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# Longitudinal Predictors and Effects of Parental Rejection of Sexual Minority Youth

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UNIVERSITY OF MIAMI

LONGITUDINAL PREDICTORS AND EFFECTS OF  
PARENTAL REJECTION OF SEXUAL MINORITY YOUTH

By

Matthew John Louis Page

A DISSERTATION

Submitted to the Faculty  
of the University of Miami  
in partial fulfillment of the requirements for  
the degree of Doctor of Philosophy

Coral Gables, Florida

August 2014

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LONGITUDINAL PREDICTORS AND EFFECTS OF  
PARENTAL REJECTION OF SEXUAL MINORITY YOUTH

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Longitudinal Predictors and Effects of  
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Coming out to parents is a significant milestone for lesbian, gay, or bisexual (LGB) youth, and negative reactions can be detrimental to youth functioning. However, it is not yet clear what factors are related to parental rejection. This longitudinal study examines if parent homonegativity and religiosity predict parental reactions to youth disclosure of same-sex attractions, and if these reactions predict youth psychosocial maladjustment and spirituality. Participants consist of 173 youth (ages 14-24) and one parent to whom they have come out. Structural equation modeling is used to examine the hypothesis that parental homonegativity and religiosity predict more negative reactions to sexual orientation disclosure, and that more negative reactions predict poorer psychosocial functioning, less drug and alcohol use, and less spirituality in youth. The final model was found to fit the data well. The data generally indicated that homonegative parents were more rejecting and that youth experiencing more severe parent rejection had worse psychosocial outcomes. The implications for mental health professionals working with LGB youth and their families are discussed.

## TABLE OF CONTENTS

	Page
LIST OF TABLES .....	iv
LIST OF FIGURES .....	v
Chapter	
1 INTRODUCTION .....	1
Family Stress Theory and Parental Acceptance-Rejection Theory .....	3
Predicting Parent Rejection of Sexual Minority Youth .....	7
LGB Youth Functioning .....	16
Parent Rejection and Youth Psychological Functioning .....	18
Parent Rejection and Youth Spirituality .....	22
Present Study .....	25
Aims and Hypotheses .....	27
2 METHODS .....	30
Participants .....	30
Procedures .....	30
Measures .....	30
Analytic Plan .....	38
3 RESULTS .....	41
Demographic Analyses .....	41
Hypothesis Testing .....	44
4 DISCUSSION .....	53
Establishing a Measure of Youth Spirituality .....	54
Predictors of Parent Rejection .....	56
Parent Rejection as a Mediator .....	58
Limitations .....	62
Implications and Future Directions .....	64
REFERENCES .....	70
TABLES .....	83
FIGURES .....	89
APPENDIX .....	94
Appendix A .....	94
Appendix B .....	97
Appendix C .....	100
Appendix D .....	102
Appendix E .....	107
Appendix F .....	114
Appendix G .....	119
Appendix H .....	122
Appendix I .....	125

## LIST OF TABLES

	Page
Table 1 .....	83
Table 2 .....	84
Table 3 .....	85
Table 4 .....	86
Table 5 .....	87
Table 6 .....	88

## LIST OF FIGURES

	Page
Figure 1 .....	89
Figure 2 .....	90
Figure 3 .....	91
Figure 4 .....	92
Figure 5 .....	93



## Chapter 1: Introduction

Adolescence is a time of growth and change, and it is a time during which young people come to terms with who they are and will be as adults. Even in the best of circumstances, this can be a stressful time. Research is clear that in general, and particularly in times of stress, parental support is linked with positive outcomes for youth (Arnett, 2000; Helsen, Vollebergh, & Meeus, 2000; House, Landis, & Umberson, 1988). “Coming out,” or the process of disclosing one’s sexual orientation to others, is a central developmental process for lesbian, gay, and bisexual (LGB) individuals that often takes place within adolescence (Heatherington & Lavner, 2008). Coming out to one’s parents can be one of the most stressful, difficult, and consequential actions taken by an LGB youth (D’Augelli, 2002; Savin-Williams, 1998). The stakes are high for LGB youth coming out to parents, as it is not always clear how their parents will react to this important disclosure about who they are.

The literature in this area is in its nascency, but the extant data show that it is not uncommon for parents to react negatively to a child’s sexual orientation disclosure (Armesto & Weisman, 2001; Maguen, Floyd, Bakeman, & Armistead, 2002). Given the importance of parental support and acceptance for adolescents and young adults alike, negative reactions can have significant consequences for LGB youth. Emerging literature suggests that negative responses may result in emotional distress and poor adjustment in LGB individuals (Darby-Mullins & Murdock, 2007). Lack of parental acceptance has been found to be associated with maladjustment, risky sexual behavior, increased substance use, violence and victimization, and suicidality (Bouris et al., 2010). It is quite unclear, however, what factors might predict parental acceptance or rejection.

Predictors of parental reactions to coming out are rarely studied, and virtually no studies to date examine reactions to coming out by actually including parents and their LGB children together in a single study. It is often assumed that parents with negative beliefs about homosexuality, or conservative religious backgrounds, will have negative reactions to a child's sexual orientation disclosure. However, there are actually very few studies that examine these or any other predictors of parental reaction (Savin-Williams & Dubé, 1998). Identifying predictors of parental reaction to sexual orientation disclosure is important, however, given established links with youth adjustment outcomes, such as emotional functioning and substance use. Additionally, homonegative (sometimes in the literature referred to as "homophobic") reactions from parents who base their response on religion may also turn youth away from spirituality. This outcome may have negative consequences, as religion is traditionally associated with positive youth outcomes (Cotton, Zebracki, Rosenthal, Tsevat, & Drotar, 2006). The present longitudinal study seeks to investigate the effects of parent homonegativity and religiosity on parental reactions to youth sexuality, and how these reactions in turn are related to youth psychosocial functioning and spirituality. The goal of this study is to contribute to the science on families with LGB youth, and then to utilize these data to develop a science-based model for intervening with families at the outset and duration of the coming out process. It is hoped that such data and interventions will encourage a climate of support, resilience, and positive coping. Such an environment may be an important vehicle for LGB youth as they enter adulthood, where they will be able to use this support and coping as they form their own future families.

## **Family Stress Theory and Parental Acceptance-Rejection Theory**

When a child discloses his or her sexual orientation to family members, the entire family may experience the disclosure as a stressful event, even when reactions are positive (LaSala, 2000; Savin-Williams, 1998; Willoughby, Doty, & Malik, 2008). Family stress theory offers a well-founded approach to explain how family members react to stressful events (Boss, 1987; Hill, 1949). Hill's (1949) original conceptualization of family stress theory is often referred to as the ABCX Model of Family Stress. In this model, three factors interact in determining how a family will respond to a family crisis or a stressful event. The first factor (A) is the precipitating event or stressor that causes the crisis and includes any hardships or difficulties encountered by family members. The second factor (B) includes any resources that are available to the family to handle hardships, and directly determine how adequately prepared the family is to handle stress. The third factor (C) is the way the stressor is perceived by the family. Together, these three factors engender the degree of manifested stress (X).

Among various expansions of the original model is Boss's (1987) context model of family stress, which recognizes that reactions to stressful events are influenced by a range of individual and family contexts. Hence, stressors, resources, and perceptions operate under contextual influences that must be taken into account when understanding how families react to and cope with stress. As Boss points out, these contexts are made up of both internal and external factors, including religious and cultural values, philosophical beliefs, and psychological functioning.

Willoughby and colleagues (Willoughby et al., 2008) make a strong case for understanding family reactions to child sexual orientation disclosure using a family stress

perspective, as this disclosure may represent a stress for the family. Parental reactions to the disclosure are likely influenced by the meaning of the disclosure to the family (Factor C), and more specifically, what being gay, lesbian, or bisexual means to family members. For example, having an LGB child may challenge values and expectations parents have for their child, such as having a traditional wedding with an opposite-sex partner or having grandchildren (Savin-Williams & Dubé, 1998; Willoughby et al., 2008). Further, using Boss's context model (1987), parents whose cultural, philosophical, or religious values prohibit homosexuality may have the most difficulty coping with a sexual orientation disclosure. Therefore, parental reactions to child sexual orientation disclosure may be impacted by internal, individual factors, such as negative beliefs about homosexuality, and factors that have both internal and external components, such as religious beliefs and practices.

While family stress theory is useful in understanding predictors of parent reactions to sexual orientation disclosure, it is equally important to understand how these reactions impact youth functioning, particularly when coming out is met with parental rejection. Parental acceptance-rejection theory broadly describes how negative reactions from parents negatively impact child psychological adjustment (Dwairy, 2010; Rohner, 2004; Willoughby et al., 2008). This theory emerged from the work of Carl Rogers, who founded the idea that unconditional positive regard is essential to preserve a child's mental health (Dwairy, 2010). Parents breach this unconditional positive regard by rejecting an aspect of their son or daughter. Children consequently feel alienated from their parents, bruising their self-concept and damaging their psychological well-being (Dwairy, 2010; Rohner, 2004). Empirical evidence to support the theory has shown that

children who perceive themselves to be rejected by their parents are more disposed to experience anxiety, depression, impaired self-esteem, substance abuse, and other mental health difficulties (Rohner, 2004; Rohner, Khaleque, & Cournoyer, 2005). These youth also tend to feel isolated from their rejecting family members (Dwairy, 2010; Rohner et al., 2005). The youth's "defensive independence" may result in a "counter-rejection" process, in which the youth rejects whomever they perceive as rejecting them. Ultimately, these youth may adopt a negative worldview, and may even reject their religious or spiritual beliefs if they feel rejected by the world at large (Rohner et al., 2005).

While parental acceptance-rejection theory has been empirically examined across a variety of cultures and contexts, this theory has yet to be explored for the case of LGB youth who are rejected by their parents on the basis of their sexuality (Rohner, 2004). Several studies, however, do show links between negative reactions from parents and LGB youth maladjustment (D'Augelli, 2002; Espelage, Aragon, Birkett, & Koenig, 2008; Hershberger & D'Augelli, 1995; Ryan, Huebner, Diaz, & Sanchez, 2009; Savin-Williams, 1989). These findings suggest that parental rejection of a child's sexual orientation may result in compromised mental health and well-being for the child. Although these studies are important beginnings for examining implications of parental reactions for LGB youth maladjustment, they are limited by the exclusive use of youth report to measure parental reactions, and often times, the use of single items.

The present study uses family stress theory and parental acceptance-rejection theory as theoretical foundations for a model examining how parents' attitudes toward homosexuality and religiosity may impact their reactions to sexual orientation disclosure,

and how these reactions in turn affect youth psychological maladjustment. Additionally, the model examines whether parental rejection affects another specific aspect of the youth's functioning: *spirituality*. While spirituality among LGB youth is rarely studied in the research literature, it may be the case that when parental rejection occurs within a religious context, youth become distanced from religion and adopt a negative attitude toward religion. Parental acceptance-rejection theory suggests that youth may counter-reject their rejecting parents, and may even adopt a negative view about the world in general (Rohner et al., 2005). Hence, youth who perceive their parents to reject their sexuality for religious reasons may respond with their own rejection of religion or spirituality. Even when religion does not play a part in parental rejection, rejected youth are more likely to develop a negative view of the world that can extend into their beliefs about God and religion (Rohner et al., 2005).

While family stress and parental rejection can impact individuals of any age, the present study focuses on predictors and outcomes of parental rejection in a sample of adolescents and emerging adults. This population is particularly vulnerable to the effects of parental rejection, compared to LGB adults (Schope, 2002; Savin-Williams, 1998). One obvious reason is that emerging adults typically still rely on their parents for both emotional and financial support. Additionally, according to parental acceptance-rejection theory, youth who experience parent rejection can have mental health challenges that last through adulthood (Rohner, 2004; Willoughby et al., 2008). This may be the case in particular for LGB youth, who may not only experience homonegativity and rejection from their parents, but from heteronormative American society (Williamson, 2000; Willoughby et al., 2008). For LGB adolescents, having a family that is supportive about

their sexuality may be important in protecting them from homonegativity, which may be particularly prevalent in middle and high school (Monette, 1992). Experiencing parental rejection during adolescence and young adulthood may set LGB youth on a long-lasting trajectory of psychological maladjustment. Additionally, adolescence is a sensitive period during which religious commitment develops (Good & Willoughby, 2008). Adolescents and emerging adults make important decisions about spiritual components in their lives during these formative years that can last for years to come.

The following discussion reviews the literature on predictors of negative parent reactions to coming out, youth psychological outcomes related to negative parent reactions, and youth spirituality following negative parent reactions.

### **Predicting Parent Rejection of Sexual Minority Youth**

**Parental homonegativity.** In order to investigate predictors of negative parental reactions to a child's sexual orientation, a logical construct to examine is parental attitude about homosexuality. For several decades, sexual minority researchers have been exploring the concept of *homophobia*, a term that has come to refer to negativity and discrimination towards sexual minorities. However, some authors have criticized the use of the term, as it implies an inherent fear of same-sex behavior and/or sexual minority people (Freedman, 2008; Hudson & Ricketts, 1980; Williamson, 2000). Although negative attitudes toward LGB people may entail fear, these attitudes may also entail "disgust, anger, discomfort, and aversion," or some combination of these affective responses (Hudson & Ricketts, 1980). Hence, the term *homophobia* may not capture the broader concept that researchers are usually more interested in assessing. Alternatively, *homonegativity*, having a negative attitude toward homosexual people and behavior, is a

more general term that expands negative attitudes beyond fear responses (Hudson & Rickets, 1980).

Research on homonegativity (and homophobia) generally indicates that negative attitudes toward LGB people translate into negative behaviors toward them (Hudson & Rickets, 1980). Schope and Eliason (2000) made one of the first attempts to establish the empirical link between homonegative attitudes and behaviors, using a sample of 129 undergraduate students. Results indicated that holding negative attitudes toward homosexual persons was correlated with participating in homophobic behaviors, such as making anti-gay jokes, avoiding gay people, and threatening to harm or harming a gay person.

Morrison and Morrison (2011) conducted two studies examining homonegative attitudes among community (non-student) populations. The first was conducted on a sample of 1,085 adult heterosexual men and women who were university employees. Results indicated that males were more likely to have homonegative attitudes, which were also related higher levels of racism and sexism. The second study, conducted among a sample of 196 non-student male and female adults, used an experimental design to examine if homonegativity predicted discriminatory behaviors when evaluating a political candidate depicted as “gay,” compared to a similar candidate with no sexual orientation indicators. The authors found that homonegative participants expressed less favorable behavioral intentions toward the “gay” candidate, indicating that they would be less likely to vote for the candidate or help with his campaign.

The studies by Schope and Eliason (2000) and Morrison and Morrison (2011) are limited in their generalizability, given that the former is based on college student



samples, and the latter examines discrimination in political behaviors. These studies also do not focus on homonegative attitudes and behaviors toward LGB *youth*, specifically. However, these studies represent important contributions to the literature linking homonegative attitudes and discriminatory behavior, as the literature is scarce beyond these efforts.

Although data are limited regarding the impact of homonegative attitudes on the functioning and adjustment of LGB individuals, several studies suggest that harm can be done. Much of this work is with middle age adults, however, rather than adolescents and emerging adults. In one of the few studies involving youth, McDermott, Roen, and Scourfield (2008) conducted a qualitative study using interviews and focus groups with 27 LGBT youth (ages 15-19). Youth in the study reported a strong connection between the experience of negative attitudes toward homosexuality from others and psychological maladjustment. These youth indicated a variety of coping methods to deal with this homonegativity, including self-destructive behaviors such as “cutting,” suicidal ideation, and illicit drug use. Based on the interviews, the authors suggest that participants inferred a link between homonegativity in their environment and their own mental health. Whether participants encountered homonegative behaviors or inferred homonegative attitudes, they related these experiences to feeling shame and guilt. While this investigation offers some suggestions into the relationships between homonegative attitudes, behaviors, and mental health, these constructs were not actually measured, and quantitative efforts are needed to validate these hypotheses.

One study investigated the effects of experiencing homonegative attitudes in one’s environment on mental health among 912 gay and bisexual Latino adult males

(Diaz, Ayala, Bein, Henne, & Marin, 2001). Participants were asked to rate their psychological distress, as well as experiences of social discrimination, such as homonegativity, racism, and poverty during childhood and adulthood. Results indicated that participants who experienced more social discrimination throughout their lifetime reported lower self-esteem and greater psychological symptoms. However, these findings are limited in generalizing to youth populations, and the effects of homonegativity were not examined independently from social discrimination based on race or SES.

Surprisingly, studies of homonegative attitudes rarely focus on parents of LGB youth. Studies investigating parental variables have relied almost exclusively on youth report (Bouris et al., 2010). Researchers theorize that negative beliefs about homosexuality may lead family members to have rejecting behaviors toward their LGB children (Tremble, Schneider, & Appathurai, 1989), though studies have not yet directly examined this idea. Relatedly, several researchers have attempted to draw links between parent homonegative attitudes and youth outcomes. It is hypothesized that when sexual minority youth learn from their parents that it is wrong, immoral, or disgusting to be gay, these messages are internalized and are hypothesized to affect psychological well-being (McDermott et al., 2008).

Floyd, Stein, Harter, Allison, and Nye (1999) examined perceived parental attitudes regarding LGB sexual orientation in a sample of 72 LGB youth (ages 16 to 27). The study examined links between parental attitude and youth self-esteem and emotional distress. Study methods entailed both qualitative procedures (interviews) to examine family relationships and quantitative procedures (questionnaires) measuring self-esteem

and emotional distress. Additionally, participants were asked to rate their parents' attitude toward their sexual orientation using a single 5-point Likert item, ranging from "very negative/completely unsupportive" to "very positive/completely supportive." Results indicated that youth who had mothers with more positive attitudes toward their sexual orientation had higher self-esteem and lower ratings of depressive symptoms. These relationships were not found for fathers' attitudes. However, more positive attitudes from both mothers and fathers were related to higher youth ratings of closeness and empathy with their parents. Thus, parental attitudes were linked with both youth psychological well-being as well as emotional closeness in the family. However, it is important to highlight that parental attitude was measured using a single item and only from the youth's perspective. Moreover, this item collapsed two important constructs: attitude toward the youth's sexual orientation *and* supportiveness/rejection. Hence, it is unclear if the measure reflects parental attitudes toward homosexuality in general, parental attitudes toward their child's sexual identity or identity expression, supportive and rejecting parental behaviors, or a combination of these factors. It is also notable that these data are cross-sectional and causal relationships cannot be inferred.

Parental homonegativity was specifically examined in relation to youth self-acceptance and emotional adjustment in a study by Darby-Mullins and Murdock (2007), with a sample of 102 LGB adolescents (ages 15-19). Participants were asked to rate both their mother's attitude and their father's attitude toward homosexuality using a 20-item measure, as well as their emotional adjustment (such as depression and anxiety symptoms). Family functioning and youth self-acceptance were also measured. Results indicated that perceived parental attitudes toward homosexuality accounted for a

significant amount of variance in youth emotional adjustment, after accounting for the effects of the general family environment and age. In contrast with the study by Floyd and colleagues (Floyd et al., 1999), this study is notable in the use of a measure that is multi-item and therefore more reliable, and that explicitly examines parental attitudes toward homosexuality. The data were collected at one time point, however, and the direction of effect between parent attitudes toward homosexuality and youth adjustment cannot be truly established.

The studies by Floyd and colleagues (1999) and Darby-Mullins and Murdock (2007) represent the only empirical investigations to date of parental homonegativity and youth outcomes. Conclusions are limited from these studies as parent attitudes were measured from the youth perspective. Measuring parental homonegative attitudes directly is an important and warranted endeavor, as parent and youth perceptions for these constructs may differ. In addition, much of the existing literature is limited by a reliance on weak measures of parental homonegative attitudes and rejection. The present study seeks to build upon existing literature by including both parent and youth report in a longitudinal study that investigates whether parent homonegativity, among other factors, is causally related to mental health outcomes in LGB youth. Additionally, the present study measures parent homonegative attitudes and parent rejection distinctly, using multi-item parent-report measures, and examines inter-relationships between these constructs.

**Parental religiosity.** In addition to parental homonegativity, the present study also examines parent religiosity as a predictor of parent rejection. Savin-Williams and Dubé (1998) argued that a parent's religious background is an important predictor of

parental reaction to an LGB child's sexuality minority disclosure. Some authors have posited that parent religiosity may be an important factor for youth in deciding whether or not to disclose their sexual orientation (Jordan & Deluty, 1998) and there are some data to support this hypothesis. Schope (2002) found evidence for inhibition of disclosure among 92 LGB adolescents and young adults (ages 16-30). Forty percent of youth with parents rated as "very religious" were closeted, while only 24% of youth with non-religious parents were closeted. Youth appear to assume that religious parents will have a more negative reaction (Jordan & Deluty, 1998). To test this hypothesis, Potoczniak, Crosbie-Burnett, and Saltzburg (2009) conducted four focus groups among LGBTQ high school students and counselors, asking questions about religion and parental reactions to sexual orientation. Their qualitative work suggested that greater religious adherence in parents was associated with youth anticipating and/or actually reporting more negative reactions from their parents.

Youth who assume that religious parents will have negative reactions to coming out may be accurate in their assessments (Cramer & Roach, 1988; Merighi & Grimes, 2000; Newman & Muzzonigro, 1993). Cramer and Roach (1988) investigated predictors of negative parental reactions to sexual orientation disclosure as perceived by a sample of 93 gay adult men. Using stepwise multiple regression, results indicated that participants who had more religious mothers and fathers perceived parental reactions to their sexual orientation as less accepting. It is important to note, however, that these data were retrospective, were limited to adults, and did not take into account parent perspectives.

More evidence of a link between religiosity and negative parent reactions to coming out comes from studies of traditionalism. Merighi and Grimes (2000)

interviewed 57 young gay men (ages 18-24) to explore how these emerging adults disclosed their sexual identity to family members. Using qualitative data collection methods, these authors found that youth who perceived themselves to be from more traditional families tended to perceive more negative reactions from parents. Newman and Muzzonigro (1993) found similar results from quantitative analyses, based on a sample of 27 youths (ages 17 – 20). Participants rated whether their family valued religion, whether the family spoke a language other than English at home, and if their family felt it important that they marry and have children. These youth were then categorized as being in either a high-traditional or low-traditional family based on these responses. The authors found that youth from families with more traditional values perceived their parents as having more negative feelings towards homosexuality and reacting with more disapproval. The fact that the study by Newman and Muzzonigro is often the sole citation in this area reflects the lack of adequate research on religious families and LGB youth (Heatherington & Lavner, 2008; Potoczniak et al., 2009; Schope, 2002). Conclusions from the above research are limited by small sample sizes and by a lack direct assessment of parent perspectives. In the few studies that do exist, an additional limitation is that constructs of traditionalism and religiosity are often collapsed, such that the link between religiosity in parents and LGB youth outcomes has been inferred but not empirically validated.

Only one study was found examining homonegativity and religiosity together as predictors of negative parental reactions. Freedman (2008) compared parents who attended a religious-affiliated support groups for parents of LGB youth ( $n = 20$ ), parents who attended a non-religious support group for parents of LGB youth ( $n = 20$ ), and

parents who were not affiliated with any support group ( $n = 19$ ). Being in the religious support group was associated with higher levels of homonegativity and with lower scores on a measure of acceptance of their child's sexual orientation. The data also indicated that, across the sample as a whole, homonegative attitudes were highly correlated with rejection of the child's sexual orientation. Freedman's work represents an important contribution to the literature, as the results suggest associations between homonegativity and negative reactions to child sexual orientation within the context of religious affiliation. The study is also noteworthy in using data collected directly from parents of LGB youth. However, there are several limitations. Religiosity was not directly measured, and while attendees of the religiously-oriented support group were more homonegative and rejecting, the authors found that all but one of the 59 parents in the sample were religious. Group membership thus may be a poor proxy variable for religiosity. Furthermore, these data are cross-sectional and quasi-experimental in nature, and thus do not demonstrate causal relationships between parental homonegativity, religiosity, and reactions to youth sexual orientation. Additionally, Freedman noted that, based on interviews with the participants, religious parents varied in their levels of acceptance of their LGB child, which suggests that the link between religiosity and parent rejection may be a complex one. The apparent effects of religiosity on parent rejection may actually be driven by homonegative attitudes (Savin-Williams & Dubé, 1998). Accounting for homonegativity could potentially reveal no unique relationship between religiosity and rejection. The present study will measure both religiosity and homonegativity in parents, and will examine the unique contributions of each to parent rejection of youth sexual orientation, and subsequent youth outcomes.

In sum, while both sexual minority researchers and LGB youth may assume that religiosity predicts parental rejection, as is clear from the above literature review, this link requires further investigation. Though some qualitative data and some retrospective data suggest a connection exists, no quantitative, longitudinal study has yet been conducted that examines causal relationships using both youth and parent reports. In the present study, these constructs will be included simultaneously in a longitudinal model. This study will be the first to separate homonegativity from religiosity in examining their unique relations with parent rejection and consequent youth outcomes.

### **LGB Youth Functioning**

Lesbian, gay, and bisexual youth have been identified as a group at risk for mental health difficulties, with literature demonstrating that sexual minority youth may experience higher levels of mental health difficulties than their heterosexual peers (Mustanski, Garofalo, & Emerson, 2010). Fergusson, Horwood, Ridder, and Beautrais (2005), in a sample of 967 young adults (ages 21-25), found higher rates of mental health problems in sexual minority young adults, compared to exclusively and predominantly heterosexual groups. Lock and Steiner (1999) similarly found that self-identified LGB youth were at higher risk of having mental health problems than heterosexual youth, in a sample of 1,769 high school students (ages 12-18). Using data from the National Longitudinal Study of Adolescent Health, which used a nationally representative sample of 11,940 middle and high school students, Russel and Joyner (2001) found a relationship between sexual orientation and suicidality. Longitudinal data indicate that these mental health disparities persist when LGB youth transition into adulthood (Needham, 2012).



Beyond having disproportionate mental health difficulties, LGB youth are faced with stressors that are unique to the sexual minority experience (Meyer, 2003; Page, Lindahl, & Malik, 2013; Saewyc, 2011). The development of a sexual minority identity itself can be a conflictual or stressful process, and it make take time for LGB youth to achieve acceptance of their sexual orientation (Cass, 1984; Mohr & Fassinger, 2000). Feelings of shame and guilt are not uncommon experiences for LGB youth, particularly when faced with negative societal messages regarding homosexuality (Allen, 1999; Moradi, van der Berg, & Epting, 2009). Discomfort with one's sexual orientation has consistently has consistently been linked with negative psychosocial outcomes (Cohen & Savin-Williams, 1996; Lewis, Derlega, Griffin, & Krowinski, 2003, 2003; Meyer, 2003; Newcomb & Mustanski, 2010).

Being a sexual minority youth may also entail an increased risk for victimization by violence and harassment. Three hundred and fifty LGB youth (ages 14-21) were surveyed by D'Augelli, Pilkington, and Hershberger (2002), with results indicating that over half of the sample experienced verbal harassment and 11% experienced physical harassment in school. A more recent study, using a large sample of 7,261 middle and high school students, found even higher estimates of verbal and physical harassment: 85% and 40%, respectively (Kosciw, Greytak, Diaz, & Bartkiewicz, 2010). Other researchers have identified even higher rates victimization among LGB samples; Mustanski, Newcomb, & Garofalo (2011) found that 94% of their sample of 425 LGB youth reported sexuality-based victimization. Further, victimization has been linked to compromised mental health in LGB youth, including trauma, stress, and suicidality

(D'Augelli et al., 2002; Garnets, Herek, & Levy, 2003; Hershberger & D'Augelli, 1995; Lewis et al., 2003).

In addition to mental health difficulties and gay-related stressors, studies have consistently found higher rates of drug and alcohol abuse in young sexual minority populations compared to their heterosexual counterparts (Marshal, Friedman, Stall, & Thompson, 2009; Rosario, Rotheram-Borus, & Reid, 1996), particularly among bisexual youth (Robin et al., 2002). Savin-Williams and Cohen (1996) have additionally identified a correlation between verbal and physical abuse and substance abuse. Data suggest that higher rates of heavy drinking and marijuana use that may be found in sexual minority youth compared with heterosexual peers may persist when entering adulthood (Needham, 2012). Drug and alcohol abuse is often correlated with mental health problems and victimization among adolescents and young adults (Brent & Perper, 1995; Sabri, 2012; Russel, 2006). For LGB youth in particular, data also indicate relations between substance abuse and risky sexual behaviors, such as engaging in unprotected sex (Winters, Remafedi, & Chan, 1996). Identifying risk factors for drug and alcohol abuse is vital for this population, as LGB youth who become involved with substance abuse may be at increased risk for sexual risk behavior and mental health problems.

### **Parent Rejection and Youth Psychological Functioning**

With higher rates of internalizing mental health problems, substance abuse, and victimization, data on predictors of these outcomes is clearly needed. Several studies have demonstrated that parent reactions to sexual orientation disclosure impact youth functioning (Bouris et al., 2010; D'Amico & Julien, 2012; Savin-Williams, 1989, 1998). In one of the first studies examining parent homonegative reactions and gay and lesbian

youth mental health, Savin-Williams (1989) found that parent acceptance was related to comfort with sexual orientation and higher self-esteem, in a sample of 317 gay and lesbian youth (ages 14-23). Parent acceptance, however, was measured using a single item from youth perspective. D'Augelli (2002) also examined the link between parental rejection and mental health, in a sample of 542 LGB youth (ages 14-21). For this study, a single item assessed parental reactions using a 4-point Likert scale: 1 = Accepting, 2 = Tolerant, 3 = Intolerant, and 4 = Rejecting. Youth were also asked to rate their mental health symptoms. Results indicated that youth with rejecting parents had higher scores across all measures of mental health symptomatology (such as depression and anxiety) compared to youth with accepting parents. While these two studies provide initial data to link parent reactions to youth sexual orientation and subsequent youth mental health, parental reactions were inferred from a single item measure from youth report in both studies. Further, some of the samples included closeted youth, who rated how they would predict their parents to react if they came out to them.

In addition to mental health, parental rejection may also be linked with gay-related stressors, such as sexual orientation conflict and victimization. Internalized homophobia, a related construct reflecting self-rejection, shame, guilt, or disdain surrounding one's sexual orientation, as received a large amount of empirical attention (Newcomb & Mustanski, 2010). It is well-established that general parent rejection has a strong effect on the child's subsequent self-image (Bartholomew & Horowitz, 1991; Pachankis, Goldfried, & Ramrattan, 2008; Rohner, 2004). Moreover, a few studies have investigated the link between parent rejection and internalized homophobia, as this kind of self-rejection may be the direct result of negative messages from parents about

homosexuality (Herek, 1988, 2004). Frable, Wortman, & Joseph (1997) found that a negative feelings about one's sexual identity was related to sexuality-based stigma from family members in their sample of 825 gay and bisexual men. Pachankis and colleagues (2008) found that, in a sample of 149 gay men, parent rejection was related to increased internalized homophobia, and in turn, future rejection sensitivity. Although the link between parental rejection and self-rejection has received conclusive empirical support, few studies have established the causal relationship parent rejection and internalized homonegativity. Moreover, these results are limited by retrospective reporting, and no research is currently available investigating these relationships in youth samples.

Parental rejection may have a connection to experiencing the threat of harassment and violence based on sexual orientation. In a sample of 165 youth (ages 15-21), Hershberger and D'Augelli (1995) investigated the impact of familial acceptance and support of youth sexual orientation on the relationship between victimization and mental health. Participants rated their parents and siblings on acceptance of their sexual orientation, based on a single 4-point item. The authors found that family support served as a buffer against the deleterious effects of victimization on youth mental health. Similarly, Mustanski and colleagues (2011) examined resilience in the face of victimization and internalizing problems among a sample of 425 LGB adolescents and young adults. Youth indicated how frequently various types of verbal, physical, and sexual harassment experiences occurred across their life, and then rated their psychological distress. Participants also completed three measures of family support, connectedness, and cohesion. Results from hierarchical linear regression analyses indicated that the relationship between sexual orientation-related victimization and

psychological distress was moderated by family support. The data highlight the importance of having a supportive, cohesive, and accepting relationship with parents for LGB youth. However, the authors did not specifically examine support and acceptance related to the youth's sexuality. These findings are also limited by a sole reliance on youth report and by a reliance on single item scales. More research is needed to understand the relationship between parental acceptance or rejection related to youth sexuality and distress related to victimization.

Youth with rejecting parents may cope with psychological distress, sexuality conflict, and victimization by using drugs and alcohol. Espelage and colleagues (2008) investigated the link between parent acceptance and substance use in a sample of 1,997 LGB and questioning (LGBQ) high school students. The authors measured parent support using two youth report items, although they did not specify support as specifically relating to the youth's sexuality. Youth also reported their level of drug use, depressive symptoms, and suicidal feelings. Findings indicated that general parental support protected LGBQ students against depression and drug use.

Ryan and colleagues (2009) also examined parent reactions to youth sexual orientation as a predictor of several measures of youth maladjustment. The authors constructed a 51-item youth-report measure of parental rejection based on in-depth interviews with LGB youth regarding their experiences with parents. This measure was given to 224 LGB young adults (ages 21-25), who were asked to indicate whether each reaction or behavior has ever occurred. Outcomes included depression, suicidality, heavy alcohol drinking, and illicit drug use. Results indicated that youth reporting higher levels of parental rejection were 3.4 times more likely to use illegal drugs, in addition to being

5.9 times more likely to report elevated levels of depression and 8.4 times more likely to have attempted suicide.

Although several studies have attempted to examine parental rejection of youth sexual orientation as a predictor of youth mental health, sexuality conflict, victimization, and substance use, more empirical investigation is needed. Conclusions from extant studies are limited by the lack of parent report and the tendency to rely on single items to measure parental rejection. An additional gap in the literature is that, to date, studies have been cross-sectional in nature, such that the degree of causality between parent rejection and youth maladjustment has yet to be established. These gaps in the literature mean that it is difficult to develop a clear understanding of how to prevent mental health problems, sexuality conflict, victimization, and substance abuse in LGB youth (Russel, 2006). The present study seeks to address these gaps in the present literature.

### **Parent Rejection and Youth Spirituality**

Youth spirituality, generally linked with positive adjustment and well-being for youth (Good & Willoughby, 2006), is one avenue to explore in examining resilience in LGB youth. Research on spirituality among general adolescent populations has indicated that religious youth are less likely to use drugs, have fewer anxiety and depression symptoms, and have less suicide risk than non-religious youth (Cotton et al., 2006). However, it is not clear whether these results generalize to LGB youth, as conflict between religion and sexuality may have a negative impact on mental health (Page et al., 2013; Rosario, Yali, Hunter, & Gwadz, 2006). In fact, research in this area is mixed. Kipke et al. (2007) measured religiosity in a sample of 496 men who have sex with men (ages 18-22) by asking participants how religious they considered themselves. The

sample was dichotomized into a very/somewhat religious group and a not very/not at all religious group. The authors found that those in the more religious group were at significantly less risk for reporting recent club drug use. Rosario et al. (2006) found similar results among a sample of LGB youth (ages 14-21), who rated how religious they considered themselves to be on a 5-point Likert scale. For male youth, greater religiosity was related to less drug behavior, as well as greater self-esteem and lower depression, anxiety, and emotional distress ratings. These relationships, however, were not significant for females. It is important to note that these studies measure religiosity in a limited manner, using single items. Moreover, the definition of “religious” may vary across participants, and relying on the single item does not capture the complexity of spiritual identity.

Rostosky, Danner, and Riggle (2007; 2008) conducted rigorous studies of the relationship between spirituality and substance use in large samples of 764 (2007) and 11,699 (2008) heterosexual and non-heterosexual youth. Religiosity and substance use were inversely related for heterosexual youth, but not for sexual minority youth. In these studies, religiosity was measured using three-item (2007) and six-item (2008) measures. Religiosity items included frequency of religious services attendance and the importance of religion. However, items also included “angels are present to help or watch over me,” “I am being ‘led’ spiritually,” and the frequency of attending “special [religious] youth or young adult activities.” The generalizability of these items is questionable, as being religious (or spiritual) may not necessarily entail belief in angels, feeling directed by a higher power, or attending religious youth groups. Spirituality is a complicated construct that may be made up of other important facets in addition to attending religious events,

such as private religious practices (e.g. prayer, meditation) and spiritual beliefs (e.g., belief in a higher power) (Good & Willoughby, 2008). While Rostosky and her colleagues have expanded measures of spirituality beyond single items, more empirical investigation is warranted to understand the multiple facets of religiosity and spirituality, how they can be broadly and validly measured, and how they are related to outcomes for LGB youth.

Experiencing rejecting messages about homosexuality from religious sources may impact religiosity or spirituality in LGB youth. Religious parents may be concerned about their child's spirituality upon finding out that they are gay, lesbian, or bisexual, and may seek the support of religious leaders to redirect their child (LaSala, 2000; Savin-Williams, 2001; Sherry, Adelman, Whilde, & Quick, 2010). What parents might not realize is that negative messages about same-sex attractions from religious parents may add to the religious conflict with which LGB youth may struggle. As a result, LGB youth may distance themselves from religion, in order to overcome the conflict and protect their sense of self and well-being (Rosario et al., 2006). As parental acceptance-rejection theory describes, youth who feel rejected by their parents, their religion, or the world at large may react by counter-rejecting these forces (Rohner et al., 2005). Hence, LGB youth with religious parents may actually be more inclined to reject religion. Researchers have tested this possibility by investigating spirituality among LGB adults. For example, LGB individuals raised in Christian households report that they have to reject their religious upbringing in order to accept their sexual identity, presumably because of the experience of rejection by religious family members (Sherry et al., 2010; Wagner, Serafini, Rabkin, Remien, & Williams, 1994). Understanding the impact of parent



rejection on youth spirituality may provide further insight in how to support LGB youth functioning.

Although researchers have speculated which variables may be related to spirituality among LGB youth, few conclusive data exist regarding spirituality in this population. Studies examining spirituality among youth typically rely on poor measures of spirituality, using either a single rating of spirituality (Kipke et al., 2007; Rosario et al., 2006), a single measure of church attendance (Good & Willoughby, 2006), or items that only apply to a limited scope of spiritual backgrounds (Rostosky et al., 2008). Furthermore, some authors suggest that extant data on spirituality among LGB adults may not be relevant for today's sexual minority youth, as this cohort of youth may have very different experiences than LGB youth in past decades (Johnston & Stewart, 2011). More research in this area is necessary to identify factors that predict spirituality for LGB youth, and to understand the relationship between spirituality and functioning for this population. The answers to these questions may have important implications for religious parents and community figures, particularly if parent rejection emerges as a predictor of youth spirituality. The present study attempts to answer these questions by examining parent rejection of youth sexual orientation as a predictor of youth spirituality. To do so, a multi-item measure of spirituality was developed for this study to examine several aspects of spirituality that generalize across religious and spiritual backgrounds.

### **Present Study**

Family stress theory suggests that when a family is faced with a stressful event, such as the sexual orientation disclosure of an LGB child, reactions to the event are influenced by contextual individual and family factors, such as homonegative beliefs and

religiosity (Hill, 1949; Willoughby et al., 2008). Parental acceptance-rejection theory further suggests that when children experience rejection from their parents, their psychological adjustment and worldview can be negatively impacted (Dwairy, 2010; Rohner, 2004). Empirical investigations of parent rejection of LGB youth sexual orientation are limited by several methodological factors. The most critical gap in the literature is that parents are rarely included in studies that purport to measure their attitudes and behaviors (Bouris et al., 2010). Second, the body of literature is largely cross-sectional, and causal, directional relationships have not been established between parent characteristics and parental reactions to youth sexual orientation (Bouris et al., 2010). Third, of the few empirical examinations about parent homonegativity and religiosity, parent rejection, and child outcomes, most have focused on the present or retrospective experience of LGB adults (Kipke et al., 2007; Merighi & Grimes, 2000; Ryan et al., 2009). Fourth, studies have defined and measured homonegativity, religiosity/spirituality, and parent acceptance/rejection inconsistently, and often with single items (Rostosky et al., 2008).

The purpose of the present study is to examine factors that predict parent rejection of LGB youth, and how parent rejection in turn is related to youth outcomes. The present study attempts to fill in gaps in the existing literature in the following ways. First, data is collected from both LGB youth as well as their parents. Second, a longitudinal model is tested, in order to examine directionality of variable relationships. Third, the sample of LGB youth includes both adolescents and emerging adults. Fourth, constructs are measured using multi-item scales, including three newly-designed measures of youth spirituality.

This study uses structural equation modeling (SEM) to test a longitudinal model examining the effects of parent homonegativity and religiosity on parent rejection, and the effects of parent rejection on youth maladjustment and spirituality (see Figure 1). It is expected that higher levels of parent homonegativity and religiosity predict higher levels of parent rejection of sexual orientation in their LGB children, and that parent rejection has a negative effect on youth adjustment and youth spirituality. It is also hypothesized that the indirect relations of parent homonegativity and religiosity to youth maladjustment and spirituality are significant, such that parent rejection functions as a mediator of the relationship between parental beliefs and youth outcomes. The goal of this study is to understand parental reactions to youth sexual orientation disclosure, within the context of a longitudinal design that includes both parents and LGB youth. Further, the long-term goal is to use these data as a springboard to develop evidence-based family intervention strategies to help families navigate the coming out process, supporting positive outcomes for all involved, including both LGB individuals and parents.

### **Aims and Hypotheses**

**Aim #1.** To date, available measures of spirituality that have been used with LGB youth have either relied on a single item (Good & Willoughby, 2006; Rosario et al., 2006) or items that may not generalize across religions (Rostosky et al., 2008). The first aim of this study was to establish a psychometrically sound measure of religiosity/spirituality, and to validate the measure in a sample of sexual minority youth. This study created a measure of religiosity/spirituality that assesses: 1) participation in

religious activities, 2) importance of spirituality, and 3) general attitudes toward spirituality.

**Aim #2.** Family stress theory and empirical studies indicate that parental reactions to their child's sexual orientation may be influenced by their beliefs about homosexuality and religiosity (Floyd et al., 1999; Freedman, 2008; Hill, 1949; Willoughby et al., 2008). The second aim of this study was to investigate two possible predictors of parent rejection of sexual minority youth. Specifically, this study examined if parent homonegativity and parent religiosity are unique predictors of parent rejection of sexual minority youth over time.

Hypothesis: It was hypothesized that both parent homonegativity and parent religiosity at Time 1 predict parent rejection of sexual minority youth at Time 2, controlling for parent rejection at Time 1.

**Aim #3.** Parent acceptance-rejection theory suggests that parental rejecting behaviors may negatively influence youth psychological adjustment (Dwairy, 2010; Rohner, 2004). Parental rejection of youth sexual orientation is related to youth mental health (D'Augelli, 2002), sexual orientation conflict (Pachankis et al., 2008), distress related to victimization (Mustanski et al., 2011), and substance use (Ryan et al., 2009). Findings from the literature, however, are limited by poor, inconsistent, and indirect measures of parent rejection, as well as largely cross-sectional designs (Russel et al., 2006). The third aim of this study was to identify youth outcomes predicted by parent rejection. Specifically, this study examined if parent rejection of sexual minority youth predicts youth maladjustment, as measured by internalizing problems, stress from sexual orientation conflict, stress from violence and harassment, and substance use.

Hypothesis: It was hypothesized that parent rejection at Time 2 predict youth internalizing problems, stress from sexual orientation conflict, stress from violence and harassment, and substance use severity at Time 3, controlling for these variables at Time 1.

**Aim #4.** Parent acceptance-rejection theory posits that when youth perceive rejection from their parents, the experience can negatively impact their worldview and even their spiritual beliefs (Rohner, 2004). For sexual minorities, researchers have suggested that rejection from religious parents may cause youth to reject religion (Rosario et al., 2006). The fourth aim of this study was to determine if parent rejection of sexual minority youth predicts youth spirituality.

Hypothesis: It was hypothesized that parent rejection at Time 2 negatively relates to youth spirituality at Time 3, controlling for these variables at Time 1.

**Aim #5.** The fifth aim of this study was to determine if the predictors (parent homonegativity and parent religiosity) are related to the youth outcomes (youth maladjustment and youth spirituality) through parent rejection, as depicted in the proposed model (see Figure 1).

Hypothesis: It was hypothesized that the indirect effects of parent homonegativity and religiosity on youth maladjustment and spirituality through parent rejection of sexual minority youth are statistically significant.

## Chapter 2: Methods

### Participants

Participants in this longitudinal study consisted of a diverse sample of 173 youth and their parents. For youth to be eligible to participate, they had to identify as lesbian, gay, or bisexual and must be between the ages of 14 and 24. They also must have disclosed their sexuality to at least one parent. Participants were recruited through local LGB youth community centers and organizations in South Florida, PFLAG chapters, high school and university Gay-Straight Alliances and LGB organizations, local high school counselors, the Internet, and by word of mouth.

### Procedures

Adult participants provided written informed consent. Participants age 17 or younger provided written assent, and written consent was obtained from their parents. Participants were given a series of questionnaires, which took approximately 1.5 hours to complete. Participants were given the option of participating in person online, by mail, or in a laboratory setting at the University of Miami. Some participants completed packets at remote data collection sites, such as local LGB community centers. Measures were collected at three time points (0 months, 12 months, and 18 months).

### Measures

**Demographic information.** Participants filled out a background questionnaire at Time 1 examining demographic information, such as age, gender, ethnicity, annual family income, and time since sexual orientation disclosure to parent (see Appendix A). The background questionnaire also assessed sexual orientation. Participants indicated their sexual identity as “gay,” “lesbian,” “bisexual,” or “other.”

**Parental homonegativity.** The Homophobia Scale measures parental homonegativity (HS; Wright, Adams, & Bernat, 1999; see Appendix B). The HS is a 25-item scale assessing negative cognitions, negative affect, avoidance, and aggression concerning LGB individuals. Participants are presented with a list of items and are asked to rate their level of agreement with each item on a 5-point Likert scale: 1 = “Strongly Disagree,” 2 = “Disagree,” 3 = “Neither Agree nor Disagree,” 4 = “Agree,” and 5 = “Strongly Agree.” The HS was designed to capture the multifaceted nature of homonegativity, by including items addressing not only attitudes and beliefs, but affective and behavioral responses as well. The full HS is calculated by taking the sum of the 25 items. Scores range from 25 to 125, with higher scores on the HS indicating greater homonegativity.

Concurrent validity of the 25-item scale was established by significant correlations between the HS and an additional measure of homophobia (Wright et al., 1999). The scale was found to have high internal consistency reliability ( $\alpha = .94$ ) and one-week test-retest reliability ( $r = .96, p < .01$ ; Wright et al., 1999), based on a sample of 145 male and female college students. Through an exploratory factor analysis, these authors also found three subscales of the HS: Behavior/Negative Affect (10 items), Affect/Behavioral Aggression (10 items), and Cognitive Negativism (5 items). For the purposes of this study, the single-factor HS was used to measure parent homonegativity, using data collected from 77 parents at Time 1.

**Parental religiosity.** The Religious Commitment Inventory measures parental religiosity (RCI-10; Worthington et al., 2003). The RCI-10 consists of 10 items measuring religiosity and religious commitment (i.e., adherence to one’s religious values,

beliefs, and practices) in adult populations (see Appendix C). Participants are presented with a list of items and are asked to indicate the personal accuracy of each statement using a 5-point scale: 1 = “Not at all true of me,” 2 = “Somewhat true of me,” 3 = “Moderately true of me,” 4 = “Mostly true of me,” and 5 = “Totally true of me.”

Reliability and validity data for the ten-item version of the RCI was established using six studies, in order to refine the RCI from previous longer versions (Worthington et al., 2003). Although two subscales of the RCI exist (Intrapersonal Religious Commitment and Interpersonal Religious Commitment), the full RCI-10 is used in the present study. The RCI-10 is calculated by taking the sum of the ten items. Scores range from 10 to 50, with higher scores on the RCI indicating greater religiosity.

The psychometric data for the RCI-10 were established from six samples, including undergraduates of various religious backgrounds; Christian, church-attending married adults; and clients and counselors from secular and religious counseling groups (Worthington et al., 2003). These studies consistently found strong evidence for internal consistency reliability ( $\alpha = .88 - .98$ ), three-week test-retest reliability ( $r = .87$ ), and five-month test-retest reliability ( $r = .84$ ), as well as construct and criterion validity using various measures of religiosity and spirituality. The present study used RCI data collected from 75 parents at Time 1.

**Parental rejection.** The Perceived Parental Reaction Scales measures parent rejection from both youth and parent report (PPRS; Willoughby, Malik, & Lindahl, 2006). This 32-item scale assesses current parent acceptance and rejection regarding youth sexual orientation (see Appendix D). The original version of the PPRS was created to assess youth’s perspective of their parents’ acceptance and rejection. Youth completed



this measure for up to two parents to whom they have disclosed their sexual orientation. A parent version of the PPRS was created for the purpose of this project; the items on this version are identical to the PPRS youth version but are reworded to take the parent's perspective. On both versions, participants are presented with a list of statements regarding how the parent currently feels about the youth's sexuality. Participants rate their agreement of each statement using a 5-point Likert scale: 1 = "Strongly Disagree," 2 = "Disagree," 3 = "Neutral," 4 = "Agree," and 5 = "Strongly Agree." The final score is calculated by taking the sum of the 32 items. Scores range from 32 to 160, with higher scores indicating more negative parent reactions. Willoughby et al. (2006) found strong evidence for internal consistency reliability using youth report of both mothers and fathers ( $\alpha = .97$ ), as well as for two-week test-retest reliability using youth report of both mothers and fathers ( $r = .95 - .97$ ). To measure cumulative parental rejection, participating parent report of their own rejection, and youth reports of rejection from both parents, were included. The present study examined PPRS data collected from 110 youth and 59 parents at Time 2.

#### **Youth maladjustment.**

***Internalizing mental health problems.*** The Behavior Assessment System for Children, Second Edition (BASC-2) measures youth functioning (Reynolds & Kamphaus, 2004; see Appendix E and Appendix F). Specifically, the Internalizing Problems Composite is used from both youth report (Self-Report Adolescent; 61 items) and parent report (Parent Rating Scales-Adolescent; 35 items). On the Self-Report Adolescent (SRP-A) version, the Internalizing Problems Composite is calculated using scores from seven scales: the Atypicality scale (9 items), the Locus of Control scale (9

items), the Social Stress scale (10 items), the Anxiety scale (13 items), the Depression scale (12 items), the Sense of Inadequacy scale (10 items), and the Somatization scale (7 items). On the Parent Rating Scales-Adolescent (PRS-A) version, the Internalizing Problems Composite is calculated using scores from three scales: the Anxiety scale (11 items), the Depression scale (13 items), and the Somatization scale (11 items). Hence, the composite consists of 61 items from the SRP-A and 35 items from the PRS-A.

Items on the SRP-A use either a true (0) or false (2) scale, or a 0-3 scale, where 0 is “never,” 1 is “sometimes,” 2 is “often,” and 3 is “almost always.” All items on the PRS-A use the 0-3 scale. Raw subscale scores are calculated by totaling the number of points earned for each question in the scale. Raw scores are then converted to T-scores (with a mean of 50, and a standard deviation of 15), and higher T-scores mean greater levels of difficulty. The Internalizing Problems Composite is calculated by summing the T-scores of the subscales comprising the composite, and converting to new T-scores. These conversions are based on normative data from 1,900 adolescents and young adults, and 1,800 parents (Reynolds & Kamphaus, 2004). The Internalizing Problems Composite was found to very high internal reliability across age groups on both the youth report ( $\alpha = .95 - .96$ ) and the parent report ( $\alpha = .90 - .93$ ). Test-retest reliability was also very high for both the youth report ( $\alpha = .81$ ) and the parent report ( $\alpha = .92$ ).

These samples are separated into an age 12–18 comparison group, and an age 19–21 comparison group. Because youth ages 22–26 were not included in the normative sample, youth in this age range in the present study will be compared to the age 19–21 group. The present study examined BASC-2 data collected from 139 youth and 69 parents at Time 3.

**Gay-related stress.** Youth maladjustment was also assessed using the Sexual Orientation Conflict scale and the Violence/Harassment scale from the Measure of Gay-Related Stress (MOGS; Lewis, Derlega, Berndt, Morris, & Rose, 2001). The MOGS is a self-report measure in which participants are presented with a list of stressors related to being a sexual minority. Participants are then asked to rate the stressfulness of those that have occurred for them in the past year. For the purpose of this study, participants were instead asked to rate the items that have occurred for them during the past six months, as the MOGS was completed in six-month intervals across the four time points. A 5-point Likert scale is used to rate items, where 0 is “not at all stressful,” 1 is “a little stressful,” 2 is “somewhat stressful,” 3 is “moderately stressful,” and 4 is “extremely stressful.” For each subscale, a severity score is calculated by averaging the responses endorsed items. Hence, scores range from 0 to 4, and higher scores indicate greater stressfulness.

Items on the MOGS were first generated from responses to a qualitative survey from a sample of 33 gay men and lesbians, regarding sources of stress associated with their sexual orientation (Morris, Lewis, & Derlega, 1993). The stressors that emerged included rejection by loved ones, discrimination, harassment and assault, concealment of sexual orientation, sexual orientation conflict, and concerns with HIV/AIDS. These items were then administered to a sample of 979 gay and lesbian participants (ages 15-66), and a confirmatory factor analysis was conducted (Lewis et al., 2001). A ten-factor model was determined, accounting for 63.5% of the variance, and remained stable for both lesbians and gay men. Cronbach’s alpha for each factor indicated moderate to high internal consistency reliability, ranging from .72 to .90 (Lewis et al., 2001). High scores on the MOGS have been found to predict dysphoria and depressive symptoms (Lewis et

al., 2001). For the present study, the Sexual Orientation Conflict scale and the Violence/Harassment scale were used to measure youth maladjustment, using data from Time 3. The Sexual Orientation Conflict scale assesses stress related to shame, guilt, and negative self-evaluation regarding one's sexual orientation, and the Violence/Harassment assesses stress related to the threat of physical or verbal victimization (see Appendix H). One hundred thirty-five youth completed the Violence/Harassment scale at Time 3 and 134 youth completed the Sexual Orientation Conflict scale at Time 3.

***Alcohol and drug use.*** Severity of alcohol and drug use was assessed using a scale from the Personal Experience Screening Questionnaire (PESQ; Winters, 1992; see Appendix G). The entire PESQ consists of 40 items, which constitute three scales (Problem Severity, Psychosocial Items, and Drug Use History), as well as a “faking-good” scale and a “faking-bad” scale. The Problem Severity scale was used for this study, assessing severity of drug and alcohol use by examining how often a respondent purchases, sells, and uses substances in various locations, as well as the frequency of other negative substance-related events. All items on this scale use a four-point metric: 1 = “Never,” 2 = “Once or twice,” 3 = “Sometimes,” and 4 = “Often.” The scale is calculated by taking the sum of the eighteen items. Scores range from 15 to 72, with higher scores indicating greater drug and alcohol problem severity. The PESQ Problem Severity Scale was found to have high internal consistency reliability ( $\alpha = .91$ ; Winters, 1992). The PESQ has been validated on a sample of 501 gay and bisexual young men (ages 13-21), as moderate to high correlations were found between the PESQ and four other measures of substance use severity (Winters et al., 1996). The authors also found evidence for satisfactory internal consistency reliability using this population ( $\alpha = .92$  –

.95 across demographic groups). The present study used PESQ data collected from 170 youth at Time 1 and 134 youth at Time 3.

**Youth spirituality.** Youth spirituality was measured on three scales from the Religious, Spiritual, and Sexual Identities Questionnaire (RSSIQ; Page et al., 2013; see Appendix I). The Spiritual Participation Scale consists of two items that are rated on a five-point Likert scale, and assesses the frequency of participation in religious activities (e.g., attending church) and of private spiritual practices (e.g. prayer, meditation). Participants are given eight possible responses, which are then recoded on a five-point Likert scale: 1 = “Almost never”; 2 = “Only what I was facing a problem,” or “Only for special occasions”; 3 = “About once or twice a month”; 4 = “Usually once a week”; and 5 = “Usually multiple times a week,” or “Daily.” The score on the scale is calculated by taking the mean of the two items. Hence, scores range from 1 to 5, with higher scores indicating more frequent participation in spiritual activities. Preliminary analyses from Time 1 youth responses ( $n = 161$ ) indicated that these two items were moderately correlated ( $r = .51, p < .001$ ).

The Spiritual Importance Scale consists of six items that are rated on a five-point Likert scale, which assess the importance of religion and spirituality and the use of religion and spirituality in coping. The items consist of statements with which participants rate their agreement: 1 = “Strongly Disagree,” 2 = “Somewhat Disagree,” 3 = “Undecided,” 4 = “Somewhat Agree,” and 5 = “Strongly Agree.” The score on the scale is calculated by taking the mean of the six items. Hence, scores range from 1 to 5, with higher scores indicating greater religious importance. Participants who respond that they do not have a religion, or do not participate in private spiritual practices, are given a 1 for

that item, in order to indicate low level of religious importance. Preliminary analyses from Time 1 youth responses ( $n = 161$ ) indicated that the six-item scale has good reliability ( $\alpha = .93$ ).

The General Spiritual Attitudes Scale consists of three items that are rated on a five-point Likert scale, assessing positivity of attitude toward religion and spirituality. Participants are asked to rate the three items regarding their level of agreement: 1 = “Almost never”; 2 = “Only what I was facing a problem,” or “Only for special occasions”; 3 = “About once or twice a month”; 4 = “Usually once a week”; and 5 = “Usually multiple times a week,” or “Daily.” The score on the scale is calculated by taking the mean of the three items. Hence, scores range from 1 to 5, with higher scores indicating more positive attitudes toward religion and spirituality. Preliminary analyses from Time 1 youth responses ( $n = 161$ ) indicated that the three-item scale also has good reliability ( $\alpha = .93$ ). The present study used the RSSIQ data from Time 3.

### **Analytic Plan**

#### **Preliminary Analyses**

Internal consistency was be verified for all measures. Descriptive statistics was calculated for demographic variables (age, ethnicity, gender, and sexual orientation) for youth and parents, as well as study variables. Preliminary analyses were conducted to assess the relationship between these demographic variables and endogenous variables (measures of parent rejection, internalizing problems, substance use, violence/harassment, and youth spirituality). Significant correlations between demographic variables and outcome variables were included in the tested model, to control for these relationships.

In order to address Aim #1, regarding establishing the psychometric properties of the Spiritual Participation scale, the Spiritual Importance scale, and the General Spiritual Attitude scale, a confirmatory factor analysis (CFA) was conducted using the eleven items from the three scales, using Mplus (Muthén & Muthén, 2012). Internal consistency was verified using data from the third time point.

In order to address Aims #2, #3, and #4, structural equation modeling (SEM) was used to examine the proposed model (see Figure 1), which examines the relations among parent homonegativity and religiosity, parental rejection, and youth maladjustment and spirituality. Analyses were conducted in Mplus (Muthén & Muthén, 2012). Full information maximum likelihood (FIML) estimation methods were used to handle missing data. To evaluate model fit, the chi-square goodness of fit index, the comparative fit index (CFI; Bentler, 1990), the root mean square error of approximation (RMSEA; Steiger, 1990), and the standardized root mean square residual (SRMR) were used. Power analyses to evaluate the power to detect hypothesized effects were conducted.

A CFA was used to examine the measurement model of latent variables. This model included parent rejection, measured by youth and parent reports of perceived parental rejection; youth maladjustment, measured by youth and parents reports of internalizing problems, substance use, and violence/harassment; and youth spirituality, measured by youth religious importance and youth general religious attitude. The metrics for parent rejection, youth maladjustment, and youth spirituality were set using youth perception of parental rejection, youth report of internalizing problems, and youth spiritual participation, respectively.

In the structural model, parent homonegativity and parent religiosity were measured at Time 1. Parent rejection was measured at Time 2, controlling for parent rejection at Time 1. Youth maladjustment and youth spirituality were measured at Time 3, controlling for youth maladjustment and youth spirituality at Time 1. Appropriate demographic correlates were included in the model. Indicator loadings were examined to determine if the selected scales were appropriate and significant representations of latent variables. Path coefficients between latent variables were also tested for significance using SEM. Model fit was then examined, using the model fit indices to guide adjustments made to the model to improve fit. With regard to Aim #5, the statistical significance of the indirect effects of parent predictors (homonegativity and religiosity) on youth outcomes (maladjustment and spirituality) through parent rejection were examined within SEM.



## Chapter 3: Results

### Preliminary Analyses

**Demographic analyses.** The final sample of youth consisted of 171 adolescents and young adults. Thirty-one percent of the youth sample identified as a lesbian, 48% identified as a gay male, 14% identified as a bisexual female, and 8% identified as a bisexual male, with a total of 56% identifying as male and 79% identifying as gay/lesbian. The youth participants ranged in age from 14 to 26, with a mean age of 19.5 (SD = 2.64). Thirty-nine percent of the youth identified as Non-Hispanic White, 37% identified as Hispanic/Latino, and 22% identified as Black. The remaining 1% (two youth participants) identified as having multiple ethnic identities. Of the 171 youth participants, 54% (93 youth) had a parent participate at least once during the study. Of these 93 parents, 82% were mothers and 18% were fathers. The age of the parents ranged from 32 to 70, with a mean age of 48.1 (SD = 6.89). Forty-three percent of the parents identified as Non-Hispanic White, 32% identified as Hispanic/Latino, and 25% identified as Black. Sixty-eight percent of parents identified as Christian, 10% identified as Jewish, 14% identified with a different religion, and 8% reported having no religion. Annual family income was estimated using primarily open-ended parent report, and supplemented with youth report when missing. Using this methods, estimated annual income was available for 63% of participants. The remaining 37% left the item blank or reported that they were unsure. Annual family income estimates ranged from \$1,000 to \$240,000, with a mean of \$71,538 (SD = 49,736.64). The elapsed time since youth disclosed their sexual orientation to their parent was also estimated by taking the mean of

parent and youth reports. This estimate of time since disclosure ranged from 0 years to 11 years, with a mean of 3.45 years (SD = 2.40).

Of the 171 youth who participated at Time 1, 78% (133 youth) participated at the Time 2, and 82% (140 youth) participated at the Time 3. Seventy-three percent (124 youth) participated at all three time points. Of the 93 parents who participated at least once, 83% (77 parents) participated at Time 1, 67% (62 parents) participated at Time 2, and 75% (70 parents) participated at Time 3. Forty-six percent (43 parents) participated at all three time points.

The means, standard deviations, Cronbach's alphas, minimums, and maximums of observed variables at the time points used in the model are reported in Table 1. In order to examine whether the sample differed by youth or parent gender, youth or parent ethnicity, youth sexual orientation, or parent religion on any of the dependent variables of interest, two one-way MANOVAs were conducted. The first of the two MANOVAs comprised all youth-report dependent variables, including the youth PPRS for participant and non-participating parents, the youth BASC internalizing composite, the MOGS sexual orientation conflict scale, the MOGS violence/harassment scale, the PESQ, and three RSSIQ scales. The second of the two MANOVAs comprised the two parent-report dependent variables (the PPRS parent report, and the Parent BASC Internalizing Symptoms composite). Results are reported in Table 3. Statistically significant group differences were found for youth gender among youth dependent variables, and for both youth and parent ethnicity among youth and parent dependent variables. No group differences were found for youth sexual orientation, parent gender, or parent religion regarding any dependent variable.

To follow up with significant group differences, ANOVAs were conducted for youth gender, youth ethnicity, and parent ethnicity to identify which dependent variables were different across these groups. For youth and parent ethnicity, post-hoc comparisons were conducted for significant ANOVAs using Bonferroni corrections, to determine which ethnic groups (Hispanic, Black, or White) had significant differences on dependent variables. Results are reported in Table 4. Male youths reported more stress from victimization and more severe substance use than did females. Regarding ethnicity, Black and Hispanic youth and parents generally reported greater rejection than White youth and parents for all three parent rejection variables (youth report of participating parents, youth report of non-participating parents, and parent self-report). Hispanic youth and parents also reported more severe youth substance use than did Black and White youth and parents. Finally, youth with a Black participating parent reported that their spirituality was more important to them than youth with a White participating parent.

In addition to the above demographic analyses, bivariate Pearson's  $r$  correlations between youth age, parent age, annual family income, time since disclosure, and the dependent variables were also examined for significance. The analyses revealed significant bivariate correlations between youth age and youth-reported internalizing symptoms ( $r = -.17, p = .044$ ), and between parent age and youth-reported non-participating parent rejection ( $r = -.40, p = .002$ ). Time since disclosure was also significantly correlated with youth report of parent rejection from the participating parent ( $r = -.21, p = .027$ ). No other significant correlations were found.

**Missing data.** As 46% of youth participated in this study without a participating parent, several  $t$ -tests were conducted to evaluate whether these missing data were

missing at random. To investigate whether parent rejection predicted parent participation, the mean was taken of all reports of parent rejection (both youth reports and parent report) at Time 1. A *t*-test was conducted comparing this pooled parent rejection mean between youth with a participating parent ( $M = 71.90, SD = 30.58$ ) and youth without a participating parent ( $M = 62.48, SD = 26.85$ ). Results indicated that the mean difference was not significant,  $t(123.92) = 1.94, p = .055$ . Similarly, mean differences between the two groups were examined with *t*-tests and found statistically non-significant for youth measures of gay-related stress related to family visibility ( $t(145.18) = -.20, p = .843$ ), gay-related stress related to family reactions ( $t(149.85) = -.98, p = .330$ ), time since first sexual orientation disclosure ( $t(115.02) = 1.80, p = .074$ ), identity confusion ( $t(148.00) = -.77, p = .442$ ), and internalized homonegativity ( $t(157.09) = -.11, p = .913$ ).

**Power analysis.** A power analysis was conducted to estimate the power available to detect significant results in the model (Soper, 2013; Westland, 2010). The analysis was conducted with  $\alpha = .05$ , and three latent variables measured by ten total observed variables. Results indicated that, to obtain statistical power at the recommended .80 level (Cohen, 1988), a sample of approximately  $N = 156$  would be required to detect a medium effect ( $r = .3$ ) and a sample of approximately  $N = 290$  would be needed to detect a small effect ( $r = .1$ ).

### Hypothesis Testing

To investigate the main project aims, a series of analyses were conducted in SEM using MPlus (Muthén & Muthén, 2013). In these analyses, the following fit indices were used to assess model fit: the chi-square goodness of fit index (lower values indicate better fit), the comparative fit index (CFI; values greater than .90 indicate acceptable fit);

Bentler, 1990), the Tucker-Lewis Index (TLI; also known as the non-normed fit index; values greater than .90 indicate acceptable fit; Tucker & Lewis, 1973), the root mean square error of approximation (RMSEA; values below .08 indicate acceptable fit; Hu & Bentler, 1999), and the standardized root mean square residual (SRMR; values less than .08 indicate acceptable fit; Hu & Bentler, 1999).

**Youth spirituality measure.** The first aim of this project was to examine the psychometric properties of the three spirituality scales from the RSSIQ (see Appendix I) developed for this study. In order to do so, a confirmatory factor analysis (CFA) was conducted in SEM using MPlus (Muthén & Muthén, 2013). At Time 3, a total of 134 participants completed these items. Three latent variables were constructed: spiritual participation (items 47 and 48), spiritual importance (items 50, 51, 53, 54, 58 and 59), and general spiritual attitude (items 52, 55, and 60). Results indicated generally acceptable to good model fit:  $\chi^2(35) = 131.58, p < .05$ , CFI = .94, TLI = .91, RMSEA = .136, SRMR = .065. All item loadings were moderate to large and significant at the  $\alpha = .001$  level. The CFA results are depicted in Figure 2.

Cronbach's alphas were calculated for each scale, in order to examine internal consistency reliability at the 18-month time-point. The two items on the Spiritual Participation Scale were found to be moderately correlated ( $r = .62, p < .001$ ), and this scale had acceptable internal consistency ( $\alpha = .74$ ). The Spiritual Importance scale was found to have excellent internal consistency at Time 3 ( $\alpha = .94$ ). The General Spiritual Attitude scale was found to have good internal consistency at Time 3 ( $\alpha = .87$ ). These results were comparable to internal consistency estimates using Time 1 data.

Overall, the results of the CFA and the internal consistency analyses indicated adequate fit for a three-factor model of the eleven items and favorable internal reliability for each scale. The data generally supported the use of the eleven items to measure three factors among LGB youth samples.

**Measurement model.** Aims #2 through #5 were to examine direct and indirect relationships between homonegativity and parent religiosity, parent rejection, and youth outcomes. To test these aims, the proposed structural model (see Figure 1) was examined in SEM, using MPlus (Muthén & Muthén, 2013). To begin, a CFA was conducted to examine the measurement model of the three latent variables (parent rejection, youth maladjustment, and youth spirituality). Parent rejection was measured by three observed variables: PPRS youth report of participating parent's rejection, PPRS youth report of non-participating parent's rejection, and PPRS participating parent self-report of rejection. Youth maladjustment was measured by five observed variables: the BASC internalizing symptoms composite, youth report; the BASC internalizing symptoms composite, parent report; the MOGS sexual orientation conflict scale, the MOGS violence/harassment scale; and the PESQ problem severity scale (i.e., severity of drug/alcohol use). Youth spirituality was measured by the three RSSIQ scales: the spiritual importance scale, the spiritual participation scale, and the general spiritual attitudes scale. The PPRS youth report of participating parent, the BASC youth report of internalizing symptoms, and the spiritual importance scale were used to set the metric for the parent rejection, youth maladjustment, and youth spirituality latent variables, respectively.

Results of the CFA revealed that all observed variables were significant indicators of their respective latent variables at the  $\alpha \leq .01$  level, with the exception of the PESQ scale. This loading for this measure of drug and alcohol use severity on youth maladjustment was not significant,  $\beta = .02, p = .858$ . The PESQ was consequentially removed as an indicator of youth maladjustment (although retained in the structural model as an outcome variable). A second CFA was conducted without the inclusion of the PESQ. Results revealed that all remaining observed variables were significant indicators at the  $\alpha \leq .00$  level. Measures of model fit indicated generally good model fit:  $\chi^2(29) = 43.94, p = .04, CFI = 0.96, TLI = 0.94, RMSEA = .06, SRMR = .08$ . The resulting measurement model is depicted in Figure 3.

**Structural model.** Before evaluating aims #2, #3, and #4, investigating predictors and outcomes related to parent rejection, the proposed model was evaluated in SEM for model fit (see Figure 1).

**Model modifications.** The proposed model was modified based on the measurement model CFA results. Specifically, the PESQ (drug/alcohol use severity) was removed as an indicator of youth maladjustment, but retained in the model as a unique outcome. Additionally, direct paths from the Time 1 predictors (parent homonegativity and parent religiosity) to Time 3 outcomes (youth maladjustment, youth spirituality, and drug/alcohol use severity) were included in order to maximize model fit. Significant relationships between endogenous study variables and demographic variables were also included in the tested model. Specifically, the correlations between youth ethnicity and youth report of participating parent rejection, youth ethnicity and drug/alcohol use severity, and youth age and youth report of internalizing symptoms were included in the

model to control for these relationships. Other relationships between demographic variables and study variables that were identified as significant in preliminary analyses were not significant when included in the structural model, and were subsequently removed to maximize model fit and parsimony. Finally, the error variances of the two measures of gay-related stress domains, stress from sexual orientation conflict and stress from violence/harassment, were correlated in order to account for the shared variance associated with the MOGS and with the construct of gay-related stress.

The resulting structural model was evaluated, and revealed a standardized path coefficient of  $\beta = 1.25$  ( $p < .001$ ) between parent rejection and youth maladjustment. While standardized values greater than 1.0 may be valid, these findings may indicate problems in the model, such as improper model specification or constraints, sampling fluctuations, or multicollinearity in the data (Jöreskog, 1999; Newsom, 2012). To further evaluate this relationship, separate structural models were evaluated with each youth maladjustment indicator entered in place of the youth maladjustment latent variable. Results indicated that this path coefficient dropped to  $\beta = .81$  ( $p = .001$ ) when predicting youth self-report of internalizing symptoms,  $\beta = .71$  ( $p = .002$ ) when predicting youth stress from sexual orientation conflict, and  $\beta = .30$  ( $p > .05$ ) when predicting stress from violence/harassment. However, when predicting parent report of youth internalizing symptoms, the path coefficient was quite large,  $\beta = .96$  ( $p < .001$ ). Because this unusually high path coefficient estimate was found when examining parent report only, the parent report of youth internalizing symptoms was removed from the model, as the estimates may be biased by shared method variance from parent report. The remaining outcome variables were based on youth report. Removing the parent BASC measure did



not substantially affect the loadings or fit of the final measurement model, which is depicted in Figure 4.

***Evaluation of longitudinal change.*** To examine longitudinal change in endogenous variables from Time 1, the relationship between parent rejection at Time 1 and Time 2, the relationship between youth maladjustment at Time 1 and Time 3, the relationship between youth spirituality at Time 1 and Time 3, and the relationship between drug/alcohol use severity at Time 1 and Time 3 were entered into the model individually. Controlling for Time 1 latent variables for parent rejection, youth maladjustment, and youth spirituality each yielded a latent variable covariance matrix that was not positive definite. These results are problematic in that they may reflect a linear dependency among latent variables, and likely indicate that the model was not powerful enough to detect significant change in these latent variables. However, this problem did not arise when including drug/alcohol use severity at Time 1 as a control variable. Hence, the relationship between drug/alcohol use severity at Time 1 and Time 3 was retained.

***Model trimming.*** The subsequent model had good to acceptable fit by most fit indices,  $\chi^2(58) = 100.36, p = .001, CFI = 0.91, TLI = 0.87, RMSEA = .07, SRMR = .08$ . In order to maximize model parsimony, insignificant paths were individually removed. Specifically, the direct path from parent homonegativity to youth maladjustment, the direct path from parent religiosity to youth maladjustment, the correlation between youth spirituality and youth maladjustment, and the correlation between youth maladjustment and drug/alcohol use severity (Time 3) were not significant at the  $\alpha = .10$  level, and subsequently removed from the model. Although the direct path between parent

religiosity and youth spirituality was also not statistically significant, this path was retained in the model, to control for this well-established link between parent and youth religiosity (Arnett & Jensen, 2002; Petts, 2009).

**Final model.** The final model is presented in Figure 5, and parameter estimates are presented in Table 5 and Table 6. The final model indicated acceptable fit by most fit indices:  $\chi^2(72) = 115.85, p = .001, CFI = 0.91, TLI = 0.88, RMSEA = .06, SRMR = .07$ . All observed variable factor loadings maintained significance. Aside from the direct path from parent religiosity to youth spirituality, the remaining path coefficients were either significant ( $p \leq .05$ ) or trends ( $p \leq .10$ ). Specifically, the path from parent religiosity to parent rejection ( $\beta = .31, p = .060$ ), the path from parent religiosity to drug/alcohol use severity ( $\beta = -.15, p = .085$ ), and the path from parent rejection to youth spirituality ( $\beta = -.03, p = .09$ ) approached statistical significance. The final model accounted for 72% of the variance in parent rejection, 19% of the variance in youth maladjustment, 9% of the variance in youth spirituality, and 56% of the variance in drug/alcohol use severity (Time 3).

**Evaluating Aim #2.** Overall, the final model generally supported study hypotheses regarding direct effects. The second aim of the study was to examine parent religiosity and parent homonegativity as predictors of parent rejection of sexual minority youth. While longitudinal effects were not found when controlling for parent rejection at Time 1, results revealed a significant relationship in the expected direction between parent homonegativity at Time 1 and parent rejection at Time 2. Additionally, the relationship between parent religiosity at Time 1 and parent rejection at Time 2

approached significance in the expected direction. These results are consistent with the hypothesis that parent homonegativity and religiosity would predict parent rejection.

***Evaluating Aim #3.*** The third aim of the study was to examine parent rejection as a predictor of youth maladjustment (i.e., internalizing problems, sexual orientation conflict, and distress from victimization) and substance use. Again, longitudinal effects were not indicated for youth maladjustment outcomes when controlling for this latent variable at Time 1. However, parent rejection at Time 2 was found to significantly predict change in youth substance use over time in the expected direction. Additionally, parent rejection at Time 2 was directly related to poorer youth functioning at Time 3, as measured by youth internalizing problems, sexual orientation conflict, and victimization stress. These findings are consistent with the hypothesis that higher levels of parent rejection would predict more problems in youth functioning.

***Evaluating Aim #4.*** The fourth aim of the study was to examine the effect of parent rejection on youth spirituality. While the data did not support a longitudinal effect when controlling for youth spirituality at Time 1, the inverse relationship between parent rejection at Time 2 and youth spirituality at Time 3 approached significance. This finding was consistent with the hypothesis that parent rejection would negatively predict youth spirituality.

***Evaluating Aim #5.*** Indirect effects were examined to evaluate Aim #5, which was to determine if parent rejection mediates the relationships between the predictors (parent homonegativity and parent religiosity) and the outcomes (youth maladjustment, substance use severity, and youth spirituality). Results indicated a significant indirect effect from parent homonegativity to youth maladjustment through parent rejection ( $\beta =$

.33,  $SE = .10$ ,  $p = .001$ ), as well as an indirect effect approaching significance from parent religiosity to youth maladjustment through parent rejection ( $\beta = .08$ ,  $SE = .05$ ,  $p = .094$ ). A significant indirect effect was also found from parent homonegativity to drug/alcohol use severity through parent rejection ( $\beta = .40$ ,  $SE = .16$ ,  $p = .015$ ). No other indirect effects achieved statistical significance. Unstandardized and standardized estimates of indirect effects are presented in Table 6. These results are consistent with the hypothesis that parent rejection would mediate the relationship between parent homonegativity and youth maladjustment, and between parent religiosity and youth maladjustment. However, the data did not support the mediation hypothesis regarding youth substance use and spirituality.

## Chapter 4: Discussion

For sexual minority youth, the act of coming out to parents is a highly significant life event (Savin-Williams, 1998). Unfortunately, negative parental reactions are common, and sexual orientation disclosure at its worst can be stressful and dangerous (Armesto & Weisman, 2001; D'Augelli, 2002; Maguen et al., 2002). Despite the significance of parent reactions following sexual orientation disclosure, relatively little is known in the research literature about predictors and outcomes related to parent rejection (Savin-Williams & Dubé, 1998). While family stress theory and parental acceptance-rejection theory provide a conceptual framework for understanding parent reactions to LGB youth, the literature is limited by several factors: poor measurement of key constructs such as homonegativity, religiosity/spirituality, and parent rejection; a lack of longitudinal data; a reliance on retrospective reports; and limited data from parents of LGB youth, with most studies involving LGB adults reporting about their parents (Bouris et al., 2010; Rostosky et al., 2008; Ryan et al., 2009).

The present study is the first to examine longitudinal predictors and outcomes related to parent rejection of LGB youth while incorporating both youth and parent perspectives. It is among the first to measure parent attitudes toward homosexuality and rejection of their LGB child, using validated, multi-item measures. Additionally, this study developed a multi-dimensional measure that assesses three aspects of spirituality for LGB youth. Results of the study generally found the measure of youth spirituality to be reliable and valid. Additionally, parent homonegativity and religiosity were found to be longitudinal predictors of parent rejection, and in turn, youth psychological maladjustment and youth spirituality.

### **Establishing a Measure of Youth Spirituality**

The first aim of the project was to establish a multi-dimensional measure of spirituality that was suitable for sexual minority youth. Previously established measures of religiosity or spirituality often relied on single items, in which participants were typically asked to either rate their spirituality on a scale or describe the frequency of their church attendance (Good & Willoughby, 2006; Rosario et al., 2006). Other available measures of spirituality are limited in that they reflect religious ideas that may not generalize across all types of faith, utilizing concepts in measure items that are specific to only some religious denominations (see Rostosky et al., 2008). To date, a measure of youth spirituality that encompasses broad aspects of religious and spiritual constructs has been unavailable.

Religiosity and spirituality are complex constructs, and consensus is lacking on how to operationalize them. For example, while many researchers distinguish between *religiosity* and *spirituality*, others merge the two concepts. While these constructs are highly related, religiosity refers to the institutional and organizational aspects of faith, while the definition of spirituality relates to more personal and internal faith variables (Cotton et al., 2006). Other theorists have made a distinction between *proximal* and *distal* religiosity/spirituality, the former measuring more outward expressions of faith such as church attendance and the latter reflecting more inward aspects such as using faith to cope with stressful life events or to find comfort and solace (Cotton et al., 2006; Pargament, Tarakeshwar, Ellison, & Wulff, 2001). Although these dimensions are inconsistently measured in the literature, studies have supported the psychosocial benefits of proximal and distal religiosity and spirituality (Cotton et al., 2006; Good &

Willoughby, 2006; Good, Willoughby, & Fritjers, 2009; Halkitis et al., 2009).

The present study offers validation of an eleven-item measure (the RSSIQ) that assesses three key dimensions of religiosity and spirituality: the importance of spiritual beliefs and activities in a young person's life (the Spiritual Importance scale), the frequency with which youth participate in religious or spiritual activities (the Spiritual Participation scale), and whether the youth views religion and spirituality positively in general (the General Spiritual Attitudes scale). Additionally, the items assess importance, participation, and attitudes related to both religious involvement and spiritual beliefs. Hence, the measure captures proximal and distal aspects of both spirituality and religiosity (Cotton et al., 2006). The three-factor solution for the CFA model using the eleven items from the scale indicated moderately good fit, offering support for conceptualizing the scales as unique. The three scales also had adequate internal consistency. As data from the current study provide support for the internal reliability and validity of the RSSIQ scales, this measure may be a promising option for researchers wishing to investigate spirituality and religiosity in youth samples.

The RSSIQ may be a particularly useful contribution to the literature when examining spirituality in sexual minority youth. Previous measures of religiosity focus on self-reported ratings of religiosity and frequency of church attendance, without capturing opinions about religion in general. Involvement in religion declines for the general population during adolescence and early adulthood (Smith, Denton, Faris, & Regnerus, 2002), making it difficult to gather an accurate understanding of spirituality for LGB youth using measures based solely on behaviors. It may be the case that attitudes about religion and spirituality provide a deeper insight into current spiritual identity, and

future spiritual involvement later in development. Notably, items measuring attitudes toward spirituality were negatively correlated with youth- and parent-reported internalizing problems as well as with gay-related distress, while correlations with spirituality importance and participation items were not significant. These findings suggest that there may be some aspect of having a positive attitude toward spirituality that is related to reduced mental health, sexual orientation conflict, and victimization stress, regardless of actual religious participation. This study provides impetus for further investigating these three aspects of spirituality among sexual minorities. The RSSIQ offers a way of measuring spirituality in youth that diversifies the operationalization of the construct beyond church attendance or a single item rating.

### **Predictors of Parent Rejection**

The second aim of this study was to evaluate *parent homonegativity* and *parent religiosity* as two unique predictors of parent rejection. While the model tested in this study was not able to detect change in levels of parent rejection over a six-month period, parent homonegativity significantly predicted parent rejection six months later, and parent religiosity approached significance in predicting parent rejection. The difference between the strength of these relationships is striking. Researchers often presume that religious parents are more homonegative and less accepting of homosexuality, and LGB youth may make similar assumptions when debating disclosing their sexual orientation to parents (Jordan & Deluty, 1998; Savin-Williams & Dubé, 1998; Schope, 2002). However, few empirical investigations have evaluated this hypothesis, and none have compared direct measures of parental religiosity and homonegativity concurrently (see Freedman, 2008; Newman & Muzzonigro, 1993). While parental homonegativity and



religiosity were strongly related in the present study, these data also suggest that the link between religiosity and rejection of LGB youth is at times overgeneralized. Although a large number of religions generate negative beliefs about sexual minorities, other religions preach tolerance and acceptance (Tan, 2005). Hence, assumptions that religious parents will have negative reactions to coming out may not always be valid. Results from this study support this assertion, as the measure of parent religiosity captures global commitment to religious practices without specifying to a particular set of beliefs or level of conservatism. While parent religiosity may play a role in determining a parent's reaction to their child's sexuality, the parent's beliefs and attitudes about homosexuality appear to more accurately predict parent rejection.

The present study illustrates the importance of collecting information directly from parents of LGB youth. Very few studies have examined parent attitudes and beliefs about homosexuality, and parent religiosity in the context of coming out to parents is similarly understudied. To date, most researchers have measured parent variables indirectly through youth report. This practice is problematic because children cannot be wholly accurate in estimating their parents' attitudes, including attitudes about homosexuality or religious beliefs (Bouris et al., 2010; Wittenborn, Dolbin-MacNab, & Keiley, 2013). The present data highlight the importance of directly capturing the parent perspective, as the combination of parents' self-reported homonegativity and religiosity accounted for almost three-quarters of the variance in parent rejection. Failing to include parent report makes it difficult to capture such a vital perspective on the coming out experience within the family. Without understanding parent perspectives, it is difficult to develop effective interventions for individuals struggling with being the parent of an

LGB child.

This study highlights the need to measure parent homonegativity and parent rejection as two independent constructs. Many studies in the current body of research cloud the distinction between internal parent attitudes and beliefs about homosexuality and outward expressions of acceptance and rejection toward LGB children. Many studies use single-item measures that collapse attitudes, supportiveness, and rejection into one question (D'Augelli, 2002; Floyd et al., 1999). Other studies have measured parental support and rejection more generally, and it is difficult to interpret these data because it is unclear if these studies examine rejection specifically related to sexuality (Espelage et al., 2008; Mustanski et al., 2011). The present study highlights the need for researchers to clarify which constructs they are measuring, as parent homonegativity and sexuality-specific parent rejection emerged as related but distinct constructs.

### **Parent Rejection as a Mediator**

**Youth functioning and substance abuse.** Data from the present study suggest that parent rejection puts youth at risk for experiencing subsequent internalizing problems, sexuality-based stress related to identity and victimization, and substance abuse. Further, these findings suggest that parent rejection may mediate the relationship between parent homonegativity and youth adjustment, both in terms of psychosocial functioning and substance use.

Although it might seem intuitive that rejecting statements or behaviors from a parent would be associated with maladjustment for youth, surprisingly few studies have directly tested this assumption with LGB youth. This study found a longitudinal link between parent rejection and youth maladjustment, incorporating data from both parent

and youth perspectives. Moreover, parent rejection, which has previously been measured inconsistently and often through single items, was defined using a validated, multi-item measure (Russel, 2006, Willoughby, Malik, & Lindahl, 2006). Consistent with parental acceptance-rejection theory, present findings highlight the importance of reducing the negativity of parental response following their child's coming out experience (Rohner, 2004; Rohner et al., 2005). The impact of parent rejection may be particularly significant for LGB youth, who may already be at risk for mental health difficulties (Fergusson et al., 2005; Mustanski et al., 2010).

Given that parent rejection had a strong impact on psychosocial functioning among this sample of late adolescents and emerging adults, these results highlight the continued importance of relationships with parents after childhood and during a vulnerable period in LGB youth development. Negative reactions from parents may be particularly salient during adolescence, because LGB youth are coming out on average between ages 15 and 17 (Stonewall, 2013; Williams, 2010). The effect of parent rejection on an LGB person's maladjustment appears to be salient into young adulthood, further emphasizing the importance of parental acceptance and support regardless of a youth's stage of development.

Results from the current study revealed a direct, negative link between parent homonegativity and subsequent substance use severity a year later, which was not predicted. It is important to recognize that the zero-order correlation between parent homonegativity at Time 1 and substance use at Time 3 was minimal and statistically non-significant, and that this counter-intuitive inverse relationship was evident only when parent rejection was included in the model. Moreover, the indirect effect from parent

homonegativity to substance use severity through parent rejection was statistically significant and in the expected direction ( $\beta = 0.24, p = .012$ ). In interpreting this finding, it is important to recognize that it is unlikely that parent homonegativity is contributing to a positive climate for LGB youth. The direct path in the final model is nonetheless difficult to interpret.

It may be the case that this inverse relationship represents the experience of parents who have negative attitudes and beliefs about homosexuality but refrain from reacting negatively toward their LGB child. Some parents may conceivably struggle internally with their feelings about their child's sexuality but, in lieu of rejecting their child, work hard to compensate for their beliefs in a way that is beneficial to youth. Parents who score high on homonegativity but prevent these attitudes from affecting their parenting behavior may be using positive parenting strategies. Alternatively, it may be the case that homonegative parents who do not score high on parent rejection experience more distance in their relationship with their child. These parents may withdraw from their LGB child, forcing them to become more reliant on friends and other sources of support that are more positive and accepting of their sexuality, which in turn could have a beneficial effect on substance use (Doty et al., 2010). Another possibility is that homonegative parents are also more moralistic or authoritarian, and this parenting style may have a unique protective effect for youth substance use when accounting for parent rejection. Whether this unexpected path is a statistical artifact or it validly represents a more complicated parenting scenario remains unclear.

**Youth spirituality.** Although the direct effect of parent rejection and the indirect effect of parent homonegativity on youth spirituality were not statistically significant,

these two path estimates indicated moderately strong trends. Although more data are needed to understand these effects, these findings may indicate that, with adequate sample size and power, greater parent rejection may predict diminished subsequent spirituality for LGB youth.

For adolescents in general, religious involvement and spiritual beliefs serve as protective resources in the face of depression, anxiety, substance use, and suicidality (Cotton et al., 2006; Rostosky et al., 2008). Among sexual minority samples, studies examining these links have been inconclusive (Rosario et al., 2006; Rostosky et al., 2006; 2007; Kipke et al., 2007). The current study found bivariate relationships between only some aspects of youth spirituality and psychosocial functioning. Presumably, the benefits of being involved in a spiritual community are dissolved when the religious environment sends negative messages concerning the youth's sexuality (Page et al., 2013). Although the indirect link between parent homonegativity and youth spirituality was only a trend in this study, it may be the case that experiencing homonegativity based on religion, perhaps via parent rejection, can push youth away from spirituality entirely. In other words, these messages may in essence rob youth of the opportunity to find supportive religious communities and develop spiritual beliefs that could help youth cope.

It is important for parents to recognize that rejecting their child's sexual orientation may have deleterious effects, not only on youth mental health and psychosocial functioning, but perhaps on their spirituality as well. When LGB individuals are faced with a conflict between their unchangeable identity and their spiritual system, the dissonance is ultimately resolvable through a change in environment

and beliefs, if a compromise cannot be achieved (Baumeister, Shaprio, & Tice, 1985). Refusing to accept and support an LGB child only adds to the conflict and, as parent acceptance-rejection theory might suggest, pushes the child away from the parents and their religious institution. For parents who are motivated to help maintain their child's spiritual identity, a more effective strategy may be to help their child find ways to reduce conflict between their sexuality and spirituality and to develop these identities harmoniously. Reducing parent rejection and enhancing acceptance may be one avenue to naturally support a child's mental health and well-being, and perhaps the child's spiritual development as well.

### **Limitations**

Several limitations to the present study are notable. A consistent limitation throughout research with LGB youth is that research samples of LGB youth may underrepresent youth who are less comfortable with their sexuality (Bhugra, 1997). LGB and "questioning" youth may experience very heterogeneous developmental processes in coming to terms with their sexuality. While some may become comfortable with their sexuality relatively quickly, other youth may struggle with their sexual orientation for years (Meyer, 2007; Mohr & Fassinger, 2000). It is unclear whether these two sets of youth differ in ways that may be related to study variables. Notably, youth in this study were required to identify as lesbian, gay, or bisexual. It is thus unclear if results from this study can generalize to youth who are not comfortable enough with their sexuality to adopt and express a sexual minority label, or to participate in a research study. This generalizability issue is highlighted in a growing body of literature indicating "mostly heterosexual" and "questioning" youth as a distinct group of sexual minorities that may

be at particular risk for mental health difficulties (Poteat, Aragon, Espelage, & Koenig, 2009; Savin-Williams & Vrangalova, 2013). Similarly, parents who opt to participate in a study about sexual minorities may reflect a population of parents who are generally more accepting and supportive of their LGB child. As youth and parent reports of parent homonegativity and rejection appeared somewhat low in this sample, it is unclear if the present sample is representative of the larger population of LGB youth and their parents. However, one might expect that the negative effects of parent rejection observed in the study would only be stronger with a greater sampling of youth and parents struggling with negative beliefs about homosexuality.

An additional limitation of this study was the apparent lack of power to detect significant change between time points for parent rejection, youth maladjustment, and youth spirituality. Controlling for these endogenous variables at Time 1 yielded errors in the model related to linear dependency, suggesting that there was not enough variability between Time 1 and subsequent time points for these variables. Because the final model did not include Time 1 controls for most dependent variables, the model path estimates may be biased (Selig & Preacher, 2009; Cole & Maxwell, 2003). A larger sample of youth and parents would have been ideal in order to provide enough power to detect change in endogenous variables over time.

To maximize power, youth without a participating parent were retained in the study and parent data were estimated with FIML, representing another limitation of this study. Attempts to predict parent participation to determine if these data were missing at random did not reveal any statistically significant predictors. However, mean difference in both parent rejection and time since first disclosure approached significance,

suggesting that there may have been factors related to parent acceptance and coming out that affected parent participation. While youth without participating parents could have been eliminated from the study, doing so would not have removed potential bias from the sample. Additionally, preliminary analyses of this study indicated that youth participants in this study came out to parents 3.5 years prior to participation, on average. Parental attitudes, family acceptance, and youth functioning may have changed drastically during this delay for some youth. If it is true that parents tend to become more accepting over time, capturing the experiences of these youth and parents more immediately following coming out might have revealed greater variability in the data and more power to detect relationships between variables. Future investigations should ideally attempt to capture perspectives from parents at all levels of parent rejection and more immediately following coming out.

### **Implications and Future Directions**

Results of this study have major clinical implications for professionals working with parents of LGB youth and parents. Parental rejection of the sexual orientation of their sons and daughters can have damaging effects on psychosocial outcomes and spirituality for LGB youth and may explain a significant proportion of variance in LGB youth maladjustment. Although it can be difficult for parents to sift through their complicated reactions to their child's sexuality and their religious and moral beliefs, recognizing the impact of their reaction on their child's well-being and the child's need for parental support may help to guide parents as they grow to accept their LGB son or daughter.



Future researchers may wish to explore relationships between variables that fell beyond the scope of this project. Data included in this study suggested possible ethnicity and SES differences in parent rejection that warrant further investigation. It may be the case that the coming out process and the road to parental acceptance is different between families of various cultures and income levels. These differences may in turn have important implication for interventions targeting family rejection of LGB youth. Additionally, the sexual minority or “queer” population is heterogeneous, and more research is needed to fully appreciate the unique experiences of subgroups among these youth. The family coming out experience for transgender youth, closeted youth, and questioning youth warrants empirical investigation. It may be important to better understand why some youth choose to come out to parents and some do not, and whether these various levels of sexual orientation visibility has an effect on outcomes.

While this study shines some light on the religious experience of LGB youth and their parents, much more work is needed to comprehend the meaning and importance of spirituality for these populations. From the parental perspective, homonegativity and religiosity will be interconnected for some but certainly not all parents and their lesbian, gay, or bisexual daughters and sons. How to reduce homonegativity and subsequent possible rejection for religious parents remains unclear, especially given the heterogeneity with which various religious perspectives view homosexuality. Accommodating and perhaps even incorporating religious beliefs into interventions for parents of LGB youth may be necessary to enable these clients to align with clinicians and to maximize their progress in treatment (Worthington, Hook, Davis, & McDaniel, 2011). Interventions to improve homonegative attitudes and beliefs may be particularly

effective. For example, Allport's (1954) contact theory, suggesting that intergroup contact can reduce prejudice, may be promising for strategies to reduce homonegativity in beliefs and behavior. Pettigrew (1998) recommends that this process entail learning about the "outgroup," introducing and repeating positive behaviors, introducing positive emotions about the contact, and reappraising of the "ingroup." For homonegative parents, interventions utilizing these strategies might incorporate psychoeducation about being a sexual minority and social injustice toward the queer community, getting to know LGB individuals, and exploring emotions tied to sexuality. A recent meta-analysis of studies examining intergroup contact theory found support for intergroup contact as a mean of reducing prejudice toward sexual minorities (Pettigrew, Tropp, Wagner, & Christ, 2011). In fact, the effects of intergroup contact on prejudice reduction appeared to be larger for sexual minorities than for outgroups based on physical disability, race/ethnicity, age, or mental disability or illness.

While homonegativity and religious intolerance may be slow to change, their effects on youth may be buffered by attempts to improve parent-child relationships through improved communication and greater parental acceptance and support. For parents who may not be ready to change their views on homosexuality, reducing outward expressions of homonegative attitudes for the sake of their child's well-being may be more feasible. Setting aside negative beliefs about homosexuality and showing love and support may take work and patience, but these efforts should ultimately improve their child's mental health, reduce sexuality-related distress, lessen risk for substance use, and perhaps create a more positive attitude toward spirituality for those who are religiously inclined.

Although it is important for parents to recognize that providing love, acceptance, and support for their LGB children is vital for their well-being, it is equally important for researchers to recognize the complexity of the coming out experience on behalf of the parents. While youth may have years to come to terms with their sexuality, parents may have more acute reactions if the revelation about their child is unsuspected. Due to the lack of research with parents of LGB youth, their personal experiences have yet to be explored empirically. Little is known about parents' fears, concerns, coping, and functioning following a child's sexual orientation disclosure. These factors may vary by culture, ethnicity, and religion in ways that have implications for parent and family interventions. It will be important to study these variables in conjunction with the LGB youth experience, in order to establish interventions that support well-being for all family members following sexual orientation disclosure.

Continued longitudinal research with sexual minorities is warranted, and it may be beneficial to follow LGB subjects from adolescence into adulthood. Future researchers may wish to consider comparing the impact of parent and peer relationships on LGB youth functioning across development. While parental rejection may have damaging effects for LGB adolescent and emerging adults, it remains unclear how family relationships may change over time, and how these dynamics affect functioning across development. Recent LGBTQ advocacy efforts have spread the message to sexual minority youth that "it gets better," presumably because youth will be able to become autonomous and liberated from intolerant family and school environments, and to seek out their own sources of support, as they get older (It Gets Better Project, 2013). Rejecting families may certainly become more accepting and supportive over time as

well. However, it is unknown if and how effects of parent rejection may last into adulthood, if there are subgroups for whom this is more likely, and what types of supports can help through the transition in ways that are sensitive to individual and group needs.

The trajectory of spirituality as LGB youth become adults is also unknown, and this question may warrant longitudinal investigation at different stages of development. While adolescents and emerging adults generally report a dip in spirituality, it is unclear if LGB individuals experience resurgence in their spiritual identities as adults, as is typical for general populations (Smith et al., 2002). Rejection from religious parents may even play a role in determining a child's spiritual trajectory. Future longitudinal studies should examine if spirituality increases again for some or all of these youth at a later time, using a greater time interval before follow-up assessment.

Numerous empirical questions concerning the experience of families of LGB youth remain unanswered. Nonetheless, it is evident that parent rejection can have deleterious effects on a young LGB person's psychosocial functioning, drug and alcohol habits, and spiritual identity. Moreover, researchers are beginning to recognize that despite intolerance and rejection, many LGB youth are incredibly resilient (Herrick et al., 2011; Herrick, Stall, Goldhammer, Egan, & Mayer, 2013). For example, some authors argue that a resilience-based framework, rather than a deficit-based approach, can be valuable in interrupting the effect of marginalization and homophobia on psychosocial functioning and subsequent sexual risk behavior (Herrick et al., 2011; 2013). Perhaps incorporating factors that enhance resiliency may have promising implications for research and clinical work with LGB individuals who are facing parent rejection (Harper,

Brodsky, & Bruce, 2012). It is important for LGB youth, their families, and professionals working with them to recognize that LGB youth can come through the self-acceptance process feeling empowered, proud, and happy with who they are (Harper et al., 2012). These same benefits may also exist for parents, who have their own acceptance and “coming out” process. Taking a positive approach that focuses on resilience and family strengths may be the most efficacious way to help parents overcome homonegativity and reduce rejection. Intervening in this way will ultimately support well-being for both LGB youth and their parents.

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Table 1

*Sample Size, Means, Standard Deviations, Cronbach's Alphas, and Minimum/Maximum of Study Observed Variables*

Observed Variable	<i>n</i>	Mean	Standard Deviation	$\alpha$	Minimum – Maximum
Parent Homonegativity (T1)	77	43.88	15.13	.91	25 – 96
Parent Religiosity (T1)	75	23.15	12.25	.95	10 – 50
Parental Rejection – Parent Report (T2)	59	51.22	22.19	.96	32 – 115
Parental Rejection – Youth Report, Participating Parent (T2)	110	58.30	27.37	.97	32 – 139
Parental Rejection – Youth Report, Non-Participating Parent (T2)	88	64.92	28.02	.97	32 – 153
Youth Internalizing Problems – Youth Report (T3)	139	46.67	10.93	.96	31 – 91
Youth Internalizing Problems – Parent Report (T3)	69	46.70	11.68	.97	32 – 86
Youth Sexual Orientation Conflict Stress (T3)	134	.49	.70	.80	0 – 4
Youth Violence/Harassment Stress (T3)	135	.46	.71	.90	0 – 3.43
Youth Substance Use Severity (T1)	170	30.05	10.50	.92	0 – 64
Youth Substance Use Severity (T3)	134	30.93	9.72	.91	18 – 62
Youth Spiritual Importance (T3)	133	2.51	1.42	.94	1 – 5
Youth Spiritual Participation (T3)	134	1.90	1.20	.74	1 – 5
Youth General Spiritual Attitude (T3)	133	3.80	1.04	.87	1 – 5

Table 2

*Correlations Between Indicator Variables*

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Parent Homonegativity	-	.37**	.58***	.54***	.75***	.01	.09	.23*	.21	-.05	.21 <sup>†</sup>	.12	.04
2. Parent Religiosity	.37**	-	.52*	.22	.47**	-.11	.12	.20	.22 <sup>†</sup>	-.04	.07	.19	.08
3. Parent Rejection – Youth Report (Participating Parent)	.58***	.52**	-	.61**	.72**	.20*	.37**	.18 <sup>†</sup>	.11	-.07	.05	.06	.20*
4. Parent Rejection – Youth Report (Non-Participating Parent)	.54***	.22	.61***	-	.65***	.21 <sup>†</sup>	.19	.19 <sup>†</sup>	.19 <sup>†</sup>	.01	.16	.19 <sup>†</sup>	.19 <sup>†</sup>
5. Parent Rejection – Parent Report	.75***	.47**	.72***	.65***	-	.21	.38**	.40**	.25 <sup>†</sup>	.05	.18	-.03	-.07
6. Internalizing Problems – Youth Report	.01	-.11	.20*	.21 <sup>†</sup>	.21	-	.50**	.40***	.27**	.07	-.01	.07	-.22*
7. Internalizing Problems – Parent Report	.09	.12	.37**	.19	.38**	.50***	-	.43**	.32*	-.04	-.06	-.20 <sup>†</sup>	-.30**
8. Stress from Sexual Orientation Conflict	.26*	.20	.18 <sup>†</sup>	.19 <sup>†</sup>	.40**	.40***	.43***	-	.59**	.02	-.03	-.01	-.30***
9. Stress from Violence/Harassment	.21	.22 <sup>†</sup>	.11	.19 <sup>†</sup>	.25 <sup>†</sup>	.27**	.32**	.59***	-	.02	.10	.09	-.21*
10. Substance Use	-.05	-.04	-.07	.01	.05	.07	-.04	.02	.02	-	.07		.03
11. Spiritual Importance	.21 <sup>†</sup>	.07	.05	.16	.18	-.01	-.06	-.03	.10	.07	-	.70***	.58***
12. Spiritual Participation	.12	.19	.06	.19 <sup>†</sup>	-.03	.07	-.20 <sup>†</sup>	-.01	.09	.04	.70***	-	.44***
13. General Spiritual Attitude	.04	.08	.20*	.19 <sup>†</sup>	-.07	-.22*	-.30**	-.30***	-.21*	.03	.58***	.44***	-

Note. Variables 1 & 2 are measured at Time 1. Variables 3-5 are measured at Time 2. Variables 6-13 are measured at Time 3.

<sup>†</sup> $p < .10$ , \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 3

*Wilks' Lambda, F-Test Results, and Effect Size Estimates from MANOVAs Evaluating Demographic Variable Group Differences in Youth and Parent Dependent Variables*

Demographic Variable	Wilks' $\lambda$	Youth Dependent Variables		
		<i>F-Test</i>	<i>p</i>	$\eta^2$
Youth Gender	.69	$F(9, 72) = 3.53$	.001	.31
Parent Gender	.84	$F(9, 43) = .92$	.510	.16
Youth Ethnicity	.62	$F(18, 140) = 2.09$	.009	.21
Parent Ethnicity	.46	$F(18, 82) = 2.14$	.011	.32
Youth Sexual Orientation	.91	$F(9, 72) = .81$	.610	.09
Parent Religion	.42	$F(27, 94) = 1.21$	.251	.25

Demographic Variable	Wilks' $\lambda$	Parent Dependent Variables		
		<i>F-Test</i>	<i>p</i>	$\eta^2$
Youth Gender	.91	$F(2, 49) = 2.52$	.091	.09
Parent Gender	.98	$F(2, 49) = .52$	.599	.02
Youth Ethnicity	.82	$F(4, 96) = 2.59$	.042	.10
Parent Ethnicity	.78	$F(4, 96) = 3.24$	.015	.12
Youth Sexual Orientation	> .99	$F(2, 49) < .01$	.990	< .01
Parent Religion	.84	$F(6, 88) = 1.36$	.239	.09

Table 4

*ANOVAs and Post-hoc comparisons using Bonferonni corrections of demographic variable group mean differences in dependent variables following significant MANOVAs*

Dependent Variable	$F(1,80)$	$p$	$\eta^2$	Youth Gender	
				Females	Males
Violence/Harassment Stress	5.00	.028	.06	.24 <sup>a</sup> (.50)	.52 <sup>b</sup> (.61)
Drug/Alcohol Use	7.32	.008	.08	29.71 <sup>a</sup> (8.43)	35.32 <sup>b</sup> (10.26)

Dependent Variable	$F(2, 78)$	$p$	$\eta^2$	Youth Ethnicity		
				Black	Hispanic	White
Parent Rejection (Part. Parent, Youth Report)	8.29	.001	.18	56.00 <sup>a,b</sup> (29.23)	72.73 <sup>a</sup> (29.23)	47.65 <sup>b</sup> (19.42)
Parent Rejection (Non-Part. Parent, Youth Report)	5.20	.008	.12	73.29 <sup>a,b</sup> (30.47)	72.17 <sup>a</sup> (25.89)	54.73 <sup>b</sup> (21.28)
Drug/Alcohol Use	4.57	.013	.11	28.79 <sup>a</sup> (9.22)	36.47 <sup>b</sup> (10.49)	30.57 <sup>a</sup> (8.44)

Dependent Variable	$F(2, 49)$	$p$	$\eta^2$	Youth Ethnicity		
				Black	Hispanic	White
Parent Rejection (Parent Self-Report)	4.18	.021	.15	57.31 <sup>a,b</sup> (30.54)	59.45 <sup>a</sup> (22.61)	40.37 <sup>b</sup> (12.44)

Dependent Variable	$F(2, 49)$	$p$	$\eta^2$	Parent Ethnicity		
				Black	Hispanic	White
Parent Rejection (Part. Parent, Youth Report)	6.81	.002	.22	55.58 <sup>a,b</sup> (24.04)	70.85 <sup>a</sup> (26.95)	43.52 <sup>b</sup> (18.46)
Parent Rejection (Non-Part. Parent, Youth Report)	8.29	.001	.25	74.58 <sup>a</sup> (27.62)	75.38 <sup>a</sup> (25.46)	49.15 <sup>b</sup> (19.10)
Parent Rejection (Parent Self-Report)	5.08	.010	.17	58.94 <sup>a</sup> (29.14)	60.06 <sup>a</sup> (22.22)	39.85 <sup>b</sup> (12.23)
Drug/Alcohol Use	3.70	.032	.13	28.50 <sup>a</sup> (8.43)	38.00 <sup>b</sup> (11.20)	31.04 <sup>a</sup> (8.64)
Youth Spiritual Importance	4.54	.016	.16	3.03 <sup>a</sup> (.45)	2.50 <sup>a,b</sup> (.44)	1.49 <sup>b</sup> (.30)

*Note.* Group means are depicted with standard deviations in parentheses. Different superscripts indicate that group means were found to be significantly different ( $p \leq .05$ ).

Table 5

*Unstandardized and Standardized Parameter Estimates, and Significance Levels for Final Measurement Model*

Measurement Model	Unstandardized	Standardized	<i>p</i>
Parent Reject → PP Rejection, YR	1.00	0.80	-
Parent Reject → NP Rejection, YR	0.84	0.67	<.001
Parent Reject → PP Rejection, PR	0.99	0.93	<.001
Youth Functioning → Internalizing Problems, YR	1.00	0.57	-
Youth Functioning → Sexual Orientation Conflict Stress	0.08	0.70	.030
Youth Functioning → Violence/Harassment Stress	0.05	0.43	.011
Youth Spirituality → Spiritual Importance	1.00	0.99	-
Youth Spirituality → Spiritual Participation	0.61	0.72	<.001
Youth Spirituality → General Spiritual Attitude	0.47	0.62	<.001

*Note.* Listed *p*-value corresponds to unstandardized parameter estimates. PP = participating parent; NP = Non-participating parent; YR = youth report; PR = parent report.

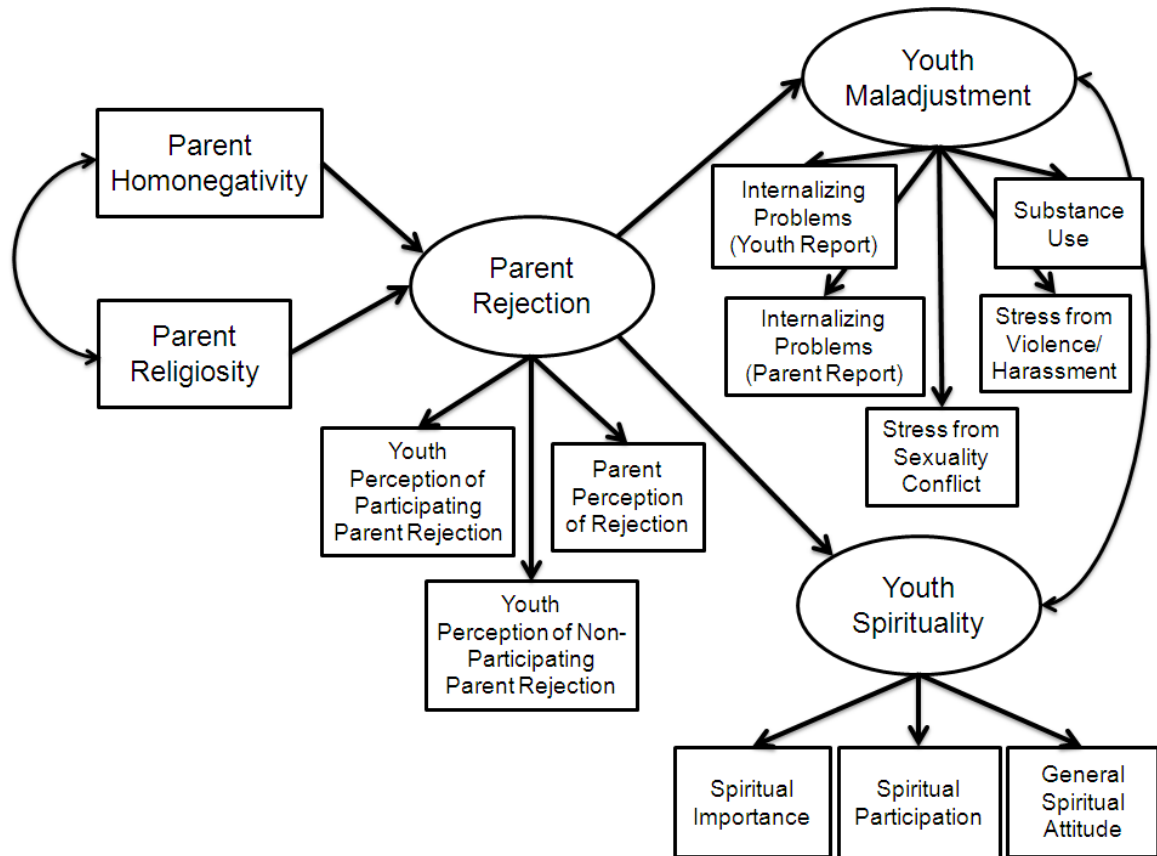
Table 6

*Unstandardized and Standardized Parameter Estimates, and Significance Levels for Final Structural Model*

Structural Model, Direct Effects	Unstandardized	Standardized	<i>p</i>
Parent Homonegativity → Parent Rejection	0.95	0.75	<.001
Parent Religiosity → Parent Rejection	0.31	0.19	.060
Parent Rejection → Youth Functioning	0.42	0.44	<.001
Parent Rejection → Youth Spirituality	-0.03	-0.49	.085
Parent Rejection → Youth Drug/ Alcohol Use Severity (T4)	0.26	0.53	.009
Parent Homonegativity → Youth Spirituality	0.05	0.54	.036
Parent Homonegativity → Youth Drug/Alcohol Use Severity (T4)	-0.30	-0.50	.005
Parent Religiosity → Youth Spirituality	0.01	0.06	.701
Parent Religiosity → Youth Drug/Alcohol Use Severity (T4)	-0.15	-0.18	.085
Indirect Effects	Unstandardized	Standardized	<i>p</i>
Parent Homonegativity → Parent Rejection → Youth Functioning	0.11	.33	.020
Parent Religiosity → Parent Rejection → Youth Functioning	0.04	.08	.124
Parent Homonegativity → Parent Rejection → Youth Spirituality	-0.03	-.37	.100
Parent Religiosity → Parent Rejection → Youth Spirituality	-.01	-.09	.210
Parent Homonegativity → Parent Rejection → Drug/Alcohol Use Severity (T4)	0.24	.40	.012
Parent Religiosity → Parent Rejection → Drug/Alcohol Use Severity (T4)	0.08	.10	.138

*Note.* Listed *p*-value corresponds to unstandardized parameter estimates.





*Figure 1.* Proposed mediation model. Parent homonegativity and parent religiosity will be measured at Time 1. Measures of parent rejection will be included from Time 2. Measures of youth functioning and youth spirituality will be included from Time 3. The correlations between parent rejection at Time 1 and at Time 2, between youth functioning at Time 1 and Time 3, and between youth spirituality and Time 1 and Time 3 are not pictured above, but will be included in the model to control for these relationships.

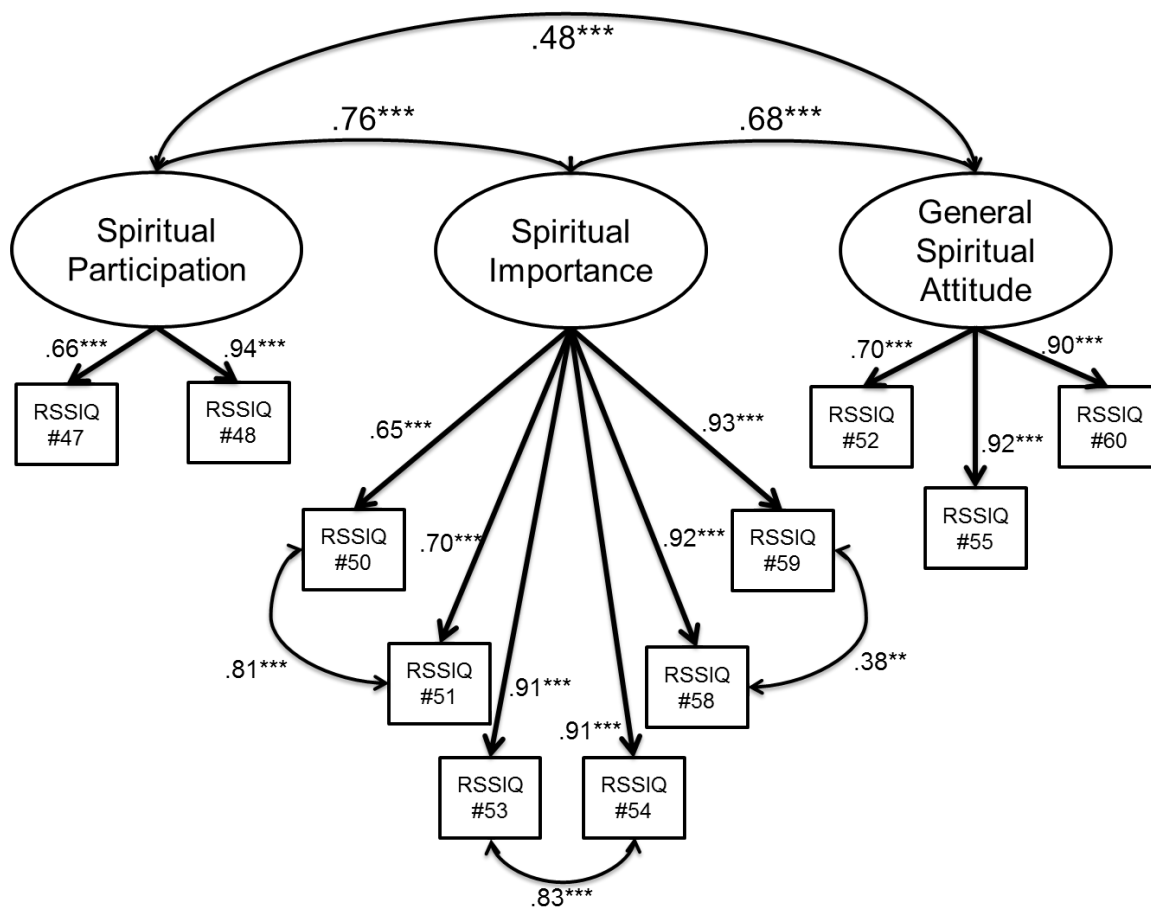


Figure 2. Confirmatory factor analysis model representing three facets of youth spirituality. Estimates are standardized and based on data from the 18-month time point. \*  $p \leq .05$ . \*\*  $p \leq .01$ . \*\*\*  $p \leq .001$ .

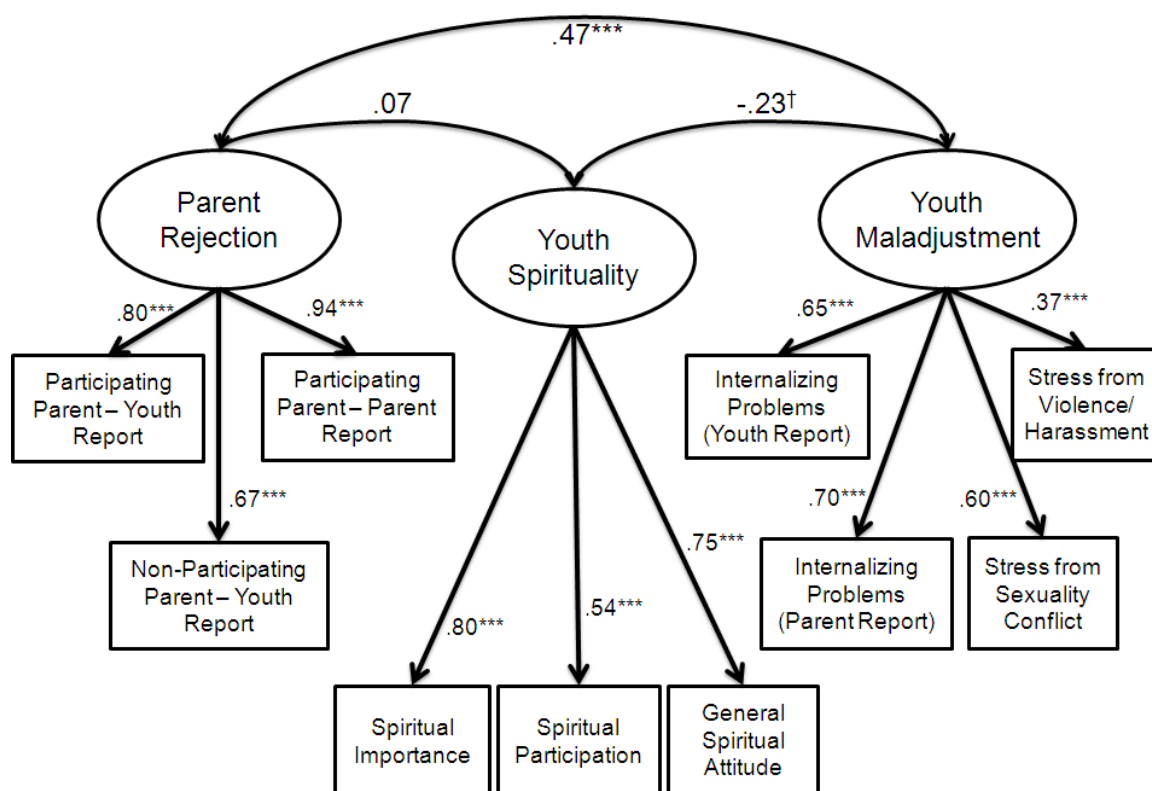


Figure 3. Measurement model of latent variables, with the BASC internalizing symptoms composite, parent report included. Estimates are standardized and based on data from the 18-month time point.

\*  $p \leq .05$ . \*\*  $p \leq .01$ . \*\*\*  $p \leq .001$ .

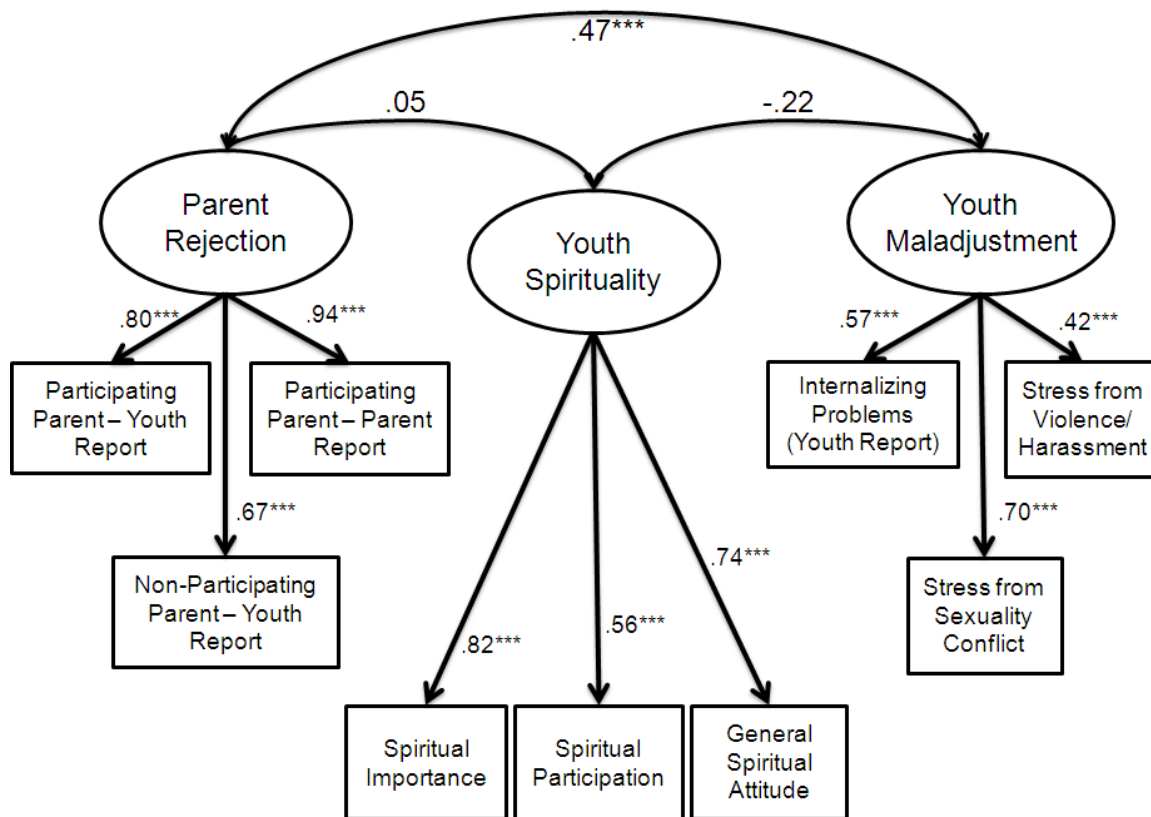
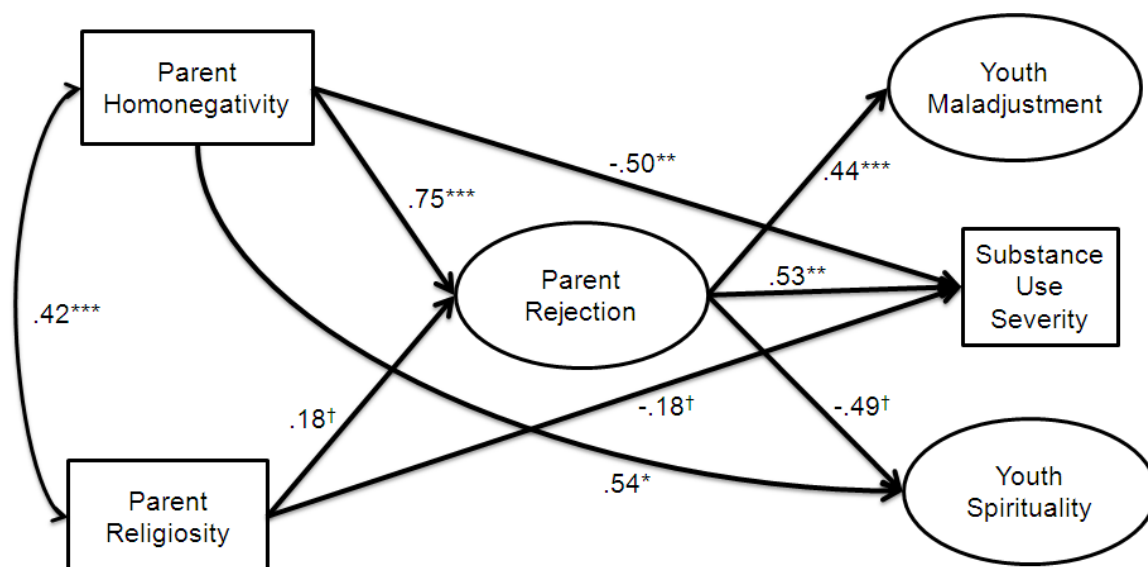


Figure 4. Final measurement model of latent variables, after the BASC internalizing symptoms composite, parent report was removed. Estimates are standardized and based on data from the 18-month time point.

\*  $p \leq .05$ . \*\*  $p \leq .01$ . \*\*\*  $p \leq .001$ .



*Figure 5.* Final longitudinal mediational model. Estimates are standardized. Parent homonegativity and parent religiosity represents data collected at the 0-month time point. Parent rejection represents data collected at the 12-month time point. Youth spirituality, functioning, and substance use severity represents data collected the 18-month time point. The effect of substance use severity at 0 months on substance use severity at 18 months was included the analyses but not depicted. Other control variables and non-significant paths are not depicted.

$^{\dagger} p \leq .10$ .  $* p \leq .05$ .  $** p \leq .01$ .  $*** p \leq .001$ .

## Appendix A

### Items from the Parent and Youth Background Questionnaire

### Items from the Parent Background Questionnaire

*Instructions: These questions ask about your background.*

1. What is your gender ?

- Male  Female

2. Please indicate your ethnicity (check all that apply)

- Asian or Pacific Islander  
 Black (African American; non-Hispanic)  
 Haitian or other Caribbean  
 White (Caucasian; non-Hispanic)  
 Hispanic/Latino  
 Cuban  
 Mexican  
 Latin-American  
 Native American or American Indian  
 Other (please indicate) \_\_\_\_\_

3. What is your age?

\_\_\_\_\_ years

4. How would you describe your sexual orientation?

- Heterosexual  
 Gay  
 Lesbian  
 Bisexual

4a. If heterosexual, gay, lesbian, or bisexual do not adequately describe your sexuality, please write your own description in the box below:

5. In a typical year, what is the total amount of money your family has lived on?

\$ \_\_\_\_\_

### Items from the Youth Background Questionnaire

*Instructions: These questions ask about your background.*

1. What is your gender ?

- Male  Female

2. Please indicate your ethnicity (check all that apply)

- Asian or Pacific Islander  
 Black (African American; non-Hispanic)  
 Haitian or other Caribbean  
 White (Caucasian; non-Hispanic)  
 Hispanic/Latino  
 Cuban  
 Mexican  
 Latin-American  
 Native American or American Indian  
 Other (please indicate) \_\_\_\_\_

3. What is your age?

\_\_\_\_\_ years

4. How would you describe your sexual orientation?

- Gay  
 Lesbian  
 Bisexual

4a. If these do not adequately describe your sexuality, please write your own description in the box below:



Appendix B

Homophobia Scale

(Wright, Adams, & Bernat, 1999)

## Homophobia Scale

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

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. Gay people make me nervous.			1	2 3 4 5
2. Gay people deserve what they get.			1	2 3 4 5
3. Homosexuality is acceptable to me.			1	2 3 4 5
4. If I discovered a friend was gay I would end the friendship.			1	2 3 4 5
5. I think homosexual people should not work with children.			1	2 3 4 5
6. I make derogatory remarks about gay people.			1	2 3 4 5
7. I enjoy the company of gay people.			1	2 3 4 5
8. Marriage between homosexual individuals is acceptable.			1	2 3 4 5
9. I make derogatory remarks like "faggot" or "queer" to people I suspect are gay.			1	2 3 4 5
10. It does not matter to me whether my friends are gay or straight.			1	2 3 4 5
11. It would not upset me if I learned that a close friend was homosexual.			1	2 3 4 5
12. Homosexuality is immoral.			1	2 3 4 5

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

13. I tease and make jokes about gay people.	1	2	3	4	5
14. I feel that you cannot trust a person who is homosexual.	1	2	3	4	5
15. I fear homosexual persons will make sexual advances towards me.	1	2	3	4	5
16. Organizations which promote gay rights are necessary.	1	2	3	4	5
17. I have damaged property of gay persons, such as "keying" their cars.	1	2	3	4	5
18. I would feel comfortable having a gay roommate.	1	2	3	4	5
19. I would hit a homosexual for coming on to me.	1	2	3	4	5
20. Homosexual behavior should not be against the law.	1	2	3	4	5
21. I avoid gay individuals.	1	2	3	4	5
22. It does not bother me to see two homosexual people together in public.	1	2	3	4	5
23. When I see a gay person I think, "What a waste."	1	2	3	4	5
24. When I meet someone I try to find out if he/she is gay.	1	2	3	4	5
25. I have rocky relationships with people that I suspect are gay.	1	2	3	4	5

Appendix C:  
Religious Commitment Inventory  
(Worthington et al., 2003)

## Religious Commitment Inventory

*Instructions: For Questions 1-10, use the scale below to indicate the number which best describes the accuracy of each statement.*

- 1 = Not at all true of me
- 2 = Somewhat true of me
- 3 = Moderately true of me
- 4 = Mostly true of me
- 5 = Totally true of me

- \_\_\_ 1. I often read books and magazines about my faith.
- \_\_\_ 2. I make financial contributions to my religious organization.
- \_\_\_ 3. I spend time trying to grow in understanding of my faith.
- \_\_\_ 4. Religion is especially important to me because it answers many questions about the meaning of life.
- \_\_\_ 5. My religious beliefs lie behind my whole approach to life.
- \_\_\_ 6. I enjoy spending time with others of my religious affiliation.
- \_\_\_ 7. Religious beliefs influence all my dealings in life.
- \_\_\_ 8. It is important to me to spend periods of time in private religious thought and reflection.
- \_\_\_ 9. I enjoy working in the activities of my religious organization.
- \_\_\_ 10. I keep well informed about my local religious group and have some influences in its decisions.

Appendix D

Perceived Parent Reactions Scale  
Parent and Youth Versions

(Willoughby, Malik, & Lindahl, 2006)

## Perceived Parent Reactions Scale – Parent Version

**INSTRUCTIONS:** Think about how you **currently** feel about your child's sexual orientation as you respond to the following questions. Read the following statements and indicate how much you agree or disagree with each statement. Remember, there are no correct or incorrect answers. These are your opinions.

Strongly Disagree <b>1</b>	Disagree <b>2</b>	Neutral <b>3</b>	Agree <b>4</b>	Strongly Agree <b>5</b>
----------------------------------	----------------------	---------------------	-------------------	-------------------------------

**When thinking about how I currently feel about my child's sexuality, I:**

- |   |           |
|---|-----------|
| 1. support my child   | 1 2 3 4 5 |
| 2. am worried about what my friends and other parents will think of me                      | 1 2 3 4 5 |
| 3. have the attitude that homosexual people should not work with children                   | 1 2 3 4 5 |
| 4. am concerned about what my family might think of me                                      | 1 2 3 4 5 |
| 5. am proud of my child   | 1 2 3 4 5 |
| 6. believe that marriage between homosexual individuals is unacceptable                     | 1 2 3 4 5 |
| 7. am concerned about the potential that I wouldn't get grandchildren from my child         | 1 2 3 4 5 |
| 8. realize my child is still 'him/herself', even though they are gay/lesbian/bisexual       | 1 2 3 4 5 |
| 9. believe that homosexuality is immoral  | 1 2 3 4 5 |
| 10. think it is great   | 1 2 3 4 5 |
| 11. have a problem seeing two homosexual people together in public                          | 1 2 3 4 5 |
| 12. am concerned about having to answer other peoples' questions about my child's sexuality | 1 2 3 4 5 |
| 13. have currently kicked my child out of the house   | 1 2 3 4 5 |
| 14. don't believe my child  | 1 2 3 4 5 |
| 15. yell and/or scream  | 1 2 3 4 5 |

	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
16. pray to God, asking him to turn my child straight					1 2 3 4 5
17. blame myself					1 2 3 4 5
18. call my child derogatory names, like 'faggot' or 'queer'					1 2 3 4 5
19. pretend that my child isn't gay/lesbian/bisexual					1 2 3 4 5
20. am angry at the fact my child is gay/lesbian/bisexual					1 2 3 4 5
21. want my child not to tell anyone else					1 2 3 4 5
22. cry tears of sadness					1 2 3 4 5
23. say he/she is no longer my son/daughter					1 2 3 4 5
24. tell my child it is just a phase					1 2 3 4 5
25. am mad at someone I think has turned my child gay/lesbian/bisexual					1 2 3 4 5
26. want my child to see a psychologist who can make him/her straight					1 2 3 4 5
27. am afraid of being judged by relatives and friends					1 2 3 4 5
28. withhold financial support					1 2 3 4 5
29. bring up evidence to show that my child must not be gay/lesbian/bisexual, such as "You had a girlfriend/boyfriend, you can't be gay/lesbian/bisexual."					1 2 3 4 5
30. am mad at my child for doing this to me					1 2 3 4 5
31. want my child not to be gay/lesbian/bisexual					1 2 3 4 5
32. am ashamed of my child's homosexuality					1 2 3 4 5



## Perceived Parent Reactions Scale – Youth Version

**INSTRUCTIONS:**

Think about how **your parent CURRENTLY feels about your sexuality** as you respond to the following questions. Read the following statements and indicate how much you agree or disagree with each statement by circling a number. Remember, there are no right or wrong answers. These are your opinions.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

**When thinking about how my parent currently feels about my sexuality, he/she:**

- |   |           |
|---|-----------|
| 1. supports me  | 1 2 3 4 5 |
| 2. is worried about what his/her friends and other parents think of him/her         | 1 2 3 4 5 |
| 3. has the attitude that homosexual people should not work with children            | 1 2 3 4 5 |
| 4. is concerned about what the family thinks of him/her                             | 1 2 3 4 5 |
| 5. is proud of me   | 1 2 3 4 5 |
| 6. believes that marriage between homosexual individuals is unacceptable            | 1 2 3 4 5 |
| 7. is concerned about the potential that he/she won't get grandchildren from me     | 1 2 3 4 5 |
| 8. realizes that I am still 'me', even though I am gay/lesbian/bisexual             | 1 2 3 4 5 |
| 9. believes that homosexuality is immoral   | 1 2 3 4 5 |
| 10. thinks it is great  | 1 2 3 4 5 |
| 11. has problems seeing two homosexual people together in public                    | 1 2 3 4 5 |
| 12. is concerned about having to answer other peoples' questions about my sexuality | 1 2 3 4 5 |
| 13. has currently kicked me out of the house  | 1 2 3 4 5 |
| 14. doesn't believe me  | 1 2 3 4 5 |

	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
15. yells and/or screams					1 2 3 4 5
16. prays to God, asking Him to turn me straight					1 2 3 4 5
17. blames himself/herself					1 2 3 4 5
18. calls me derogatory names, like 'faggot' or 'queer'					1 2 3 4 5
19. pretends that I am not gay/lesbian/bisexual					1 2 3 4 5
20. is angry at the fact I am gay/lesbian/bisexual					1 2 3 4 5
21. wants me not to tell anyone else					1 2 3 4 5
22. cries tears of sadness					1 2 3 4 5
23. says I am no longer his/her child					1 2 3 4 5
24. tells me it is just a phase					1 2 3 4 5
25. is mad at someone he/she thought has 'turned me gay/lesbian/bisexual'					1 2 3 4 5
26. wants me to see a psychologist who can 'make me straight'					1 2 3 4 5
27. is afraid of being judged by relatives and friends					1 2 3 4 5
28. withholds financial support					1 2 3 4 5
29. brings up evidence to show that I must not be gay/lesbian/bisexual, such as "You had a girlfriend/boyfriend, you can't be gay/lesbian/bisexual"					1 2 3 4 5
30. is mad at me for doing this to him/her					1 2 3 4 5
31. wants me not to be gay/lesbian/bisexual					1 2 3 4 5
32. is ashamed of my homosexuality/bisexuality					1 2 3 4 5

## Appendix E

Scales from the BASC-2, SRP-A  
Internalizing Problems Composite:  
The Atypicality Scale,  
The Locus of Control Scale,  
The Social Stress Scale,  
The Anxiety Scale,  
The Depression Scale,  
The Sense of Inadequacy Scale, and  
The Somatization Scale

(Reynolds & Kamphaus, 2004)

## Scales from the BASC-2, SRP-A Internalizing Problems Composite

**Directions:**

This booklet contains sentences that young people may use to describe how they think or feel or act. Read each sentence carefully. For the first group of sentences, you will have two answer choices: **T** or **F**.

Circle **T** for **True** if you agree with a sentence.

Circle **F** for **False** if you do not agree with a sentence.

Here is an example:

1. I like parties.     **T**     **F**

For the second group of sentences, you will have four answer choices: **N**, **S**, **O**, and **A**.

Circle **N** if the sentence **never** describes you or how you feel.

Circle **S** if the sentence **sometimes** describes you or how you feel.

Circle **O** if the sentence **often** describes you or how you feel.

Circle **A** if the sentence **almost always** describes you or how you feel.

Here is an example:

2. I enjoy doing homework.     **N**     **S**     **O**     **A**

If you wish to change an answer, mark an X through it, and circle your new choice, like this:

2. I enjoy doing homework.     **N**     ~~**S**~~     **O**     **A**

Give the best response for you for each sentence, even if it is hard to make up your mind. There are no right or wrong answers. Please do your best, tell the truth, and respond to every sentence.

## Atypicality Scale (9 items)

34. Sometimes, when alone, I hear my name.	N	S	O	A
53. I feel like people are out to get me.	N	S	O	A
57. Someone wants to hurt me.	N	S	O	
70. Even when alone, I feel like someone is watching me.	N	S	O	A
72. I hear voices in my head that no one else can hear.	N	S	O	A
76. I see weird things.	N	S	O	A
88. Someone else controls my thoughts.	N	S	O	A
91. I do thinks over and over and can't stop.	N	S	O	A
95. I hear things that others cannot hear.	N	S	O	A

## Locus of Control Scale (9 items)

4. Things go wrong for me, even when I try hard.	T	F		
10. What I want never seems to matter.	T	F		
19. My parents have too much control over my life.	T	F		
27. My parents are always telling me what to do.	T	F		
37. My parents blame too many of their problems on me.	T	F		
46. I get blamed for things I can't help.	N	S	O	A
65. My parents expect too much from me.	N	S	O	A
83. I am blamed for things I don't do.	N	S	O	A
99. People get mad at me, even when I don't do anything wrong.	N	S	O	A

## Social Stress (10 items)

14. My friends have more fun than I do.	T	F
31. Other children are happier than I am.	T	F
44. People say bad things about me.	N	S O A
50. People act as if they don't hear me.	N	S O A
62. I am lonely.	N	S O A
69. I am left out of things.	N	S O A
80. Other people find things wrong with me.	N	S O A
87. I feel out of place around people.	N	S O A
97. I feel that others do not like the way I do things.	N	S O A
103. Other people are against me.	N	S O A

## Anxiety Scale (13 items)

7. I can never seem to relax.	T	F
11. I worry about little things.	T	F
22. I worry a lot of the time.	T	F
28. I often worry about something bad happening to me.	T	F
40. I get so nervous I can't breathe.	N	S O A
47. I worry when I go to bed at night.	N	S O A
58. I feel guilty about things.	N	S O A
64. I get nervous.	N	S O A
66. I worry but I don't know why.	N	S O A
77. I get nervous when things do not go the right way for me.	N	S O A
82. Little things bother me.	N	S O A
84. I worry about what is going to happen.	N	S O A
100. I am afraid of a lot of things.	N	S O A

## Depression Scale (12 items)

2. Nothing goes my way.	T	F
5. I used to be happier.	T	F
12. Nothing is fun anymore.	T	F
17. Nobody ever listens to me.	T	F
20. I just don't care anymore.	T	F
29. I don't seem to do anything right.	T	F
35. Nothing ever goes right for me.	T	F
38. Nothing about me is right.	T	F
48. I feel like my life is getting worse and worse.	N	S O A
54. I feel depressed.	N	S O A
55. No one understands me.	N	S O A
67. I feel sad.	N	S O A



## Sense of Inadequacy Scale (10 items)

13. I never seem to get anything right.	T	F
15. I cover up my work when the teacher walks by.	T	F
30. Most things are harder for me than for others.	T	F
32. I never quite reach my goal.	T	F
49. Even when I try hard, I fail.	N	S O A
51. I am disappointed with my grades.	N	S O
68. When I take tests, I can't think.	N	S O A
71. I want to do better, but I can't.	N	S O A
86. I fail at things.	N	S O A
89. I quit easily.	N	S O A

## Somatization Scale (7 items)

3. My muscles get sore a lot.	T	F
6. I often have headaches.	T	F
18. Often I feel sick in my stomach.	T	F
21. Sometimes my ears hurt for no reason.	T	F
36. I get sick more than others.	T	F
39. My stomach gets upset more than most people's.	T	F
56. I feel dizzy.	N	S O A

## Appendix F

Scales from the BASC-2, PRS-A  
Internalizing Problems Composite:  
The Anxiety Scale,  
The Depression Scale, and  
The Somatization Scale

(Reynolds & Kamphaus, 2004)

## Scales from the BASC-2, PRS-A Internalizing Problems Composite

**Instructions:**

On the pages that follow are phrases that describe how children may act. Please read each phrase, and mark the response that describes how this child has behaved recently (in the last several months).

Circle **N** if the behavior **never** occurs.

Circle **S** if the behavior **sometimes** occurs.

Circle **O** if the behavior **often** occurs.

Circle **A** if the behavior **almost always** occurs.

**Please mark every item.** If you don't know or are unsure of your response to an item, give your best estimate.

**How to Mark Your Responses**

Be certain to **circle** completely the letter you choose, like this:

N    **S**    O    A

If you wish to change a response, mark an X through it, and circle your new choice, like this:

N    ~~S~~    **O**    A

## Anxiety Scale (11 items)

5. Worries about making mistakes.	N	S	O	A
12. Is nervous.	N	S	O	A
13. Says, "I'm not very good at this."	N	S	O	A
20. Worries about what teachers think.	N	S	O	A
27. Tries too hard to please others.	N	S	O	A
29. Says, "I get nervous during tests" or "Tests make me nervous".	N	S	O	A
36. Worries about things that cannot be changed.	N	S	O	A
42. Worries about what other adolescents think.	N	S	O	A
50. Is fearful.	N	S	O	A
55. Worries.	N	S	O	A
66. Says, "I'm afraid I will make a mistake".	N	S	O	A

## Depression Scale (13 items)

2. Cries easily.	N S O A
11. Complains about being teased.	N S O A
15. Says, "Nobody understands me."	N S O A
17. Is negative about things.	N S O A
26. Says, "I hate myself".	N S O A
31. Says, "I want to kill myself".	N S O A
33. Changes moods quickly.	N S O A
41. Is easily upset.	N S O A
45. Says, "I want to die" or "I wish I were dead".	N S O A
47. Seems lonely.	N S O A
54. Says, "Nobody likes me".	N S O A
59. Says, "I don't have any friends".	N S O A
65. Is sad.	N S O A

## Somatization Scale (11 items)

3. Complains of being sick when nothing is wrong.	N	S	O	A
8. Has stomach problems.	N	S	O	A
18. Complains of shortness of breath.	N	S	O	A
23. Says, "I think I'm sick."	N	S	O	A
28. Has headaches.	N	S	O	A
34. Complains about health.	N	S	O	A
43. Complains about chest pain.	N	S	O	A
48. Complains of pain.	N	S	O	A
56. Gets sick.	N	S	O	A
60. Is afraid of getting sick.	N	S	O	A
67. Expresses fear of getting sick.	N	S	O	A

## Appendix G

### The Measure of Gay Related Stress Violence/Harassment Scale and Sexual Orientation Conflict Scale

(Lewis, Derlega, Berndt, Morris, & Rose, 2001)

### The MOGS Sexual Orientation Conflict Scale

Instructions: Below are some issues you may have dealt with because of your sexual orientation. ***Please check those events which you have experienced in the past year and indicate how stressful the issue/event was for you.*** Be sure that all check marks are directly across from the items they correspond to.

If you experienced the stressful event, please place a check mark to the left of the item. **Only rate how stressful an event was if it occurred for you in the past year.**

Sexual Orientation Conflict Scale (4 Items)		Not at all stressful	A little stressful	Somewhat Stressful	Moderately Stressful	Extremely Stressful
<input type="checkbox"/>	32. Mixed feelings about my sexual orientation because of society's attitudes toward gays/lesbians/bisexuals	0	1	2	3	4
<input type="checkbox"/>	41. Shame and guilt because of my sexual orientation	0	1	2	3	4
<input type="checkbox"/>	42. Conflict between my self-image and the image people have of gays/lesbians/bisexuals	0	1	2	3	4
<input type="checkbox"/>	45. Difficulty accepting my sexual orientation	0	1	2	3	4



### The MOGS Violence/Harassment Scale

Instructions: Below are some issues you may have dealt with because of your sexual orientation. ***Please check those events which you have experienced in the past year and indicate how stressful the issue/event was for you.*** Be sure that all check marks are directly across from the items they correspond to.

If you experienced the stressful event, please place a check mark to the left of the item. **Only rate how stressful an event was if it occurred for you in the past year.**

Violence/Harassment Scale (7 Items)			Not at all stressful	A little stressful	Somewhat Stressful	Moderately Stressful	Extremely Stressful
<input type="checkbox"/>	16.	Fear that I will be attacked because of my sexual orientation	0	1	2	3	4
<input type="checkbox"/>	29.	Physical assault due to my sexual orientation	0	1	2	3	4
<input type="checkbox"/>	30.	Threat of violence due to my sexual orientation	0	1	2	3	4
<input type="checkbox"/>	31.	The constant need to be careful to avoid having anti-gay/lesbian violence directed at me	0	1	2	3	4
<input type="checkbox"/>	33.	Possibility that there will be violence when I am out with a group of gays/lesbians/bisexuals	0	1	2	3	4
<input type="checkbox"/>	36.	Harassment due to sexual orientation	0	1	2	3	4
<input type="checkbox"/>	37.	Being called names due to my sexual orientation	0	1	2	3	4

Appendix H

Personal Experience Screening Questionnaire

(Winters, 1992)

## Personal Experience Screening Questionnaire

These questions ask about you and your experiences, including those with alcohol and other drugs. Some questions ask how often certain things have happened. Others ask if you agree with a statement. Please read each question carefully. Circle the \* for the answer that is right for you. *Circle only one response option for each question.* Please answer every question.

<b>PART I</b>	Never	Once or twice	Sometimes	Often
<b>How often have you used alcohol or other drugs</b>				
1 at home? .....	*	*	*	*
2 at places on the street where adults hang around? .....	*	*	*	*
3 with older friends? .....	*	*	*	*
4 at the homes of friends or relatives? .....	*	*	*	*
5 at school activities, such as dances or football games? .....	*	*	*	*
6 at work? .....	*	*	*	*
7 when skipping school? .....	*	*	*	*
8 to enjoy music or colors, or feel more creative? .....	*	*	*	*
9 while driving a racing boat? .....	*	*	*	*
<b>How often have you</b>				
10. made excuses to your parents about your alcohol or drug use? .....	*	*	*	*
11. gotten drugs from a dealer? .....	*	*	*	*
12. used alcohol or drugs secretly, so nobody would know you were using? .....	*	*	*	*
13. made excuses to teachers about your alcohol or drug use? .....	*	*	*	*
14. been upset about other people talking about your using or drinking? .....	*	*	*	*
15. lost your sense of taste for several days after using drugs? .....	*	*	*	*
<b>When using alcohol or other drugs, how often have you</b>				
16 spilled things, bumped into things, fallen down, or had trouble walking around? .....	*	*	*	*
17 seen, felt, or heard things that were not really there? .....	*	*	*	*
18 spent money on things you wouldn't normally buy? .....	*	*	*	*
19 found out things you said or did while using or drinking that you did not remember? .....	*	*	*	*
<b>In order to get or pay for alcohol or other drugs, how often have you</b>				
20 sold drugs? .....	*	*	*	*
21 bought drugs from a security guard? .....	*	*	*	*

**PART III**

During the past 6 months, how many times

- 35 have you had alcoholic beverages (including beer, wine, and liquor) to drink? .....
- 36 have you used marijuana (grass, pot) or hashish (hash, hash oil)? .....
- 37 have you used drugs other than alcohol or marijuana? .....

Never	1-2 times	3-5 times	6-9 times	10-19 times	20-39 times	40+ times
*	*	*	*	*	*	*
*	*	*	*	*	*	*
*	*	*	*	*	*	*

38. If you have used other drugs, circle the \* following each drug that you have used *at least once during the past 12 months*:

- psychedelics (such as LSD, mescaline, peyote, psilocybin, PCP, mushrooms) .....
- cocaine (coke, crack, rock) .....
- amphetamines (such as uppers, speed, methamphetamine or meth, crank; *not* diet pills) .....
- barbiturates (such as downs, goofballs, yellows, blues) .....
- tranquilizers (such as Librium, Valium) .....
- heroin (smack, horse, skag) .....
- other narcotics (such as methadone, opium, morphine, codeine, Demerol) .....
- club drugs (Ecstasy, GHB, Rohypnol, ketamine or Special K) .....
- inhalants (such as glue, aerosol cans, gases, correction fluid) .....

\*  
\*  
\*  
\*  
\*  
\*  
\*  
\*

- 39. When did you first get high or drunk? .....
- 40. When did you first use regularly? .....
- 41. How many cigarettes do you smoke in a day? .....

Never	Grade 6 or before	Grade 7-8	Grade 9-10	Grade 11 or after
*	*	*	*	*
*	*	*	*	*

\* None      \* Less than half a pack      \* About half a pack or more

## Appendix I

Selected Scales from the RSSIQ:  
The Spiritual Participation Scale,  
The Spiritual Importance Scale, and  
The General Spiritual Attitudes Scale

The RSSIQ Spiritual Participation, Spiritual Importance, and General Spiritual Attitudes Scales

*“Coming out” is when a person admits to somebody that they are lesbian, gay, or bisexual. People may come out to friends, family, and others. They may also come out to themselves, admitting to themselves that they are lesbian, gay, or bisexual. This survey asks you questions about your religion, spiritual practices, and spiritual beliefs **before** coming out to yourself, **after** coming out to yourself, and **currently**.*

*Some people view their religion, their private spiritual practices, and their spiritual beliefs as the same, while others view them as different. Remember while taking this survey that:*

- *“**Religion**” refers to your religious affiliation (e.g., Catholic, Muslim, Jewish, etc.)*
- *“**Religious activities**” refers to religious things you do with others, like attending religious services, or being part of a religious group*
- *“**Private spiritual practices**” refers to spiritual things you do by yourself, like meditation, spiritual reflection, prayer, or reading religious texts*
- *“**Spiritual beliefs**” refers to your thoughts on things like spirits, God, or an afterlife*

### Spiritual Participation Scale (2 items)

Now, read the following statements concerning your religion, private spiritual practices, and spiritual beliefs **currently**. Mark or circle how much you agree/disagree with each statement.

*If you feel the question does not apply to you (e.g., because you did not have a religion, private spiritual practices, or spiritual beliefs), check "Does Not Apply."*

47. **Currently**, how often do you participate in religious activities (e.g., attending religious services, etc.)?

- |  |  |
|--|--|
| <input type="checkbox"/> Almost never                    | <input type="checkbox"/> Usually once a week           |
| <input type="checkbox"/> Only when I am facing a problem | <input type="checkbox"/> Usually multiple times a week |
| <input type="checkbox"/> Only for special occasions      | <input type="checkbox"/> Daily                         |
| <input type="checkbox"/> About once or twice a month     | <input type="checkbox"/> I don't have a religion       |

48. **Currently**, how often did you participate in private spiritual practices (e.g., meditation, prayer, reading a religious text, etc.)?

- |  |   |
|--|---|
| <input type="checkbox"/> Almost never                    | <input type="checkbox"/> Usually once a week                                |
| <input type="checkbox"/> Only when I am facing a problem | <input type="checkbox"/> Usually multiple times a week                      |
| <input type="checkbox"/> Only for special occasions      | <input type="checkbox"/> Daily  |
| <input type="checkbox"/> About once or twice a month     | <input type="checkbox"/> I don't participate in private spiritual practices |

## Spiritual Importance Scale (6 items)

Read the following statements. Mark or circle how much you agree/disagree with each statement. ***If you feel the question does not apply to you (for example, because you do not or did not have a religion, private spiritual practices, or spiritual beliefs), check “Does Not Apply.”***

<b>Currently...</b>	Does Not Apply	Strongly Disagree	Somewhat Disagree	Undecided	Somewhat Agree	Strongly Agree
50. my religious activities (e.g., being a part of a religious group, going to religious services, etc.)	<input type="checkbox"/>	1	2	3	4	5
51. my religious activities help me deal with my life, and any challenges that come up.	<input type="checkbox"/>	1	2	3	4	5
53. my private spiritual practices (e.g., meditation, prayer, reading religious texts, etc.) are important to me.	<input type="checkbox"/>	1	2	3	4	5
54. my private spiritual practices help me deal with my life, and any challenges that come up.	<input type="checkbox"/>	1	2	3	4	5
58. my spiritual beliefs (e.g., belief in an afterlife, in a divine being, etc.) are important to me.	<input type="checkbox"/>	1	2	3	4	5
59. my spiritual beliefs help me deal with my life, and any challenges that come up.	<input type="checkbox"/>	1	2	3	4	5



## General Spiritual Attitudes Scale (3 items)

Read the following statements. Mark or circle how much you agree/disagree with each statement. **If you feel the question does not apply to you** (for example, because you do not or did not have a religion, private spiritual practices, or spiritual beliefs), check “Does Not Apply.”

<b>Currently...</b>	Strongly Disagree	Somewhat Disagree	Undecided	Somewhat Agree	Strongly Agree
52. overall, I view having a <u>religion in general</u> as something positive.	1	2	3	4	5
55. overall, I view having <u>private spiritual practices in general</u> as something positive.	1	2	3	4	5
60. overall, I view having <u>spiritual beliefs in general</u> as something positive.	1	2	3	4	5