lesbian and bisexual peers (Berrill, 1990; D'Augelli & Grossman, 2001; Herek, 2009; Herek, Gillis, & Cogan, 1999; Todosijevic, Rothblum, & Solomon, 2005). In this chapter, the extent to which gay men experience a continuum of discrimination is illustrated, and the mental health sequelae theorized to be a response to said discrimination are examined. Lastly, the way that discrimination could affect the self-appraisals of a non-clinical sample of gay men in the domain of romantic relationships is delineated. The main purpose of this investigation is to explore whether experiences of oppression relate to gay men's perception of their ability to maintain a romantic relationship.

Sexual prejudice

Prejudice and discrimination against LGB individuals have had different names over time, including homophobia, heterosexism, heteronormativity and sexual prejudice. Herek (2000) further explained that homophobia is an inaccurate nomenclature, because homophobia “implicitly suggests antigay attitudes are best understood as an irrational fear and that they represent a form of individual psychopathology rather than a socially reinforced prejudice” (Herek, 2000, p. 19). Therefore, heterosexism and sexual prejudice are the more appropriate nomenclature and are used in this current investigation; these terms more accurately reflect societal components of this phenomenon.

Documenting the prejudice experienced by LGB persons, Mays and Cochran (2001) noted LGB persons experience more discrimination (in general) and more discrimination related to their identity than do their heterosexual peers; this was true for both large, lifetime events and daily hassles. Further, LGB individuals experienced greater psychological distress for a bias-based crime than a non-bias-based crime (i.e., not based on sexual orientation) (Herek et al., 1999).

Studies of prevalence rates also have documented acts of discrimination against LGB individuals: 19% of 1420 gay men and 654 lesbians reported being “punched, hit, kicked, or beaten” at least once in their lives because of their sexual orientation (Berrill, 1990, p. 275). In 1997, 1102 hate crimes based on sexual orientation were reported (Herek, 2000). Forty-four percent of Herek’s respondents were threatened with physical violence and 94% experienced some sort of victimization (e.g., verbal abuse, physical attack, vandalism). Further, 83% stated fear of victimization in the future, 62% feared for

their safety, and 45% had modified their behavior to avoid further discrimination (Herek, 2000).

In a more contemporary analysis, Herek (2009) assessed a U.S. national probability sample of LGB persons for the prevalence of criminal victimization due to sexual orientation. Overall, 13.1% of LGB participants indicated experiencing violence based on their sexual orientation at least once in their lives. Specifically, Herek (2009) discovered: 14.9% experienced a property crime; 25% experienced attempted crimes; 12.5% had objects thrown at them; 23.4% were threatened with violence; and 49.2% endured verbal abuse. In addition, one out of ten participants experienced housing or employment discrimination.

Gay men are targeted more often than are lesbians and bisexuals for violence and discrimination. For instance, Berrill (1990) reported gay men experienced statistically greater levels of anti-gay verbal harassment, threats, victimization in school and by police, and physical violence/intimidation. Further, Herek (2009) found that gay men reported the highest level of expected stigma, which is the expectation of discrimination and prejudice because of one's sexual orientation. Even after controlling for age, race, ethnicity, and educational level, gay men still reported higher levels of enacted stigma, which are overt acts of discrimination experienced because of one's sexual orientation. Specifically, gay men were more likely than were lesbians and bisexual men/women to report experiencing anti-gay violence, crimes against their property, and threats of violence. In conclusion, lifetime prevalence estimates from Herek's (2009) sample indicate that one in four gay men in their lifetime will be physically assaulted due to their sexual orientation.

Herek et al. (1999), using venue-sampling of Sacramento LGB individuals, also found that men were more likely than were women to experience hate crimes based on their sexual orientation, and gay individuals were more likely to experience hate crimes than were bisexual individuals. Furthermore, Todosijevic et al. (2005) found group differences between gay male and lesbian couples, in the sense that gay male couples reported significantly more stressors related to the experience of violence. Lastly, gay men reported more discrimination regardless of age; D'Augelli and Grossman (2001) found gay men ages 60 to 91 were significantly more likely to experience victimization compared to their lesbian peers.

Overall, these findings are consistent with past research demonstrating heterosexual men's "attitudes toward gay men are significantly more hostile than their attitudes towards lesbians" (Herek, 2000, p.255). Indeed, Herek (2000) stated that heterosexuals have more intense negative attitudes towards gay men than towards lesbians, and that heterosexual men compared to heterosexual women had stronger negative attitudes towards gay men. Given the extreme amount of discrimination they experience, it is imperative to study psychological responses to discrimination with a sample of gay men.

Mental health sequelae associated with discrimination. It is intuitive to connect such discriminatory events, evidenced by the aforementioned research, with negative mental health sequelae and negative perceptions of oneself. Indeed, in a conceptual article, Herek and Garnets (2007) postulated gay men and lesbians might have more negative mental health consequences due to sexual stigma. Herek and Garnets provided evidence

from other studies that non-heterosexuals manifest more anxiety and mood disorders and report more suicidal ideation and suicide attempts.

Several studies have linked anti-gay discrimination to mental health consequences. Swim, Johnston, and Pearson (2009) conducted a study to compare lesbian, gay and bisexual individuals' experiences with daily hassles of heterosexism and daily hassles of everyday life. Compared to women, the men in the study were more likely to experience increased anger, anxious mood, and depressed mood after experiencing heterosexist hassles. The researchers also found associations between experiencing heterosexist hassles and an increased perception of society's negative opinion of LGB people and an increased negative perspective of one's own LGB identity. A further study by Szymanski (2009) found that gay and bisexual men experienced heterosexism at least once in the previous year, and noted that the highest level of heterosexism stemmed from familial interactions. Additionally, Szymanski (2009) found heterosexist events and the interaction of heterosexist events and self-esteem were robust predictors of psychological distress.

Other researchers have linked extreme forms of discrimination to mental health symptoms. Herek et al. (1999) discovered that individuals who experienced victimization due to a hate crime against their sexual orientation had higher levels of depression, traumatic stress, anxiety and anger than did individuals who experienced a crime not related to bias. Also, the experience of a hate crime challenged participants' beliefs about the world, and cultivated "post crime feelings of vulnerability and personal identity" (Herek et al., 1999, p.950). Individuals who experienced a hate crime were more likely to view the world as unsafe and experience powerlessness related to their LGB identity.

Institutional discrimination and discrimination related to LGB relationships

Discrimination against LGB individuals is conceptualized not only as hassles and overt physical victimization, but as institutional and systemic discrimination as well. For example, as of July 2013, only thirteen states (i.e., Connecticut, Massachusetts, Iowa, New York, Vermont, New Hampshire, Maine, Maryland, Washington, Minnesota, California, Delaware, and Rhode Island) and Washington, D.C. allowed same-sex marriage. Other states (e.g., Colorado, Delaware, Hawaii, Illinois, Nevada, Oregon, Rhode Island and Wisconsin) have offered or will offer civil unions for same-sex partners by July 2013, but most states prohibit same sex marriage. Furthermore, twenty-nine states have constitutional amendments specifying marriage between one man and one woman, and twelve states have laws which prevent the state employees from recognizing same-sex marriages from other states (Schwartz, 2011). The federal Defense of Marriage Act passed in 1996 established marriage as a union between one man and one woman, that states are responsible for marriage laws, and that no state has to recognize a same-sex marriage from another state. Although the U.S. Supreme Court found the Defense of Marriage Act unconstitutional in June 2013, yet to be seen at the time of this writing is how this act by the Supreme Court will affect the majority of states that deny same-sex marriage.

Psychological and social researchers have supported the connection between such macro-level institution barriers, negative relationship constructs, and negative psychological sequelae among LGB individuals. Riggle, Rostosky, and Horne (2010) found LGB individuals who were in legally-recognized same-sex relationships had statistically less psychological distress (e.g., feeling that one's life is meaningful), overall

stress, depression, and internalized heterosexism compared to those in non-legally recognized committed LGB relationships. Further, Hatzenbuehler, McLaughlin, Keyes, and Hasin (2010) found increased rates and comorbidity of mental disorders of LGB residents in states which created bans on same-sex marriage in 2004 and 2005 compared to LGB residents in states without amendments banning same-sex marriage. The LGB community also sees discrimination as a devaluation of their intimate pursuits (Frost, 2011).

Summary and extension

The aforementioned research demonstrates gay men are recipients of discrimination (Herek et al., 1999; Mays & Cochran, 2001) and experience discrimination more so than do lesbians and bisexual men and women (Berrill, 1990; D'Augelli & Grossman, 2001; Herek, 2009). Furthermore, research has demonstrated associations between experiencing discrimination and mental health sequelae among LGB samples (Herek et al., 1999; Swim et al., 2009; Szymanski, 2009). Congruent with counseling psychology's interests in non-clinical populations, as well as the field's interest in how oppression affects marginalized populations (e.g., Packard, 2009), the purpose of this study is to elucidate the extent to which gay men internalize specific negative stereotypical beliefs about their romantic relationships, which are oftentimes referred to as "fleeting and impermanent."

The minority stress model (Meyer, 2003) is one way to conceptualize the plethora of factors involved in experiencing oppression, and can fully encompass how discrimination may affect gay men's cognitions related to their romantic relationships and their subsequent mental health outcomes. Specifically, through such mechanisms as

daily hassles (Swim et al., 2009) and hate crimes (Herek et al., 1999), gay men experience marginalization. Furthermore, this marginalization takes the form of institutional discrimination with federal and state law banning same-sex marriage and commitment, thus reiterating the sentiment that same-sex relationships are less valid and authentic compared to heterosexual marriage. This is compounded by stereotypical beliefs which devalue gay men's relationships, including the perceived promiscuity of gay men, as well as gay men's supposed lack of desire or ability to have enduring romantic relationships (Meyer & Dean, 1987; Peplau, 1991). These beliefs are largely inaccurate, as research suggests lesbian, gay and bisexual individuals ascribe similar meaning as do heterosexuals to their personal romantic projects (e.g., finding a partner, going on more dates, moving in with partner [Frost, 2011]), but the beliefs nevertheless may affect gay men's cognitive constructions of their relationships.

The minority stress model has been used to explore relationship constructs among gay men in the past (e.g., Frost & Meyer, 2009), but overall there is little research in this area. In the present research, two novel and strength-based relationship constructs, relationship self-efficacy beliefs and relationship optimism, are examined. Although not examined in prior research, these constructs are relevant to the myths promulgated about gay men's relationships, and are examined to determine if they are sensitive to the negative effects of systemic and internalized beliefs that diminish same-sex relationships and of extant negative stereotypes about gay men's ability to maintain intimacy in their relationships.

CHAPTER II

REVIEW OF THE LITERATURE

Researchers have demonstrated through survey and experimental research (i.e., Hendren & Blank, 2009; Ute & Banse, 2006) that gay men are frequent recipients of discrimination. Consequently, it is imperative to understand how this oppression may affect these men, specifically in areas yet to be explored, like perceptions of relationships. This project focuses more specifically on the relation of such oppression to gay men's relationships.

The association between oppression and gay men's relationships is a burgeoning area of research. This research is reviewed to lay the foundation for the present project. First, the model of minority stress and research that uses minority stress model as a vehicle to model variables related to mental health outcomes is introduced and explored. Following, a literature review of the writing and research on LGB romantic relationships is presented. Last, a summary of the research concludes this chapter, followed by the present hypotheses and the hypothesized theoretical models.

Minority stress model

The minority stress model is often used as a vehicle for research into gay men's concerns. Meyer (1995) developed minority stress model based on psychological and sociological theories. For example, Meyer expanded Lazarus and Folkman's (1984) conceptualization of how stress affects individuals and combined it with societal reaction

theory, which states that marginalized individuals adapt to incongruent societies through positive and negative coping mechanisms, which may include mental health symptoms (Meyer, 1995). These mechanisms are reactions to oppressive, discriminatory forces known as “social stress,” something that was not originally conceptualized by Lazarus and Folkman (1984), who conceptualized stress as a private, as opposed to a systemic, mechanism. Meyer (2003) defined social stress as “suggesting conditions in the social environment, not only personal events, are sources of stress that may lead to mental and physical ill effects” (Meyer, 2003, p. 675). Meyer (2003) continued to explain that minority stress is unique, additive to “normal” everyday stress, chronic and socially based.

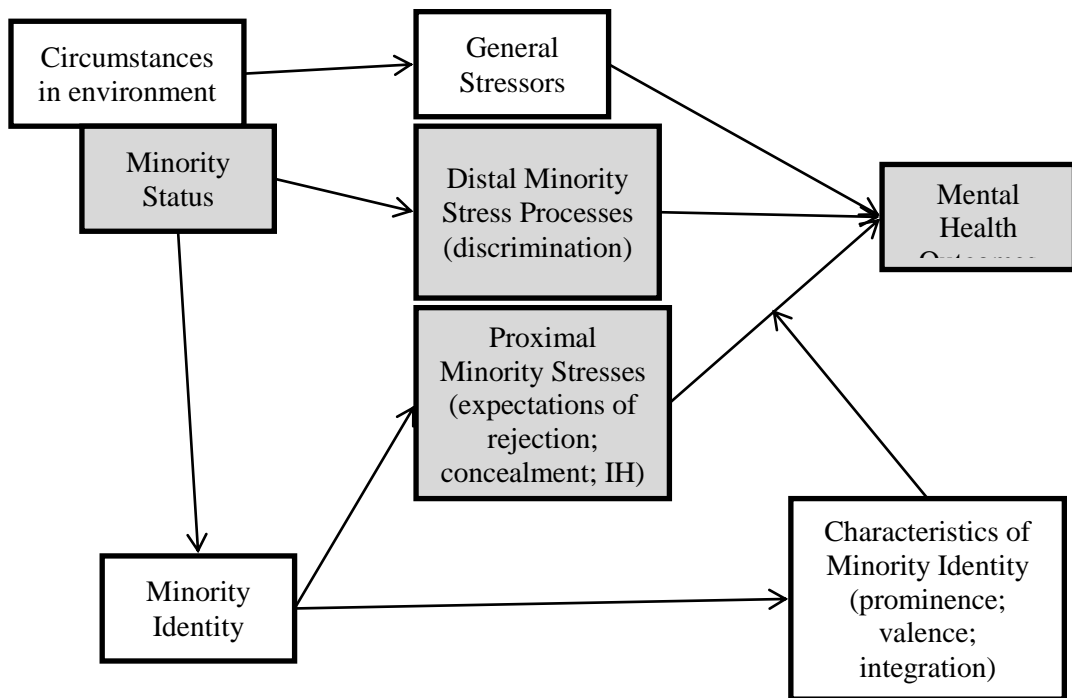


Figure 1. The Minority stress model. Please note: the current investigation uses the variables in the shaded boxes.

Meyer (1995) designed the minority stress model (depicted in Figure 1) to help explain gay men's increased distress due to the aforementioned social forces and possible methods of coping with discrimination. He created his minority stress model specifically with gay men, and conceptualized this model as having multiple components. These components include distal and proximal stress processes. Distal stress processes include specific prejudice events, including actual physical violence (e.g., Herek et al., 1999) and experiencing everyday microaggressions or "daily hassles" of oppression (e.g., Shelton & Delgado-Romero, 2011; Swim et al., 2009). Further, Meyer conceptualized distal stressors as objective events that do not require one's appraisal of the event.

Proximal stress processes include expectations of rejection, internalized heterosexism, and concealment of sexual orientation. In regards to expectations of rejection, Meyer (1995/2003) conceptualized this construct as an anticipatory expectation that other individuals and society will reject their gay identity. Further, internalized heterosexism means that an individual might internalize society's negative perceptions and negative stereotypes about gay persons. Lastly, self-concealment describes the tendency for an individual to conceal his sexual orientation due to avoiding conflict or discrimination (Meyer, 1995, 2003). These variables will be reviewed and examined further in relation to LGB relationships variables in this chapter. The following research includes studies that have demonstrated support for the minority stress model as a whole. *Research on multiple constructs of the minority stress model.* In early research, Meyer (1995) explored how minority stress may affect five areas of psychological distress – demoralization, guilt, suicidal ideation/behavior, AIDS-related traumatic stress response, and sex problems. The sample consisted of gay-identified, mostly White (89%) and HIV-

negative men in New York City who were part of a longitudinal study. The researcher collected the sample in 1987 as part of a study on the effects of the AIDS epidemic on the gay community. The sample (n=741) consisted mainly of men with strong connections to the gay community, as evidenced by the sampling methods (e.g., solicited through gay organizations/groups and snowball sampling). Independent variables consisted of the distal (e.g., experiences of actual prejudiced events) and proximal stress processes (e.g., internalized heterosexism and expectations of stigma). It should be noted that associations between the independent variables were low (internalized heterosexism/stigma, $r=.09$, $p = .01$) or nonexistent (prejudice events/internalized heterosexism, $r=.03$, *ns*, and prejudiced events/stigma, $r=.05$, *ns*) indicating that these variables represented distinct constructs. These findings supported a hallmark of the minority stress model, for example, that one does not have to experience discriminatory events in order to internalize anti-LGB societal messages.

Meyer (1995) found that internalized heterosexism, prejudicial events, and expectations of stigma were significantly associated with the dependent variables of demoralization, guilt, suicidal ideation/behavior, and AIDS-related traumatic stress response, even after confounding variables (i.e., ethnicity, education, income, and relationship status) were controlled. When taken together as a model, all three independent variables predicted unique variance in psychological distress above and beyond confounding variables. Conclusively, this finding supported important tenets of minority stress model (expectations of stigma, internalized heterosexism, and prejudiced events) and their relation to gay men's psychological distress.

A subsequent study examined the minority stress model in relation to body image (Kimmel & Mahalik, 2005). The researchers were interested in how minority stress, as delineated by Meyer (1995/2003), could predict body image concerns among gay men. Kimmel and Mahalik hypothesized that having a larger, more muscular (and therefore, masculine) body could theoretically serve as a protective factor for gay men against heterosexism. As such, Kimmel and Mahalik constructed a measure that assessed perceived lack of muscularity and associated it with deficits in masculinity (i.e., masculine body ideal distress). In other words, Kimmel and Mahalik constructed a measure that combined body image dissatisfaction with adherence to masculine gender role norms. The components of minority stress used in this investigation included internalized homophobia, stigma (expectations of rejection) and a history of antigay attack (prejudiced event) measured with a dichotomous response. Kimmel and Mahalik found support that minority stress does relate to the way one views one's body, especially when adding masculinity to minority stress components. Conclusively, the minority stress model was effective in predicting and exploring body image concerns among gay men (Kimmel & Mahalik, 2005). Therefore, this research further supports the minority stress model and delineates how its components relate to the negative way that an individual perceives himself.

Other researchers have examined the minority stress model in conjunction with additional stressors. For instance, Hatzenbuehler, Nolen-Hoeksema, and Erikson (2008) used minority stress components to predict HIV risk behavior, substance use, and depressive symptoms among gay men who had lost a significant other (partner or friend) to AIDS-related causes. The sample consisted of 74 gay male caregivers of individuals

who were dying from AIDs-related causes in California from 1989 to 1992, when an HIV diagnosis was lethal. Slightly less than half of the participant caregivers indicated that they were HIV positive themselves. Variables included in the study consisted of HIV-transmission risk behavior, substance use and abuse, depressive symptoms, minority stress factors (specifically, prejudiced events, internalized homophobia, and expectations of rejection) and bereavement-related stress. Hatzenbuehler et al. (2008) used hierarchical linear modeling and assessed the participants before the loss of their caretaker (pre-loss) and anywhere from 1 month to 18 months post-loss. Results indicated a significant effect of prejudiced events, internalized homophobia and expectations of rejection on HIV risk behavior, substance use (including alcohol) and depression. Further, these same minority stress factors were more predictive of HIV risk behavior, substance use and depressive symptoms than was bereavement. It appears that minority stress is additive to general stress and associated with mental health outcomes, including HIV risk acts, depression, and substance abuse.

Another study supporting the minority stress hypothesis and its components addressed mental health outcomes among older lesbian, gay, and bisexual individuals. Specifically, Kuyper and Fokkema (2010) examined the role of minority stress in the experiences of loneliness in lesbian, gay and bisexual older adults in the Netherlands. Kuyper and Fokkema's (2010) sample consisted of 122 older adult lesbian, gay and bisexual men and women ages 55 to 85. A majority of the participants were men (60%) and gay/lesbian (78.1%). Results from a stepwise regression revealed that certain components of minority stress (i.e., experiences of prejudiced events and expectations of prejudiced reactions) predicted unique variance in reported loneliness that was

independent of health, self-esteem, social activity and partner status. Therefore, Kuyper and Fokkema (2010) provided evidence that gay, lesbian and bisexual individuals experience negative mental health outcomes, even among older adult populations outside the United States. Experiencing loneliness associated with stigma might be related to other affective differences due to experienced stigma (e.g., depression [Hatzenbuehler et al., 2008; Frost & Meyer, 2009]).

Similarly, Balsam and Mohr (2007) conducted research using multiple minority stress components, including outness (self-concealment), stigma sensitivity, and internalized homonegativity. They also analyzed differences among gay men, lesbian women, and bisexual men and women on multiple variables, as well as how these variables relate to psychosocial functioning. Psychosocial functioning in this study was defined as psychological distress, self-esteem, life satisfaction, and two different kinds of social support. With a sample of 613 LGB participants, they found a main effect for gender and sexual orientation for their minority stress components. Balsam and Mohr (2007) found significant gender differences in stigma sensitivity and internalized homonegativity; men reported higher levels of stigma sensitivity and internalized homonegativity compared to scores reported by women. The investigation also discovered that each minority stress variable assessed in the study (i.e., community connectedness, self-disclosure, internalized homonegativity, stigma sensitivity, identity confusion, and identity superiority) was predictive of psychosocial functioning. Using regression analyses, they found that outness was related to social support but unrelated to well-being. This investigation supported the need for additional research using both

internalized homonegativity and stigma sensitivity among sexual minority men due to the aforementioned main effect for gender.

More recently, Kelleher (2009) provided further support for the minority stress model by examining prejudiced events, expectations of rejection, and internalized heterosexism with young LGBTQ persons in Ireland. The researcher's sample included 301 self-identified, mostly male (69%), and mostly gay (55%) youth aged 16-24. With a multiple regression analysis, Kelleher (2009) found that actual experiences of discrimination (measured with Waldo's [1999] Workplace Heterosexist Experiences Questionnaire) were the strongest predictor of psychological distress followed by internalized heterosexism as the next robust, unique predictor. Further, expectations of rejection were positively associated with symptoms of anxiety, depression, and suicidal ideation. The minority stress variables taken together accounted for 31.5% of the variance in psychological distress in this youth sample.

Thus, components of the minority stress model as a whole relate to negative psychological sequelae in multiple ways. For instance, internalized heterosexism, experiences of prejudiced events, and expectations of rejection have been associated with demoralization, guilt, suicidal tendencies, AIDs-related traumatic stress (Meyer, 1995), body image concerns (Kimmel & Mahalik, 2005), and psychological distress (namely, anxiety, depression, and suicidal ideation [Kelleher, 2009]). Also, Hatzenbuehler et al. (2008) found concealment of one's sexual orientation, internalized heterosexism, and expectations of rejection were related to depression, substance use, and HIV-risk behaviors above and beyond a concurrent stressor (bereavement). Baslam and Mohr (2007) supported the importance of considering gender as they found a main effect of

gender on internalized homonegativity and stigma sensitivity. They further noted that internalized homonegativity, stigma sensitivity, and outness related to psychosocial functioning. Lastly, the minority stress factors of experiences of prejudiced events and expectations of rejection predicted loneliness with an older LGB adult population above and beyond other criteria that would normally affect psychological distress in an older adult population (Kuyper & Fokkema, 2010). In their totality, these studies support the use of these specific minority stress variables in exploring mental health sequelae among LGB individuals. The next section highlights these variables in the context of the LGB relationship literature.

Research on relationship constructs among gay men

Multiple researchers have demonstrated evidence for associations of gay men's relationship concerns with minority stress variables. This research and similar research conducted with heterogeneous samples of LGB individuals is presented as the relationship literature specific to gay men is limited. This section focuses on the minority stress variables included in this investigation within a relationship context and the research in support thereof.

Qualitative research. Researchers using qualitative data also have supported the association of minority stress variables to relationship outcomes. Frost (2011), using a narrative approach, explored same-sex relationships in relation to stigma with 99 individuals currently in lesbian and gay relationships. The sample consisted of individuals (mean age: 34) who identified as lesbian, gay or bisexual with a mean relationship length of about seven years. The sample was collected through active, passive, and snowball sampling strategies, like emails, posts to listservs, and

encouragements for participants to forward the survey to LGB friends and peers. Most participants were European American and had some college education. The method of data collection included the “Relationship Story Elicitation Method.” Frost (2011) asked participants to tell stories of key events in their relationships, namely a high point, a low point, an important decision-making point and a point related to achieving an important goal. Lastly, participants received a prompt to discuss their experiences of discrimination or stigma in their relationship. Frost (2011) analyzed his data using content analysis, including focusing on topics rooted in the minority stress model and pertinent to this investigation (i.e., internalized heterosexism, concealment, expectations of rejection, and discrimination).

The researcher organized the content areas through a narrative approach, by which the participants constructed and integrated their experiences of stigma and intimacy in relationships. The researcher found six “strategies” used by the participants in order to bridge their experiences of intimacy with that of stigma. Most importantly, twenty-three individuals reported a strategy of the “heavy weight” of stigma, with comments or stories containing themes of stigma consistently having “an ever-present, negative weight” (Frost, 2011, p. 5). For example, a lesbian woman articulated how stigma from society and her partner’s family is salient, so much so that she believes it might lead to the end of her relationship. It should be of note that this strategy was the most common strategy endorsed by the participants (23 out of 99 participants). In other words, the most common strategy to “make sense” out of stigma related to intimacy was that stigma is seen as deteriorating their intimate relationships and challenging their relationships’ endurance.

Limitations of this study include the use of older participants who have been in a relationship for a lengthy period of time (similar to other investigations). Frost (2011) also did not assess how single individuals may incorporate these negative beliefs about the salience of stigma in regards to LGB relationships.

Rostosky, Riggle, Gray, and Hatton (2007) also conducted qualitative research on LGB relationships; they were interested in how minority stress affected the committed partnerships of same-sex couples. The sample in Rostosky et al.'s study consisted of 40 sex-same couples (20 male, 20 female) who were at least 18 years old and had been in a relationship for 6 months or longer. The couples were mostly European American, middle-aged (mean=34.5 years) and had an average relationship length of 5.33 years. A majority of the couples were cohabitating. The design included giving the couples certain prompt questions (e.g., "What does being committed mean to you?" and "What are some barriers to your relationship?"). The researchers then gave the couples 40 minutes to discuss these questions on their own while being videotaped. The qualitative team analyzed the interviews using the consensual qualitative research method, and results illustrated multiple themes related to the minority stress model.

Rostosky et al. (2007) did not find any themes that fell outside of the minority stress model. For example, over half the participants talked about institutional (legal/religious) discrimination as a theme. Additionally, the participants discussed stereotypes about lesbian and gay relationships, including "the common negative stereotype that same-sex relationships are fleeting and impermanent" (Rostosky et al., 2007, p. 395). Other negative stereotypes discussed by the participants included promiscuity, adherence to rigid gender roles, and the deficit of visible gay and lesbian

couples who model long-term relationship success. The participants also endorsed themes of experiencing and anticipating rejection and concern over hiding or disclosing their relationship. Lastly, slightly fewer than half of the participants mentioned internalizing the negative stereotypes of society; one in four couples reported “low expectations for the longevity of their relationship” (Rostosky et al., 2007, p. 396).

Meyer and Dean (1998) conducted a landmark study that further highlights the low expectations of longevity in the Rostosky et al. (2007) qualitative work. Meyer and Dean (1998) hypothesized that, during the coming out process, gay individuals may internalize the belief that they do not want or are unable to have enduring intimate relationships; this belief was thought to be based on perpetuated myths of LGB individuals (e.g., Peplau, 1991). The researchers conducted cross-sectional research as a part of the Longitudinal AIDS Impact Study to explore this research question, and they gathered information on internalized heterosexism, feelings of intimacy, and risky sexual behaviors with a group of gay men. The sample consisted of two different data points in the longitudinal study; data were used from 738 persons of the original sample (1987) and 174 young men from another sample (1990). These gay men were contacted primarily through snowball and random sampling of gay organizations. The older sample consisted of mostly Caucasian and educated older males (mean age = 36), and the younger follow-up cohort included more racial/ethnic minorities (29% identified as non-white) with a mean age of 22.

Overall, Meyer and Dean’s (1998) sample evidenced low variability in internalized heterosexism; most of the sample endorsed low levels of this construct. The researchers discovered, however, men with higher levels of internalized heterosexism had

statistically lower levels of gay community involvement, had a weaker gay identity, and were less likely to be in an intimate relationship.

Meyer and Dean (1998) further analyzed results from men who were in a relationship at the time of data collection, and found significant associations between internalized heterosexism and length of relationship, cohabitation, and relationship discord. In other words, men who were in relationships and had higher levels of internalized heterosexism, were in relationships for less time, were less likely to cohabitate, and thought more often about terminating the relationship. These findings, consistent with what would be expected based on the minority stress model, provide evidence for the association between internalized heterosexism and multiple aspects of gay men's intimate relationships.

Meyer and Dean's study was one of the only studies to analyze relationship constructs solely with gay men; this is a definite strength of their study. However, limitations exist. For example, Meyer and Dean reported low variability in their internalized heterosexism variable, which was measured by an ego-dystonic homosexuality scale. This measure was constructed by using the criteria of the DSM III's diagnosis of ego-dystonic homosexuality, which tends to measure more extreme forms of internalized heterosexism (e.g., "I wish I could change my sexual orientation from gay to straight"). Furthermore, Meyer and Dean's sample was collected through gay organizations. A measure assessing very strong negative attitudes about one's gay identity with a sample collected through gay organizations (which may have individuals with a strong gay identity) seems counterintuitive. A more robust measure that assesses internalized heterosexism on multiple dimensions (i.e., broad range of internalized

heterosexism) may provide more variability with this construct. A sample collected through a non-gay organization domain may also help collect a normal distribution of internalized heterosexism. Another limitation of this research is a possible cohort effect, as this data was collected in the late 1980s and early 1990s.

To explore further how internalized heterosexism is related to relationship constructs, Frost and Meyer (2009) conducted an empirical study of how internalized heterosexism may affect relationship quality among LGB individuals. The sample consisted of 396 lesbian, gay and bisexual men and women recruited for a large epidemiological study. From February 2004 to January 2005, participants were recruited from hundreds of venues in multiple New York City zip codes, and from social groups via snowball sampling methods. The researchers were purposeful about selecting an equal number of men and women, as well as an equal number of White, Black, and Latino/a participants (each represented a third of their sample). About 18% of the sample identified as bisexual, and approximately half of the participants indicated being in a relationship.

Frost and Meyer extended past research by analyzing the association between internalized heterosexism and the “closeness of individuals’ interpersonal relationships with friends and family and within romantic relationships” (Frost & Meyer, 2009, p. 99). Their rationale for assessing relationships with friends and family supposed internalized heterosexism and its possible attenuation of social support. The researchers used minority stress variables (e.g., outness, community connectedness, internalized heterosexism) as a vehicle to explore relationship strain/problems. Frost and Meyer defined these dependent constructs with latent variables such as sexual problems, loneliness, quality of

relationships, and relationship difficulties among partnered individuals. Furthermore, Frost and Meyer (2009) proposed a partial mediation model, with depressive symptoms mediating the relationship between internalized heterosexism and relationship strain.

Overall, Frost and Meyer (2009) supported the minority stress model's prediction regarding relationship constructs. For single participants, internalized heterosexism was predictive of relationship problems with friends and family. This pattern was similar with participants in partnerships; internalized heterosexism predicted relationship strain with their current partner. For both single and coupled participants, internalized heterosexism, community connectedness, and outness did not have significant paths in the SEM model to the dependent variable: relationship strain/problems. However, Frost and Meyer discovered full mediation of depression for the relationship between internalized heterosexism and relationship strain. This was the case for both single and coupled individuals. In other words, internalized heterosexism was associated with symptoms of depression, and symptoms of depression were associated with relationship problems/strain (for single and coupled participants, respectively).

Although the results of Frost and Meyer (2009) are helpful in conceptualizing lesbian, gay and bisexual relationships as a whole, the external validity is limited in the sense that they do not differentiate how gay men, lesbian women, and bisexual men and women experience minority stress variables associated with relationship problems/stain. Frost and Meyer tested a specific model applicable to multiple members of the LGB community with measures that assessed identification to the LGB community. Since the sample was broad, perhaps a more focused model assessing stereotypical assumptions about nuances of relationship characteristics that may differ for lesbian women, bisexual

men/women and gay men is needed. Previous scholars discussed the importance of differentiating the experiences of lesbians, gay men and bisexuals (Fassinger & Arseneau, 2007). These scholars also discussed the conceptual dangers of classifying them into one homogenous community.

Further, the Frost and Meyer conceptualization of depression as a mediator is based on a clinical rather than a strengths-based model. Although they did find support that depression mediates the relation between internalized heterosexism and relationship strain, their model fails to take into account more systemic and cultural factors that may account for gay men's beliefs about their relationships and which may be rooted in stereotypes. Additionally, Frost and Meyer indicated lower reliability for some of the measures in the study (loneliness and relationship strain) therefore necessitating more robust measures of constructs assessing relationship variables in future studies. Frost and Meyer also used the same ego-dystonic homosexuality measure used by Meyer and Dean (1998). Thus, similar to the critique of Meyer and Dean, the strength of the assessment of internalized heterosexism can be increased with a more robust, non-clinical, and broad measure. Additionally, Frost and Meyer (2009) assessed "outness" by asking participants to indicate on a scale from "1" to "4" the extent to which people in four different domains were aware of the participant's sexual orientation (family, straight friends, LGB friends, and work). Such a measure does not assess beliefs about concealing one's sexual orientation, but rather a list of the extent to which one is "out" to categories of people. This strays from the model foundations of Meyer (2003) which state that self-concealment is an internal, psychological process. Lastly, Frost and Meyer analyzed

“relationship problems” with their single participants with limited justification and a three-item measure of “positive relations with others” with an internal consistency of .54.

Still other work has examined specific variables consistent with the minority stress model in relation to the way lesbian, gay and bisexual individuals in relationships perceive their relationship quality. Otis, Rostosky, Riggle, and Harmin (2006) researched the association of a partner’s experience of internalized heterosexism and perception of discriminatory events on the other partner’s perceived stress and relationship quality. In other words, the researchers were interested in partner and actor (dyad) effects. Using a sample of 170 female and 92 male, Caucasian, and mostly older (mean of 38 years) couples (average relationship length of 7 years), Otis et al. (2006) discovered the following associations with the 131 dyads. When relationship participants were randomly assigned to either partner A or partner B (actor effects), partner A’s perceived relationship quality was associated with his/her own internalized heterosexism. For partner B, internalized heterosexism of partner A was the only variable predictive of partner B’s perception of relationship quality. When analyzed together (partner effects), only internalized heterosexism negatively predicted variance in relationship quality. Otis et al. (2006) also found that experiencing discrimination did not predict variance in relationship quality. They concluded that “couples who share similarly high levels of internalized homophobia may bring societal views of the instability of same-sex relationships into their expectations about the potential for longevity in their own relationship” (Otis et al., 2006, p. 93). Otis et al.’s quote emphasizes the deleterious effect of internalizing stereotypical negative messages and myths about LGB relationships (Peplau, 1991).

The analysis of dyad effects (i.e., partner and actor effects) strengthened this study, as the researchers were able to explore how one's internalized heterosexism may affect his/her partner's relationship quality. They also conceptualized discriminatory events, another minority stress variable, as possibly leading to relationship variables. An obvious criticism of the aforementioned study was that the majority of the participants were women; men and women do experience different kinds and intensity of discrimination based on sexual orientation (e.g., Herek, 2009). It is unclear if and how the results of Otis et al. (2006) can be extended to a sample of only gay men. Additionally, they used an ipsative measure of discriminatory events that only included nine items, measured with 'yes' or 'no' response, which may bias their findings, as ipsative measures contain limitations (e.g., Baron, 1996). Thirdly, the items assessed discriminatory events throughout the participants' lifetime, and thus did not establish a timeline for when these events may have occurred (e.g., thirty years ago versus last week). These limitations may be related as to why discriminatory experiences were not a significant predictor of current relationship quality in this sample. A more robust measure of heterosexist events has been used with work conducted by Szymanski (2009) which corrects the aforementioned limitations. This measure assesses heterosexist events in multiple domains, is specific to the sample (e.g., "How many times have you been rejected by family members *because you are a gay man?*"), and asks the respondent to consider the past year.

Lastly, although Otis et al. (2006) did state that shared high levels of internalized heterosexism could lead to incorporating societal views of deficits in longevity in intimate relationships, these researchers did not assess this relationship per se. Indeed,

Otis et al. saw this as a direction for future study: “the process by which individual experiences, beliefs, and perceptions may lead same-sex couples to view their intimate relationships in more or less positive ways needs to be articulated” (p. 96).

Gaines et al. (2005) also conducted research linking internalized heterosexism to variables in gay relationships. The researchers investigated the relationship between internalized heterosexism and accommodation in romantic relationships. They defined accommodation as a part of interdependence theory; individuals may forgo or forestall individual rewards in order to benefit long-term relationship rewards. Therefore, accommodation refers to an individual’s attempt to maintain the relationship in positive ways. For example, accommodation would refer to remaining patient during arguments when one’s partner is angry or critical. The researchers also cited other research which found correlations between accommodation and both relationship commitment and a secure attachment style. The sample consisted of 857 mostly European American gay and lesbian adults who were in a relationship for longer than six months (the mean relationship length was about seven years).

Gaines et al. (2005) demonstrated support for the negative association between internalized heterosexism and accommodation in romantic relationships among lesbian women and gay men with significant paths from internalized heterosexism to accommodation. Gaines et al. (2005) explained this finding ex post facto by stating that individuals with internalized heterosexism may perhaps project their internal dislike for homosexuality onto their partners (as their partners may be gay).

Scholars have researched same-sex relationship satisfaction as an additional relationship construct among LGB individuals. Mohr and Daly (2008) examined the

extent to which minority stress constructs (specifically, concealment of LGB identity and internalized heterosexism) may relate to same-sex relationship satisfaction. The participants of this longitudinal study were 51 graduate and undergraduate students at 13 different public universities who remained in a same-sex relationship for 6 weeks (the interval period between two assessments). The average relationship length was 29 months. The majority of the participants were undergraduates (84%), female (62.2%), white (75%), and identified as gay or lesbian (82%). The researchers were interested in how internalized heterosexism and self-concealment (i.e., the extent to which one has to minimize or hide their sexual minority status) were associated with relationship satisfaction and commitment (defined as attractions and constraints). From their analyses, the researchers determined that internalized heterosexism related to same-sex relationship outcomes (Mohr & Daly, 2008). They suggested internalized heterosexism “may contribute to the deterioration of relationship commitment by reducing the degree to which the partner and relationship are enjoyed and viewed positively” as opposed to increasing relationship constraints (p.1002). Since internalized heterosexism is specifically the internalization of society’s negative view of sexual minorities to oneself, an individual may internalize stereotypes of his/her minority group that, for example, gay men are incapable of intimate relationships (Meyer & Dean, 1998; Peplau, 1991). Even though self-concealment was positively associated with relationship constraints, it did not have an effect on relationship commitment.

A definite strength of this study was the use of a longitudinal method, therefore demonstrating support for the association of internalized heterosexism and relationship commitment over time. Mohr and Daly (2008) also improved the literature by examining

exactly how internalized heterosexism affects relationship commitment; they clarified that commitment was affected not by adding constraints to commitment but by deteriorating enjoyment in the relationship.

A limitation of Mohr and Daly's study included their sample, which contained individuals from LGB organizations on college campuses, which may represent a specific LGB sample, thus biasing the results and serving as a threat to external validity. There was also a low sample size ($N = 52$), which may lead to a type II error. Although the measure was a better assessment of self-concealment due to assessing beliefs about concealment as supposed to how "out" one is to others, the lack of an association between self-concealment and relationship commitment might be related to the aforementioned sample size issue.

Mohr and Fassinger (2006) conducted further research on LGB relationships. Specifically, Mohr and Fassinger investigated the association between relationship quality and variables related to identity (internalized homonegativity, stigma sensitivity, identity confusion and identity superiority). With a sample of 274 female and 184 male same-sex couples, they found that each identity variable predicted unique variance in relationship quality. In other words, individuals in same-sex relationships who had higher relationship quality tended to have lower stigma sensitivity, internalized heteronegativity, identity confusion and identity superiority. Another interesting finding was that only male same-sex couples had a significant association between relationship quality and stigma sensitivity, therefore establishing this link as imperative for gay men in relationships. The researchers explained this finding based on previously mentioned studies; gay men have more risk of being targeted for discrimination (Herek, 2009) and therefore may have

diminished relationship satisfaction due to more experiences of oppression and the experiences of stronger negative attitudes among heterosexuals toward gay men (Herek, 2000).

Including stigma sensitivity and dyad effects with a large sample of lesbian, gay and bisexual couples were strengths of this study. Limitations of this study include their methodology; Mohr and Fassinger assessed internalized homonegativity, stigma sensitivity, identity confusion and identity superiority using subscales of the same measure (Lesbian and Gay Identity Scale; Mohr & Fassinger, 2000). Measures from different scales assessing minority stress constructs may better maximize the amount of variance explained by these different constructs and may reduce multicollinearity. Another limitation was that the researchers reported low variability in relationship quality among their participants.

Balsam and Szymanski (2005) also used the minority stress model (i.e., experience of heterosexist events, outness, and internalized homophobia) to research relationship quality among lesbian and bisexual women. With a sample of 272 mostly European American and mostly lesbian women, they found significant associations between internalized heterosexism and relationship quality. Alternatively, recent heterosexist discrimination, lifetime heterosexist discrimination and outness were largely unrelated to relationship quality. This was the case even though Balsam and Szymanski reported improving the psychometrics of the outness variable by using the Mohr and Fassinger (2000) Outness Inventory, which requires an individual to indicate how “out” they are to specific people in three domains (family, religion, work).

Balsam and Szymanski's (2005) finding regarding the lack of an association between outness and relationship quality (similar to Mohr & Daly, 2008) may be related to assessment and psychometric issues. For example, they created a measure for experiences of discrimination and did not report factor structure, reliability, or validity information. Further (similar to Frost and Meyer, 2009) indication of degree of "outness" to others may not assess the need for privacy about one's romantic relationship; it strays from Meyer's (2003) theoretical conceptualization of self-concealment. Similarly, Beals and Peplau (2001) found, with a sample of 784 lesbian couples, that self-disclosure to significant others was unrelated to relationship satisfaction, but these researchers also had modest reliability of their measure of self-disclosure (0.74) and had restricted variability in relationship satisfaction (and did not report corrections for kurtosis in the results section). They also did not use an established measure, but instead created a measure for their study and assessed degree of outness to mother, father, best heterosexual male and female friend, and work supervisor. Their sample was also with lesbian women, which may not extend to a sample of gay men.

In contrast to the aforementioned studies, some other researchers have discovered significant associations between self-concealment and relationship variables. Caron and Ulin (1997) found an association between outness and relationship quality with a sample of 124 lesbian women. LaSala (2000) also found qualitative support for outness to parents (despite those parents' disapproval) leading to positive relationship advantages among 20 gay male couples. With 305 lesbian participants, Jordan and Deluty (2000) found positive associations between disclosure of sexual orientation and relationship satisfaction. These latter researchers found that social support was also important for

relationship satisfaction; they found that social support mediated the relationship between self-disclosure and relationship satisfaction. Still other research has discovered that gay men who perceive strong social support about their sexual orientation from family and friends had higher relationship quality (Elizur & Mintzer, 2003). Lastly, Beals, Paplau and Gable (2009) found, by using a daily diary method with a sample of 81 gay men and lesbians, that disclosure of one's sexual orientation did lead to greater positive affect, self-esteem, and satisfaction with life compared to days in which they actively concealed their identity. These researchers used multi-level modeling to ascertain their results. Another strength was their daily diary methodology, which was more cohesive and longitudinal (diary entries spanned two weeks). These researchers suggested that being open about one's sexual orientation leads to social support, which buttresses relationship quality and attenuates negative aspects of stress in relationships.

In sum, it seems that self-concealment can have deleterious effects on psychosocial variables. Alternatively, research regarding the relationship of self-concealment to relationship variables is mixed. It may be that "outness" (behavior) to different individuals in one's life differs from beliefs about the need to conceal one's sexual orientation (cognition). Concealment has been measured multiple ways, mostly with the Outness Inventory (e.g., Frost et al., 2007). This instrument assesses, on a scale from 1 to 7, the extent to which individuals discuss their sexual orientation with important individuals in their life. Other ways this construct has been measured include: a single-item measure (Cole et al., 1996), listing seven colleagues they most often interacted with and the degree of outness (on a scale from 1 to 3) to those colleagues (Huebner & Davis, 2005), self-concealment in general (i.e., not specific to sexual

orientation) (Potoczniak et al., 2007), an eight item subscale of a stigma measure (Frost et al., 2007), and the extent to which one is “out” in 38 different life domains (i.e., family, religion, education, employment, etc.) (Miranda & Storms, 1989).

Another reason for the mixed findings regarding self-concealment could be the possible positive effects of concealing one’s stigma. For example, Heubner and Davis (2005) concluded that men who disclosed their sexual orientation at work had high levels of stress hormones, which the researchers suggested were related to increased stigma experiences at work. For example, a gay male Catholic schoolteacher may actually benefit from concealing his sexual orientation at work and in his religion (two domains assessed with the Outness Inventory; Mohr and Fassinger, 2000). Therefore, the degree of “outness” to others in multiple areas of one’s life may not have a linear relationship with outcome variables. Therefore, an assessment of the internal psychological process of self-concealment, more congruent with conceptualization of concealment offered by Meyer (2003), may better assess the construct of self-concealment and demonstrate significant associations with relationship variables.

Minority stress constructs with limited or lack of research with LGB relationships

The aforementioned literature supported the connection of relationship constructs with internalized heterosexism. In regards to self-concealment, the literature is mixed as to whether or not self-concealment is associated with relationship constructs, which may be due to psychometrics. In order to explain why experiences of discrimination and expectations of rejection are included in this investigation, a further analysis of these variables is warranted. The distal process of prejudiced events needs more psychometric clarification with regard to how this variable can be measured in order to find

associations with relationship variables. Next, the variable of stigma consciousness, as opposed to expectations of rejection, might garner more important information than the latter, as the research on stigma consciousness is more robust.

Since researchers have found associations between psychological sequelae and prejudiced events, it is curious as to why LGB relationship researchers (i.e., Balsam & Szymanski, 2005; Otis et al., 2006) have not supported similar associations. These null findings could relate to measurement issues. For example, Herek et al. (1999) assessed for intense forms of victimization (e.g., physical assault) and asked the participants if they experienced the victimization *because of* their perceived sexual orientation using a Likert scale. Similarly, Szymanski et al.'s (2009) assessment also contained similar wording. Additionally, Otis et al. (2006) used an ipsative measure of discriminatory acts that used a "yes" or "no" format, which may limit reliability and factor structure (i.e., Baron, 1996). They also did not establish a timeline for these events. This may help explain as to why they did not find associations between discriminatory acts and relationship quality. Balsam and Szymanski (2005) further created a measure of experiences of discrimination and failed to report reliability and validity information. Adapting an assessment that takes into account gay men's more severe negative treatment by others (by assessing directly their experiences as a gay man) might better account for their experiences of discrimination, such as Swim et al.'s (2009) daily diary method, which may have helped the participants recall more accurately when prejudiced "hassles" occurred. For example, the Heterosexist Events questionnaire, which has been successfully used in predicting psychological distress among gay and bisexual male

participants (Szymanski, 2009), may be a better measure for discrimination research with gay men.

Expectation of rejection is still another component of the minority stress model outlined by Meyer (2003) that has not been specifically associated with LGB relationship constructs. Meyer discussed the concept of expectations of rejection as perceived stigma; stigmatized individuals are well aware of their status in society and thus possess a higher degree of vigilance in interactions with the dominant group (e.g., heterosexuals). This vigilance could take the form of expecting rejection from others or expecting others to discriminate or even become violent. Meyer (1995) conceptualized this variable as continuous and chronic, as one may carry around these expectations on a day-to-day basis. These perpetual expectations may lead individuals to experience stress above and beyond normal, everyday stressors.

The construct of expectations of rejection has been associated with demoralization, guilt, suicidal ideation/behaviors, AIDS-related anxiety (Meyer, 1995), body image variables (Kimmel & Mahalik, 2005), substance use, HIV-risk behavior, depressive symptoms (Hatzenbuehler et al., 2008), and loneliness among elderly LGB individuals (Kuyper & Fokkema, 2010). Further, Herek (2009) found that gay men have higher levels of expected stigma compared to lesbians and bisexual men and women. The measurement of this construct, however, has not been linked with relationship variables, has been inconsistent and can be improved. For example, expectation of rejection has been assessed with only two items (Hatzenbuehler et al., 2008). Furthermore, Kuyper and Fokkema (2010) used a six-item measure of “expectations of prejudiced reactions.”

Meyer (1995) and Kimmel and Mahalik (2005) used the Meyer and Dean (1987) stigma scale, which has adequate reliability, but is not often used in the literature.

Meyer (1995) defined the expectations of rejection component of his research as “stigma.” According to Pinel (1999), individuals vary in the degree to which they ascribe negative interactions to their stigmatized group membership or “to the extent to which they expect to be stereotyped” (p. 115). Pinel even suggested that stigma consciousness may serve a mechanism for processing stigma-related schemata. In other words, if an individual has heightened stigma consciousness, the fact that they are part of a stigmatized group and the associated stereotypes of that group may become more salient.

Understanding that groups who are discriminated against may have unique experiences, Pinel (1999) studied stigma consciousness among gay men and lesbian women. Based on venue-style sampling of 63 gay men and lesbian women at a local gay pride festival, Pinel (1999) discovered stigma consciousness regarding sexual orientation was significantly correlated with group and personal discrimination. In other words, the researcher found a positive association between experiencing discrimination at the group and personal level and the perception that one will be discriminated against or rejected (stigma consciousness). Pinel (1999) also discovered stigma consciousness among lesbian women and gay men is uncorrelated with trust in people and social anxiety. Additionally, Pinel did not discover group differences between gay men and lesbian women on the extent to which these separate groups endorsed stigma consciousness.

There are some limitations to Pinel’s study. For example, Pinel assessed group discrimination with a 3-item measure that indicated one’s belief of lesbians, gay men, and both as a group. Similar to limitations of other studies, Pinel (1999) measured personal

discrimination with a 1-item measure. Yet, Pinel did provide preliminary evidence that the self-consciousness scale can be used with a sample of lesbian and gay men.

Extending research with stigma consciousness among sexual minorities, Lewis, Derlega, Griffin, and Krowinski (2003) explored how gay-related stressors, general life events, internalized homophobia, stigma consciousness, and openness about one's sexual orientation are related to symptoms of depression. Lewis et al. (2003) conducted their study with a sample of 204 mostly Caucasian lesbian, gay and bisexual men and women. Their results indicated that stigma consciousness, along with gay-related stress, predicted variance in depressive symptoms above and beyond internalized homophobia and openness about one's sexual orientation. In fact, internalized homophobia and openness about one's sexual orientation did not significantly predict variance in depression. Therefore, the researchers demonstrated the importance of including stigma-consciousness in research among sexual minorities as it might garner variance unaccounted for by internalized heterosexism and self-concealment.

Lewis, Derlega, Clarke, and Kuang (2006) investigated the construct of stigma consciousness, along with social constraints, in relation to negative psychological sequelae, like mood changes, physical symptoms, internalized heterosexism and lesbian-related stress. Lewis et al. (2006) hypothesized lesbians who had high stigma consciousness and were unable to discuss general problems with others (e.g., high social constraints) would have more negative psychological sequelae. Lewis et al.'s (2006) sample consisted of 105 middle-aged, mostly Caucasian, mostly-out, self-identified lesbian women, collected through e-mail listservs, bookstore advertisements, and snowball sampling. Through hierarchical multiple regression analyses, the researchers

found that intrusive thoughts, lesbian-related stress, negative mood, and physical symptoms were positively associated with stigma consciousness. Even though the researchers found a positive correlation between stigma consciousness and internalized heterosexism, when both of these variables were entered together in a regression to predict negative psychological sequelae, the effect of internalized heterosexism was not significant. Lewis et al. also found support of their previous hypothesis; social constraints moderate the relationship between stigma consciousness and negative psychological sequelae. In other words, lesbian women who endorsed the most stigma consciousness and social constraints also reported more negative psychological sequelae, including internalized heterosexism.

It is possible, with the results from Pinel (1999), Lewis et al. (2003) and Lewis et al. (2006) to understand the importance of the relation of stigma consciousness to psychological variables among sexual minorities. For instance, Pinel discovered initial support and validation for a stigma consciousness measure used with sexual minorities. Similarly, Lewis et al. (2003) discovered that stigma consciousness predicted variance in psychological sequelae above and beyond both internalized heterosexism and self-concealment. Further, Lewis et al. (2006) discovered that the effect of stigma consciousness may be mediated by other variables in the prediction of negative psychological sequelae. Lastly, the investigations conducted by Kelleher (2009) and Lewis et al. (2003) used stigma consciousness as an adequate replacement for expectations of rejection.

Summary on Gay Men's Relationships and Minority Stress

The research highlighted in this section demonstrates the interconnected nature of minority stress and relationship constructs among LGB individuals. Qualitative researchers (e.g., Rostosky et al., 2007) have found that individuals may internalize negative stereotypes about same-sex relationships and question the longevity of their own relationship due to stigma. These researchers did not find themes outside of the minority stress model; studies highlight the qualitative themes of experiences of discrimination, self-concealment, internalized heterosexism, and expectations of rejection as related to same sex relationships. Therefore, the minority stress model and its aforementioned variables seems an excellent vehicle to explore novel areas of gay men's intimate relationships.

Previous investigations also have supported links between relationship constructs and the minority stress variables independently. Extant research supports the link from internalized heterosexism to relationship constructs (Balsam & Szymanski, 2005; Frost & Meyer, 2009; Gaines et al., 2005; Meyer & Dean, 1998; Mohr & Day, 2008; Mohr & Fassinger, 2006; Otis et al., 2006). Additionally, several researchers have related outness and lack of self-concealment to beneficial relationship constructs (e.g., Beals et al., 2009; Caron & Ulin, 1997; Elizur & Mintzer, 2003; Jordan & Deluty, 2000; LaSala, 2000). The research that did not demonstrate significant associations between self-concealment and relationship variables contained psychometric and theory-incongruent flaws. Indeed, the measure of self-concealment chosen for this investigation adheres to Meyer's (2003) original conceptualization, as proximal stress processes are internal psychological processes (i.e., beliefs).

Similar to the observations regarding self-concealment, it is reasonable to suggest that prejudiced events and stigma consciousness may relate to relationship variables with gay men with more robust measurement. Both Otis et al. (2006) and Balsam and Szymanski (2005) created or adapted measures for their studies, and these measures were characterized by either ipsative measurement or a lack of reliability and validity information. Therefore, the null findings in the LGB relationship literature for the association of relationship constructs to discrimination experiences could be due to inaccurate measurement. Furthermore, stigma consciousness, which is a robust variable in the social psychology literature and theoretically relates to expecting rejection, may operationalize more effectively than the minority stress construct of expectation of rejection. This investigation follows suit and uses a more robust, more often used measure of stigma consciousness (e.g., Pinel, 1999).

Outside of the minority stress variables, multiple research methodology limitations exist in the literature on LGB individuals and relationships. Most of the aforementioned studies used samples of gay men, lesbians and bisexual men and women. These groups have unique social stereotypes about relationships attributed to them (e.g., Gordon, 2006) and therefore members of the groups may internalize different stereotypes. In fact, Fassinger and Arseneau (2007) stated that gender accounts for variability above and beyond that of sexual orientation with samples of sexual minorities. In addition, most of the studies reviewed used samples of LGB individuals currently in relationships. These relationships had an average span of about 2.5 years (Mohr & Daly, 2008) to seven years (Otis et al., 2006; Frost, 2011). That Mohr and Fassinger (2006) found limited variability in their assessment of relationship quality could be a reflection

of the length of the participants' relationships. In other words, individuals with low relationship quality may have terminated these relationships. The current investigation can contribute to the research by assessing single gay male participants' perception of relationships in regards to minority stress.

Extending the Minority Stress Model: Gay men and relationship optimism/self-efficacy

Most researchers have examined negative aspects of LGB relationships, for example, relationship strain, relationship problems and relationship discord. An alternative, psychological approach to exploring relationship variables for gay men could include exploring how minority stress variables may attenuate or limit positive relationship considerations such as relationship optimism and relationship self-efficacy.

Little quantitative research has examined Rostosky et al.'s (2007) finding of the importance of LGB individuals' beliefs about the permanence and longevity of their own relationships, especially with gay men who experience more discrimination (Herek, 2009). A common stereotype of gay men is that they are incapable of or uninterested in long-term intimate relationships (Meyer & Dean, 1998) or an assumptive stereotype that "homosexuals don't want enduring relationships-and can't achieve them anyways" (Paplau, 1991, p.179). This is unrelated to actual data, as Peplau and Fingerhut (2007) found 28% of gay men and 44% of lesbians live with a same-sex romantic partner. Research has shown that gay men and lesbians do not differ in relationship satisfaction and commitment compared to their heterosexual peers (Kurdek, 1991/1994 as cited in Otis et al., 2006). Moreover, Frost (2011) provided further evidence that the pursuit of intimacy is highly meaningful for both sexual minority and heterosexuals alike. In spite of these similarities, Rostosky et al. (2007) discovered qualitative support for the

internalization by gay men and lesbians of the stereotypes that gay and lesbian relationships do not last.

No other studies, however, have sought to discover specifically the extent to which gay men internalize negative social stereotypes about their own relationships, nor have researchers explored how this internalization can manifest in multiple ways (e.g., stigma consciousness). Similarly, there is a lack of research analyzing these constructs specific to gay men's internalization of negative societal conceptions of their romantic relationships, especially in regards to their future relationships.

One way that minority stress may operate with gay men is by affecting their cognitions in regards to their estimate of the probability that they will be able to obtain a long-term partnership. Many of the stereotypes promulgated about gay men's relationships promote a pessimistic view. As such, an assessment of relationship optimism might assess directly this issue. Carnelley, Hepper, Hicks, and Turner (2011) addressed from an attachment theory perspective the novel construct of relationship optimism. They were interested in exploring how disclosing one's sexual orientation to his/her parents would relate to attachment styles and optimistic/trusting views of romantic relationships. This is the only research study that has used optimism in regards to LGB romantic relationships.

Carnelley et al.'s (2011) sample consisted of 309 participants (108 women and 201 men) from the United Kingdom with a mean age of about 28 years. About one-third of the participants identified themselves as being an undergraduate student. A majority of the participants (254/ 309) had disclosed their sexual orientation to their mother and about two-thirds had disclosed their sexual orientation to their father. Half of the

participants were in a romantic love relationship. Recruitment occurred through LGB organizations, clubs, bars, events, and snowball sampling. The researchers gave half the participants items about relationship views regarding trust and the other half items about relationship views regarding optimism (i.e., Optimism in Romantic Relationships measure).

Carnelley et al.'s (2011) results indicated significant negative correlations between optimism for a future relationship with anxious and avoidant romantic attachment styles. The researchers then used structural equation modeling to test a model that included information about early parental relationships (i.e., acceptance and the encouragement of independence from both mother and father) and the decision to come out to father and mother as exogenous variables; romantic attachment was considered a mediator. Romantic relationship views (trust and optimism) were endogenous variables in this model. The researchers reported excellent model fit for the entire sample, but failed to report fit indices. Carnelley et al. found significant paths between attachment anxiety and attachment avoidance and relationship optimism. The researchers also reported positive early relationships with one's parents related to romantic relationship views through the association with romantic attachment styles. In other words, romantic attachment mediated the relationship between early parental relationships and romantic relationship views (optimism and trust).

There are obvious criticisms to Carnelley et al.'s (2011) study. First, the researchers did not report fit indices with their SEM model, nor did they explain how they were able to use the data for the entire sample when only half the sample completed a measure of relationship optimism. Second, the theoretical model failed to account for

systemic minority stress factors that may be associated with romantic relationship views, like internalized heterosexism and experiences of discriminatory events. In other words, the researchers approached the subject matter with a more individual deficit-based model, stating that child-parent relationships and attachment styles were related to romantic relationship views, instead of including the pernicious effects of marginalization (e.g., internalized heterosexism). Therefore, further research is necessary to discern if there is an association between minority stress factors and optimistic relationship views.

Although there were several criticisms to this study, it was the first of its kind to use relationship optimism with a sample of LGB individuals (with adequate reliability), and did find significant associations (both correlations and model paths) between theoretical variables (attachment) and relationship optimism with this population. Carnelley et al.'s (2011) work informed research on LGB relationships and could be extended to another sound theory, specifically minority stress. In particular, the construct of relationship optimism allows assessment from a more strengths-based approach to exploring relationship constructs, and seems relevant to stereotypic assumptions of gay male relationships (e.g., Martin & Dean, 1998). In other words, the construct of relationship optimism may be congruent with stereotypes about gay male relationships and warrant further examination.

Another theme in the research on gay men's relationships, apart from relationship optimism, is the lack of confidence among gay men that their relationships will succeed and thrive (e.g., Rostosky et al., 2007). One way to conceptualize this phenomenon is through the cognitive construct of self-efficacy.

Lopez and Lent (1991) first postulated that self-efficacy beliefs might be relevant to the interpersonal romantic sphere. Other research had conceptualized interpersonal self-efficacy beliefs in the domains of assertiveness and social anxiety, but few had discussed self-efficacy beliefs as applied to romantic relationships. These researchers defined relationship self-efficacy beliefs in three parts: beliefs regarding one's own performance in a romantic relationship; beliefs about the performance of one's romantic partner; and beliefs the romantic partner may have about one's own efficacy (Lopez & Lent, 1991). Their sample included 67 primarily White and mostly female college students who were in both an emotional and physical romantic relationship lasting a minimum of three months. Along with their three tenets of relationship self-efficacy, the researchers measured relationship satisfaction and expected persistence.

Lopez and Lent (1991) discovered positive correlations with measures of relationship satisfaction and their three tenets of relationship self-efficacy beliefs (i.e., self-efficacy, other-efficacy, relationship-inferred self-efficacy), with correlations ranging from .54 to .63. Additionally, all three subscales of self-efficacy beliefs were positively correlated with a measure of expected relationship persistence, ranging from .26 to .35. When entered into a hierarchical regression model, only relationship-inferred self-efficacy contributed significantly to expected persistence. Lopez and Lent (1991) made sense of this finding by asserting that expected persistence is associated with acknowledgement and confirmation from one's partner about one's ability to be in a relationship (i.e., relationship-inferred self-efficacy).

Some criticisms of the work of Lopez and Lent (1991) include their sample; the researchers failed to assess their sexual orientation or race/ethnicity and had a larger

number of women than men. Also, the sample size was prohibitively small, as Lopez and Lent assessed information on only 67 participants. Lopez and Lent also noted that their sample's romantic relationships seemed relatively stable; only three of the participants reported terminating their relationship at the researchers' three-month follow-up. Despite these limitations, this was the first study to analyze relationship self-efficacy beliefs and it supported a three-factor structure for the construct.

Lopez, Morua, and Rice (2007) extended the research of Lopez and Lent (1991) by incorporating more information into the construct of relationship self-efficacy beliefs, including beliefs about relationship maintenance behaviors. They added more complex relationship-maintenance components, like *minding* behaviors, to their original relationship self-efficacy beliefs scale and tested the factor structure. Minding behaviors are "complex behaviors and appraisal skills that are essential to maintaining close and satisfying relationships over time" (Lopez et al., 2007, p. 81). Minding behaviors also represent knowing one's partner and having reciprocal thoughts, feelings, and behaviors. Thus, Lopez et al. (2007) renamed the measure relationship maintenance self-efficacy beliefs. With a sample of 608 college students, Lopez et al. (2007) used a CFA and retained a 25-item, three-factor solution with factors of mutuality, emotional control, and differentiation. The mutuality factor is one's perception of one's ability to support one's partner and give/receive care. Emotional control, alternatively, involves one's perception of one's ability to manage emotions during frustrating aspects of a relationship. Finally, differentiation involves the perception of the ability to put oneself first and maintain appropriate boundaries with one's partner.

It should be noted that Lopez et al. (2007) found gender differences, as women had higher scores on mutuality and men had higher scores on emotional control. Also the researchers found relationship self-efficacy at time 1 predicted relationship satisfaction at time 2, thereby suggesting that relationship self-efficacy influences future relationship satisfaction. The researchers also found Relationship Self-Efficacy Scale scores were moderately stable over three months.

Relationship optimism and relationship self-efficacy beliefs both may capture specific elements of negative stereotypes about gay men's relationships, like the LGB stereotype of "fleeting and impermanent" relationships. Relationship optimism addresses whether or not a gay man believes it is possible for him to have a long-term relationship. Relationship self-efficacy beliefs address a gay man's perception of his ability to maintain a romantic relationship. Research on both constructs is very limited and the construct of relationship self-efficacy has not been used yet with a sample of gay men.

It is unknown if there is an association between relationship self-efficacy beliefs and relationship optimism, but tangential evidence exists for a possible association. For example, relationship self-efficacy is associated with relationship satisfaction (Lopez & Lent, 1991). Relationship optimism is significantly associated with attachment variables, and Elizur and Mintzer (2003) have associated attachment security with relationship satisfaction with a sample of gay men in relationships. Therefore, relationship satisfaction is associated with both relationship optimism (albeit indirectly) and relationship self-efficacy, thus suggesting some overlap among these constructs. Additionally, Lopez and Lent (1991) discovered that relationship self-efficacy was related to expected persistence of one's romantic relationship. Expected persistence

(“How long do you think your relationship will last?”) seems conceptually similar to relationship optimism (“How confident are you that you will have successful love relationships in the future?”).

The directionality of the relationship between relationship self-efficacy and relationship optimism has not been investigated, but social cognitive theory and its descriptions of self-efficacy and outcome expectations (Bandura, 1997) may offer guidance. Bandura defined self-efficacy as “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (p. 3). Outcome expectations are defined as a “judgment of the likely consequence” of one’s action in regards to self-efficacy. Relationship optimism can be seen as theoretically similar to outcome expectations, given that both anticipate future results. Indeed, Bandura (1997) posits that self-efficacy often precedes outcome expectations. In other words, if one feels he/she is capable of having a successful relationship, he/she then may have high expectations for success in this domain. If one experiences low self-efficacy for relationships, it might lead to pessimistic views of the success of their future relationships.

The relationship between minority stress variables, relationship self-efficacy beliefs, and relationship optimism may be best explained theoretically through mediation. This could be due to the aforementioned societal stereotypes about gay men; that they are unable to have romantic relationships (Paplau, 1991). Therefore, the more salient the negative stereotypes of a gay identity through minority stress variables, the more likely that one may not feel efficacious in their romantic relationship, and thus associate with less optimism in having successful future relationships.

Social cognitive theory allows the possibility, however, that outcome expectations also may derive directly from learning experiences (Bandura, 1997). Thus, it is possible that LGB individuals may feel efficacious in relationships, yet have low expectations for their relationships being successful due to internalization of negative stereotypes or observation of others' negative relationship outcomes. In fact, Rostosky et al. (2007) reported qualitative support for this claim. He reported LGB individuals may have high self-efficacy beliefs about relationships (e.g., "I can do it") but might have low expectations for relationship outcomes (e.g., "But it will not happen"). Thus, given the present paucity of research on these constructs, it is also possible that relationship self-efficacy beliefs may derive directly from minority stress variables.

Summary and Hypotheses

The present research uses the minority stress model as a vehicle to explore relationship optimism and relationship self-efficacy. Rostosky et al (2007) found qualitative support for minority stress and romantic relationships. Therefore, the minority stress model seems an excellent vehicle to explore these constructs among gay men, as the minority stress model was first constructed using samples of gay men (Meyer, 1995; Meyer, 2003). Additionally, researchers investigating romantic relationships among LGB individuals have used successfully the minority stress model (Meyer & Dean, 1998; Frost & Meyer, 2009; Rostosky et al., 2007) or multiple components of the minority stress model (Otis et al., 2006). The present research is particularly interested in the minority stress constructs of stigma consciousness, concealment, internalized heterosexism and experienced heterosexism.

Researchers have provided robust support for internalized heterosexism and its link to relationship variables (Balsam & Szymanski, 2005; Frost & Meyer, 2009; Gaines et al., 2005; Meyer & Dean, 1998; Mohr & Fassinger, 2006; Otis et al., 2006). In addition, Mohr and Fassinger (2006) found a link between stigma sensitivity and relationship quality, which was especially relevant for the men in their sample. Similarly, although not related to relationship outcomes specifically, Lewis et al. (2003) did find that stigma consciousness predicted unique variance above and beyond internalized heterosexism and self-concealment. Self-concealment has strong theoretical support for its association with self-efficacy beliefs (Pachankis, 2007). Empirical data for prejudiced events and self-concealment did not reveal significant associations with relationship variables, but this could be due to measurement and psychometric issues.

The measurement of prejudiced events, however, can be improved, as previous studies have only measured the distal process of experiences of prejudiced events with one to three items (Hazenbuehler et al., 2008; Meyer, 1995; Pinel, 1999; Kimmel & Mahalik, 2005). For example, Meyer (1995) only used a two-item measure to assess prejudiced events. Also, Kimmel and Mahalik (2005) asked a single item question to assess for prejudiced events by asking “have you ever been physically attacked because of your sexual orientation?” (Kimmel & Mahalik, 2005, p. 1186). Hazenbuehler et al. (2008) measured experiences of actual discrimination with three items: asking whether the participants have been physically assaulted, harassed professionally, or generally harassed or discriminated against in the past twelve months. These participants were placed in dichotomous groups, with one group containing individuals that endorsed any of the aforementioned items. Furthermore, these assessments often included an open-

ended assessment of discriminatory events, and did not assess when these events happened. Other researchers used an ipsative measure of discrimination (Otis et al., 2006) or failed to report psychometric information on their prejudiced event measure created for their study (Balsam & Szymanski, 2005). A measure offered by Szymanski (2006) called the Heterosexist Harassment, Rejection, and Discrimination Scale (HHRDS) includes a more comprehensive assessment of prejudiced events among different domains, and asks participants to indicate the frequency of events over the past year. This measure has excellent reliability (.91) and validity information. This researcher has found support for this measure of prejudiced events and its association with psychological distress among gay and bisexual men (Szymanski, 2009).

Self-concealment has often been assessed via the Outness Inventory (Balsam & Szymanski, 2005; Mohr & Fassinger, 2009), which requires participants to assess, on a scale from 1 to 4, the degree to which significant others in three domains (family, work, religion) are aware of their sexual orientation. Although valuable information, this avenue of measuring the self-concealment construct does not adhere to the theoretical conceptualization of minority stress (Meyer, 2003). A better way to measure self-concealment as an internal psychological process is the Need for Privacy subscale of the Lesbian and Gay Identity Scale (Mohr & Fassinger, 2000). An example of one of the items is “I prefer to act like friends rather than lovers when out in public with my partner.” Mohr and Daly (2008) used the Need for Privacy subscale to measure self-concealment with inconclusive results due to a small sample size (N=52). Therefore, a replication of the use of this measure is needed with a larger sample.

Similarly, the measurement of internalized heterosexism and expectations of rejection can both be enhanced. For instance, past measures of internalized heterosexism have focused on an ego-dystonic internalized heterosexism measure that assesses stronger forms of IH. Furthermore, past research has used the Martin and Dean (1987) internalized homophobia measure (IHP) (e.g., Meyer, 1995) which has been critiqued for to the extremity of its internalized homophobia content. Shidlo (1994)'s adaptation of Nungesser's (1983) Homosexuality Attitudes Inventory was created with a sample of gay men and is considered one of the most prolifically used IH measures in the literature. It may offer, therefore, a better measurement option. Further, measurement of expectations of rejection has been problematic in prior research and this construct may be better operationalized with a theoretically similar measure, Stigma Consciousness. This measure is vastly researched compared to other measures for expectations of rejection, namely, the Stigma Scale (Meyer & Dean, 1987), and research has used Stigma Consciousness in place of Expectations of Rejection successfully (Kelleher, 2009; Lewis et al., 2003). Therefore, this investigation will follow suit and use a more robust, more often used measure of stigma consciousness (e.g., Pinel, 1999).

This project focuses on a nonclinical sample of gay men. It is imperative to assess mental health sequelae among solely gay men in a nonclinical sample for multiple reasons. Fassinger and Arseneau (2007) cautioned against amalgamating lesbians, gay men, and bisexual men and women into one homogenous group. Further, they noted that gender may explain more variability in multiple constructs among LGB individuals compared to sexual orientation. Balsam and Mohr (2007) reiterated that stigma experiences are different among LGB individuals.

Consistent with that directive, the case has been made that researchers have demonstrated that gay men experience significant and impairing discrimination (Herek et al., 1999; Mays & Cochran, 2001). Gay men experience discrimination more frequently than do lesbians and bisexual men and women (Berrill, 1990; D'Augelli & Grossman, 2001; Herek et al., 1999; Herek, 2009). Additionally, gay male couples experienced more stress related to violence due to their sexual orientation (Todosijevic et al., 2005). Researchers have also demonstrated gay men's internalization and awareness of stigma. They have found that gay men internalize stigma more than do lesbian women after heterosexist events (Herek et al., 1999; D'Augelli & Grossman, 2001). Gay men also have high levels of enacted and expected stigma (Herek, 2009) and Balsam and Mohr (2005) found a main effect for gender in regards to stigma sensitivity; men experienced more stigma sensitivity than did women in their sample. Experiencing more prejudiced events and internalizing and expecting more stigma may in part be due to heterosexual individuals' stronger negative attitudes towards gay men compared to lesbians (Herek, 2000). As such, gay men may have different levels of minority stress on at least three of the four minority stress components in this current investigation (prejudiced events, stigma consciousness, and internalized heterosexism), thereby warranting their study independent of lesbians or bisexual persons.

A focus on gay men is made salient as several of the samples described in the LGB relationship literature contained a large proportion of women, with some having women as a majority (e.g., Mohr & Daly, 2008; Otis et al., 2006) which may limit external validity. Meyer and Dean (1998) and Elizur and Mintzer (2003) were the only researchers to investigate gay male relationships specifically. Also, some LGB

relationship researchers investigated samples with individuals who were in relationships for a longer period of time (from 2.5 to 7 years, on average) and some indicated low variability in relationship quality (Mohr & Fassinger, 2006). Therefore, missing from these samples are the individuals for whom minority stress might have had the most deleterious effects, for example, currently single participants. No researchers to date (besides Frost and Meyer, 2009) have analyzed single participants, and no researchers have investigated how the negative weight of stigma can affect perceptions of the longevity or durability of future relationships. Even Frost and Meyer (2009) only assessed “relationship problems” outside of intimate relationships with their single participants, and did not assess future expectations. This investigation will correct for these limitations by collecting a sample of gay men only, in addition to collecting data with both single and coupled participants.

Other limitations of previous samples in the LGB relationship literature were noted. For example, Mohr and Daly (2008) had 52 undergraduate students who were part of campus LGB organizations. Additionally, Meyer and Dean (1998) sampled individuals who were part of gay community organizations. These may be individuals with strong identifications with the LGB community, which might attenuate minority stress effects (Meyer, 2003). Indeed, Meyer and Dean’s (1998) participants, for example, had low variability in internalized heterosexism. Therefore, this investigation will differentiate from previous data collection methods; an online sample of individuals collected through social media may garner a more diverse sample of individuals without specific membership or official ties to the gay community. This change was intended to increase the variability in internalized heterosexism.

The present research also breaks new ground by exploring relationship optimism and relationship self-efficacy beliefs; these are two unique ways to conceptualize cognitive relationship constructs and thus they enhance the extant research literature. These two variables appear especially relevant to the negative stereotype that gay men cannot maintain relationships (e.g., relationship self-efficacy beliefs) or that they do not think a relationship is a possibility (e.g., relationship optimism) (Meyer & Dean, 1998; Peplau, 1991). Research with these constructs may assist in translating the qualitative research findings of Meyer (2011) (i.e., “heavy weight” of anti-LGB stigma on same-sex relationships) and Rostosky et al. (2007) (i.e., minority stress affecting the perceptions of relationship longevity) into a quantitative model.

In summary, the minority stress model, and more specifically the minority stress constructs of stigma consciousness, concealment, internalized heterosexism and experienced heterosexism, seems a reasonable vehicle for the present research on relationship self-efficacy and relationship optimism among gay men, but improved measurement of the components of the minority stress model must be incorporated in such research. Use of more robust, multi-item measures that demonstrate good reliability with samples of gay men will contribute to the importance of the project and its results.

Previous research has connected relationship variables with minority stress (e.g., Frost & Meyer, 2009; Otis et al. 2006), but the two outcome variables of interest in the present research may relate to minority stress constructs in two possible ways. Extant social cognitive research on self-efficacy (e.g., Bandura, 1997) supports that self-efficacy beliefs may precede expectations about success in those domains. As applied to this research, minority stress components may make the negative stereotype of the inability to

have successful relationships more salient. This salience would decrease a gay man's efficacy for romantic relationships, and, in turn, decrease his optimism for future relationships. (Bandura,1997). Therefore, relationship self-efficacy beliefs may mediate the relationship between minority stress constructs and relationship optimism (see Figure 2).

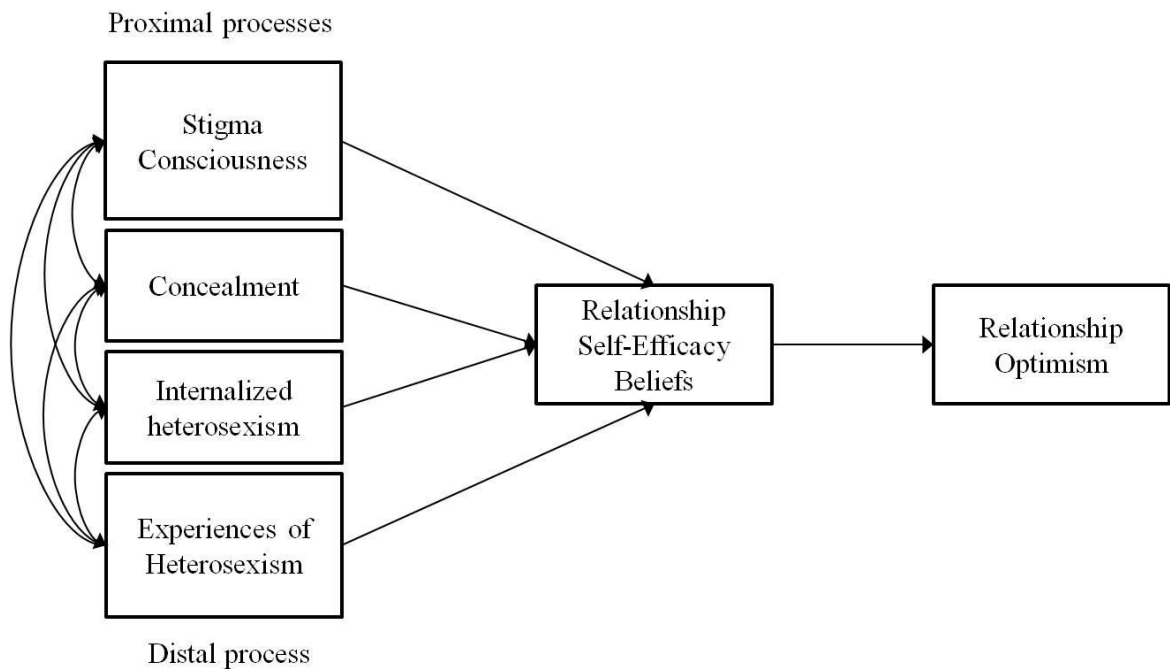


Figure 2. Proposed minority stress model with relationship self-efficacy beliefs as a mediator

Social cognitive theory also suggests the possibility of direct effects of learning experiences on outcome expectations and self-efficacy (Bandura, 1997) such that minority stress constructs could have direct associations with relationship self-efficacy beliefs and optimism for an enduring relationship (see Figure 3).

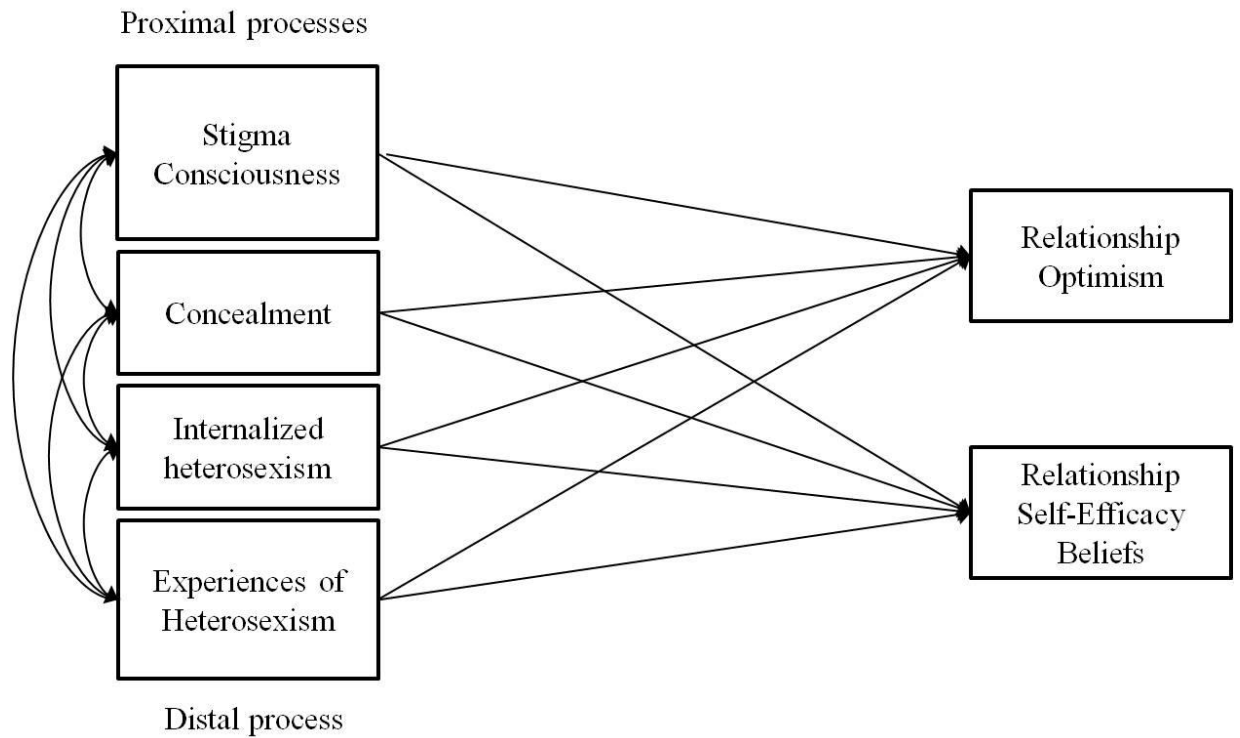


Figure 3. Proposed Minority Stress Model Predicting Relationship Self-efficacy and Relationship Optimism Separately

Thus, two competing models (highlighted in Figures 2 and 3) are tested in this research on minority stress predictors of GLB relationship self-efficacy and optimism. These models both derive from Meyer's (1995) original conceptualization and findings that the exogenous variables of stigma consciousness, concealment, and experiences of heterosexism are orthogonal or have minimal overlap. In fact, some research has supported this argument (Otis et al. 2006). Some research, however, suggests covariance among the exogenous variables (e.g., Mohr & Daly, 2008). This investigation will take a conservative approach and assume covariance among exogenous variables.

Thus, the following hypotheses are tested.

Hypothesis 1: Minority stress variables used in this investigation (i.e., experiences of heterosexism, concealment, internalized heterosexism, and stigma consciousness) predict

variance in relationship optimism through relationship self-efficacy beliefs (test of Figure 2).

Hypothesis 2: Minority stress variables used in this investigation (i.e., experiences of heterosexism, concealment, internalized heterosexism, and stigma consciousness) independently predict variance in relationship optimism and relationship self-efficacy beliefs (test of Figure 3).

CHAPTER III

METHODOLOGY

Participants

Participants were gay men recruited through snowball sampling and internet data collection. Of the 522 participants with usable data, 75.3% identified as White/Caucasian and 13.6% identified with a non-white minority group (African American, Asian American, Latino/Hispanic, and Native American. Based on all participants who completed the survey (N=695), 87% were white, 3% were African American, 3% were Asian American, 11% were Latino/Hispanic, 2% were Native American, and 2% identified as “other.” These percentages are higher than 100% as participants were allowed to identify with more than one ethnicity/race.

Due to a data collection error, some of the final sample of participants (N=522) did not complete the demographics form. Therefore, the following demographic information may not add to 522. As far as education, 1.9% had some high school education (N =10), 7.5% had a high school diploma (N=39), 29.7% had some college education (N=155), 26.8% had a college degree (N=140), 6.3% had some graduate work (N=33), and 17.2% had a graduate degree (N=90). Geographic data indicated 5.9% identified living in a rural area (N=31), 24.7% identified living in an Urban cluster (e.g., suburban; N=129), whereas 58.4% identified living in an Urban area (N = 305). As far as sexual orientation, 87% identified as gay (N=454), 1% identified as bisexual (N=5), and

1.5% identified as a MSM (man-who-has-sex-with-men). Single participants comprised 35.1% of the sample (N=183) and coupled participants (e.g., dating, non-exclusive; dating, exclusive; married/committed) were 54.4% of the sample (N=284). Since previous investigations (e.g., Frost, 2011; Otis et al. 2006) contained individuals who were in romantic relationships for significant amount of time, it is imperative to include this information. Therefore, the average length of participants' longest past relationship was computed and it was 55.15 months (SD = 75.689) or about 4.5 years.

Instruments

Optimism about Future Relationships (OFR; Carnelly & Janoff-Bulman, 1992; Appendix E)

The OFR is a six-item, self-report survey asking questions related to one's optimism about his future relationships (Carnelly & Janoff-Bulman, 1992). No explanation was given on how the measure was created. Items on the measure include: "How confident are you that you will have successful love relationships in the future?" and "In general, how optimistic do you feel about the success of your love relationships in the future?" Participants indicate the degree to which they feel optimistic about their relationships, indicating a '1' for *not at all*, and a '5' for *extremely*. Higher scores indicate higher relationship optimism; responses are averaged.

Past researchers demonstrated evidence for internal consistency. Carnelly and Janoff-Bulman (1992) reported an alpha of .68 for two items containing questions about divorce and a successful marriage. These researchers also reported an alpha of .84 for the items assessing optimism about future relationships. Carnelly, Hepper, Hicks, and Turner (2011) reported an alpha of .91 with this measure. Carnelly et al. also found that

relationship optimism was significantly and negatively associated with both anxious (-.31) and avoidant (-.48) attachment styles, thus demonstrating discriminant validity.

Some items of the measure were adjusted for this research to be applicable to a gay male sample. For instance, “marriage” was adjusted to “long-term relationship.” One item about marriage, however, was retained: “Do you want to get married in the future” with the caveat of “if you had the option.” Also, an item was added to this measure from the Nungesser Homosexual Attitudes Inventory (NHAI): “I do not think I will be able to have a long-term relationship with another man.” The addition of this item may add a unique dimension to the OFR. The Cronbach’s alpha for this current investigation (N=522) was .83.

Nungesser’s Homosexual Attitudes Inventory (NHAI; Shidlo, 1994; Appendix A)

The NHAI is a 33-item self-report measure assessing the extent to which one may internalize society’s negative perception of homosexuality. This measure is considered the most widely used measure of internalized heterosexism and was normed on a sample of gay men (Shidlo, 1994; Szymanski, 2008). Shidlo (1994) updated Nungesser’s original 34 items by correcting the content validity by removing items which resemble antecedents and consequences of internalized heterosexism and fixing inappropriate or incorrect grammar. Shidlo’s (1994) version will be used with this investigation.

The inventory consists of three subscales, including: Personal Homonegativity (e.g., “Whenever I think a lot about being gay, I feel depressed”), Global Homonegativity (e.g., “Homosexuality is as satisfying as heterosexuality”); and Disclosure (e.g., “I would not mind if my neighbors knew that I am gay”). Participants indicate the degree to which they agree with the different items on a 5-point Likert-type scale, ranging from ‘1’

indicating *strongly disagree* and ‘5’ indicating *strongly agree*. Higher scores on this measure are indicative of higher internalized heterosexism and scores are averaged.

Szymanski (2008) reviewed internalized heterosexism measures and indicated the NHAI’s subscales had internal consistency ranging from .68 to .93, with a full-scale alpha of .94. Shidlo (1994) reported an alpha of .82. Shidlo (1994) also reported on the construct validity of the NHAI; high scores on the NHAI were associated with psychological distress, depression, and self-esteem. The disclosure subscale will be removed in the present research to avoid multicollinearity with the Need for Privacy Subscale of the Lesbian and Gay Identity Scale. The Cronbach’s alpha for this current investigation (N=522) was .83.

Heterosexist Harassment, Rejection, and Discrimination Scale (HHRDS; Szymanski, 2006; Appendix B)

The HHRDS is a 14-item measure assessing the frequency of experiences of heterosexism. Szymanski (2006) created this measure by taking items from the Schedule of Sexist Events and the Schedule of Racist Events. The measure consists of three factors, including: Harassment and Rejection (e.g., “How many times have you heard anti-gay remarks from family members?”); Workplace and School Discrimination (e.g., How many times have you been treated unfairly by your employer, boss, or supervisors because you are a gay man?”); and Other Discrimination (e.g., “How many times have you been treated unfairly by strangers because you are a gay man?”). Participants indicate, on a scale from ‘1’ (*never*) ‘6’ (*almost all of the time*) the frequency of these events in the last year. Higher scores on this measure indicate more experiences with heterosexism and scores are averaged.

With a sample of lesbians, Szymanski (2006) reported an alpha of .90 for the total measure, and reported an alpha of .89, .84, and .78 for the subscales of Harassment and Rejection, Workplace and School Discrimination, and Other Discrimination, respectively. Szymanski (2006) also provided evidence for construct validity, with significant associations of the HHRDS with psychological distress, interpersonal sensitivity, depression, and anxiety, all measured by the Hopkins Symptom Checklist. Szymanski (2006) also found that the HHRDS predicted unique variance in psychological distress above and beyond a measure of internalized heterosexism. Wording of the items was altered slightly to represent a sample of gay men (e.g., changing “lesbian” to “gay man”). The Cronbach’s alpha for this current investigation (N=522) was .86.

Need for Privacy Subscale of the Lesbian and Gay Identity Scale (LGIS; Mohr & Fassinger, 2000; Appendix D)

The Need for Privacy subscale of the Lesbian and Gay Identity Scale is a 12-item measure assessing cognitions in regards to one’s desire for privacy with one’s sexual orientation. This measure assesses both a general need for privacy and a need for privacy regarding one’s same-sex relationships. Mohr and Fassinger (2000) developed the Lesbian and Gay Identity Scale to ascertain information about multiple dimensions of gay and lesbian identity. Sample items on the Need for Privacy Subscale include “I prefer to keep my relationship rather private” and “I prefer to act like friends rather than lovers with my partner when we’re in public.” Participants respond to each item in a Likert-scale style format, with “1” indicating *strongly disagree* and “7” indicating *strongly agree*. Higher scores indicate a higher need for privacy, and scores are averaged.

Mohr and Fassinger originally found an alpha of .81 for the Need for Privacy subscale, whereas Mohr and Daly (2008) had an alpha of .78. Mohr and Fassinger provided validity information for the Need for Privacy subscale with significant negative correlations with the Out to Family and Out to World subscales of the Outness Inventory (Mohr & Fassinger, 2000). The Need for Privacy subscale is also significantly correlated with the Internalized Homonegativity and the Need for Acceptance Subscale of the LGIS. Since the sample includes gay men only, minor adjustments were made to two items (e.g., changing “I worry about people finding out I’m a lesbian/gay man” to “I worry about people finding out I’m a gay man”). The Cronbach’s alpha for this current investigation (N=522) was .87.

Stigma Consciousness Questionnaire (Pinel, 1999; Appendix C)

Pinel (1999) created the Stigma Consciousness Questionnaire (SCQ) to assess the degree to which individuals expect to be stereotyped due to their marginalized status. Pinel (1999) first validated the SCQ with women, based on women’s experiences interacting with men, as well as beliefs about how men view women. The SCQ was then developed and validated with a sample of gay men and lesbian women. Pinel (1999) stated the scale represents one factor, with items such as “most heterosexuals do not judge homosexuals on the basis of their sexual preference” and “stereotypes about homosexuals have not affected me personally.” Participants respond based on a 7-point Likert scale, with “0” as *strongly disagree* and “6” as *strongly agree*, with a midpoint labeled *neither agree nor disagree*. Scores are averaged, and higher scores indicate higher stigma consciousness.

Previous alphas were reported as .81 (Pinel, 1999) and .74 (Lewis et al., 2003) with samples of gay men and lesbian women and .65 (Lewis et al., 2006) with a sample of lesbian women only. The SCQ was positively associated with Private and Public Self-Consciousness (as measured by Fenigstein, Scheier, and Buss's Self-Consciousness Scale, SCS). For discriminant validity, Pinel found no association between the SCQ and a general distrust in people (as measured by a combination of Scheussler's Doubt About Trustworthiness of People Scale and Rosenberg's Faith in People Scale). Based on previous research on differentiating subgroups of the GLB community (e.g., Fassinger & Arseneau, 2007), the word "homosexuals" was changed to "gay men" throughout the measure. For example, "stereotypes about homosexuals have not affected me personally" was slightly altered to state "stereotypes about gay men have not affected me personally." The Cronbach's alpha for this current investigation (N=522) was .78.

Relationship Self-efficacy Beliefs Scale (RSEBS; Lopez et al., 2007; Appendix F)

The Relationship Self-efficacy Beliefs Scale was created in order to measure individuals' perceptions of their ability to maintain a romantic relationship. Lopez and Lent (1991) originally created the Relationship Self-Efficacy Scale, a 25-item measure modeled off of Bandura's social cognitive theory, with components of Bandura's understanding of "interactive efficacy." Bandura stated others influence that self-efficacy, specifically in relational domains. Lopez et al. (2007) adapted the original Relationship Self-efficacy Beliefs Scale to have better psychometrics. These researchers added 10 more complex items, and then dropped 10 items due to ambiguous loadings (e.g., loaded on more than one factor) through an exploratory factor analysis. Based on Lopez et al.'s (2007) research, the Relationship Self-efficacy Beliefs Scale consists of three factors,

including: Mutuality (e.g., express affection to your partner freely and comfortably), Emotional Control (e.g., control your temper when you are angry or frustrated with your partner), and Differentiation (e.g., tell your partner when you prefer to be alone). Participants respond on a 9-point Likert-type scale (“1” *not at all sure* to “9” *completely sure*) in regards to how confident they feel about certain relationship behaviors. Scores are averaged, with higher scores indicating higher confidence about relationship maintenance behaviors.

Reliability information for the RSEBS ranges from an alpha of .90 (Lopez & Lent, 1991) to .94 (Lopez et al., 2007) with heterosexual samples. Lopez and Lent (1991) provided evidence for the validity of the RSEBS, with positive associations between RSEBS and expected persistence (measured with 5 items created for the study) and relationship satisfaction (measured with 5 items created for the study). Lopez et al. (2007) provided discriminant validity information with significant negative associations between the RSEBS and the Avoidance and Anxiety subscales of the Experiences in Close Relationships measure (ECR; Brennan, Clark, & Shaver, 1998) and positive associations between the RSEBS and Relationship Assessment Scale (RAS; Hendrick, 1988). No items were changed with this assessment. The Cronbach’s alpha for this current investigation (N = 522) was .94.

Procedures

The sample was collected via the internet through a social media website (facebook.com) in order to obtain variability on multiple dimensions of the investigation. Facebook requires that, if we collect information from users, that one “obtain consent, make it clear the researcher (and not Facebook) is collecting their information, and post a

privacy policy explaining what information you will collect and how you will use it (<http://www.facebook.com/legal/terms>). This is reflected in the informed consent (see Appendix G).

Several benefits exist via internet data collection, including gathering data from participants in diverse areas, having high response rates for “active” recruitment, decreasing socially desirable responding, and collecting less random error. For example, internet data collect can garner participants from urban to rural areas; participants from other countries may also be included in the sample (Meyer & Wilson, 2009). Participants also usually have higher rates of response from more “active” (i.e., solicitation) rather than “passive” internet recruitment strategies. Furthermore, researchers demonstrated reduced social desirable responding via internet data collection compared to random digit dialing methods (Chang & Krosnick, 2009). Researchers additionally found less random error for non-probability internet samples than probability internet samples (Yeager et al., 2011).

Drawbacks to internet sampling are noted, like the “digital divide”, limited participation of racial/ethnic minorities, and collecting a sample “so uncharacteristic” of the population. Meyer and Wilson (2009) referred to a “digital divide” during online data collection, insomuch as individuals with lower socioeconomic status are excluded from sampling due to limited access to computers/internet. However, Bull et al. (2011) critiqued this bias. The teenagers in their sample “from lower income families are more likely to use online social networks than teens from wealthier households” (p. 1087). In fact, Bull et al.’s (2011) sample represented a range of participants from different socioeconomic statuses. Meyer and Wilson (2009) also critiqued internet sampling based

on possible exclusion of individuals of different racial/ethnic minorities. However, Bull et al. (2011) found that their Facebook data collection method garnered a significant amount of African American and Latino/Latina teenagers. Meyer and Wilson (2009) finally stated the gay men sampled on the internet are more likely to engage in risky sexual behaviors, which may be unrepresentative of the population. However, the original article (Liau, Millett, & Marks, 2006) compared men who have sex with men (a different population than gay-identified men) who used the internet for casual partners versus men who used other methods, which is irrelevant to this current investigation.

Furthermore, snowball sampling or respondent-driven sampling methods may correct for error using other nonprobability sampling methods, like collecting data in “gay neighborhoods”, venue-style sampling, or data collection via LGBT organizations (Meyer & Wilson, 2009). Respondent-driven sampling is usually used for “hard-to-reach” populations with data collection relying on social networks. Thus, the Facebook website serves as an excellent vehicle for respondent-driven sampling. Furthermore, statisticians have also argued that respondent-driven sampling can make nonprobability samples more closely align with the characteristics of probability samples (Salganik & Heckathorn, 2004).

Multiple negative aspects exist for respondent-driven sampling. For instance, respondent-driven sampling usually uses incentives, which may encourage fraudulent participants (i.e., those who do not identify as gay). Participants may also take the survey more than once to gain more incentives. This can be eliminated by deleting data with the same internet protocol (IP) number. Meyer and Wilson (2009) commented on the use of respondent-driven sampling with samples of LGBT individuals, stating that LGBT

individuals are not as well-connected as other hard-to-reach communities. However, the nature of Facebook connects individuals more readily than other respondent-driven sampling techniques (Bhutta, 2012).

Another critique in the research from venue-style sampling and convenient samples of LGB organizations is that individuals who identify strongly as LGB are more likely to take one's survey. However, the nature of Facebook "shares" will attenuate this bias. For example, if a participant shared the link to the survey on his wall, his 500 friends will see the link in their "newsfeed." Individuals in this participant's social network who take the survey may not strongly identify with the LGBT community or belong to any pro-gay organizations, yet may take the survey.

Much research has collected data *about* Facebook, however, only one a handful of researchers (Bhutta, 2012; Bull et al., 2011) have collected data *using* Facebook. Garnering samples on social networking sites is still rare for social science research. Bull et al. (2011) offered an excellent case study concerning the ethics of using social media to gather data from a difficult-to-reach population. Bull et al. (2011) conducted a randomized control trial with young adults of color to study sexual health education (namely HIV/AIDS). The researchers discussed the ethical issues of using social media. They concluded that the research met the criteria for beneficence, as they sampled a difficult-to-reach population which outweighed the risks of conducting research online. Bull et al. (2011) highlighted that confidentiality is protected because participants actively select "friends" to see their newsfeed, page, photos, and activities. Additionally, Bull et al. (2011) collected all their data via an independent website survey, which included the informed consent; none of the participants' data were collected via

Facebook. Similarly, Bhutta desired to collect a sample of baptized Catholics using a social-networking site. Bhutta (2012) contacted administrators of groups to send the survey to their group members, created a “page” to advertise study and contacted friends through her own personal social network.

The current investigation departed from the traditional respondent-driven sampling method of “seeds” and “recruiters.” First, the cost of providing an incentive to every participant was prohibitive to this current investigation. Confidentiality is the second drawback to traditional respondent-driven sampling, as participant’s names were connected through their Facebook account, thus limiting the need for confidentiality in RDS (Salganik & Heckathorn, 2004). A less prohibitive incentive was to enter participants in a raffle to win \$50.00, which was collected via a separate survey that is not connected with their responses nor associated with their recruitment efforts. Having all participants enter in a raffle to win \$50.00 anonymously after the survey protected the participants’ confidentiality.

Following Bhutta’s (2012) lead, I first contacted individuals in my social network to complete the survey. I then suggested that participants “share” the advertisement on their own wall, page or group page in place of posting the link on others’ wall. This reduced the harm to the sensitive issue of sexual orientation. “Sharing” links on one’s wall means including this information on one’s Facebook page so that it is viewable to everyone that has access to someone’s page (e.g., “friends” of the participant). Respondents were asked on the demographic form (APPENDIX H) if they heard about the survey from the primary investigator or from another person (they do not have to

name the source). Model fit was tested comparing individuals familiar to the PI and individuals not to avoid sampling error.

Secondly, I created a “page” on Facebook to discuss my research, educated about informed consent, and advertised for people to share it with their friends via email or Facebook message. I additionally solicited Facebook members who are administrators of LGB groups and asked them to advertise the survey on their Facebook group page using the option “email all group members.”

Thirdly, in order to reach participants who are not affiliated with Facebook, gay community organizations throughout the country were solicited via email to disseminate the survey link to their constituents.

Before data collection, this proposal was subjected to review by the University of Akron’s Institutional Review Board.

Participants were asked to read and digitally accept the informed consent (Appendix G). They then were asked to complete a set of questionnaires through the University of Akron’s Psychology Department Qualtrics website, which contains all measures in a counterbalanced order in order avoid one measure having an impact on another. Additional items (four extra items) were also interspersed throughout the survey to guarantee the participants attention, by asking participants to respond a specific way to an item. For example, a participant encountered “Please respond ‘strongly agree’ to this item.” Listwise deletion was used for cases that missed the validity check questions (e.g., “Please answer “agree” to this item) by greater than one response off (e.g., answering “disagree” to the item) based on the example provided by Kozee, Tylka, and Bauerband (2012). The Qualtrics survey with these additions is included in Appendix I. After

completion of the survey, participants were directed to an independent survey page and had the option to provide their email address in order to win the \$50 cash prize.

Data Analyses

The aforementioned hypotheses were tested via path analysis approaches. Kline (2011) indicated the N:q rule, based on Jackson's (2003) work, is a usual "rule of thumb" to what sample size is needed, depending on model complexity. More specifically, "N" indicates the ratio of cases and "q" indicates number of model parameters that require statistical estimates. Recommendations include having 20 participants for every one parameter needed. Therefore, this study aimed for 380 participants (with 19 parameters).

Prior to running analyses, the data were assessed for collinearity (whether variables are measuring the same "thing"), normality, outliers (extreme data points), and missing data. Collinearity was assessed with a squared multiple correlation between each variables and the rest of the variables, based on recommendations from Kline (2011). Several multiple regressions were conducted with each variable as a criterion and the rest as predictors. Kline's (2011) recommendation states that if a squared multiple regression is $> .90$, then multivariate collinearity is suspected.

The data were screened for multivariate normality following procedures recommended by Tabachnick & Fidell (2007); variables violating this assumption should be transformed using a logarithmic transformation. Multivariate outliers were identified using Mahalanobis distance and Cook's D and screened using procedures recommended by Tabachnick & Fidell (2007). The data were screened for missing data and tested for randomness using Missing Values Analysis in SPSS. If data points were determined to be missing completely at random (i.e. Little's MCAR test is not

statistically significant), data were replaced using mean imputation. Additionally, an exploratory test of model fit was also conducted comparing single and coupled participants in the whole model.

Both hypothesized models were tested (Figures 2 and 3). For Figure 2, a path model was constructed with relationship self-efficacy beliefs being a direct antecedent of relationship optimism. Further, the minority stress variables (internalized heterosexism; stigma consciousness; experiences of discrimination; concealment) were imputed as direct antecedents of relationship self-efficacy beliefs; these exogenous variables were allowed to covary. For the mediation in Figure 2, past statisticians recommended using bootstrapping methods due to its increased power to measure indirect effects versus the normal theory method (Mallinckrodt, Abraham, Wei, & Russell, 2006). Therefore, bootstrapping methodology was used to test the multiple indirect effects (mediation effects) in the mediation model in Figure 2. Using computer and statistical technology (using Mplus), 1,000 bootstrap samples were created to identify indirect effects. Each indirect effect was tested with a 95% confidence interval. If the 95% confidence interval includes 0, then the indirect path will not be significant (at the .05 level). This model may also be trimmed/freed to reduce the chi-square and overall fit of the model (based on the fit indices below) based on modification indices.

Similar to Figure 2, Figure 3 was modeled via path analysis by having minority stress variables allowed to covary and to be antecedents of both relationship optimism and relationship self-efficacy simultaneously. Paths may be trimmed/freed regarding modification indices and the effect that trimming paths may have on the chi-square value and the overall fit indices.

The path analyses for Figure 2 and Figure 3 were conducted in MPlus with the following as fit criteria used:

Table 1: *Path Analysis Fit Indices based on Kline (2011)*

Fit Index	Ideal	Adequate
CFI	$\geq .95$	$.90 \leq x \leq .94$
TLI	$\geq .95$	$.90 \leq x \leq .94$
SRMR	$\leq .05$	$.06 \leq x \leq .10$
RMSEA	$\leq .05$	$.06 \leq x \leq .10$

CHAPTER IV

RESULTS

In this chapter, the results of path analysis for both hypotheses and subsequent mediation analyses for hypothesis one are presented. In addition, post hoc analyses that were used to explore hypothesis two are described as the model for hypothesis two was saturated. Finally, an exploratory model using feminist theory was tested and these results are presented. Before the hypothesis tests, however, I discuss the missing-by-design and multiple imputation techniques used to correct for a logistical data collection error. After, I explain how I examined the data for quality after the multiple imputation was conducted. The modifications to the data are discussed in detail. Descriptive statistics are explored, followed by data analysis. A summary of the results concludes this chapter.

Missing by design and multiple imputation

Due to a logistical error in the data collection software, Qualtrics, most of the participants (415 participants after the aforementioned data cleaning in the previous paragraph) received six out of the seven pages of measures or demographics. The scales were counterbalanced, so that every participant received a random combination of the six out of seven pages, which could include the demographic information. Therefore, no scale or measure (including the demographics) was completely left out of this sample; however, no one participant (of the 415) completed all the measures/demographics.

After the error was found, I collected extra participants (107 useable cases after the data cleaning) to garner some participants who completed all of the measures; this assisted with the multiple imputation described below.

Exploration of the recommendations from the “Missing by Design” literature (e.g., Graham, Taylor, Olchowski, & Cumsille, 2006) suggested that the data set was usable despite the error. Indeed, the missing data in this sample mimic specific research methods of purposefully collecting incomplete data, called efficiency or *matrix sampling*. In matrix sampling, researchers give shorter surveys with missing items to participants in order to reduce survey completion time, thus effectively increasing response rates (Graham et al., 2006).

The most popular form of matrix sampling is the 3-form design. As an example, Graham et al. (2006) provided this specific following:

Suppose a researcher determines that subjects are willing to answer 30 questions. But suppose the researcher would like to ask a few more questions, say 40 questions...An alternative is to produce three different forms, such that a different set of 30 items is presented in each form. This limits to 30 the number of items given to each subject, a study requirement, but still allows for the collection of data for all 40 items, which can be used to answer important research questions. (p. 325)

In this design, participants complete three out of four sets of the data. For example, a combination of four different sets, XABC, represents all scales used in an investigation. Each set contains complete and different scales, as Graham et al. (2006) cautioned against dividing items from a scale into different sets, as this may influence standard errors in strategies for handling missing data. Graham et al. (2006) discussed set “X” as containing the essential scales for the investigation and be given to all participants, as it will not reduce power for the hypotheses. Multiple sets (A, B, and C) are created which

contain different scales from each other and from the “X” set. Participants would complete one of three forms: XAB, XCA, and XBC, with each combination containing the set “X.”

For this investigation, this sample had seven sets instead of three sets. However, dissimilar to the 3-forms design, each set represented six out of the seven scales. Additionally, further data were collected similar to the “X” set of the 3-form design, which included all essential measures. Therefore, around 12.5% of the data theoretically might be missing, instead of 25% of the three-form technique. In other words, this investigation adhered to most of the components of the 3-form design, yet had more sets, which reduced the amount of missingness.

Multiple imputation (Collins, Schafer, & Kam, 2001; Schafer, 1997; Schafer & Graham, 2002) is a missing data replacement technique. Researchers (e.g., Graham et al., 2006) with the “Missing by Design” technique recommend multiple imputation for the matrix sampling data collection methods measured above. For example, Graham et al. (2006) discussed using multiple imputation for missing by design samples that contain anywhere from 33% to 50% missingness. The missing data are replaced by more than one “set of stimulated imputed values, resulting in multiple plausible but different versions of the complete data” (Collins et al., 2001, p. 335). Missing data are predicted based on each participant’s own observed values, with “random noise added to preserve a correct amount of variability in the imputed data” (Schafer & Graham, 2002, p.167). Instead of using maximum likelihood estimates, multiple imputation uses a variation of Bayesian estimation that draws random values from a posterior distribution (Schafer & Graham, 2002). A posterior distribution contains information about the missing data

(based on information from non-missing data) which includes a vector of unknown parameters and a nuisance parameter (Schafer, 1997). Using this process, parameter estimates are imputed that take into account the *uncertainty* that the missing values provide (Sinharay, Stern, & Russell, 2001).

The technique is called *multiple* imputation because the missing data are imputed anywhere from three to ten times, with the results being averaged at the item level. The missing data are imputed multiple times because only a single imputation would “fail to account for uncertainty in the missing data and hence would underestimate the variability in the data set” (Sinharay et al., 2001, p. 320). Mostly, researchers have suggested five imputations as sufficient (Collins et al., 2001; Schafer & Graham, 2002). Sinharay et al. (2001) provided an equation that demonstrates the efficiency of choosing an appropriate number of imputations: $(1+\gamma/m)^{-1}$, where γ = the percentage of missing data and m = number of imputations. With the current data, 12.99% of values are missing. Therefore, five imputations create the sample’s efficiency at 97%, which is considered excellent (Sinharay et al., 2001). Furthermore, to ensure that the draws from the posterior distribution are independent from one another (in other words, each multiple imputation data set is independent from one another), each imputed data set is selected after 100 *iterations*. This means that the first imputed data set is selected after 100 iterations of the data, the second imputed data set is taken after 200 iterations of the data, etc.

It was decided that the multiple imputation be only conducted with continuous variables (e.g., scales) and not the demographic discrete variables. I decided this based on the recommendation by Horton, Lipsitz, and Parzen (2003). They cautioned researchers who use multiple imputation with both categorical and discrete variables. For example,

the multiple imputation technique uses a standard normal distribution and imputes values, regardless of whether or not the variable is continuous or discrete, that provides values in-between discrete categories, such as 0 and 1. Therefore, a multiple imputation with discrete variables includes values such as .39 and .84. The most common mechanism used by researchers is to round those values to their nearest discrete category. However, Horton et al. (2003) and Schafer and Graham (2002) described that this may lead to bias in parameter estimates, especially with nominal (unordered categories) data, like most of the demographic variables. Researchers have suggested using log-linear analysis for categorical data (Schafer, 1997); however, this analysis was not suggested for smaller amounts of discrete variables. Therefore, the demographic responses were not included in the multiple imputation for this reason.

Data modification

Previous to the multiple imputation, listwise deletion was used for cases missing more than 50% of their data; seventy-two cases were removed. After the multiple imputation, the data were cleaned for missing values and outliers according the recommendations of Enders (2006) and Scholmer, Bauman, and Card (2010). A total of 695 cases were taken from the data collection software, Qualtrics.. Second, listwise deletion was also used for cases with missed validity check questions (e.g., “Please answer “agree” to this item); “missed” was defined as a response that was more than one value from the asked value, based on the example provided by Kozee, Tylka, and Bauerband (2012). For example, if the validity item asked the respondent to choose “agree,” then a response of “strongly agree” or “neither agree nor disagree” was acceptable. However, if a respondent marked “disagree” in this validity check example,

the case was removed. Eighty-three cases were removed due to this procedure. Listwise deletion was also used with identical IP addresses, which could possibly indicate that a participant took the survey more than once. Six cases were removed due to identical IP addresses. Three participants were removed due to identifying themselves as transgender. Therefore, the final sample size was 531.

The data were analyzed for skewness, kurtosis, and collinearity. According to Kline (2011), variables that have values of skewness greater than 3 and values of kurtosis greater than 10 may need transformation. However, no variables reflected these values for both skewness and kurtosis. Thus, the data were not transformed. I assessed for multivariate collinearity according to Kline (2011); six multiple regressions were conducted, each of the six variables were used, with one variable being the criterion and the rest being the predictors. Kline (2011) stated that if the squared multiple correlation $> .90$, then multivariate collinearity is suggested. None of the regressions exhibited a squared multiple correlation greater than $.90$.

Similarly, I analyzed the data for multivariate outliers, using Mahalanobis distance and Cook's D. Mahalanobis distance is defined as "the distance of a case from the centroid of the remaining cases where the centroid is the point created at the intersection of the means of all the variables" (Tabachnick & Fidell, 2001, p. 68). Tabachnick and Fidell suggested using a χ^2 distribution chart with the df equal to the number of variables in one's data. Using six variables, the $df = 6$ had a χ^2 critical value of 22.458 at the $.001$ level. Nine cases were identified as multivariate outliers from the data set, as they had Mahalanobis distance > 22.458 . Also, Cook's D was assessed for every

case. No value of Cook's d was found to be above 1.00, which Tabachnick and Fidell (2001) identified as suspect of being an outlier.

Next, I analyzed box plots of the variables to identify any univariate outliers among the six variables. I found that nine values were three standard deviations above the mean. Cases which were identified as multivariate outliers through the Mahalanobis distance and which also had significant univariate outliers were removed from the sample, as Tabachnick and Fidell (2001) specified that it was best to remove cases which contained multivariate outliers. Therefore, nine cases were removed to make a total of 522 cases. Another rationale for the deletion of these nine cases included high composite scores (>3.50) on eight items on the measure of Heterosexist Harassment, Rejection, and Discrimination scale. Higher composite scores on these items might be reflective of extreme experiences of heterosexism, which are not normally experienced with the HHRDS scale (Szymanski, 2006). The other case deleted included a higher score on the Nungesser Homosexual Attitudes Inventory (NHAI).

Descriptive statistics

The correlations, means, and standard deviations of the variables are presented below in Table 3. The correlations were in the expected direction. Since multiple correlations were conducted simultaneously, a Bonferroni correction was used to control for family-wise error. The Bonferroni correction is highlighted in the table below.

Pertinent to hypothesis two, Relationship Self-Efficacy Beliefs and Optimism about Relationships were positively correlated and significant. This will be discussed later in the analysis of hypothesis two.

Table 2: Descriptive statistics for independent and dependent variables

Variable	AGE	EOD	IH	Self-C	SC	RSEB	OAFR	LONG
Mean	33.28	1.73	1.81	3.52	4.09	3.94	3.76	55.75
SD	11.80	.55	0.43	1.03	.91	.62	.87	75.69
Range	18-76	1-6	1-5	1-7	0-6	1-9	1-5	1-624
N	522	522	522	522	522	522	522	522
α	-	.86	.83	.87	.78	.94	.83	-

Note: EOD = Experiences of Discrimination; IH = Internalized Heterosexism; SelfC = Self-Concealment; SC = Stigma Consciousness; RSEB = Relationship Self-efficacy Beliefs; OAFR = Optimism about Relationships; LONG = Longest Relationship (past or present) in months

Table 3: Correlations between independent and dependent variables

Variable	AGE	EOD	IH	Self-C	SC	RSEB	OAFR	LONG
Age	1	-.078	-.19**	-.079	-.14**	-.032	.025	.56**
Experiences of Discrimination	-	1	.22**	.12	.35**	.004	-.045	-.061
Internalized Heterosexism	-	-	1	.47**	.19**	-.27**	-.35**	-.25**
Self-Concealment	-	-	-	1	.28**	-.28**	-.19**	-.17**
Stigma Consciousness	-	-	-	-	1	-.21**	-.15**	-.18**
Relationship Self-Efficacy Beliefs	-	-	-	-	-	1	.42**	.095
Optimism about Future Relationships	-	-	-	-	-	-	1	.23**
Longest Relationship	-	-	-	-	-	-	-	1

Note: EOD = Experiences of Discrimination; IH = Internalized Heterosexism; SelfC = Self-Concealment; SC = Stigma Consciousness; RSEB = Relationship Self-efficacy Beliefs; OAFR = Optimism about Relationships; LONG = Longest Relationship (past or present) in months; All correlations are one-tailed.

*p < .05 (Bonferoni corrected to p < .002)

**p < .01 (Bonferoni corrected to p < .001)

Hypothesis one

The hypothesized model (Figure 4) was a poor fit to the data, with χ^2 (522, df: 4) = 42.66, $p < .0001$, RMSEA = 0.14; CFI = .81; TLI = .58; SRMR = 0.050. No path was determined to be non-significant, so no paths from this model were trimmed. Thus, Hypothesis one was not supported.

However, one modification index revealed a path in need of estimation. The modification index of the path from Internalized Heterosexism to Optimism about Relationships demonstrated significance (MI = 38.86). The addition of paths based on modification indices rather than theoretically-driven hypotheses relates to a low Type I error rate, thus, Ullman (2001) suggested that added paths' coefficients can only be retained at the $p < .01$ level. I added the path from Internalized Heterosexism to Optimism about Relationships ($p < .01$) in a revised model. The revised model (Figure 5) had an excellent fit to the data, with χ^2 (522, df, 3) = 2.27, $p = 0.52$, RMSEA = .0000, CFI = 1.000, TLI = 1.001, SRMR = 0.009.

I conducted bootstrapping to test for the mediating effect of Relationship Self-Efficacy between all four exogenous variables separately and Optimism about Relationships (Shrout & Bolger, 2002). I specified Mplus to generate 1000 bootstrap samples from the original data set, which sampled by replacement and generated indirect effects and 95% confidence intervals with the indirect effects. All indirect effects were significant (see Table 3). Similarly, all exhibited support for mediation, as no value within the 95% confidence interval included zero. The mediation of Internalized Heterosexism to Optimism about Relationships was a partial mediation, due to the significant direct path that was added from Internalized Heterosexism to Optimism about

Relationships. The other minority stress variable direct paths were not significant, suggesting full mediation.

Table 4: *Mediation effects with hypothesis one*

Indirect Paths	Indirect Effect	95% CI	Direct Path Significant?	Full or Partial Mediation
Internalized Heterosexism -> Relationship SE -> Optimism in Relationships	-.138**	-.262 to -.081	Yes	Partial
Stigma Consciousness -> Relationship SE -> Optimism in Relationships	-.057*	-.105 to -.041	No	Full
Self-concealment -> Relationship SE -> Optimism in Relationships	-.044*	-.090 to -.022	No	Full
Experiences of Discrimination -> Relationship SE -> Optimism in Relationships	.069*	.024 to .154	No	Full

*p < .01

**p < .0001

A curious finding existed, however, in the adjusted path model for hypothesis one; the path from experiences of discrimination to relationship self-efficacy beliefs was significantly positive rather than negative as expected. A possible explanation could be due to group differences between single and non-single participants. For example, non-single gay men might have more protection against experiences of discrimination via social support and self-esteem, and therefore, experiences of discrimination do not have such an impact on their relationship self-efficacy beliefs.

Following the recommendations of Muthén and Muthén (2010), I made two path model comparisons. The first path model comparison is illustrated in Table 4. This comparison included comparing single and non-single gay men by constraining all paths in the model; this allows for an overall comparison of model fit based on relationship

status. The chi-square for the constrained model and the chi-square for the unconstrained model were tested with the Satorra-Bentler scaled chi-square difference test (Satorra & Bentler, 2001). The difference (-.9003) did not exceed the critical value for six degrees of freedom, thereby making the differences between a free parameter whole model and constrained model non-significant.

Table 5: *Model differences based on relationship status for whole model*

	χ^2	Df	Scaling correction factor
Free parameter Model	5.795	6	0.988
Constrained Model	6.514	12	1.026
Satorra-Bentler scaled chi-square difference test			
Difference test scaling correction		1.064	
Sattora-Bentler scaled Chi-square difference		.9003	
Difference degrees of freedom		6.000	

Even though the differences between single and non-single gay men were non-significant for the whole model, it is still possible that the path from experiences of discrimination to relationship self-efficacy beliefs could be significantly different for single gay men compared to non-single gay men. Therefore, according Muthén and Muthén (2010), I compared two models; one model with no paths constrained and one model with a constrained path from experiences of discrimination to relationship self-efficacy beliefs. These estimates are reflected in Table 5. However, The Sattora-Bentler scaled Chi-square difference (-.006) did not exceed the critical value for one degree of freedom (Satorra & Bentler, 2001). Therefore, the path coefficient from experiences of discrimination to relationship self-efficacy beliefs between single and non-single gay men is not statistically different and does not offer an explanation for the unexpected path coefficient.

Table 6: *Model differences based on relationship status for the path coefficient of discrimination -> relationship self-efficacy beliefs*

	χ^2	Df	Scaling correction factor
Free parameter Model	5.795	6	0.988
Constrained Paths	5.738	7	0.999

Sattora-Bentler scaled chi-square difference test	
Difference test scaling correction	1.065
Sattora-Bentler scaled Chi-square difference	0.006
Difference degrees of freedom	1.000

Another statistical explanation for the unexpected path involves the relationship among experiences of discrimination, internalized heterosexism, and stigma consciousness. A step-wise hierarchical regression was conducted and is presented in Table 6. This table reflects how the association between experiences of discrimination and relationship self-efficacy beliefs changes when internalized heterosexism and stigma consciousness are additionally used as predictors. When internalized heterosexism and stigma consciousness are controlled (partial correlation), the relationship between experiences of discrimination and relationship self-efficacy becomes significantly positive. Additionally, this change is not due to collinearity among these predictor variables, as VIF scores do not exceed ten based on Kline's (2011) recommendation.

Table 7: *Hierarchical regression with relationship self-efficacy as a criterion*

Step		B	β	T	Zero-order	Partial
1	Experiences of discrimination	.005	.004	43.46	.004	.004
2	Experiences of discrimination	.077	.068	1.57	.004	.069
	Internalized heterosexism	-.42**	-.29	-6.66	-.27	-.28
3	Experiences of discrimination	.153*	.134	3.00	.004*	.13*
	Internalized heterosexism	-.38**	-.26	-6.15	-.27**	-.26**
	Stigma consciousness	-.14**	-.21	-4.63	-.21**	-.20**

*p < .01

**p < .001

Overall, the model specified in hypothesis one was not supported. When, due to modification indices, a previously unspecified path was added from experiences of discrimination to relationship optimism the model had a good fit. The addition of this path is consistent with research that has linked internalized heterosexism to relationship variables (e.g., Balsam & Szymanski, 2005; Mohr & Fassinger, 2006; Otis et al., 2006). Through bootstrapping techniques, it was found that self-efficacy only partially mediated the relationship between internalized heterosexism and relationship optimism as evidenced by the addition of the significant path from internalized heterosexism to relationship optimism. Relationship self-efficacy fully mediated the relationship between self-concealment, stigma consciousness, and experiences of discrimination to relationship optimism.

A curious positive path was found from experiences of discrimination to relationship self-efficacy beliefs. To assist in explaining this surprising positive path (as a negative path was expected), two post hoc tests of model differences were conducted to explore model fit differences between single and coupled participants. Model fit was not significantly different when the model differences were tested for the whole model (by constraining each path). Additionally, the path from experiences of discrimination to relationship self-efficacy was not significantly different between single and coupled participants based on a test of model fit differences with this path constrained between the two groups. An exploratory hierarchical regression was conducted to understand further the relationship between experiences of discrimination, stigma consciousness, and internalized heterosexism. After controlling for internalized heterosexism and stigma consciousness, the association between experiences of discrimination and relationship self-efficacy beliefs becomes significantly positive. This positive significant association is unrelated to collinearity among these predictor variables, as the VIF values do not exceed Kline's (2011) recommended cutoff.

Hypothesis two

The path analysis to test Hypothesis 2 as it was stated was initially unable to be conducted due to the saturated nature of the model; as a result, fit indices were not able to be obtained for the model. It is notable, however, that the hypothesized paths were not all significant and this does not support the hypothesized model. A post hoc path analysis was conducted and paths were subsequently trimmed that were nonsignificant in the original saturated model; that included the paths from self-concealment to relationship optimism, experiences of discrimination to relationship optimism, and stigma

consciousness to relationship optimism. The paths were trimmed in order to create a more parsimonious model and to assist with the identification of the model. Therefore, after trimming, the paths that remained included paths from all four minority stress variables to relationship self-efficacy beliefs, and one single path from internalized heterosexism to relationship optimism. This trimming suggested that internalized heterosexism is the only robust predictor of relationship optimism. The fit indices of the model reflected in Figure 6 are $\chi^2 (522, df, 3) = 6.77, p = 0.08, RMSEA = .05, CFI = .98, TLI = .95, SRMR = 0.02$. This model is an adequate fit to the data.

Overall, the model for hypothesis two was not supported. The model as stated was saturated and as such could not be tested for fit, but the hypothesized paths were not all found to be significant. When trimming of non-significant paths was completed, the new model provided fit indices that were an adequate fit to the data.

Exploratory model

In order to investigate the post-hoc positive partial coefficient between experiences of discrimination and relationship self-efficacy beliefs, a possible alternative model that may better explain the present data is one based upon a feminist model. In an article on internalized heterosexism (Szymanski & Kashubeck-West, 2008), a possible theoretical model rooted in feminist ideology is introduced. The feminist-based model posits that the “personal is political,” which means that the proximal variables in this study are reactions to experiences of oppression and discrimination (Szymanski, Kashubeck-West, Meyer, 2008). This theory would specify a specific causal process; experiences of discrimination lead to proximal minority stress processes of self-concealment, internalized heterosexism, and stigma consciousness which lead to

relationship outcomes. Therefore, a feminist mapping of the minority stress variables, in conjunction with a social-cognitive understanding of how self-efficacy (i.e., relationship self-efficacy beliefs) leads to outcome expectations (i.e., relationship optimism) could be tested with this data. A model fused with feminist, social-cognitive, and minority stress considerations therefore was tested. Figure 7 demonstrates the identification of this model and subsequent fit indices and path coefficients.

The model specified that experiences of discrimination precede internalized heterosexism, stigma consciousness, and self-concealment; these proximal variables would then lead to relationship self-efficacy followed by relationship optimism. In other words, this model posits that proximal variables may mediate the relationship between experiences of discrimination and relationship self-efficacy, however, no official mediation was tested. Since the path from internalized heterosexism to relationship optimism had a high path coefficient, this path was also retained for this model. This feminist-derived model provided a good fit to the data, $\chi^2(522, df = 4) = 10.34$, RMSEA = .055, CFI = .99, TLI = .95, SRMR = .024

Summary

In conclusion, two hypothesized path models and one exploratory path model were tested. These models were tested after the multiple imputation and subsequent transformation of the data. Of the 522 participants remaining, the sample consisted of mostly Caucasian participants, with more than half of the participants with a college education living in urban areas. Both hypothesized models were rejected; however, adjustments were made to both models that provided adequate-to-excellent fit. Lastly, an exploratory feminist theory-based model was tested and provided good fit to the data.

The model specified in hypothesis one was not supported, as it was a poor fit to the data. With the subsequent addition of a path from internalized heterosexism to relationship optimism based on modification indices, however, the new model provided an excellent fit to the data.

The main premise of the model specified in hypothesis one was to investigate self-efficacy's role as a mediator between the minority stress variables and relationship optimism. After the modifications were made, support was found for self-efficacy's partial mediation of the relationship between internalized heterosexism and relationship optimism. Additionally, support was found for self-efficacy's full mediation of the relationship between relationship optimism and internalized heterosexism, stigma consciousness, and experiences of discrimination separately. Thus, this adjusted model provided evidence for the use of relationship self-efficacy to assist in the explanation of the relationship between minority stress variables and relationship optimism.

The unexpected positive path from experiences of discrimination to relationship self-efficacy in hypothesis one was inconsistent with past theory (e.g., Meyer, 2003) which posited a negative path. Thus, an exploratory feminist theory-based model was conducted which demonstrated a good fit to the data. The new model provided support for the configuration of experiences of discrimination as antecedents to proximal stress processes.

Figure 4: Model specified by hypothesis one

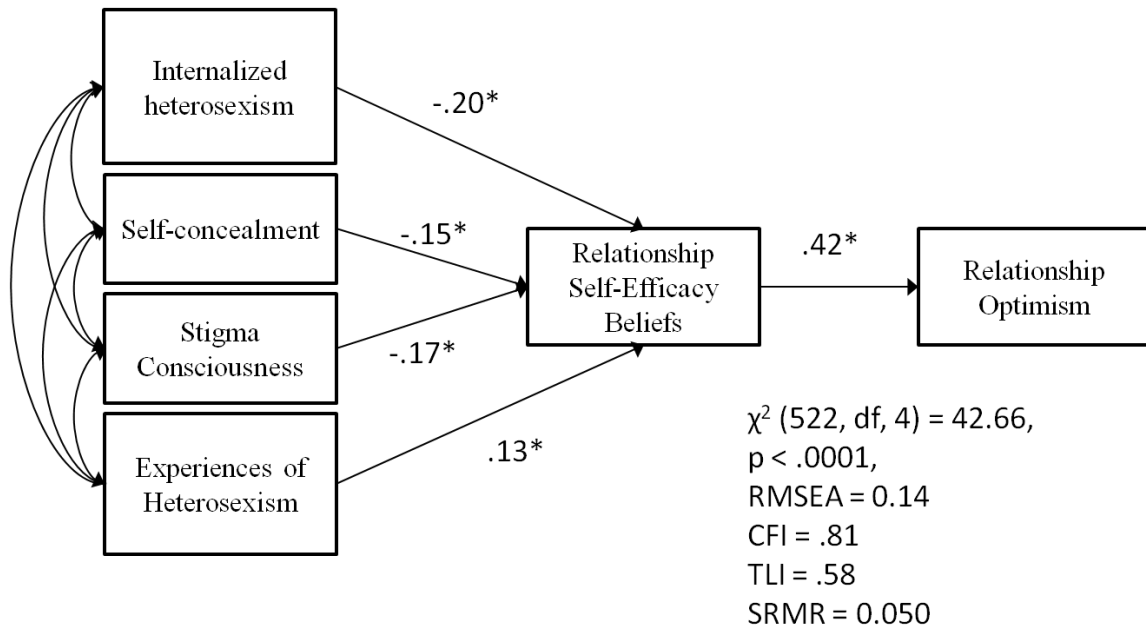


Figure 5: Adjusted model specified by hypothesis one

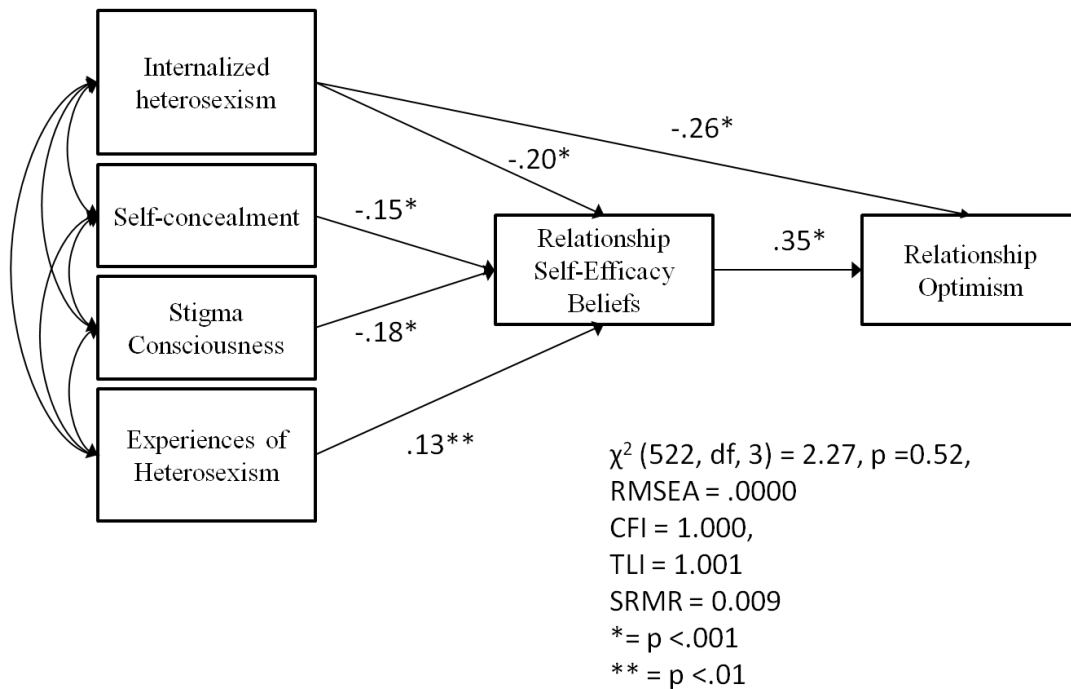


Figure 6: Initial adjustment of model specified by hypothesis two

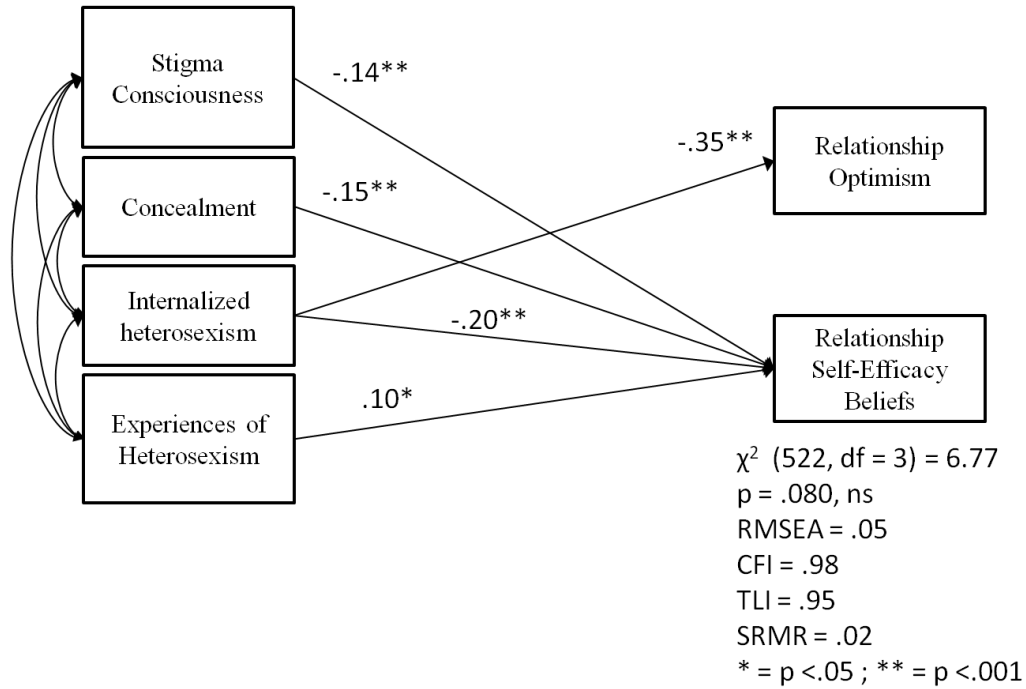
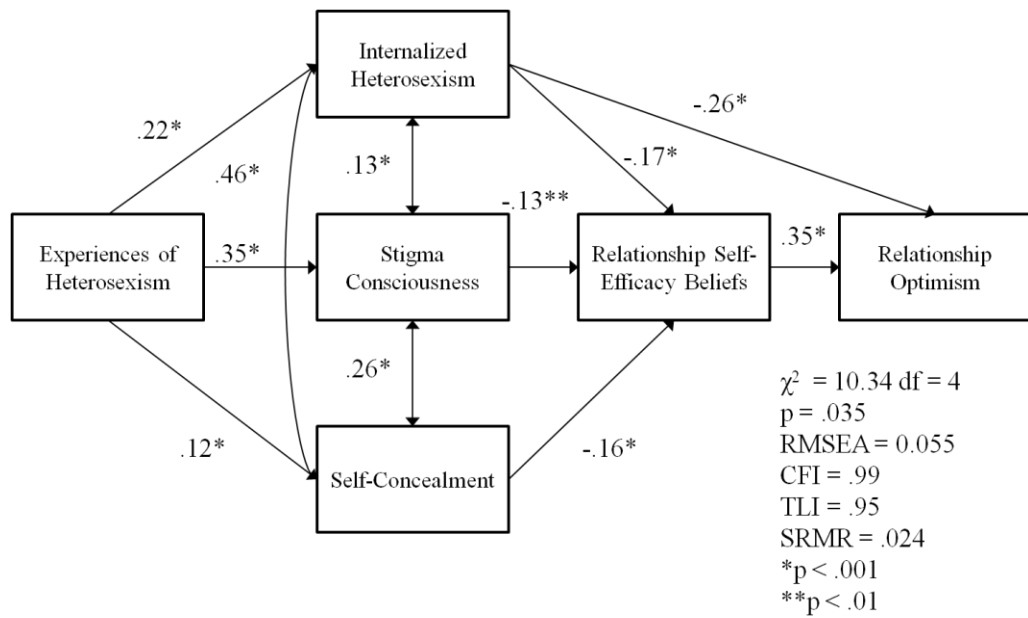


Figure 7: Exploratory model specified by feminist theory



CHAPTER V

DISCUSSION

Congruent with the mission of counseling psychology, research is needed exploring the mental health needs of marginalized populations. As such, LGB individuals are considered a marginalized and underrepresented population who experience discrimination (Herek, 2009). More specifically, gay men experience more discrimination (Berrill, 1990; Herek et al., 1999; Todosijevic et al., 2005) and internalize more stigma (Herek, 2009) than do their lesbian and bisexual male/female peers. Indeed, research on the marginalization of gay men and possible subsequent effects on their beliefs about their relationships is imperative, especially with the recent political contention regarding institutional discrimination inherent in legislation such as the Defense of Marriage Act and the State of California's Proposition 8.

The purpose of this investigation was to ascertain how minority stress variables (namely, experiences of discrimination, self-concealment, internalized heterosexism, and stigma consciousness) relate to gay men's perceptions of their relationships. Namely, the purpose was to deconstruct whether gay men internalize the belief that their relationships are "fleeting and impermanent" (Rostosky et al., 2007, p. 395). Previous researchers have amassed lesbians, gay men, bisexual men, and bisexual women into one group, which may have ignored nuanced aforementioned differences of experiences of discrimination

and the internalizations thereof. Furthermore, no research exists that associates minority stress variables within a framework of cognitions and beliefs about relationships, such as relationship self-efficacy beliefs and relationship optimism. Therefore, these variables were used with this investigation.

Since the relationship between minority stress variables, relationship self-efficacy beliefs, and relationship optimism was unknown, I constructed two hypothesized models to explore how these variables may relate. First, a mediation model was constructed, based on the theoretical understanding of self-efficacy's effect on outcome expectations (Bandura, 1997). That is, the experiences of discrimination and salience of the negative aspects of identifying as gay could associate with lowered relationship self-efficacy beliefs, which in turn could lead to lowered optimism in relationships. Alternatively, since no research has connected relationship self-efficacy beliefs and relationship optimism, it is possible that gay men could feel efficacious about relationships, yet remain unoptimistic about future relationships due to aforementioned salience of societal stereotypes about their impermanence. Therefore, hypothesis two explored this relationship.

Participants were a sample of gay men collected through a respondent-driven sampling method via social media, a technique that was successful for other hard-to-reach populations (Bhutta, 2012; Bull et al., 2011). The sample consisted of 522 mostly gay-identified, mostly Caucasian/White men; more than half of the sample were college-educated and lived in urban communities. In addition, a little more than half identified being in a romantic relationship.

The two hypotheses mentioned above were tested via path analysis, after the data were assessed for skewness, kurtosis, multivariate outliers and multicollinearity. The first hypothesis was tested for mediation using bootstrapping based on the recommendations of Mallinckrodt et al. (2006). The second hypothesis was tested via path analysis with the caveat that paths may be trimmed/added based on the modification indices.

Interpretations of the findings – Hypothesis one

The first model hypothesized that relationship self-efficacy beliefs mediate the relationship between the four minority stress variables and relationship optimism. The original hypothesized model was not supported but some of the relations from it were supported in a slightly modified model. As predicted, relationship self-efficacy beliefs served as a full mediator for three out of the four minority stress variables in their association with relationship optimism. Relationship self-efficacy beliefs fully mediated the association between experiences of discrimination, self-concealment, and stigma consciousness and relationship optimism, although the direction of the relationship for experiences of discrimination and self-efficacy was unexpected.

It is important to turn back to previous research to understand why the hypothesized model was not supported. According to Meyer's (2003) original theory behind the minority stress model, it would appear that the distal stress processes (experiences of discrimination) and proximal stress processes (internalized heterosexism, self-concealment, expectations of rejection) are theoretically affected by different variables. Indeed, Meyer (2003) theorized that minority status (including but not limited to sexual orientation, like gender and race/ethnicity) contributes to distal stress processes. In addition, Meyer (2003) posited that characteristics of minority identity (i.e.,

prominence, valence, and integration) may affect the relationship between proximal processes and mental health outcomes. Unfortunately, these variables were not included in this investigation and would serve as an excellent future direction for further research using the minority stress model to understand gay men's relationships.

Direct effect of internalized heterosexism on relationship optimism

Subsequent to the test of the original model, a modification was made to obtain a good model fit. The significant path added from internalized heterosexism to relationship optimism established partial mediation. This direct path was not originally identified, but the data suggested that the model be modified to include this path. Although data driven, the modification related to theory (Szymanski & Kashubeck-West, 2008). Specifically, internalized heterosexism is when an individual takes on negative societal messages of LGB individuals and believes these messages to be true for oneself. This can intuitively relate to the specific societal message that LGB relationships are “fleeting and impermanent” (Rostosky et al., 2007, p. 395). Indeed, Rostosky et al. (2007) and Frost (2011) qualitatively investigated this direct connection and found support that LGB individuals internalize negative perceptions LGB relationships and therefore question the longevity of their own relationship.

Through a quantitative lens, internalized heterosexism has been directly associated with length of relationship, cohabitation, and relationship discord (Meyer & Dean, 1998), relationship problems for single participants (Frost & Meyer, 2009), relationship strain for coupled participants (Frost & Meyer, 2009), less accommodation in romantic relationships (Gaines et al., 2005), relationship quality (Balsam & Szymanski,

2005; Mohr & Fassinger, 2006; Otis et al., 2006), and relationship satisfaction (Mohr & Day, 2008).

This information provides a rationale for the lack of full mediation of the model hypothesized in hypothesis one, specifically with the direct path from internalized heterosexism to relationship optimism. It would appear that the variance of relationship optimism explained by internalized heterosexism cannot be explained fully through relationship self-efficacy since there is a strong and significant direct path supported by the research from internalized heterosexism to relationship self-efficacy beliefs.

Positive path from experiences of discrimination to relationship-self-efficacy beliefs

Experiences of discrimination were not significantly associated with relationship self-efficacy beliefs or relationship optimism in the correlation analyses, yet a significant positive path was found from experiences of discrimination to relationship self-efficacy beliefs. The literature suggested a significant negative path from experiences of discrimination to relationship self-efficacy beliefs. The rationale for including this negative path is as follows. First, experiences of discrimination are associated with psychological sequelae, such as anxiety and depression. Furthermore, Rostosky et al. (2007) and Frost (2011) provided qualitative support that the totality of minority stress (including experiences of discrimination) is necessary and sufficient to explore LGB individuals' thoughts on impaired longevity of their relationships. Indeed, over half of Rostosky et al.'s (2007) sample endorsed legal and religious discrimination as a barrier to relationship maintenance. In addition, Otis et al. (2006) found that experiences of discrimination did not predict relationship quality; however, some methodological issues were evident, such as their ipsative assessment of experiences of discrimination with a

sample of a majority of lesbian women. Lack of an established timeline for discriminatory experiences was also explored as possible reasons why experiences of discrimination did not associate with relationship variables.

It was believed that fixing these methodological concerns by using Szymanski's (2009) *Heterosexist Harassment, Rejection, and Discrimination Scale* would resolve previous null findings between experiences of discrimination and relationship variables, and thus, enable a negative and significant association between experiences of discrimination and relationship self-efficacy beliefs. However, this was not the case as the correlations between experiences of discrimination and relationship self-efficacy and relationship optimism were nonsignificant, similar to the results of Otis et al. (2006) and Balsam and Szymanski (2005).

Although Otis et al. (2006) and Balsam and Szymanski (2005) provide past evidence for a *null* finding between experiences of discrimination and relationship variables, little evidence exists for a *positive* path. Three statistical post-hoc tests were conducted to understand this finding. First, a nested model difference test between single and non-single participants was tested. However, there was no statistical support for a fit difference for the whole model. Next, another model difference test was conducted specifically on the path from experiences of discrimination to relationship self-efficacy beliefs. The rationale was that non-single participants could have protective factors against discrimination (like social support; Meyer, 2003) which could therefore affect this relationship. However, there was no statistical support for this model difference. The last post hoc statistical test included running a hierarchical regression analysis with internalized heterosexism, stigma consciousness as predictors and relationship self-

efficacy as the criterion. It was discovered that experiences of discrimination and relationship self-efficacy had a significant partial and positive association. Therefore, when controlling for internalized heterosexism and stigma consciousness, the association between experiences of discrimination and relationship self-efficacy beliefs was positive. A possible explanation of the positive path from experiences of discrimination to relationship self-efficacy beliefs in the path model could relate back to Meyer's (2003) original minority stress model (presented in Figure 8). Meyer (2003) suggested the link between experiences of discrimination and mental health outcomes could be moderated by coping and community/individual social support. Additionally, Hatzenbuehler (2009) introduced a mediation framework; the link from experiencing stigma to mental health outcomes is mediated by possible coping and social support. Therefore, social support and coping are highlighted as important variables not considered in this investigation.

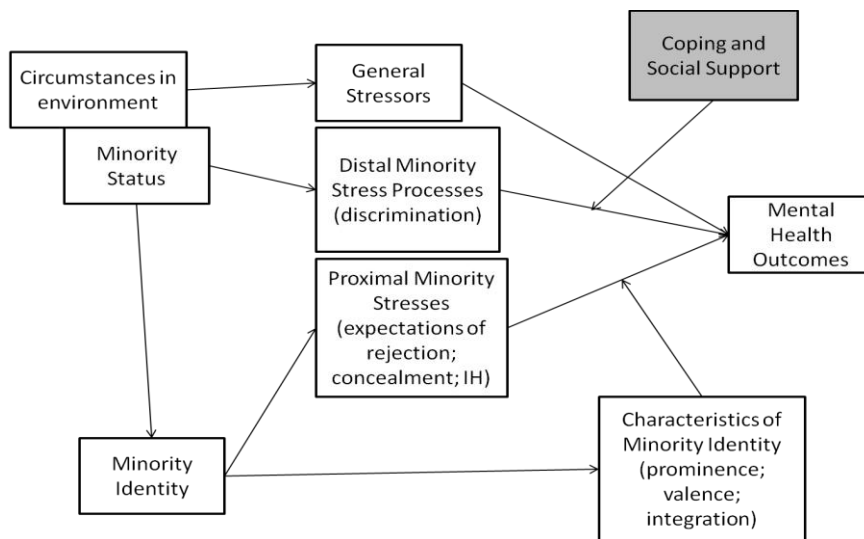


Figure 8. Meyer's (2003) original model, highlighting coping and social support

Meyer (2003) posited that LGB individuals who experience minority stress might use a multitude of coping resources. For example, Peterson, Folkman, and Bakeman

(1996) found, with a sample of 139 gay, bisexual and heterosexual African American men, that coping with stressors by seeking social support helped attenuate depressive symptoms for sexual minority and non-sexual minority African American men. Social support has served as a protective factor against mental health outcomes among LGB individuals in other studies. Social support, especially from parents (Goldfried & Goldfried, 2001) and peers (Radkowski & Siegel, 1997) mediate the relationship between experiences of discrimination and adverse mental health outcomes.

Outside of the mediation framework, social support was also associated with lowered negative mental health sequelae. This evidence includes Doty, Willoughby, Lindahl, and Malik (2010) who found, with a sample of 100 LGB young adults aged 18-21, sexuality-related social support (especially from sexual minority friends) were associated with lower psychological distress. In addition, Sheets and Mohr (2009) found that, with a sample of 210 bisexual-identified, mostly female 18-25 year-olds, that sexuality-specific social support was significantly associated with lower levels of internalized binegativity. Further, Vincke and Heeringen (2002) used a longitudinal design and found that confidant support over time served as a protective factor against lowered self-esteem, hopelessness, and depression with their sample of 197 young LGB adults. Schmidt, Miles and Welsh (2011) also found, with a sample of LGBT college students, that individuals who experienced high level of perceived discrimination and high levels of social support had the least amount of career indecision. Schmidt et al. (2011) postulated this finding as crisis competence; the sample contained individuals who, albeit with higher levels of perceived discrimination, possessed the ability to garner higher levels of social support in the face of this discrimination.

Szymanski (2009) investigated a possible moderation effect of social support and avoidant coping in the link between experiences of discrimination and psychological distress with a sample of gay men. However, Szymanski (2009) did not discover moderation with social support or avoidant coping, but did find a moderation effect of self-esteem on the link between experiences of discrimination and psychological distress. Therefore, it is possible that self-esteem could serve as a protective factor for gay men, thus creating a possible moderating effect of self-esteem on the relationship between experiences of discrimination and relationship self-efficacy.

Alternatively, an individual's identification with an in group can increase self-esteem and social support (Crocker & Major, 1989). These researchers conceptualized that the link between experiencing discrimination and mental health outcomes is complicated by how one experiences and then attributes stigma. These researchers highlight findings, such as stigmatized groups' high self-esteem, which must mean that they engage in some protective mechanisms. One such mechanism is attributing and externalizing prejudice as a problem inherent in those who perpetuate stigma as opposed to one's own stigmatized group. Another mechanism is engaging in in-group, as opposed to out-group, comparisons. Therefore, the overarching conclusion by Crocker and Major (1989) is that LGB individual may defend themselves against experiences of discrimination by identifying more strongly with values that enhance their group membership.

One research example tested this theory. Branscombe, Schmitt and Harvey (1999) discovered that Black individuals had higher positive well-being after discriminatory events due to a stronger in-group identity with the Black community. Hence, in-group

identity in response to discrimination could help explain the positive path from experiences of discrimination and relationship self-efficacy. Future research might consider the totality of the minority stress model (including coping and social support) in their investigations of relationship variables using this construct.

Finally, range restriction could explain the curious positive path from experiences of discrimination to relationship self-efficacy beliefs. For example, the range of experiences of discrimination is from one (never [0% of the time]) to six (almost all the time [more than 70% of the time]). Most of the participants in the study averaged between one and three, with almost no cases having an average score on this measure above three. This restricted range could be due to the characteristics of the sample; the sample contained gay-identified men collected through snowball sampling methodology. This range restriction could lend itself to curious findings (Bobko, 2001), such as the nonsignificant correlation of experiences of discrimination on relationship self-efficacy beliefs and relationship optimism as other studies have found significant associations between experiences of discrimination and mental health sequelae (Cochran & Mays, 2001; Kelleher, 2009).

Along with self-esteem, in-group identity and social support, perhaps resiliency could be another mechanism for which experiences of discrimination may lead to a positive association with relationship self-efficacy beliefs. Moradi et al. (2010) identified resilience by which LGB individuals of color may experience positive psychological sequelae after experiencing discrimination. Moradi et al. (2010) discovered that for LGB individuals of color heterosexist stigma and internalized heterosexism were not correlated; in comparison, their White LGB peers had a significant association between

these two variables. Moradi et al. (2010) hypothesized their experiences of discrimination based on race were a protective factor. Similarly, Morris, Waldo, and Rothblum (2001) explored the importance of experiencing the coming out process in relation to one's resiliency.

In terms of relating the aforementioned literature to the surprising positive path from experiences of discrimination to relationship self-efficacy, it may be imperative to include these alternative variables in the investigation. For example, one may interpret the positive path from experiences of discrimination to relationship self-efficacy beliefs in terms of a left-out variable error (Kline, 2011). For instance, Meyer (2003) highlighted that coping may moderate the relationship between minority stress and mental health outcomes. Therefore, perhaps including coping as a moderator in the association between experiences of discrimination and relationship self-efficacy beliefs may create a positive path. The other variables mentioned above, like crisis competence, in-group membership, and resilience, might all serve as possible moderators for the relationship between experiences of discrimination and relationship self-efficacy beliefs. Future research into how minority stress relates to relationship outcomes should include these variables to explore possible moderation.

Interpretation of the findings – hypothesis two

The main premise for hypothesis two was to specify a model with relationship self-efficacy beliefs and relationship optimism as unrelated, as no research known to this investigator has used both of these variables. The model was originally underidentified as it was stated; therefore, it could not be tested. Nevertheless, the failure of some of the hypothesized paths to show as significant suggests that the hypothesized model was not

accurate. When three nonsignificant paths were trimmed based on the saturated model, the model fit the data adequately.

The reason as to why the model specified in hypothesis two was an adequate fit to the data can be explained by the theory of self-efficacy. Bandura (1997) posits that self-efficacy precedes outcome expectations. Since Bandura's self-efficacy research is robust and has a large amount of research support, it is intuitive that relationship self-efficacy and relationship optimism have a strong correlation and significant positive path. The adequate (and not excellent) fit of this model may be a function of a failure to include a path between Self-efficacy and optimism. This suggests future researchers should include relationship self-efficacy as an antecedent to relationship optimism.

Alternative exploratory model

An exploratory feminist/internalized oppression model was tested given the lack of support for the originally hypothesized models. This specific conceptualization of the *arrangement* of the variables deviates from the traditional minority stress model. The minority stress model posits that distal (i.e., experiences of discrimination) and proximal (i.e., internalized heterosexism) minority stress variables affect mental health sequelae concurrently. Alternatively, a feminist-based/internalized oppression model posits that experiences of discrimination precede and influence proximal variables, like stigma consciousness and internalized heterosexism. Szymanski et al. (2008) give a further understanding of this relationship; proximal processes like internalized heterosexism are *reactions* to oppressive forces.

Further theoretical clarity on the feminist understanding of oppression is warranted. Feminist theorists (i.e., Brown, 1988) posit that the "personal is political"

related to mental health sequelae. That is, individual difficulties are intertwined with societal, economic, cultural, and political systems. As such, those who have less power in a system will be more affected by systemic organization and oppression. Therefore, individuals may internalize negative, perpetual, and stereotypical beliefs about their own minority group due to the view of the minority group by the dominant members of society.

One can turn to the race-related literature as well to understand the pernicious effects the dominant individuals in society have on minority and oppressed groups. Speight's (2007) discussion of Young's (1990) term of "cultural imperialism" offered an excellent understanding. Since the dominant group in society establishes the norm, minority groups are seen through the eyes of the dominant members as "other." Since the "norm" is pervasive in society, minority members cannot help but see themselves through the lens of the dominant, which often include negative or stereotypical assumptions of the minority group. Similarly, according to Prilleltensky and Gonick's (1996) understanding of the *psychology of oppression*, a possible consequence of oppression is the internalization of images of inferiority. Therefore, in response to experiences of oppression, one internalizes those beliefs about one's own group. Thus justifies the rationale behind experiences of discrimination as antecedents to proximal stress processes.

The exploratory test of the feminist/internalized oppression model evidenced good fit to the data. Therefore, this goodness-of-fit provides empirical support for considering experiences of discrimination as antecedents to the minority stress model's proximal stress processes, like internalized heterosexism, stigma consciousness, and self-

concealment. One may interpret these findings in light of the discussion of oppression. For instance, gay men may first experience discrimination based on sexual orientation. As a *response* to experiencing discrimination, gay men then may internalize the negative beliefs about them that the dominant (i.e., heterosexual) society perpetuates. This internalization may appear as internalized heterosexism, stigma consciousness, and self-concealment. It is therefore intuitive that part of that internalization includes negative appraisals of their relationships, which include deficits in relationship self-efficacy and relationship optimism. Support for this exploratory model suggests an alternative perspective promulgated by feminist and race-conscious researchers about the organization of minority stress variables.

Improvements upon past research

This research improves upon the past research on minority stress, relationship variables, and the associations thereof. Outlined below are the strengths of the current investigation, with theoretical and methodological considerations.

Methodological strengths were better measurement methods. In regards to the internalized heterosexism construct, I used Shidlo's (1994) version of internalized heterosexism, which is an improvement on past research that used other, more intense forms of internalized heterosexism, like measures based off of past DSM criteria for ego-dystonic homosexuality (e.g., Meyer, 1995). Additionally, the measurement of experiences of discrimination was vastly improved, as past research used ipsative measures (yes versus no [Otis et al., 2006]) or a single item assessing whether an individual experienced discrimination in general (Meyer, 1995). This construct was also measured using a timeline; participants were asked about their discriminatory experiences

in the last year. This measure was also validated with a sample of gay men (Szymanski, 2009).

As for the self-concealment measure, the scale chosen was more theory-congruent than past measures. The construct of self-concealment had been assessed by an outness inventory in the past, which does not adhere to Meyer's (2003) original identification that self-concealment is an internal psychological process. Outness scales are theoretically behavioral as they measure the extent to which one is "out" to significant people in one's life. Indeed, this investigation found support for self-concealment's association and significant paths to relationship variables; other research (i.e., Balsam & Szymanski, 2005; Frost & Meyer, 2009; Mohr & Daly, 2008) did not demonstrate significance with self-concealment and other relationship variables.

Lastly, I used a more robust measure for expectations of rejection, and re-conceptualized expectations of rejection as stigma consciousness. Stigma consciousness has been validated on a sample of gay men, as Lewis et al. (2006) used stigma consciousness in replacement of expectations of rejection. Stigma consciousness did provide explanation of unique variance in this investigation. Additionally, unlike Mohr and Fassinger (2006), I used scales from different composite measures instead of multiple subscales from one measure; my aim was to reduce multicollinearity.

Further, the design of the study was unique. First, the investigation targeted gay-identified men only. The measures were slightly adjusted to reflect the context of unique issues with gay men. For example, experiences of discrimination questionnaire was slightly adjusted; for example, one item was adjusted to include slurs often used against gay men and removed slurs from other groups. Additionally, the sample consisted of

partnered and unpartnered gay men. The sample was collected outside of LGBT groups, organizations, and bars/clubs; therefore, the sample could have been more representative of gay men in general as opposed to gay men who frequent gay organizations and venues. Prior researchers (e.g., Frost & Meyer, 2009; Meyer, 1995; Mohr & Daly, 2008) collected samples through venues, gay student organizations on college campuses, or gay venues in New York City. These sampling methods seem counterintuitive as it may be difficult to gather a range of proximal stress processes with gay men who frequent gay bars/venues and therefore, might have strong ties to the gay community.

Limitations

Although this study presents several strengths, multiple limitations exist for this investigation. Although correlational data and path analysis models provide excellent exploration of a framework for exploring relationship and minority stress variables among gay men, the data were not collected in a longitudinal framework. Thus, causal interpretations cannot be drawn from these path models. In fact, Kazdin (2007) suggested that researchers using path models educate their readers about the tendency to interpret causality based on path models and arrow directionality. Kazdin (2007) also cautioned that consumers of research might erroneously imply that exogenous variables must be temporal antecedents to endogenous variables. However, this study did not utilize a longitudinal design, so no causality can be interpreted from this investigation.

It is also possible that alternative configurations of the variables (and, thus, alternative models) also provide good-to-excellent fit to the data. Kline (2011) suggested that researchers mention to their readers that alternative models could possibly be explored that fit the data just as well. Future researchers utilizing the minority stress

model in conjunction with relationship variables might consider alternative models and longitudinal designs.

In addition, the sample reflected individuals who were mostly White/Caucasian. Having the majority of the participants be of White/Caucasian descent limits generalizability, especially to gay men of color. For example, the aforementioned research of Moradi et al. (2010) discovered evidence for greater resiliency among LGB individuals of color and thus non-significant associations between experiences of discrimination and internalized heterosexism. Thus, the path models specified in this investigation might not replicate or generalize to a more racially diverse sample of participants.

Another limitation could include the use of social networking as a data collection source. Social networking has the capacity to reach many individuals in different communities across the United States; however, the very nature of the snowball sampling methodology might collect data from strongly gay-identified men. Gay men in the sample were asked to share the link with Facebook friends and acquaintances. Therefore, a gay-identified individual not well integrated into the gay community may not have had the opportunity to take the survey. Moreover, other factors might influence one to partake in the survey. For example, a strongly identified gay man might desire to contribute to the gay men's issues by taking the survey. Similarly, gay men with more motivation to explore relationship dynamics (e.g., gay men either in relationships or desiring relationships) might elicit to take the survey. Therefore, the survey respondents might not reflect the general population and might limit external validity. In addition, the sample reflects individuals who are highly educated and live in urban areas, which may limit

generalizability. Although past studies (Bhutta, 2012; Bull et al., 2011), using Facebook have collected ethnically and economically diverse participants, the current sample did not reflect the same tendency. Generalizability may be limited as the sample consisted of gay men in the United States; gay individuals in other countries may not experience discrimination and subsequent proximal sequelae similar to American men (Arnett, 2008).

A further limitation was the use of multiple imputation in this investigation. Although multiple imputation is an excellent tool when data sets contain a sizeable portion of missing data, limitations exist for categorical and longitudinal missing data (Schafer, 1997). Therefore, some information on the demographics of the study were still missing even after the multiple imputation. Other scholars have cautioned against the widespread use of multiple imputation, as one must verify several assumptions to conduct a multiple imputation, analyze the robustness of imputation models, and think about the appropriateness of inferences (Horton & Lipsitz, 2001). Specifically, Barnard and Meng (1999) stated that one must be careful in creating multiple imputations, as one may capture the missing data inaccurately, thus biasing the results. Therefore, these researchers strongly suggest conducting multiple modeling checking procedures, such as posterior predictive checks.

Another limitation includes the use of the Heterosexist Harassment, Rejection, and Discrimination Scale (HHRDS). This investigation chose to ask participants to respond to these items with considerations “in the last year,” which was modeled based on past studies which used the HHRDS (e.g., Szymanski, 2006; Szymanski, 2009), which also only assessed discrimination in the past year. The HHRDS was created based on

items from the Schedule of Racist Events (Landrine & Klonoff, 1996) and Schedule of Sexist Events (Klonoff & Landrine, 1995), which examines both lifetime discrimination and discrimination in the last year. Although the creator of the HHRDS only included a recent examination of discrimination, perhaps the results of this investigation would be different if lifetime heterosexist harassment were assessed.

Similarly, in terms of differentiating discrimination in the past year and discrimination throughout one's lifetime, it is intuitive that the construct of stigma consciousness may tap into a more pervasive, lifetime experience of discrimination. Therefore, limitations of the exploratory model may include differences in timelines; since discrimination as technically assessed in the last year and stigma consciousness may be influenced by a lifetime of awareness of one's stigma, the exploration of these differences in the exploratory model might prove fruitful in future investigations. Still, Pinel (1999) never highlighted how a timeline may affect stigma consciousness. In a larger context, perhaps time-series investigations in regards to stigma consciousness, experiences of discrimination and relationship constructs among gay men is warranted.

Another limitation to this investigation was the self-report nature of the items, especially on items that ascertain discrimination. For example, the heterosexist experiences questionnaire asks participants to recall, in the last year, "how many times" that they experienced discrimination in multiple domains. Individuals for whom stigma has more salience may have been more likely to recall experiences of discrimination.

Lastly, Worthington and Reynolds (2009) emphatically stated the importance of discerning within-group nuanced differences of sexual orientation and identity. They investigated sexual orientation identity with a large sample of gay, lesbian, bisexual and

heterosexual men and women, and found 10 distinct categories of sexual orientation based on three sexual orientation identity and attitudes scales. More specifically, they found two distinct groups of gay men in their sample. Of interest would be how these two groups of men differed on multiple dimensions in this investigation. Thus, future research should explore a gay identity more in depth, as opposed to a categorical distinction.

Future Research Directions

This investigation contributes significantly to the literature on how discrimination is associated with relationship variables among gay men and relationships in general. This research investigated a specific common stereotypical assumption about gay men and their relationships. Other research can look into lesbians, bisexual men, and bisexual women and common stereotypical assumptions about these groups. Separate investigations, for example, on stereotypical assumptions of lesbians and bisexual women and men might find empirical support.

Of specific note is the importance of considering the totality of the minority stress model when investigating relationship beliefs among gay men. Several of the hypothesized findings left out important variables in the minority stress model that could have explained the complex relationship among these variables further. More specifically, one area for future research includes the curious finding of a positive path from experiences of discrimination to relationship self-efficacy beliefs. Further research that explores the idea of crisis competence, resilience, or positive mediating factors, such as social support, might reflect positive reactions in face of adversity for gay men and their perception of relationships.

Another future direction includes understanding how these variables may relate differently for gay men in different states and countries that have gay marriage. Indeed, Rostosky et al. (2008) has found preliminary support for different levels of psychological distress based on whether a participant's state had passed marriage amendments that specified marriage between one man and one woman. Further, Hatzenbuehler et al. (2010) found that, with states with institutional bans for same-sex marriage, LGB individuals in those states had higher levels of psychiatric disorders. Thus, it is intuitive that legal gay marriage options may affect how the data fits the models tested in this investigation.

Lastly, exploration of how relationship self-efficacy and relationship optimism might relate to social support as an endogenous variable would be an interesting area of further research. For instance, if gay men have high self-efficacy for relationships and high relationship optimism, this in turn can increase their ability to find/maintain a romantic relationship, and romantic relationships are considered important social support for mental and physical health and well-being (Blair & Holmberg, 2008).

Implications for practice and conclusions for Counseling Psychology

This investigation reiterates important clinical concerns when working with gay men about their relationships. Since support is evidenced for using the minority stress model as a vehicle to understand how gay men's relationships are affected by oppression, clinicians can then use it to explore relationship concerns. In addition, support was discovered for a feminist-based model with experiences of discrimination as antecedents to proximal variables. Thus, it is imperative to discuss the internalization of experiences of discrimination with gay male clients, especially in regards to their romantic

relationships. Helping gay male clients understand this possible internalization of stereotypes about their relationships might help change their perspective. Further, gay men who are pessimistic of their future love relationships might need education about the effects of both distal and proximal stressors that influence these beliefs. Deconstruction of common stereotypical assumptions about gay men might provide fruitful exploration for individual counseling.

This investigation includes important conclusions for the field of Counseling Psychology. First, this investigation provides more evidence for a minority stress or feminist-based understanding of the pernicious effects of discrimination among gay men. Subsequently, in accordance with the tenets of counseling psychology, counseling psychologists can take a social justice and macro-level approach to this issue. For example, counseling psychologists can engage in advocacy in multiple domains, as recommended by Kashubeck-West et al. (2008). For example, work at the macro- and meso- level could help ameliorate gay men's negative internal, psychological processes. Indeed, with the evidence that self-concealment, internalized heterosexism, and stigma consciousness affect relationship variables, counseling psychologists can advocate for social change based on these variables. As examples, counseling psychologists can work to create safe spaces for gay men, like at work (by advocating for protection against termination from one's job on the basis of sexual orientation), at home (by facilitating family system's understanding and accept of sexual orientation), and in communities (by advocating for gay rights issues/gay marriage support).

In addition, internalized heterosexism can be countered by promoting the message that "gay is good" in society to help fight against heterosexism and help gay men

celebrate their sexual orientation as opposed to simple acceptance of their sexual orientation. Lastly, the reduction in the stigmatization of a non-heterosexual orientation is necessary. If gay men are less conscious of the stigma of being gay in society, then this might associate with more relationship self-efficacy and more optimism for future relationships.

Counseling psychologists are interested in prevention, especially with marginalized or at-risk populations (Vera, 2000). In order to apply the conclusions from this research into prevention with gay men, Caplan's (1964) taxonomy can be used. For example, Caplan (1964) stated that prevention manifests in three forms, such as primary (stopping problem before it occurs), secondary (delaying problem's onset) or tertiary (reducing the impact of the problem). This rubric can be used in order to prevent detriments in relationship self-efficacy beliefs and relationship optimism among gay men.

Primary prevention can include psychoeducation about the effects of marginalization on gay men. This current research could be disseminated in order to raise gay men's critical consciousness in regards to how oppression is associated with their perceptions of their relationships. This can also be used in conjunction with other LGBT research, such as with gay men's similar relationship trajectories compared to their heterosexual peers or the pernicious mental health effects of anti-gay legislation (i.e., Frost, 2011; Riggle, Rostosky & Horne, 2010). That way, gay men may not internalize negative beliefs about their relationships if they are aware of the pernicious effects of said internalization. Critical consciousness-raising may also take the form of education with gay man about the origins of negative stereotypical beliefs about their relationships, including the supposed impermanence or inability of gay men to have successful, long-

term relationships. This might start conversations with gay male clients about stereotypes and how they affect the gay community.

Secondary and tertiary prevention could take the form of provided information, statistics and psychoeducation on the amount of gay men interested in long-term commitments, such as marriage and civil unions. In addition, workshops or gay male couples which enhance relationship self-efficacy or help gay men discover their strengths in relationship may help prevent relationship problems among gay men. Green and Mitchell (2008) provide excellent recommendations for working with gay men in couple's counseling. They suggest that therapeutic interventions may include helping the gay couple externalize heterosexism, which means framing their concerns regarding discrimination as ignorance and prejudice from society and not their homosexuality. Green and Mitchell (2008) also recommend a dialogue about the degree to which both partners conceal their sexual orientation, taking into consideration possible safety and negative reasons to self-conceal. Green and Mitchell also discuss discussing with gay male clients about what being a couple "means" to that specific couple, in regards to duties, roles, boundaries, and gender roles. This could include problem-solving around traditional male gender norms in regards to emotions, like stereotypical male emotional "disengagement" or competition in male couples. Lastly, Green and Mitchell suggest that gay couples can build a "family of choice" made of friends and social networks to positively reinforce their relationship. These interventions in couple's counseling can possibly delay or reduce the impact of oppression and marginalization on gay men's beliefs about their romantic relationships.

REFERENCES

- Allport, G.W. (1954). *The Nature of Prejudice*. New York, NY: Basic Books.
- Almeida, J., Johnson, R.M., Corliss, H.L., Molnar, B.E., & Azrael, D. (2009). Emotional distress among LGBT youth: The influence of perceived discrimination based on sexual orientation. *Journal of Youth Adolescence*, 38, 1001-1014. doi: 10.1007/s10964-009-9397-9
- Balsam, K.F. & Szymanski, D.M. (2005). Relationship quality and domestic violence in women's same-sex relationships: The role of minority stress. *Psychology of Women Quarterly*, 29, 258-269. doi: 10.1111/j.1471-6402.2005.00220.x
- Balsam, K.F. & Mohr, J.J. (2007). Adaptation to sexual orientation stigma: A comparison of bisexual and lesbian/gay adults. *Journal of Counseling Psychology*, 54, 306-319. doi: 10.1037/0022-0167.54.3.306
- Bandura A. (1997). *Self-Efficacy: The Exercise of Control*. New York: Freeman.
- Baron, H. (1996). Strengths and limitations of ipsative measurement. *Journal of Occupational and Organizational Psychology*, 69, 49-56.
- Beals, K.P. & Peplau, L.A. (2001). Social involvement, disclosure of sexual orientation, and quality of lesbian relationships. *Psychology of Women Quarterly*, 25, 1-19. doi: 10.1111/1471-6402.00002
- Beals, K.P., Paplau, L.A., & Gable, S.L. (2009). Stigma management and well-being: The role of perceived social support, emotional processing, and suppression. *Personality and Social Psychology Bulletin*, 35, 867-879. doi: 10.1177/0146167209334783.
- Berrill, K.T. (1990). Anti-gay violence and victimization in the United States: An overview. *Journal of Interpersonal Violence*, 5, 274-294. doi: 10.1177/088626090005003003
- Bhutta, C.B. (2012). Not by the book: Facebook as a sampling frame. *Sociological Methods Research*, 41, 57-88. doi: 10.1177/0049124112440795
- Blair, K. L., & Holmberg, D. (2008). Perceived social network support and well-being in same-sex versus mixed-sex romantic relationships. *Journal of Social and Personal Relationships*, 25(5), 769-791. doi: 10.1177/0265407508096695

- Bobko, P. (2001). *Correlation and regression: Applications for industrial organizational psychology and management*. SAGE Publications, Incorporated.
- Branscombe, N. R., Schmitt, M. T., & Harvey, R. D. (1999). Perceiving pervasive discrimination among African Americans: Implications for group identification and well-being. *Journal of Personality and Social Psychology*, *77*, 135-149. doi: 10.1037/0022-3514.77.1.135
- Brennan, K.A., Clark, C.L., & Shaver, P.R. (1998). Self-report measurement of adult attachment: An integrated overview. In J.A. Simpson and W.S. Rholes' *Attachment Theory and Close Relationships*. New York, NY: Guilford Press.
- Brown, L. S. (1988). Feminist therapy with lesbians and gay men. In M. A. Dutton-Douglas & L. E. A. Walker (Eds.), *Feminist psychotherapies: Integration of therapeutic and feminist systems* (pp. 206-227). Norwood, NJ: Ablex.
- Brown, S.D. & Lent, R.W. (2005). *Career Development and Counseling: Putting Theory and Research to Work*. Hoboken, NJ: John Wiley & Sons, Inc.
- Bull, S.S., Breslin, L.T., Wright, E.E., Black, S.R., Levine, D., Santelli, J.S. Case study: An ethics case study of HIV prevention research on Facebook: The just/us study. *Journal of Pediatric Psychology*, *36*, 1082-1092.
- Carnelly, K.B. & Janoff-Bulman, R. (1992). Optimism about love relationships: General vs. specific lessons from one's personal experience. *Journal of Social and Personal Relationships*, *9*, 5-20. doi: 10.1177/0265407592091001
- Carnelley, K.B., Hepper, E.G., Hicks, C., & Turner, W. (2011). Perceived parental reactions to coming out, attachment, and romantic relationship views. *Attachment & Human Development*, *13*, 217-236. doi:10.1080/14616734.2011.563828
- Caron, S.L. & Ulin, M. (1997). Closeting and the quality of lesbian relationships. *Families in Society*, *78*, 413-419.
- Chang, L. & Krosnick, J.A. (2009). National surveys via RDD telephone interviewing versus the internet: Comparing sample representativeness and response quality. *Public Opinion Quarterly*, *73*, 641-678.
- Cochran, S.D. (2001). Emerging issues in research on lesbians' and gay men's mental health: Does sexual orientation really matter? *American Psychologist*, *56*, 931-947. doi: 10.1037/0003-066X.56.11.931
- Cochran, S.D. & Mays, V.M. (2000). Lifetime prevalence of suicide symptoms and affective disorders among men reporting same-sex sexual partners: Results from NHANES III. *American Journal of Public Health*, *90*, 573-578.

- Cochran, S.D. & Mays, V.M. (2007). Physical health complaints among lesbians, gay men, and bisexual and homosexually experienced heterosexual individuals: Results the California quality of life survey. *American Journal of Public Health*, 97, 2048-2055. doi:10.2105/AJPH.2006.087254
- Cochran, S.D., Sullivan, J.G., & Mays, V.M. (2003). Prevalence of mental disorders, psychological distress, and mental health services use among lesbian, gay, and bisexual adults in the United States. *Journal of Consulting and Clinical Psychology*, 71, 53-61. doi: 10.1037/0022-006X.71.1.53
- Cole, S.W., Kemeny, M.E., Taylor, S.E., & Visscher, B.R. (1996). Elevated physical health risk among gay men who conceal their homosexual identity. *Health Psychology*, 15, 243-251. doi: 10.1037/0278-6133.15.4.243
- Collins, L. M., Schafer, J. L., & Kam, C. M. (2001). A comparison of inclusive and restrictive strategies in modern missing data procedures. *Psychological Methods*, 6(4), 330-351. doi: 10.1037/1082-989X.6.4.330
- Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological review*, 96(4), 608. doi: 10.1037/0033-295X.96.4.608
- D'Augelli, A. R., & Grossman, A.H. (2001). Disclosure of sexual orientation, victimization, and mental health among lesbian, gay, and bisexual older adults. *Journal of Interpersonal Violence*, 16, 1008-1027. doi: 10.1177/088626001016010003
- Doty, N. D., Willoughby, B. L., Lindahl, K. M., & Malik, N. M. (2010). Sexuality related social support among lesbian, gay, and bisexual youth. *Journal of Youth and Adolescence*, 39(10), 1134-1147. doi: 10.1007/s10964-010-9566-x
- Elizur, Y. & Mintzer, A. (2003). Gay males' intimate relationship quality: The role of attachment security, gay identity, social support, and income. *Personal Relationships*, 10, 411-435. doi: 10.1111/1475-6811.00057.
- Enders, C. K. (2006). Analyzing structural equation models with missing data. *Structural equation modeling: A second course*, 313-342.
- Fassinger, R.E. & Arseneau, J.R. (2007). "I'd rather get wet than be under that umbrella": Differentiating the experiences and identities of lesbian, gay, bisexual and transgendered people. In K.J. Bieschke, R.M. Perez, and K.A. DeBord (Eds.), *Handbook of counseling and psychotherapy with lesbian, gay, bisexual, and transgender clients (19-49)*. Washington, D.C, US: American Psychology Association.

- Frable, D.E.S., Platt, L., & Hoey, S. (1998). Concealable stigmas and positive self-perceptions: Feeling better around similar others. *Journal of Personality and Social Psychology, 74*, 909-922. doi: 10.1037/0022-3514.74.4.909
- Frost, D.M. (2011). Similarities and differences in the pursuit of intimacy among sexual minority and heterosexual individuals: A personal projects analysis. *Journal of Social Issues, 67*, 282-301. doi: 10.1111/j.1540-4560.2011.01698.x
- Frost, D.M. & Meyer, I.H. (2009). Internalizing homophobia and relationship quality among lesbians, gay men, and bisexuals. *Journal of Counseling Psychology, 56*, 97-109. doi: 10.1037/a0012844
- Frost, D.M., Parsons, J.T., & Nanin, J.E. (2007). Stigma, self-concealment, and symptoms of depression as explanations for sexually transmitted infections among gay men. *Journal of Health Psychology, 12*, 636-640. doi: 10.1177/1359105307078170
- Gabriel, U. & Banse, R. (2006). Helping behavior as a subtle measure of discrimination against lesbians and gay men: German data and a comparison across countries. *Journal of Applied Social Psychology, 36*, 690-707. doi: 10.1111/j.0021-9029.2006.00025.x
- Gaines, S.O., Henderson, M.C., Kim, M., Gilstrap, S., Yi, J., Rusbult, C.E., Hardin, D.P., & Gaertner, L. (2005). Cultural values orientations, internalized homophobia, and accommodation in romantic relationships. *Journal of Homosexuality, 50*, 97-117. doi:10.1300/J082v50n01_05
- Garnets, L., Herek, G.M., & Levy, B. (1990). Violence and victimization of lesbians and gay men: Mental health consequence. *Journal of Interpersonal Violence, 5*, 366-383. doi: 10.1177/088626090005003010
- Goldfried, M. R., & Goldfried, A. P. (2001). The importance of parental support in the lives of gay, lesbian, and bisexual individuals. *Journal of Clinical Psychology, 57*(5), 681-693. doi: 10.1002/jclp.1037
- Gonsiorek, J. & Rudolph, J. (1981). Homosexual identity: coming out and other developmental events. In J. Gonsiorek, and J. Weinrich, (Eds.), *Homosexuality*. Thousand Oaks, CA: Sage.
- Gordon, L.E. (2006). Bring the U-Haul: Embracing and resisting sexual stereotypes in a lesbian community. *Sexualities, 9*, 171-192. doi: 10.1177/1363460706063118
- Graham, J. W., Taylor, B. J., Olchowski, A. E., & Cumsille, P. E. (2006). Planned missing data designs in psychological research. *Psychological Methods, 11*(4), 323. doi: 10.1037/1082-989X.11.4.323

- Hackett, G. (1995). Self-efficacy in career choice and development. In *Self-efficacy in changing societies*. Cambridge, UK: Cambridge University Press.
- Hatzenbuehler, M. L. (2009). How does sexual minority stigma “get under the skin”? A psychological mediation framework. *Psychological bulletin*, *135*(5), 707. doi: 10.1037/a0016441
- Hatzenbuehler, M.L., McLaughlin, K.A., Keyes, K.M., Hasin, D.S. (2010). The impact of institutional discrimination on psychiatric disorders in lesbian, gay, and bisexual populations: A prospective study. *American Journal of Public Health*, *100*, 452-459. doi: 10.2105/AJPH.2009.168815
- Hatzenbuehler, M.L., Nolen-Hoeksema, S., & Erikson, S.J. (2008). Minority stress predictors of HIV risk behavior, substance use, and depressive symptoms: Results from a prospective study of bereaved gay men. *Health Psychology*, *27*, 455-462. doi: 10.1037/0278-6133.27.4.455
- Hendren, A., & Blank, H. (2009). Prejudiced behavior toward lesbians and gay men: A field experiment of everyday helping. *Social Psychology*, *40*, 234-238. doi: 10.1027/1864-9335.40.4.234
- Hendrick, S.S. (1988). A generic measure of relationship satisfaction. *Journal of Marriage and the Family*, *50*, 93-98.
- Heppner, P.P., Wampold, D.M., & Kivlighan, D.M. (2008). *Research design in counseling*. Belmont, CA: Thomas Higher Education.
- Herek, G.T. (2000). The psychology of sexual prejudice. *Current Directions in Psychological Science*, *9*, 19-22.
- Herek, G.T. (2009). Hate crimes and stigma-related experiences among sexual minority adults in the United States: Prevalence estimates from a national probability sample. *Journal of Interpersonal Violence*, *24*, 54-74. doi: 10.1007/978-0-387-09556-1_4
- Herek, G.T., & Garnets, L.D. (2007). Sexual orientation and mental health. *Annual Review of Clinical Psychology*, *3*, 353-375. doi: 10.1146/annurev.clinpsy.3.022806.091510
- Herek, G.T., Gillis, J.R., & Cogan, J.C. (1999). Psychological sequelae of hate-crime victimization among lesbian, gay, and bisexual adults. *Journal of Consulting and Clinical Psychology*, *67*, 945-951. doi: 10.1037/0022-006X.67.6.945
- Herek, G.T., Gillis, J.R., & Cogan, J.C. (2009). Internalized stigma among sexual minority adults: Insight from a social psychology perspective. *Journal of Counseling Psychology*, *56*, 32-43. doi: 10.1037/a0014672

- Horton, N. J., Lipsitz, S. R., & Parzen, M. (2003). A potential for bias when rounding in multiple imputation. *The American Statistician*, *57*(4), 229-232. doi:10.1198/0003130032314
- Hoyt, C.L., Johnson, S.K., Murphy, S.E., & Skinnell, K.H. (2010). The impact of blatant stereotype activation and group sex-comparison on female leaders. *The Leadership Quarterly*, *21*, 716-732. doi:10.1016/j.leaqua.2010.07.003
- Huebner, D.M., & Davis, M.C. (2005). Gay and bisexual men who disclose their sexual orientations in the workplace have higher workday levels of salivary cortisol and negative affect. *Annals of Behavioral Medicine*, *30*, 260-267. doi:10.1207/s15324796abm3003_10
- Huebner, D.M., & Davis, M.C. (2007). Perceived antigay discrimination and physical health outcomes. *Health Psychology*, *26*, 627-634. doi: 10.1037/0278-6133.26.5.627
- Huebner, D.M., Rebhook, G.M., & Kegeles, S.M. (2004). Experiences of harassment, discrimination, and physical violence among young gay and bisexual men. *American Journal of Public Health*, *94*, 1200-1203. doi: 10.2105/AJPH.94.7.1200
- Jackson, D.L. (2003). Revisiting sample size and number of parameter estimates: Some support for the N:q hypothesis. *Structural Equation Modeling: A Multidisciplinary Journal*, *10*, 128-141. doi:10.1207/S15328007SEM1001_6
- Jordan, K.M. & Deluty, R.H. (2000). Social support, coming out, and relationship satisfaction in lesbian couples. *Journal of Lesbian Studies*, *4*, 145-164. doi:10.1300/J155v04n01_09
- Kashubeck-West, S., & Szymanski, D.M. (2008). Risky sexual behavior in gay and bisexual men: internalized heterosexism, sensation seeking, and substance use. *The Counseling Psychologist*, *36*, 595-614. doi: 10.1177/0011000007309489
- Kazdin, A. E. (2007). Mediators and mechanisms of change in psychotherapy research. *Annual Review of Clinical Psychology*, *3*, 1-27. doi: 10.1146/annurev.clinpsy.3.022806.091432
- Kelleher, C. (2009). Minority stress and health: Implications for lesbian, gay, bisexual, transgender, and questioning (LGBTQ) young people. *Counselling Psychology Quarterly*, *22*, 373-279. doi:10.1080/09515070903334995
- Kelley, J. (2001). Attitudes toward homosexuality in 29 nations. *Australian Social Monitor*, *4*, 15-22.

- Kimmel, S.B., & Mahalik, J.R. (2005). Body image concerns of gay men: the roles of minority stress and conformity to masculine norms. *Journal of Consulting and Clinical Psychology, 73*, 1185-1190. doi: 10.1037/0022-006X.73.6.1185
- Kline, R.B. (2011). *Principles and practices of structural equation modeling*. New York: Guilford Press.
- Klonoff, E.A., & Landrine, H. (1995). The schedule of sexist events: A measure of lifetime and recent sexist discrimination in women's lives. *Psychology of Women Quarterly, 19*, 439-472. doi: 10.1111/j.1471-6402.1995.tb00087.x
- Klonoff, E.A., Landrine, H., & Ullman, J.B. (1999). Racial discrimination and psychiatric symptoms among blacks. *Cultural Diversity and Ethnic Minority Psychology, 5*, 329-339. doi: 10.1037/1099-9809.5.4.329
- Kozee, H. B., Tylka, T. L., & Bauerband, L. A. (2012). Measuring Transgender Individuals' Comfort With Gender Identity and Appearance Development and Validation of the Transgender Congruence Scale. *Psychology of Women Quarterly, 36*(2), 179-196. doi: 10.1177/0361684312442161
- Kuyper, L., & Fokkema, T. (2010). Loneliness among older lesbian, gay, and bisexual adults: The role of minority stress. *Archives of Sexual Behavior, 39*, 1171-1180. doi: 10.1007/s10508-009-9513-7
- Lampinen, T.M., Chan, K., Anema, A., Miller, M.L., Schilder, A.J., Schechter, M.T., et al. (2008). Incidence of and risk factors for sexual orientation-related physical assault among young men who have sex with men. *American Journal of Public Health, 98*, 1028-1035. doi: 10.2105/AJPH.2007.122705
- Landrine, H., & Klonoff, E.A. (1996). The schedule of racist events: A measure of racial discrimination and a study of its negative physical and mental health consequences. *Journal of Black Psychology, 22*, 144-168. doi: 10.1177/00957984960222002
- Landrine, H., Klonoff, E.A., Corral, I., Fernandez, S., & Roesch, S. (2006). Conceptualizing and measuring ethnic discrimination in health research. *Journal of Behavioral Medicine, 29*, 79-94. doi: 10.1007/s10865-005-9029-0
- Landrine, H., Klonoff, E.A., Gibbs, J., Manning, V., & Lund, M. (1995). Physical and psychiatric correlates of gender discrimination: An application of the schedule of sexist events. *Psychology of Women Quarterly, 19*, 473-492. doi:10.1111/j.1471-6402.1995.tb00087.x
- LaSala, M.C. (2000). Lesbians, gay men, and their parents: Family therapy for the coming-out crisis. *Family Process, 39*, 67-81. doi: 10.1111/j.1545-5300.2000.39108.x

- Lazarus, R.S., & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York, NY: Springer.
- Lewis, R.J., Derlega, V.J., Griffin, J.L., Krowinski, A.C. (2003). Stressors for gay men and lesbians: Life stress, gay-related stress, stigma consciousness, and depressive symptoms. *Journal of Social and Clinical Psychology, 22*, 716-729. doi: 10.1521/jscp.22.6.716.22932
- Lewis, R.J., Derlega, V.J., Clarke, E.G., and Kuang, J.C. (2006). Stigma consciousness, social constraints, and lesbian well-being. *Journal of Counseling Psychology, 53*, 48-56. doi: 10.1037/0022-0167.53.1.48
- Liau, A., Millett, G., & Marks, G. (2006). Meta-analytic examination of online sex-seeking and sexual risk among men who have sex with men. *Sexually Transmitted Diseases, 33*, 576-584.
- Lopez, F.G., Gover, M.R., Leskela, J., Sauer, E.M., Schirmer, L., & Wyssman, J. (1997). Attachment styles, shame, guilt, and collaborative problem-solving orientations. *Personal Relationships, 4*, 187-199.
- Lopez, F.G., & Lent, R.W. (1991). Efficacy-based predictors of relationship adjustment and persistence among college students. *Journal of College Student Development, 32*, 223-229.
- Lopez, F.G., Morua, W., & Rice, K.G. (2007). Factor structure, stability, and predictive validity of college students' relationship self-efficacy beliefs. *Measurement and Evaluation in Counselling and Development, 40*, 80-96.
- Mallinckrodt, B., Abraham, W. T., Wei, M., & Russell, D. W. (2006). Advances in testing the statistical significance of mediation effects. *Journal of Counseling Psychology, 53*(3), 372. doi: 10.1037/0022-0167.53.3.372
- Matthews, C.R., & Adams, E. M. (2009). Using a social justice approach to prevent mental health consequences of heterosexism. *Journal of Primary Prevention, 30*, 11-26. doi: 10.1007/s10935-008-0166-4
- Mays, V.M., & Cochran, S.D. (2001). Mental health correlates of perceived discrimination among lesbian, gay, and bisexual adults in the United States. *American Journal of Public Health, 91*, 1869-1876.
- McDavitt, B., Iverson, E., Kubrick, K., Weiss, G., Wong, C.F., & Kipke, M.D. (2008). Strategies used by gay and bisexual men to cope with heterosexism. *Journal of Gay & Lesbian Social Services, 20*, 354-380. doi:10.1080/10538720802310741
- Meyer, I.H. (1995). Minority stress and mental health in gay men. *Journal of Health and Social Behavior, 36*, 38-56.

- Meyer, I.H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, 129, 674-697. doi: 10.1037/0033-2909.129.5.674
- Meyer, I.H. (2003b). Prejudice as stress: Conceptual and measurement problems. *American Journal of Public Health*, 93, 262-265.
- Meyer, I.H, Dean, L. (1987). Internalized homophobia, intimacy, and sexual behavior among gay and bisexual men. In G.M. Herek , (Ed). *Stigma and sexual orientation: Understanding prejudice against lesbians, gay men, and bisexuals*. Thousand Oaks, CA: Sage. 160–186.
- Meyer, I. H., Dietrich, J., & Schwartz, S. (2008). Lifetime prevalence of mental disorders and suicide attempts in diverse lesbian, gay, and bisexual populations. *American Journal of Public Health*, 98, 1004-1006. doi:10.2105/AJPH.2006.096826
- Meyer, I.H., Wilson, P.A. (2009). Sampling lesbian, gay, and bisexual populations. *Journal of Counseling Psychology*, 56, 23-31. doi: 10.1037/a0014587
- Miranda, J. & Storms, M. (1989). Psychological adjustment of lesbians and gay men. *Journal of Counseling & Development*, 68, 41-45. doi:10.1002/j.1556-6676.1989.tb02490.x
- Mohr, J.J., & Daly, C.A. (2008). Sexual minority stress and changes in relationship quality in same-sex couples. *Journal of Social and Personal Relationships*, 25, 989-1007. doi: 10.1177/0265407508100311
- Mohr, J.J. & Fassinger, R. (2000). Measuring dimensions of lesbian and gay experience. *Measurement and Evaluation in Counseling and Development*, 33, 66-90.
- Mohr, J.J. & Fassinger, R.E. (2006). Sexual orientation identity and romantic relationship quality in same-sex couples. *Personality and Social Psychology Bulletin*, 32, 1085-1099. doi: 10.1177/0146167206288281
- Moradi, B., & Subich, L.M. (2004). Examining the moderating role of self-esteem in the link between experiences of perceived sexist events and psychological distress. *Journal of Counseling Psychology*, 51, 50-56. doi: 10.1037/0022-0167.51.1.50
- Moradi, B., Wiseman, M. C., DeBlaere, C., Goodman, M. B., Sarkees, A., Brewster, M. E., & Huang, Y. P. (2010). LGB of color and White individuals' perceptions of heterosexist stigma, internalized homophobia, and outness: Comparisons of levels and links. *The Counseling Psychologist*, 38(3), 397-424. doi: 10.1177/0011000009335263

- Morris, J. F., Waldo, C. R., & Rothblum, E. D. (2001). A model of predictors and outcomes of outness among lesbian and bisexual women. *American Journal of Orthopsychiatry*, *71*(1), 61-71. doi: 10.1037/0002-9432.71.1.61
- Muthén, L.K. & Muthén, B. (2010). Mplus. Los Angeles, CA: Muthén & Muthén.
- Newcomb, M.E., & Mustanski, B. (2010). Internalized homophobia and internalizing mental health problems: A meta-analytic review. *Clinical Psychology Review*, *30*, 1019-1029. doi:10.1016/j.cpr.2010.07.003
- Otis, M.D., Rostosky, S.S., Riggle, E.D.B., & Hamrin, R. (2006). Stress and relationship quality in same-sex couples. *Journal of Social and Personal Relationships*, *23*, 81-99. doi: 10.1177/0265407506060179
- Pachankis, J.E. (2007). The psychological implications of concealing a stigma: A cognitive-affective-behavioral model. *Psychological Bulletin*, *133*, 328-345. doi: 10.1037/0033-2909.133.2.328
- Pachankis, J.E., Goldfried, M.R., & Ramrattan, M. E. (2008). Extension of the rejection sensitivity construct to the interpersonal functioning of gay men. *Journal of Consulting and Clinical Psychology*, *76*, 306-317. doi: 10.1037/0033-2909.133.2.328
- Packard, T. (2009). The Leona Tyler award address: core values that distinguish counseling psychology: Personal and Professional Perspectives. *The Counseling Psychologist*, *37*, 610-624. doi: 10.1177/0011000009333986
- Peplau, L. (1991). Lesbian and gay relationships. In J. Gonsiorek & J. Weinrich (Eds.), *Homosexuality: Research implications for public policy* (pp. 177-196). Newbury Park, CA: Sage.
- Peplau, L., & Fingerhut, A. (2007). The close relationships of lesbians and gay men. *Annual Review of Psychology*, *58*, 405-424. doi: 10.1146/annurev.psych.58.110405.085701
- Peterson, J. L., Folkman, S., & Bakeman, R. (1996). Stress, coping, HIV status, psychosocial resources, and depressive mood in African American gay, bisexual, and heterosexual men. *American Journal of Community Psychology*, *24*(4), 461-487. doi: 10.1007/BF02506793
- Pichler, S., Varma, A., Bruce, T. (2010). Heterosexism in employment decisions: The role of job misfit. *Journal of Applied Social Psychology*, *40*, 2527-2555. doi: 10.1111/j.1559-1816.2010.00669.x

- Pinel, E.C. (1999). Stigma consciousness: The psychological legacy of social stereotypes. *Journal of Personality and Social Psychology*, 76, 114–128. doi: 10.1037/0022-3514.76.1.114
- Potoczniak, D.J., Aldea, M.A., & DeBlaere, C. (2007). Ego identity, social anxiety, social support, and self-concealment in lesbian, gay, and bisexual individuals. *Journal of Counseling Psychology*, 54, 447-457. doi: 10.1037/0022-0167.54.4.447
- Radkowski, M. and Siegel, L. J. 1997. The gay adolescent: stressors, adaptations, and psychosocial interventions. *Clinical Psychology Review*, 17: 191–216. doi:10.1016/S0272-
- Ragins, B.R., & Cornwell, J.M. (2001). Pink triangles: antecedents and consequences of perceived workplace discrimination against gay and lesbian employees. *Journal of Applied Psychology*, 86, 1244-1261. doi: 10.1037/0021-9010.86.6.1244
- Riggle, E.D.B., Rostosky, S.S. & Horne, S.G. (2010). Psychological distress, well-being, and legal recognition in same-sex couple relationships. *Journal of Family Psychology*, 24, 82-86. doi: 10.1037/a0017942
- Ross, M.W., & Rosser, B.R.S. (1996). Measurement and correlates of internalized homophobia: A factor analytic study. *Journal of Clinical Psychology*, 52, 15-21. doi: 10.1037/a0017942
- Rostosky, S. S., Riggle, E. D. B., Gray, B. E., & Hatton, R. L. (2007). Minority stress experiences in committed same-sex couple relationships. *Professional Psychology: Research and Practice*, 38, 392–400. doi: 10.1037/0735-7028.38.4.392
- Rowen, C.J., & Malcolm, J.P. (2002). Correlates of internalized homophobia and homosexual identity formation in a sample of gay men. *Journal of Homosexuality*, 43, 77-92. doi:10.1300/J082v43n02_05
- Salganik, M.J. & Heckathorn, D.D. (2004). Sampling and estimation in hidden populations using respondent-driven sampling. *Sociological Methodology*, 34, 193-240. doi: 10.1111/j.0081-1750.2004.00152.x
- Satorra, A., & Bentler, P. M. (2001). A scaled difference chi-square test statistic for moment structure analysis. *Psychometrika*, 66(4), 507-514. doi:10.1007/BF02296192
- Sanders, V. L., Noel, J.G., & Campbell, J. (2004). Stigmatization, discrimination, and mental health: The impact of multiple identity status. *American Journal of Orthopsychiatry*, 74, 529-544. doi:10.1037/0002-9432.74.4.529

- Schlomer, G. L., Bauman, S., & Card, N. A. (2010). Best practices for missing data management in counseling psychology. *Journal of Counseling Psychology, 57*(1), 1-10. doi: 10.1037/a0018082
- Schmidt, C. K., Miles, J. R., & Welsh, A. C. (2011). Perceived discrimination and social support: The influences on career development and college adjustment of LGBT college students. *Journal of Career Development, 38*(4), 293-309. doi: 10.1177/0894845310372615
- Selvidge, M.M.D., Matthews, C.R., & Bridges, S.K. (2008). The relationship of minority stress and flexible coping to psychological well-being in lesbian and bisexual women. *Journal of Homosexuality, 55*, 450-470. doi:10.1080/00918360802345255
- Schafer, J.L. (1997). *Analysis of incomplete multivariate data*. Boca Raton, FL: Chapman & Hall/CRC
- Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological methods, 7*(2), 147-177. doi: 10.1037//1082-989X.7.2.147
- Sheets, R. L., & Mohr, J. J. (2009). Perceived social support from friends and family and psychosocial functioning in bisexual young adult college students. *Journal of Counseling Psychology, 56*(1), 152-163. doi: 10.1037/0022-0167.56.1.152
- Shelton, K., & Delgado-Romero, E.A. (2011). Sexual orientation microaggressions: The experience of lesbian gay, bisexual, and queer clients in psychotherapy. *Journal of Counseling Psychology, 58*, 210-221. doi: 10.1037/a0022251
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological methods, 7*(4), 422-445. doi: 10.1037//1082-989X.7.4.422
- Schwartz, J. (2011, June 27th). After New York, new look at Defense of Marriage Act. *New York Times*. Retrieved Wednesday, July 6th, 2011, from <http://www.nytimes.com>
- Shidlo, A. (1994). Internalized homophobia: Conceptual and empirical issues in measurement. In G. M. Herek (Ed.). *Lesbian and gay psychology: Theory, research and clinical applications* (pp. 176–205). Thousand Oaks, CA: Sage.
- Speight, S.L. & Vera, E.M. (2008). Social justice and counseling psychology: A challenge to the profession. In Brown, S.D. & Lent, R.W. (Eds.). *Handbook of counseling psychology (4th ed)*. (pp. 54-67). Hoboken: John Wiley & Sons, Inc.

- Swim, J.K., Johnston, K., & Pearson, N.B. (2009). Daily experiences with heterosexism: relations between heterosexist hassles and psychological well-being. *Journal of Social and Clinical Psychology, 28*, 597-629. doi:10.1521/jscp.2009.28.5.597
- Szymanski, D. M. (2005). Heterosexism and sexism as correlates of psychological distress in lesbians. *Journal of Counseling & Development, 83*(3), 355-360.
- Szymanski, D.M. (2006). Does internalized heterosexism moderate the link between heterosexist events and lesbians' psychological distress? *Sex Roles, 54*, 227-234. doi: 10.1007/s11199-006-9340-4
- Szymanski, D.M. (2009). Examining potential moderators of the link between heterosexist events and gay and bisexual men's psychological distress. *Journal of Counseling Psychology, 56*, 142-151. doi: 10.1037/0022-0167.56.1.142
- Szymanski, D.M., & Kashubeck-West, S. (2008). Internalized heterosexism: Measurement, psychosocial correlates, and research directions. *The Counseling Psychologist, 36*, 525-574. doi: 10.1177/0011000007309489
- Szymanski, D. M., Kashubeck-West, S., & Meyer, J. (2008). Internalized heterosexism: A historical and theoretical overview. *The Counseling Psychologist, 36*(4), 510-524. doi: 10.1177/0011000007309488
- Tabachnick, B.G. and Fidell, L.S. (2007), *Using Multivariate Statistics* (5th ed.). New York: Allyn and Bacon.
- Todosijevec, J., Rothblum, E.D. & Solomon, S.E. (2005). Relationship satisfaction, affectivity, and gay-specific stressors in same-sex couples joined in civil unions. *Psychology of Women Quarterly, 29*, 158-166. doi: 10.1111/j.1471-6402.2005.00178.x
- Ute, G., & Banse, R. (2006). Helping behavior as a subtle measure of discrimination among lesbians and gay men: German data and a comparison across countries. *Journal of Applied Social Psychology, 36*, 690-707. doi: 10.1111/j.0021-9029.2006.00025.x
- Vincke, J., & van Heeringen, K. (2002). Confidant support and the mental wellbeing of lesbian and gay young adults: A longitudinal analysis. *Journal of Community & Applied Social Psychology, 12*(3), 181-193. doi: 10.1002/casp.671
- Waldo, C.R. (1999). Working in a majority context: A structural model of heterosexism as minority stress in the workplace. *Journal of Counseling Psychology, 46*, 218-232. doi: 10.1037/0022-0167.46.2.218
- Wang, J., Hausermann, M., Ajdacic-Gross, V., Aggleton, P., & Weiss, M.G. (2007). High prevalence of mental disorders and comorbidity in the Geneva gay men's health

study. *Social Psychiatry and Psychiatric Epidemiology*, 42, 414-420. doi: 10.1007/s00127-007-0190-3

Wei, M., Alvarez, A.N., Ku, T.Y., Russell, D.W., & Bonett, D.G. (2010). Development and validation of coping with discrimination scale: factor structure, reliability, and validity. *Journal of Counseling Psychology*, 57, 328-344. doi: 10.1037/a0019969

Worthington, R. L., & Reynolds, A. L. (2009). Within-group differences in sexual orientation and identity. *Journal of Counseling Psychology*, 56(1), 44-55. doi: 10.1037/a0013498

Yeager, D.S., Krosnick, J.A., Chang, L., Javitz, H.S., Levendusky, M.S., Simpser, A., & Wang, R. (2011). Comparing the accuracy of RDD telephone surveys and internet surveys conducted with probability and non-probability samples. *Public Opinion Quarterly*, 75, 709-747.

Young, R.M., & Meyer, I.H. (2005). The trouble with “msm” and “wsw”: erasure of the sexual-minority person in public health discourse. *American Journal of Public Health*, 95, 1144-1148. doi:10.2105/AJPH.2004.046714

APPENDICES

APPENDIX A

NUNGESSER'S HOMOSEXUAL ATTITUDES INVENTORY (NHAI)

Shidlo (1994)

Subscale Self (Personal Homonegativity)

- 1.) When I am in conversation with a gay man and he touches me, it does not make me uncomfortable.
- 2.) Whenever I think a lot about being gay, I feel depressed.
- 3.) I am glad to be gay.
- 4.) When I am sexually attracted to another gay man, I feel uncomfortable.
- 5.) I am proud to be a part of the gay community.
- 6.) My homosexual does not make me unhappy.
- 7.) Whenever I think a lot about being gay, I feel critical about myself.
- 8.) I wish I were heterosexual.
- 9.) I have been in counseling because I wanted to stop having sexual feelings for other men.
- 10.) I have tried killing myself because I couldn't accept my homosexuality.
- 11.) There have been times when I've felt so rotten about being gay that I wanted to be dead.
- 12.) I have tried killing myself because it seemed that my life as a gay person was too miserable to bear.
- 13.) I find it important that I read gay books, newspapers or websites.
- 14.) It's important to me to feel part of the gay community.

Subscale Other (Global Homonegativity)

- 15.) Homosexuality is not as satisfying as heterosexuality.
- 16.) Homosexuality is a natural expression of sexuality in humans.
- 17.) Gay men do not dislike women any more than heterosexual men dislike women.
- 18.) Marriage between gay people should be legalized.
- 19.) Gay men are overly promiscuous.
- 20.) Most problems that gay persons have come from their status as an oppressed minority, not from their homosexuality per se.
- 21.) Gay persons' lives are not as fulfilling as heterosexuals' lives.
- 22.) Children should be taught that being gay is a normal and healthy way for people to be.
- 23.) Homosexuality is a sexual perversion.

Subscale Disclosure

- 24.) I wouldn't mind if my boss knew that I was gay.
- 25.) When I tell my non-gay friends about my homosexuality, I do not worry that they will try to remember things about me that would make me appear to fit the stereotype of a homosexual.
- 26.) When I am sexually attracted to another gay man, I do not mind if someone else knows how I feel.
- 27.) When women know of my homosexuality, I am afraid they will not relate to me as a man.
- 28.) I would not mind if my neighbors knew that I am gay.
- 29.) It is important for me to conceal the fact that I am gay from most people.
- 30.) If my straight friends knew of my homosexuality, I would be uncomfortable.
- 31.) If men knew of my homosexuality, I'm afraid they would begin to avoid me.
- 32.) If it were made public that I am gay, I would be extremely unhappy.
- 33.) If my peers knew of my homosexuality, I am afraid that many would not want to be friends with me.
- 34.) If others knew of my homosexuality, I wouldn't worry particularly that they would think of me as effeminate.
- 35.) When I think about coming out to peers, I am afraid they will pay more attention to my body movements and voice inflections.
- 36.) I am afraid that people will harass me if I come out more publicly.

APPENDIX B

HETEROSEXIST HARASSMENT, REJECTION, AND DISCRIMINATION SCALE

(HHRDS)

Szymanski (2006)

Factor I Harassment and rejection

- 1.) How many times have you been rejected by friends because you are a gay man?
- 2.) How many times have you been verbally assaulted because you are a gay man?
- 3.) How many times have you been made fun of, picked on, pushed, shoved, hit, or threatened with harm because you are a gay man?
- 4.) How many times have you heard anti-gay remarks from family members?
- 5.) How many times have you been rejected by family members because you are a gay man?
- 6.) How many times have you been called HETEROSEXIST name like fag, fairy, queer, etc?
- 7.) How many times have you been treated unfairly by your family because you are a gay man?

Factor II Workplace and school discrimination

- 7.) How many times have you been treated unfairly by your employer, boss, or supervisors because you are a gay man?
- 8.) How many times were you denied a raise, promotion, tenure, a good assignment, a job, or other such thing at work that you deserved because you are a gay man?
- 9.) How many times have you been treated unfairly by teachers or professors because you are a gay man?
- 10.) How many times have you been treated unfairly by your co-workers, fellow students, or colleagues because you are a gay man?

Factor III Other Discrimination

- 11.) How many times have you been treated unfairly by people in service jobs (by store clerks, waiters, bartenders, waitresses, bank tellers, mechanics, and others) because you are a gay man?
- 12.) How many times have you been treated unfairly by strangers because you are a gay man?

13.) How many times have you been treated unfairly by people in helping jobs (by doctors, nurses, psychiatrists, caseworkers, dentists, school counselors, therapists, etc) because you are a gay man?

APPENDIX C

STIGMA CONSCIOUSNESS QUESTIONNAIRE (SCQ)

(Pinel, 1999)

1. Stereotypes about gay men have not affected me personally.
2. I never worry that my behaviors will be viewed as stereotypical of gay men.
3. When interacting with heterosexuals who know my sexual preference, I feel like they interpret all my behaviors in terms of the fact that I am a gay man.
4. Most heterosexuals do not judge gay men on the basis of their sexual preference.
5. Being a gay man does not influence how heterosexuals interact with me.
6. I almost never think about the fact that I am a gay man when interacting with heterosexuals.
7. Being a gay man does not influence how people act with me.
8. Most heterosexuals have a lot more homophobic thoughts than they actually express.
9. I often think that heterosexuals are unfairly accused of being homophobic.
10. Most heterosexuals have a problem viewing gay men as equals.

APPENDIX D

NEED FOR PRIVACY SUBSCALE OF THE LESBIAN AND GAY IDENTITY

SCALE (LGIS)

(Mohr & Fassinger, 2000)

1. I prefer to keep my relationships rather private.
2. I keep careful control over who knows about my relationships.
3. My private sexual behavior is nobody's business.
4. If you are not careful about whom you come out to, you can get very hurt.
5. I think very carefully before coming out to someone.
6. My sexual orientation is a very personal and private manner.
7. I prefer to act like friends rather than lovers with my partner when we are in public.
8. I generally feel safe about being out of the closet these days.
9. I worry about people finding out I am a gay man.
10. In public I try not to look too obviously gay.
11. I'm embarrassed to be seen in public with obviously gay people.
12. I feel comfortable expressing affection with my partner out in public.

APPENDIX E

OPTIMISM ABOUT RELATIONSHIPS SCALE (OARS)

(Carnelly & Janoff-Bulman, 1992)

1. How confident are you that you will have successful love relationships in the future?
2. Do you want to get married in the future (if you had the option)? _____yes _____no
3. How likely is it that you will get a legally recognized relationship?
4. How likely is it that you will have a successful long-term relationship?
5. How likely is it that you will experience the dissolution of a long-term relationship some time in your life?*
6. In general how optimistic do you feel about the success of your love relationships in the future?
7. I do not think I will be able to have a long-term relationship with another man.

APPENDIX F

RELATIONSHIP SELF-EFFICACY BELIEFS SCALE (RSEBS) (Lopez et al., 2007)

Factor I: Mutuality

1. Accept your partner's affection freely and comfortably
2. Let your partner take care of you when you are ill
3. Accept your partner's support when you are "down" or depressed
4. Express affection to your partner freely and comfortably
5. Be available to your partner when he or she needs you
6. Comfort your partner when he or she is "down" or depressed
7. Put time into developing shared interests with your partner
8. Express openly to your partner your hopes for the future of the relationship
9. Allow your partner to calm you down when you feel stressed
10. Comfort your partner when he or she is angry or upset with someone else
11. Allow your partner to "take charge" of things when you are feeling upset or confused
12. Anticipate when your partner needs your support
13. Tell your partner when you feel you are unable to solve a personal problem
14. Share equally with your partner in planning activities together
15. Express your views and preferences regarding sex to your partner
16. Find ways to work out "everyday" problems with your partner

Factor II: Emotional Control

17. Stay calm when you and your partner are having a serious argument
18. Control your temper when angry or frustrated with your partner
19. Show respect to your partner when you disagree with his or her opinions
20. Accept criticism from your partner without attacking/challenging him or her

Factor III: Differentiation

21. Tell your partner when you would prefer to be alone
22. Tell your partner when you would prefer to spend time with other friends
23. Deal with important disagreements openly and directly
24. Offer criticism to your partner without hurting his or her feelings
25. Deal with your partner when he or she is angry or upset with you

APPENDIX G
CONSENT FORM

Please note: This survey is for GAY MEN ONLY!

This is a consent form for research participation. It contains important information about this study and what to expect if you decide to participate.

Your participation is voluntary.

Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate. If you decide to participate, you will be asked to indicate your consent by selecting "yes" from a drop-down menu. If you decide not to participate after reading this form, simply select "no" or by exiting your browser.

Purpose:

You are asked to participate in this study because we are interested in the associations between gay men's attitudes and beliefs about their romantic relationships.

Procedures/Tasks:

Participants will complete an on-line survey.

Duration:

Completing the survey will take a total of 20-30 minutes.

You may leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you, and you will not lose any benefits to which you are otherwise entitled. Your decision will not affect your future relationship with The University of Akron.

Risks and Benefits:

Although breach of confidentiality is possible with Internet data collection, the risk is minimal. You will not be required to enter your name during the study. Only if you are interested in entering the lottery drawing will you provide an e-mail address for contact information. Your E-mail addresses could only immediately identify you if the e-mail address includes your full name. The security of the data cannot be guaranteed until the researchers receive the data from the software company. Once the researchers receive the data, the confidentiality of the data will be guaranteed. Because the software company requires a log-in ID and password to access the data sets, only the researcher will have access to this information. It is expected that in the case of breach of confidentiality, the harm/discomfort would be minimal and the long-term consequences would be unlikely.

Although psychological stress could result from answering the questionnaires regarding beliefs about one's romantic relationships, it is expected that such distress would be minimal and transient. The likelihood of persistent psychological stress resulting from answering the questionnaires is judged to be minimal, as is the likelihood of long-term consequences.

In the unlikely event that taking this survey causes you distress, please contact national resources:

- **GLBT National Help Center hotline:** 1-888-843-4564
- **National Gay and Lesbian Task Force:** <http://www.ngltf.org/>
- **Human Rights Campaign:** <http://www.hrc.org/>
- **The Trevor Project:** <http://www.thetrevorproject.org/> ; 866-488-7386

Please only complete this survey at a place that you consider safe; this place should not risk revealing your gay identity to others if you wish to conceal this information.

Confidentiality:

Your responses will be kept strictly confidential. If you provide an email address, it will be kept in a locked file cabinet to which only Michael Andorka has access. This email address will be kept separate from the data set, so your email address will never be tied with your responses. Once the person is selected to win the lottery of \$50, this identifying information will be shredded. Your responses will be kept separate from identifying information and will be kept on Michael Andorka's personal computer hard drive which

is password protected and to which only he has access. Regarding the precautions taken with the on-line software company, the qualtrics software is password protected. Accordingly, only he will have access to the data via the software company. No data will be obtained from private records, audiotaping or videotaping.

Disclaimer:

This project is NOT affiliated with facebook.com, as this project is an independent entity.

Incentives:

If you desire, you can provide your email address. Doing so will enter you into a lottery to win \$50.00. We will use your email address to contact you if you are the winner of this gift.

Participant Rights:

You may refuse to participate in this study without penalty or loss of benefits to which you are otherwise entitled. If you are a student or employee at The University of Akron, your decision will not affect your grades or employment status.

If you choose to participate in the study, you may discontinue participation at any time without penalty or loss of benefits. You may skip any question you do not wish to answer due to its sensitivity (although completely answering the survey will increase the integrity of this study and the conclusions that can be reached when interpreting the data). By indicating consent to this form, you do not give up any personal legal rights you may have as a participant in this study.

An Institutional Review Board responsible for human subjects research at The University of Akron reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research.

Contacts and Questions:

For questions, concerns, or complaints about the study you may contact Michael Andorka at mja38@zips.uakron.edu or Dr. Linda Subich at subich.uakron.edu.

For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sharon McWhorter at sm48@uakron.edu or 330.972.8311.

Acknowledgement of consent:

I have read (or someone has read to me) this form and I am aware that I am being asked to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. I voluntarily agree to participate in this study.

I am not giving up any legal rights by signing this form. Please print a copy of this form for your records.

- 1. If you agree with the above please indicate your agreement by selecting "yes" to continue with the study**

APPENDIX H

DEMOGRAPHIC QUESTIONNAIRE

What is your age IN YEARS:

Race/Ethnicity (choose all that apply):

- White/Caucasian
- Black/African American
- Latino/Hispanic
- Asian/Pacific Islander
- Native American/American Indian
- Other
 - Please specify:

Gender:

- Male
- Female
- Transgender

Sexual Orientation:

- Gay
- Bisexual
- Man-who-has-sex-with-men
- Heterosexual

What category best describes your 2011 total personal income sources before taxes:

- \$0-10,000
- \$10,001-20,000
- \$20,001-40,000
- \$40,001-60,000
- \$60,001-80,000
- \$80,001-100,000
- \$100,001-150,000
- \$150,001-170,000
- \$170,001-200,000
- \$200,001+

-

What is the highest level of education you completed?

- Some high school
- High school
- Some college
- College
- Some graduate work
- Graduate degree

Which of the following best describes where you live:

- Rural (<2,500 population)
- Urban Clusters (2,500-50,000 population)
- Urban Areas (+50,000 population)

What category best describes your current relationship status:

- Single, not dating
- Dating, but not exclusive
- Dating, exclusive
- Married/Partnered/Committed, but not exclusive
- Married/Partnered/Committed, exclusive

How long was your longest significant romantic relationship (in months or years):

Past relationship status (select all that apply):

- Single, not dating
- Dating, but not exclusive
- Dating, exclusive
- Married/partnered/committed, but not exclusive
- Married/partnered/committed, exclusive

How did you hear about this survey?

- Primary Investigator
- Through a friend
- Through the survey's "page" on Facebook
- Through a Facebook group

APPENDIX I
QUALTRICS SURVEY

Consent form

CONSENT FORM

Please note: This survey is for GAY MEN ONLY!

This is a consent form for research participation. It contains important information about this study and what to expect if you decide to participate.

Your participation is voluntary.

Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate. If you decide to participate, you will be asked to indicate your consent by selecting "yes" to continue with the survey. If you decide not to participate after reading this form, simply select "no" or exit your browser.

Eligibility:

- 1.) If you identify as a gay man.
- 2.) If you are over the age of 18.
- 3.) If you live in the United States.

Purpose:

You are asked to participate in this study because we are interested in the associations between gay men's attitudes and beliefs about their romantic relationships.

Procedures/Tasks:

Participants will complete an on-line survey.

Duration:

Completing the survey will take a total of 15-20 minutes.

You may leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you, and you will not lose any benefit to which you are otherwise entitled. Your decision will not affect your future relationship with The University of Akron.

Risks and Benefits:

Although breach of confidentiality is possible with Internet data collection, the risk is minimal. You will not be required to enter your name during the study. Only if you are interested in entering the lottery drawing will you provide an e-mail address for contact information. Your E-mail address could only immediately identify you if the e-mail address includes your full name. The security of the data cannot be guaranteed until the researchers receive the data from the software company. Once the researchers receive the data, the confidentiality of the data will be guaranteed. Because the software

company requires a log-in ID and password to access the data sets, only the researcher will have access to this information. It is expected that in the case of breach of confidentiality, the harm/discomfort would be minimal and the long-term consequences would be unlikely. Please only complete this survey at a place that you consider safe; this place should not risk revealing your gay identity to others if you wish to conceal this information.

Although psychological stress could result from answering the questionnaires regarding beliefs about one's romantic relationships, it is expected that such distress would be minimal and transient. The likelihood of persistent psychological stress resulting from answering the questionnaires is judged to be minimal, as is the likelihood of long-term consequences.

Please only complete this survey at a place that you consider safe; this place should not risk revealing your gay identity to others if you wish to conceal this information.

In the unlikely event that taking this survey causes you distress, please contact national resources:

- GLBT National Help Center hot line: 1-888-843-4564
- National Gay and Lesbian Task Force: <http://www.nglhf.org/>
- Human Rights Campaign: <http://www.hrc.org/>
- The Trevor Project: <http://www.thetrevorproject.org/>; 866-488-7386

Confidentiality:

Your responses will be kept strictly confidential. If you provide an email address, it will be kept on a password-protected laptop to which only Michael Andorka has access. This email address will be kept separate from the data set, so your email address will never be tied with your responses. Once the person is selected to win the lottery of \$50, this identifying information will be destroyed. Your responses will be kept separate from identifying info and will be kept on Michael Andorka's personal computer which is password protected and to which only he has access. Regarding the precautions taken with the on-line software company, the qualtrics software is password protected. Accordingly, only he will have access to the data via the software company. No data will be obtained from audiotaping or videotaping.

Disclaimer:

This project is NOT affiliated with facebook.com, as this project is an independent entity.

Incentives:

If you desire, you can provide your email address. Doing so will enter you into a lottery to win \$50.00. We will use your email address to contact you if you are the winner of this gift.

Participant Rights:

You may refuse to participate in this study without penalty or loss of benefits to which you are otherwise entitled. If you are a student or employee at The University of Akron, your decision will not affect your grades or employment status.

If you choose to participate in the study, you may discontinue participation at any time without penalty or loss of benefits. You may skip any question you do not wish to answer due to its sensitivity (although completely answering the survey will increase the integrity of this study and the conclusions that can be reached when interpreting the data). By indicating consent to this form, you do not give up any personal legal rights you may have as a participant in this study.

An Institutional Review Board responsible for human subjects research at The University of Akron reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in

regulations and University policies designed to protect the rights and welfare of participants in research.

Contacts and Questions:

For questions, concerns, or complaints about the study you may contact Michael Andorka at mja38@zips.uakron.edu or Linda Subich at subich@uakron.edu.

For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Sharon McWhorter at sm48@uakron.edu or 330.972.8311.

I have read (or someone has read to me) this form and I am aware that I am being asked to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. I voluntarily agree to participate in this study.

I am not giving up any legal rights by consenting to this form. Please print a copy of this form for your records.

If you agree with the above please indicate your agreement by selecting "yes" to continue with the study.

- Yes.
- No.

Shidlo (1994)

Please respond to the follow items.

When I am in conversation with a gay man and he touches me, it does not make me uncomfortable.

- Neither Agree nor
- | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Strongly Disagree | Disagree | Disagree | Agree | Strongly Agree |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Please answer "Disagree" to this item.

- | | | | | |
|-----------------------|-----------------------|------------------------------|-----------------------|-----------------------|
| » Strongly Disagree | » Disagree | » Neither Agree nor Disagree | » Agree | » Strongly Agree |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

When I think a lot about being gay, I feel depressed.

- | | | | | |
|-----------------------|-----------------------|------------------------------|-----------------------|-----------------------|
| » Strongly Disagree | » Disagree | » Neither Agree nor Disagree | » Agree | » Strongly Agree |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

I am glad to be gay.

» Strongly Disagree



» Disagree



» Neither Agree nor Disagree



» Agree



» Strongly Agree



When I am sexually attracted to another gay man, I feel uncomfortable.

» Strongly Disagree



» Disagree



» Neither Agree nor Disagree



» Agree



» Strongly Agree



I am proud to be a part of the gay community.

» Strongly Disagree



» Disagree



» Neither Agree nor Disagree



» Agree



» Strongly Agree



My homosexuality does not make me unhappy.

» Strongly Disagree



» Disagree



» Neither Agree nor Disagree



» Agree



» Strongly Agree



Whenever I think a lot about being gay, I feel critical about myself.

» Strongly Disagree



» Disagree



» Neither Agree nor Disagree



» Agree



» Strongly Agree



I wish I were heterosexual.

» Strongly Disagree



» Disagree



» Neither Agree nor Disagree



» Agree



» Strongly Agree



I have been in counseling because I wanted to stop having sexual feelings for other men.

» Strongly Disagree



» Disagree



» Neither Agree nor Disagree



» Agree



» Strongly Agree



I have tried killing myself because it seemed that my life as a gay man was too miserable to bear.

» Strongly Disagree



» Disagree



» Neither Agree nor Disagree



» Agree



» Strongly Agree



There have been times when I've felt so rotten about being gay that I wanted to be dead.

» Strongly Disagree	» Disagree	» Neither Agree nor Disagree	» Agree	» Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I have tried killing myself because I couldn't accept my homosexuality.

» Strongly Disagree	» Disagree	» Neither Agree nor Disagree	» Agree	» Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I find it important that I read gay books, newspapers or websites.

» Strongly Disagree	» Disagree	» Neither Agree nor Disagree	» Agree	» Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

It's important to me to feel part of the gay community.

» Strongly Disagree	» Disagree	» Neither Agree nor Disagree	» Agree	» Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Homosexuality is not as satisfying as heterosexuality.

» Strongly Disagree	» Disagree	» Neither Agree nor Disagree	» Agree	» Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Homosexuality is a natural expression of sexuality in humans.

» Strongly Disagree	» Disagree	» Neither Agree nor Disagree	» Agree	» Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Gay men do not dislike women any more than heterosexual men dislike women.

» Strongly Disagree	» Disagree	» Neither Agree nor Disagree	» Agree	» Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Marriage between gay people should be legalized.

» Strongly Disagree	» Disagree	» Neither Agree nor Disagree	» Agree	» Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Gay men are overly promiscuous.

- » Strongly Disagree » Disagree » Neither Agree nor Disagree » Agree » Strongly Agree

Most problems that gay persons have come from their status as an oppressed minority, not from their homosexuality per se.

- » Strongly Disagree » Disagree » Neither Agree nor Disagree » Agree » Strongly Agree

Gay persons' lives are not as fulfilling as heterosexuals' lives.

- » Strongly Disagree » Disagree » Neither Agree nor Disagree » Agree » Strongly Agree

Children should be taught that being gay is a normal and healthy way for people to be.

- » Strongly Disagree » Disagree » Neither Agree nor Disagree » Agree » Strongly Agree

Homosexuality is a sexual perversion.

- » Strongly Disagree » Disagree » Neither Agree nor Disagree » Agree » Strongly Agree

Szymanski (2006)

Please respond to the following items and indicate how many times the following has happened IN THE PAST YEAR:

How many times have you been rejected by friends because you are a gay man?

- Never
- Once in a while (less than 10% of the time)
- Sometimes (10-25% of the time)
- A lot (26-49% of the time)
- Most of the time (50-70% of the time)
- Almost all the time (more than 70% of the time)

To make sure you are being attentive, please answer "once in a while" to this item.

- » Never
- » Once in a while (less than 10% of the time)
- » Sometimes (10-25% of the time)
- » A lot (26%-49% of the time)
- » Most of the time (50-70% of the time)
- » Almost all the time (more than 70% of the time)

How many times have you been verbally assaulted because you are a gay man?

- » Never
- » Once in a while (less than 10% of the time)
- » Sometimes (10-25% of the time)
- » A lot (26%-49% of the time)
- » Most of the time (50-70% of the time)
- » Almost all the time (more than 70% of the time)

How many times have you been made fun of, picked on, pushed, shoved, hit, or threatened with harm because you are a gay man?

- » Never
- » Once in a while (less than 10% of the time)
- » Sometimes (10-25% of the time)
- » A lot (26%-49% of the time)
- » Most of the time (50-70% of the time)
- » Almost all the time (more than 70% of the time)

How many times have you heard anti-gay remarks from family members?

- » Never
- » Once in a while (less than 10% of the time)
- » Sometimes (10-25% of the time)
- » A lot (26%-49% of the time)
- » Most of the time (50-70% of the time)
- » Almost all the time (more than 70% of the time)

How many times have you been rejected by family members because you are a gay man?

- » Never

- » Once in a while (less than 10% of the time)
- » Sometimes (10-25% of the time)
- » A lot (26%-49% of the time)
- » Most of the time (50-70% of the time)
- » Almost all the time (more than 70% of the time)

How many times have you been called a HETEROSEXIST name like fag, fairy, queer, homo, etc?

- » Never
- » Once in a while (less than 10% of the time)
- » Sometimes (10-25% of the time)
- » A lot (26%-49% of the time)
- » Most of the time (50-70% of the time)
- » Almost all the time (more than 70% of the time)

How many times have you been treated unfairly by your family because you are a gay man?

- » Never
- » Once in a while (less than 10% of the time)
- » Sometimes (10-25% of the time)
- » A lot (26%-49% of the time)
- » Most of the time (50-70% of the time)
- » Almost all the time (more than 70% of the time)

How many times have you been treated unfairly by your employer, boss or supervisors because you are a gay man?

- » Never
- » Once in a while (less than 10% of the time)
- » Sometimes (10-25% of the time)
- » A lot (26%-49% of the time)
- » Most of the time (50-70% of the time)
- » Almost all the time (more than 70% of the time)

How many times were you denied a raise, promotion, tenure, a good assignment, a job, or other such thing at work that you because you are a gay man?

- » Never
- » Once in a while (less than 10% of the time)
- » Sometimes (10-25% of the time)

- » A lot (26%-49% of the time)
- » Most of the time (50-70% of the time)
- » Almost all the time (more than 70% of the time)

How many times have you been treated unfairly by your co-workers, fellow students, or colleagues because you are a gay man?

- » Never
- » Once in a while (less than 10% of the time)
- » Sometimes (10-25% of the time)
- » A lot (26%-49% of the time)
- » Most of the time (50-70% of the time)
- » Almost all the time (more than 70% of the time)

How many times have you been treated unfairly by teachers or professors because you are a gay man?

- » Never
- » Once in a while (less than 10% of the time)
- » Sometimes (10-25% of the time)
- » A lot (26%-49% of the time)
- » Most of the time (50-70% of the time)
- » Almost all the time (more than 70% of the time)

How many times have you been treated unfairly by people in service jobs (by store clerks, waiters, bartenders, waitresses, bank tellers, mechanics, and others) because you are a gay man?

- » Never
- » Once in a while (less than 10% of the time)
- » Sometimes (10-25% of the time)
- » A lot (26%-49% of the time)
- » Most of the time (50-70% of the time)
- » Almost all the time (more than 70% of the time)

How many times have you been treated unfairly by strangers because you are a gay man?

- » Never
- » Once in a while (less than 10% of the time)
- » Sometimes (10-25% of the time)
- » A lot (26%-49% of the time)

- » Most of the time (50-70% of the time)
- » Almost all the time (more than 70% of the time)

How many times have you been treated unfairly by people in helping jobs (by doctors, nurses, psychiatrists, caseworkers, dentists, school counselors, therapists, etc) because you are a gay man?

- » Never
- » Once in a while (less than 10% of the time)
- » Sometimes (10-25% of the time)
- » A lot (26%-49% of the time)
- » Most of the time (50-70% of the time)
- » Almost all the time (more than 70% of the time)

Stigma Consciousness Questionnaire

Please respond to the following items:

Stereotypes about gay men have not affected me personally.

- | | | | | | | |
|-----------------------|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|-----------------------|
| Strongly Disagree | Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Agree | Strongly Agree |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Please answer "Strongly Agree" to this item.

- | | | | | | | |
|-----------------------|-----------------------|-----------------------|------------------------------|-----------------------|-----------------------|-----------------------|
| » Strongly Disagree | » Disagree | » Somewhat Disagree | » Neither Agree nor Disagree | » Somewhat Agree | » Agree | » Strongly Agree |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

I never worry that my behaviors will be viewed as stereotypical of gay men.

- | | | | | | | |
|-----------------------|-----------------------|-----------------------|------------------------------|-----------------------|-----------------------|-----------------------|
| » Strongly Disagree | » Disagree | » Somewhat Disagree | » Neither Agree nor Disagree | » Somewhat Agree | » Agree | » Strongly Agree |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

When interacting with heterosexuals who know my sexual preference, I feel like they interpret all my behaviors in terms of the fact that I am a gay man.

- | | | | | | | |
|-----------------------|-----------------------|-----------------------|------------------------------|-----------------------|-----------------------|-----------------------|
| » Strongly Disagree | » Disagree | » Somewhat Disagree | » Neither Agree nor Disagree | » Somewhat Agree | » Agree | » Strongly Agree |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Most heterosexuals do not judge gay men on the basis of their sexual preference.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

Being a gay man does not influence how heterosexuals interact with me.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

I almost never think about the fact that I am a gay man when interacting with heterosexuals.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

Being a gay man does not influence how people act with me.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

Most heterosexuals have a lot more homophobic thoughts than they actually express.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

I often think that heterosexuals are unfairly accused of being homophobic.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

Most heterosexuals have a problem viewing gay men as equals.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

Need for Privacy

Please respond to the following items:

I prefer to keep my relationships rather private.

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree Somewhat Agree Agree Strongly Agree

In order to make sure you are following along, please answer "Somewhat Agree" to this item.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

I keep careful control over who knows about my relationships.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

My private sexual behavior is nobody's business.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

If you are not careful about whom you come out to, you can get very hurt.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

I think very carefully before coming out to someone.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

My sexual orientation is a very personal and private matter.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

I prefer to act like friends rather than lovers with my partner when we are in public.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

I generally feel safe about being out of the closet these days.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

I worry about people finding out I am a gay man.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

In public I try not to look too obviously gay.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

I'm embarrassed to be seen in public with obviously gay people.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

I feel comfortable expressing affection with a partner out in public.

» Strongly Disagree » Disagree » Somewhat Disagree » Neither Agree nor Disagree » Somewhat Agree » Agree » Strongly Agree

Carnelley & Janoff-Bulman (1992)

Please respond to the following items:

How confident are you that you will have significant relationships in the future?

Not at all Mildly Moderately Significantly Extremely

How likely is it that you will get or maintain a significant relationship?

» Not at all » Mildly » Moderately » Significantly » Extremely

How likely it is that you will have a successful and significant long-term relationship?

» Not at all » Mildly » Moderately » Significantly » Extremely

Accept your partner's support when you are "down" or "depressed."

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure
-

Express affection to your partner freely and comfortably.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure
-

Be available to your partner when he or she needs you.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure
-

Comfort your partner when he is "down" or "depressed."

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure
-

Put time into developing shared interests with your partner.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure
-

Express openly to your partner your hopes for the future of the relationship.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure
-

Allow your partner to calm you down when you feel stressed.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure
-

Comfort your partner when he or she is angry or upset with someone else.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure
-

Allow your partner to "take charge" of things when you are feeling upset or confused.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure
-

Anticipate when your partner needs your support.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure
-

Tell your partner when you feel you are unable to solve a personal problem.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure
-

Share equally with your partner in planning activities together.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure
-

Express your views and preferences regarding sex to your partner.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure
-

Find ways to work out "everyday" problems with your partner.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure
-

Stay calm when you and your partner are having a serious argument.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure
-

Control your temper when angry or frustrated with your partner.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure
-

Show respect to your partner when you disagree with his or her opinions.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure
-

Accept criticism from your partner without attacking/challenging him or her.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure
-

Tell your partner when you would prefer to be alone.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure

Tell your partner when you would prefer to spend time with other friends.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure

Deal with important disagreements openly and directly.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure

Offer criticism to your partner without hurting his or her feelings.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure

Deal with your partner when he or she is angry or upset with you.

- » Not at all sure » Slightly sure » Sure » Moderately sure » Extremely sure

Demographics Questionnaire

Please answer the following demographic questions below.

What is your age in YEARS?

What best describes your race/ethnicity? Please check all that apply.

White/Caucasian

Hispanic/Latino

Asian/Pacific Islander

Native American/ American Indian

African American/Black

Other: please specify:

What category best describes your 2011 total personal income from all sources BEFORE taxes?

\$0-\$10,000

- \$10,001-\$20,000
- \$20,001-\$40,000
- \$40,001-\$60,000
- \$60,001-\$80,000
- \$80,001-\$100,000
- \$100,001-\$150,000
- \$150,001-\$170,000
- \$170,001-\$200,000
- \$200,001+

What is the highest level of education you have completed?

- Some high school
- High school
- Some college
- College
- Some graduate work
- Graduate degree

What best describes your sexual orientation?

- Gay
- Bisexual
- Man-who-has-sex-with-men
- Heterosexual

Gender:

- Male
- Female
- Transgender

Which of the following best describes where you live:

- Rural (<2,500 population)
- Urban Clusters (2,500 - 50,000 population)
- Urban Areas (+50,000 population)

Which category best describes your current relationship status?

- Single, not dating
- Dating, but not exclusive
- Dating, exclusive
- Married/Partnered/Committed, but not exclusive
- Married/Partnered/Committed, exclusive

How long was your longest significant romantic relationship (in months or years)?

Past relationship status (select all that apply):

- | | |
|--|---|
| <input type="checkbox"/> Not applicable | <input type="checkbox"/> Married/Partnered/Committed, but not exclusive |
| <input type="checkbox"/> Dating, but not exclusive | <input type="checkbox"/> Married/Partnered/Committed, exclusive |
| <input type="checkbox"/> Dating, exclusive | |

How did you hear about this survey?

- From the primary investigator
- Through a friend
- Through the survey's "page" on Facebook
- Through Facebook group

Finished with survey and link to email address for raffle:

Thank you for your participation in this study!

This study is the first of its kind to examine variables from a minority stress theory in association with gay men's perceptions of their relationships and the longevity of said relationships. Past research has only examined the extent to which minority stress may affect LGBT relationships as a whole, and failed to account for varying stereotypes and within-group differences in this population. It is the primary investigator's contention that oppression is related to gay men's negative or pessimistic views of their significant intimate relationships.

If you have any questions, please contact the primary investigator at mja38@uakron.edu. Thank you for the participation!

If you would like to help disseminate this survey, please copy the following link and share it on Facebook, listservs, or friendship circles:

https://akron.qualtrics.com/SE/?SID=SV_es4uRAFYM0UOBiR

You can also share or 'like' the survey's facebook page:

<http://www.facebook.com/pages/Study-on-gay-mens-perception-of-relationships/118008641681638?ref=hl>

If you would like to enter in a raffle for a chance to win a \$50 cash prize, please copy and paste the link below into your browser:

https://akron.qualtrics.com/SE/?SID=SV_dog4OyEJ8q44OR7

APPENDIX J
IRB APPROVAL



Office of Research Services and Sponsored Programs
Akron, OH 44325-2102
(330) 972-7666 Office

NOTICE OF APPROVAL

January 3, 2013

Michael Andorka
1044 Camino La Costa #1026
Austin, Texas 78752

From: Sharon McWhorter, IRB Administrator 

Re: IRB Number 20121216 "*Minority Stress and Gay men's Perceptions of their Romantic Relationships*"

Thank you for submitting your IRB Application for Review of Research Involving Human Subjects for the referenced project. Your application was approved January 3, 2013. Your protocol represents minimal risk to subjects and matches the following federal category for exemption:

- Exemption 1 - Research conducted in established or commonly accepted educational settings, involving normal educational practices.
- Exemption 2 - Research involving the use of educational tests, survey procedures, interview procedures, or observation of public behavior.
- Exemption 3 - Research involving the use of educational tests, survey procedures, interview procedures, or observation of public behavior not exempt under category 2, but subjects are elected or appointed public officials or candidates for public office.
- Exemption 4 - Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens.
- Exemption 5 - Research and demonstration projects conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine public programs or benefits.
- Exemption 6 - Taste and food quality evaluation and consumer acceptance studies.

Annual continuation applications are not required for exempt projects. If you make changes to the study's design or procedures that increase the risk to subjects or include activities that do not fall within the approved exemption category, please contact me to discuss whether or not a new application must be submitted. Any such changes or modifications must be reviewed and approved by the IRB prior to implementation.

Please retain this letter for your files. This office will hold your exemption application for a period of three years from the approval date. If you wish to continue this protocol beyond this period, you will need to submit another Exemption Request. If the research is being conducted for a master's thesis or doctoral dissertation, the student must file a copy of this letter with the thesis or dissertation.

Approved consent form/s enclosed

Cc: Linda Subich- Advisor
Cc: Valerie Callanan - IRB Chair