

ABSTRACT

Title of Dissertation: ONLINE AND REAL LIFE COMMUNITIES
OF LESBIAN, GAY, AND BISEXUAL
PEOPLE: INTERNALIZED
HOMONEGATIVITY, LIFE SATISFACTION,
AND SEXUAL RISK TAKING

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Previous research has demonstrated potential benefits provided to LGB people through affiliation with a larger LGB community (Sheets & Mohr, 2009; Halpin & Allen, 2004; Davidson et al., 2017). However, LGB people living in rural areas or who otherwise lack access to LGB communities may have difficulty accessing these benefits (De La Cruz, 2018; Oswald & Culton, 2003; Bachmann & Simon, 2014). With the advent of the digital age, humans are able to interact in new, virtual spaces that circumvent many of the difficulties associated with gathering in real-world spaces (boyd & Ellison, 2008). However, the ways humans are able to interact in virtual, online spaces remains relatively understudied. This study sought to explore

potential similarities of benefits provided by real life and online communities as they relate to internalized homonegativity and life satisfaction, and to explore how sexual risk taking may be associated with affiliation with online communities in an internet recruited sample of LGB people. LGB persons' affiliations with online communities of LGB people were not significantly related to sexual risk taking, life satisfaction, or internalized homonegativity. Affiliation with real life LGB community was significantly related to only life satisfaction. Life satisfaction was significantly related to sexual risk taking. Online and real life LGB community affiliation were significantly correlated. Limitations, implications, and future directions are discussed.

ONLINE AND REAL LIFE COMMUNITIES OF LESBIAN, GAY, AND
BISEXUAL PEOPLE: INTERNALIZED HOMONEGATIVITY, LIFE
SATISFACTION, AND SEXUAL RISK TAKING

by

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Dedication

For the people who helped me grow along the way.

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Chapter 1: Introduction

Background

The digital age has changed the way humans are able to connect, relate, and communicate with one another (boyd & Ellison, 2008). How we conceptualize communities in which we connect, relate, and communicate is also changing. Psychologists have long been interested in the ways humans form, use, and are influenced by communities (Tajfel & Turner, 1979; Tajfel, 1981; Branscombe, Schmitt, & Harvey, 1999; Leonardelli, Pickett, & Brewer, 2010). However, communities and relationships created and maintained in online spaces remain relatively understudied. While communities and relationships forged and maintained in physical space require some degree of physical proximity, those created and maintained online do not have limitations based on physical space. The lack of physical boundaries for online communities might be particularly important for communities for which physical spaces are potentially dangerous or not easily accessible.

Sexual minority people, including lesbian, gay, and bisexual (LGB) people, may seek out community to cope with heterosexist microaggressions and macroaggressions that they encounter in their daily lives (Doyle & Molix, 2014; Frable, Platt, & Hoey, 1998). It is important to note that sexual minority people also include people identifying outside LGB labels, including people who identify as queer, asexual, and pansexual. For the purposes of this study, LGB refers broadly to

people who identify as a sexual minority person. Affiliating with a real life LGB community may provide LGB people with a protective buffer against internalized heterosexism, and may contribute positively to their satisfaction with life (Riggle, Mohr, Rostosky, Fingerhut, & Balsam, 2014). However, finding real life LGB communities in which to participate may not always be feasible. LGB people may face the threat of outing themselves when gathering in physical spaces, and they may also face the threat of physical violence (Bachmann & Simon, 2014; Doyle & Molix, 2014; Noelle, 2002). Furthermore, LGB spaces may not be easily accessible, particularly in rural areas. Oswald and Culton (2003), for instance, determined that rural LGB people in their sample felt a distinct lack of community. Similarly, De La Cruz (2018) provided some evidence that gay men living in rural areas use gay dating applications in part to seek and forge connections with other gay men because of an inability to seek these relationships in real life. Given these findings, online spaces may potentially remove barriers for LGB people because they may be more accessible and less threatening than real life contexts. However, little is known about how online LGB spaces and participation in online communities may influence psychological outcomes, particularly internalized homonegativity, life satisfaction, and sexual risk taking. This study seeks to see what protections affiliation with online communities of LGB people may be able to provide when real life affiliation may not be possible.

While community-forming in online spaces may have the potential to positively affect outcomes for LGB people, it is important to recognize the risk that they might pose as well. Use of online social networks is an inherently risky behavior

(Livingstone, 2008), and LGB people - particularly gay and bisexual men - are already at increased risk for becoming infected with and transmitting HIV and other sexually transmitted infections (Groß, Hirshfield, Remien, Humberstone, & Chiasson, 2013). Thus, the purpose of this study is to use path analysis to examine how in-group affiliation to online LGB spaces may provide similar outcomes as affiliation to real life LGB spaces, particularly as it relates to internalized homonegativity, life satisfaction, and sexual risk-taking behaviors.

Collective Identity

The communities to which humans belong and ascribe themselves have important psychological ramifications on the ways in which people think about themselves and behave with others. Optimal Distinctiveness Theory (Leonardelli et al., 2010) posits that human beings are driven to seek out groups in which they feel they belong and which are exclusive enough to differentiate members from non-members. In turn, group membership has drastic implications for self-concept and behavior with both members and non-members of their group (Tajfel & Turner, 1979; Tajfel, 1981; Abrams & Hogg, 1990). Furthermore, humans become emotionally attached to the groups to which they belong and to the people who share their group identification (Tajfel 1981; Tajfel & Turner, 1979). However, the Optimal Distinctiveness Theory fails to account for how individuals react when they attempt to join communities and are ultimately rejected, as can be the case for LGB people in a largely heterosexist society. To account for this limitation, the Rejection-Identification Model (Branscombe et al., 1999) – which suggests that rejection from a

group often leads individuals to seek a more similar ingroup to which they can belong – may serve as an important framework to consider.

Branscombe and colleagues (1999) developed the Rejection-Identification model while studying the experiences of African-American people facing pervasive discrimination from mainstream society. The researchers found that African Americans were subjected to prejudice and rejection from mainstream society, which in turn negatively impacted African-American individuals' well-being. Perceiving prejudice also led individuals to increasingly identify with the minority group to which they belonged, which in turn mitigated some of the negative impact associated with rejection. More broadly, Rejection-Identification Theory suggests that rejection from a majority group negatively impacts psychological well-being and increases the degree to which impacted individuals identify with their minority group (Branscombe et al., 1999). The more individuals identify with their minority in-group, the less severe the impact of perceiving prejudice on their psychological well-being.

The applicability of Rejection-Identification Theory has been demonstrated in multiple groups and social contexts (Elliott & Doane, 2015; Doane & Elliott, 2015; Giamo, Schmitt, & Outten, 2012; Latrofa, Vaes, Pastore, & Cadinu, 2009; Schmitt, Spears, & Branscombe, 2003; Jetten, Branscombe, Schmitt, & Spears, 2001); thus, it is appropriate for conceptualizing the need for LGB people to seek community with other LGB people. More specifically, previous research has shown how effective identification with a larger, real life LGB community can be at minimizing the negative, detrimental effects of prejudice (Bachmann & Simon, 2014; Doyle & Molix, 2014; Frable et al., 1998) and increasing satisfaction with life (Riggle et al.,

2014). Given the omnipresence of homonegative attitudes in modern U.S. society, attempts at fostering LGB community may be one of the most effective, pre-emptive efforts against detrimental outcomes related to prejudice against LGB people.

Whether or not this community can be fostered online is unknown.

Internalized Homonegativity

Homonegativity, sometimes called homophobia although homonegativity is the preferred term (Mayfield, 2001), refers to the internalized mindset that LGB identities are implicitly inferior or unhealthy compared to heterosexual identities. Homonegative messages about LGB people and LGB identities are prominent in Western societies (Nadal, 2013), and include, for example, messages that suggest that LGB identified people are mentally ill or that LGB people are morally depraved. Living in a heterosexist society, LGB people encounter homonegative messages on a daily basis. The ubiquity of microaggressive messages against LGB people contributes to an overarching narrative that disenfranchises and encourages hatred of LGB people. LGB people who hear and experience anti-LGB microaggressions may internalize homonegative messages. LGB people who have internalized homonegative messages may attempt to conform to heteronormative ideals to avoid psychological pain (Nadal et al. 2011), are more likely to have poor self-esteem and increased symptoms of anxiety than individuals with lower levels of internalized homonegativity (Seelman, Woodford & Nicolazzo, 2017), and may exhibit symptoms of PTSD (Robinson & Rubin, 2016).

When LGB people are repeatedly exposed to homonegativity and heterosexist values, they may begin to internalize homonegativity. Internalized homonegativity

refers to the internalized self-belief that being an LGB identified person is inherently unnatural, unhealthy, or morally deficient (Theodore et al., 2013). Attention was first given to the concept of internalized homonegativity following the removal of homosexuality from the *Diagnostic and Statistical Manual of Mental Disorders* in 1973 (Mayfield, 2001). Prior to this point in time, negative experiences of LGB people were associated and attributed to LGB sexual orientations themselves (Mayfield, 2001). Rather than looking at the distress faced by LGB people as a consequence of the sexual orientation itself, the construct of internalized homonegativity is a means to refocus the discourse on distress faced by LGB people as a consequence of living in a homonegative society (Mayfield, 2001). This strengths-based perspective helps to reframe the history of a deficits-based approach with regard to LGB identity. Internalized homonegativity is seen as the result of an existing, external system of oppression.

Internalized homonegativity is a significant construct that warrants further attention because it is linked to a host of negative psychological and health outcomes. These outcomes include depression (Cramer, Burks, Stroud, Bryson, & Graham, 2015; Lewis, Derlega, Griffin, & Krowinski, 2003; Szymanski, Chung, & Balsam, 2001), suicidality (Cramer et al., 2005), poor self-esteem and shame (Allen & Oleson, 1999), and even perpetration of intimate partner violence (Edwards & Sylaska, 2013). More importantly, internalized homonegativity is significantly and negatively associated with affiliation to an LGB community (Davidson et al., 2017; Sheets & Mohr, 2009). Being affiliated with a larger community can serve as a source of social support and social coping to help combat internalized homonegativity (Meyer, 2003).

It can help provide an alternative, LGB-positive narrative to the overarching heterosexist narrative of deviance (Cox, Dewaele, van Houtte, & Vincke, 2011; Russell & Richards, 2003). Simply affiliating around others who are similar in identity increases subjective well-being and positive self-perception in LGB (Meyer, 2003).

Previous literature has established the existence of a protective factor against internalized homonegativity that is provided through an affiliation to real life communities of LGB people (Davidson et al., 2017). Davidson and colleagues suggest that it is the intimate, face-to-face affiliation with other LGB people that is able to provide this protective benefit. The potential benefit from online communities is unknown; online interactions are unable to provide the same kind of face-to-face interactions, but are able to provide indirect affiliation with other LGB people and may still offer a counternarrative to overarching heterosexist messaging. This investigation seeks to uncover similar protective factors from affiliation to online communities.

Life Satisfaction

Life satisfaction is a construct that refers to an overall, subjective evaluation of one's life (Pavot & Diener, 1993). While conceptually related to life satisfaction, constructs like loneliness and negative affect refer to more temporary emotional states that are strongly impacted by recent events. Life satisfaction, conversely, refers to a more holistic, subjective view of one's life compared with one's "ideal" life. The subjectivity of life satisfaction makes it potentially difficult to measure, as individuals with similar lives but with differing values might subjectively evaluate their lives in

very different ways. To avoid this issue, some researchers measure subjective well-being along specific dimensions within an individual's life, allowing the individual to weight each domain according to their own values (Frisch, Cornell, Villanueva, & Retzlaff, 1992). Diener, Emmons, Larsen, & Griffin (1985) avoided this issue entirely by using items that allow individuals to imagine for themselves the standard against which they evaluate their own lives. For example, the item "In most ways my life is close to my ideal," provides individuals the opportunity to first imagine their ideal life and then asks them to adjudicate how close their current life comes to realizing it.

Life satisfaction, while relatively insulated from temporary life circumstances, allows researchers to understand how individuals evaluate their lives overall. Because life satisfaction is not strongly affected by recent events, assessing life satisfaction gives researchers a snapshot into overarching, holistic well-being of an individual along many different dimensions. For example, Ngamake, Walch, and Raveepatarakul (2014) developed a scale to examine how effectively LGB people cope with discrimination. While validating their scale, Ngamake and colleagues (2014) demonstrated significant correlations between life satisfaction, internalized homonegativity, depression, and anxiety. While this study will not examine depression or anxiety directly, both life satisfaction and internalized homonegativity have links to depression and anxiety in the literature (Meyer, 2003; Ngamake et al., 2014). Morandini, Blaszczyński, Ross, Costa, and Dar-Nimrod (2015) have also demonstrated how internalized homonegativity significantly and directly impacts psychological well-being, which, in turn, significantly and directly impacts life satisfaction. Because previous literature has extensively linked homonegativity,

internalized homonegativity, and microaggressions (Nadal, 2013), life satisfaction is an appropriate proxy by which positive outcomes derived from community affiliation may be measured. Furthermore, examining life satisfaction shifts the paradigm to strengths-based perspective rather than a deficit.

Access to real life LGB communities has been shown to significantly and positively impact LGB peoples' life satisfaction. Luhtanen (2003) found that involvement with other LGB people was significantly associated with higher self-esteem, higher life satisfaction, and fewer symptoms of depression. Lyons, Hosking, and Rozbroj (2015) demonstrated that gay and bisexual men living in urban communities with access to LGB communities tended to have much better satisfaction with life than their rural counterparts who are less likely to have access to LGB communities. Similarly, lack of access to LGB community can significantly and negatively impact LGB peoples' lives. For instance, research on aging LGB people has shown that death and loss of members of their LGB social network can negatively impact satisfaction with life above and beyond loss of other members of their social network (Murray & Adam, 2001). The present study may help inform what, if any, relationship affiliation with online LGB communities and life satisfaction might have.

LGB Community

The dangers of internalized homonegativity can be staved off through affiliation with a larger, real life LGB community (Sheets & Mohr, 2009). Research has also shown that association with a larger, real life LGB community may serve as a protective factor against negative outcomes like minority stress (Halpin & Allen, 2004). Although LGB people are exposed to ubiquitous, homonegative societal

attitudes (Nadal, 2013), affiliation with the LGB community may prevent the internalization of these attitudes which lead to depression and thoughts of suicide (Sheets & Mohr, 2009; Crocker & Major, 1989; Davidson et al., 2017). Involvement with a larger, real life, sexual identity based community may help protect LGB individuals from suffering by emphasizing positive self-image and reclassifying negative experiences as prejudiced attacks on the group rather than the individual (Crocker & Major, 1989). Without a larger community reinforcing the positive attributes of LGB identity, internalized homonegative attitudes cannot be challenged and a positive view of one's own identity may be impossible (Greywolf, 2007). LGB people's identification with a larger, online LGB community deserves significant attention because it may provide similar protections from negative outcomes as real life community.

Not all LGB people have access to physical, face-to-face connections with other LGB people. LGB people who are closeted may feel uncomfortable being in social spaces that are easily identified as LGB. Geographic distance (De La Cruz, 2018; Oswald & Culton, 2003), threats of physical violence (Doyle & Molix, 2014; Herek, Gillis, & Cogan, 1999), and other factors may also prohibit, prevent, or make dangerous physical gatherings of LGB people. Without access to larger LGB communities, LGB people are at risk of experiencing and internalizing the homonegative attitudes of society. Once LGB people have internalized homonegative attitudes, they are at risk of succumbing to negative outcomes, like depression and anxiety. Without access to physical LGB spaces, LGB people have flocked to virtual spaces in search of community (Gudelunas, 2012).

Virtual spaces offer LGB people the chance to connect to a larger LGB community when they lack access to physical LGB spaces. This study examined whether or not affiliation with an LGB community in an online space provides the same types of protective factors as face-to-face affiliation. Gudelunas (2012) has examined gay and bisexual men's use of general online social networks, like Facebook and LinkedIn, as well as gay-specific social networks, like Scruff and Grindr. In his study, findings revealed that gay and bisexual men came together in virtual spaces, both general and gay-specific, specifically to find other gay and bisexual men. Online social networks eliminate many of the barriers to accessing and affiliating with other LGB people that are may be present in physical spaces. However, the degree to which virtual networks are similar to or function like real life networks of LGB people is unknown, and more research is needed to better understand the potential protective factor of virtual LGB communities. This study addresses this significant gap in existing scholarship and has the potential to contribute to the literature on LGB communities by better understanding the outcomes associated with affiliation with online communities of LGB people.

Virtual Communities and Risk Taking

Risk-taking refers to the behaviors in which a person engages that have potentially negative repercussions, usually in return for short-term or temporary benefit (Leigh, 1999). Positive risk-taking, such as being adventurous or brave, is usually contrasted against negative risk-taking, leading to potentially negative or dangerous health outcomes. (Byrnes, Miller, & Schafer, 1999). While online social interactions with other LGB people may be seen as physically safer than in-person

interactions, there is still an inherent risk in online interactions. In order to achieve higher levels of verbal and affective intimacy with other users in online spaces, users have to be willing to share more about themselves with the online community (Rau, Gao, & Ding, 2008). In order to gain the benefits of online communities, users must be willing to risk divulging information in a public forum (Rau et al., 2008; Livingstone & Helsper, 2007), as sharing personal information is an integral piece of building online community (Rau et al., 2008; Livingstone & Helsper, 2007). As a result, SNS users may have a more difficult time identifying behaviors that are inherently risky (Livingstone, 2008), and are also more likely to be sexual risk-takers (Lejeuz et al., 2002). This study sought to elucidate the potential risks for and protective factors against sexual risk taking for people who affiliate themselves with LGB communities online.

While SNS users have been shown to be more likely to be sexual risk takers, sexual risk taking in LGB people may also be impacted by affiliation with the LGB community. Affiliation with real life LGB community may increase LGB people's life satisfaction (Riggle et al., 2014; Bachmann & Simon, 2014), and lack or loss of LGB community may decrease LGB people's life satisfaction (Murray & Adam, 2001). Schwartz and colleagues (2011) showed that increased life satisfaction might decrease the degree to which individuals engage in risky behavior, particularly sexual risk taking. While use of online social networks may be related to risk-taking (Livingstone, 2008; Livingstone & Helsper, 2007), these competing risk and protective factors have not yet been explored. Potential impact on sexual risk taking is important to consider given the limited availability of information about

safer sex practices for LGB people (Pingel, Thomas, Harmell, & Bauermeister, 2013; Kubicek et al., 2010). This study sought to examine what protective factors may be offered by affiliation with online communities of LGB people, and in turn how, if at all, affiliation with LGB community online may be related sexual risk taking.

The Present Study

Affiliation with a real life LGB community has been shown to have positive associations with life satisfaction and negative associations with internalized homonegativity (Sheets & Mohr, 2009). Being connected to larger, real life communities may boost LGB peoples' self-esteem (Doyle & Molix, 2014), protect them from the negative aftermath of victimization (Bachmann & Simon, 2014), and provide a safe space for exploration and understanding of their own identity as a positive aspect of self (Ghavami, Fingerhut, Peplau, Grant, & Wittig, 2011). However, real life LGB spaces can often be inaccessible or unsafe for LGB people (Bachmann & Simon, 2014; Doyle & Molix, 2014; Oswald & Culton, 2003; Noelle, 2002). Research also suggests that affiliation with a real life community and increased life satisfaction is negatively related to sexual risk taking behaviors (Schwartz et al., 2011). It is not clear, however, how outcomes associated with real life communities may extend to online communities. LGB users of SNSs may be more likely to engage in sexual risk taking behavior compared to non-users and heterosexual people (Smalley, Warren, & Barefoot, 2016; Young, Nianogo, Chiu, Menacho, & Galea, 2016). Given these conflicting findings, it is unclear how affiliating oneself with an online community of LGB people might impact sexual risk taking. This research project seeks to consider the possibility of a relationship that

exists between affiliation with online LGB social networks, satisfaction with life, and sexual risk taking behavior using a latent path model, particularly for LGB people for whom real life social network affiliation is not possible. Using a latent path model, I will also be able to control for outcomes attributed to affiliation with real life LGB communities to examine the variance unique to affiliation with online communities of LGB people.

Hypotheses

- H1: Higher LGB group affiliation in real life will negatively predict internalized homonegativity
- H2: Higher LGB group affiliation in real life will positively predict life satisfaction
- H3: Higher LGB group affiliation in real life will negatively predict sexual risk taking
- H4: Higher LGB group affiliation online will negatively predict internalized homonegativity
- H5: Higher LGB group affiliation online will positively predict life satisfaction
- H6: Higher LGB group affiliation online will positively predict sexual risk taking
- H7: Higher internalized homonegativity will negatively predict life satisfaction
- H8: Higher satisfaction with life will negatively predict sexual risk taking

Chapter 2: Literature Review

Collective Identity

Human beings are social creatures with an instinctive need to bond socially with other human beings. Belonging to a group provides us a basic need of feeling included (Leonardelli et al., 2010), and directly impacts the ways we view ourselves and others (Leonardelli et al., 2010; Abrams & Hogg, 1990; Tajfel, 1981; Tajfel & Turner, 1979). Leonardelli and colleagues (2010) describe human beings' basic need to belong in their Optimal Distinctiveness Theory. Optimal Distinctiveness Theory builds on Social Identity Theory, and suggests that human beings need to feel that they are part of groups that are inclusive enough to feel that they belong, and exclusive enough that they can identify people in the out-group. The groups to which we belong and the ways in which we distinguish ourselves from others have important consequences for our social identity, our self-concept, and the ways in which we see ourselves and others.

The groups to which we belong directly impact our self-concept and social identity (Tajfel, 1981). Optimal Distinctiveness Theory helps to explain the psychological motivations for joining groups, whereas Social Identity Theory explains the changes to our self-concept and behavior that occur as a result. Ultimately, a person will seek a group in which they feel sufficiently similar to other members, a group that is positively regarded, and a group that is exclusive enough to

distinguish itself from other groups. Once a person is a member of a group, their perceptions of others begin to distort. They become emotionally attached to and see themselves as more similar to members of their ingroup (Tajfel, 1981). Other members of the same group are generally seen in a more positive light, while members of outgroups are seen as lacking of the same positive qualities (Tajfel, 1981; Tajfel & Turner, 1979). The distortion in their perception of others also leads to differential treatment of people in the ingroup and outgroup (Abrams & Hogg, 1990; Tajfel, 1981). When a person finds themselves rejected by a group, particularly a group that they once considered their in-group, similar distortions can wreck havoc on their self-concept and sense of identity (Branscombe et al., 1999).

Rejection Identification Model

Rejection from an in-group, particularly in the case of a distinction between dominant and marginalized groups, can be psychologically painful. Branscombe and colleagues (1999) conceptualized the rejection that African Americans face as a result of systemic racism and prejudice in the United States as a form of rejection from a majority group. Rejection from the dominant, majority group can cause African Americans to internalize the negative beliefs and prejudices held by the dominant, majority group. Experiences of prejudice and rejection from the dominant group negatively impact well-being. However, Branscombe and colleagues (1999) also theorized that being rejected by the dominant group would cause African Americans who experienced prejudice to more strongly identify with other African Americans. The Rejection Identification Model (Branscombe et al., 1999) suggests that while

well-being is negatively impacted by rejection from the dominant group, the same rejection leads to increased identification with the minority group. Furthermore, it suggests that increased identification with the minority group has generally positive consequences that in part alleviate the negative effects of being rejected by the dominant group. While Branscombe and colleagues (1999) developed their theory in an African-American population, the theory has been used to conceptualize majority/minority group membership in a number of different domains.

The Rejection Identification Model has shown that identification with a minority group can alleviate some of the negative effects of prejudice or discrimination from a majority or dominant group. The Rejection Identification Model has been used successfully to conceptualize the experiences of many minority social identity groups, including Atheists (Doane & Elliot, 2015), multiracial people (Giamo et al., 2012), people with mental illness (Elliott & Doane, 2015), and Southern Italian immigrants (Latrofa et al., 2009). Its usefulness is not bound to social identity, however, and has also been used effectively in non-social identity based groups, for example, people with body piercings (Jetten et al., 2001). Regardless of the make-up of the in-group and out-group, identifying more strongly with the in-group may provide a protective factor against perceived discrimination. Jetten and colleagues (2001) argue that group identification itself mediated the relationship between perceptions of discrimination and collective self-esteem, or the degree to which an individual internalized negative perceptions and prejudices about their marginalized identity. Latrofa and colleagues (2009), however, suggest that it is the

process of actively identifying with and assimilating to the group that provides the protective factor.

Model of In-Group Identification

Latrofa and colleagues (2009) showed that there are specific, self-concept related constructs that mediate increased identification with an in-group and positive psychological well-being. Specifically, Latrofa and colleagues (2009) identified self-stereotyping as the most important buffer between prejudice and negative impact on psychological well-being. Self-stereotyping refers to the tendency for members of marginalized groups to describe themselves in both positive and negative ways that are considered to be more stereotypical of their in-group rather than describing themselves in ways that are unrelated to in-group stereotypes (Latrofa et al., 2009). Similar to Tajfel (1981) and Tajfel and Turner's (1979) assertions that being a member of an in-group distorts a member's perceptions of other members and non-members, Latrofa and colleagues (2009) found that an individual's tendency to see oneself as more similar to the collective group and to see the group as positive allowed people to come together in collective action against injustice.

Leach and colleagues (2008) also include individual self-stereotyping within their model of in-group identification, but expand their Model of In-Group Identification (2008) to incorporate solidarity, satisfaction, centrality, and in-group homogeneity. Solidarity refers to the degree to which an individual sees themselves as standing with other members of their group. Satisfaction refers to the degree to which an individual is happy and satisfied that they are a member of their in-group. Centrality refers to the degree to which an individual sees being part of the in-group

as central to their identity. In-group homogeneity is the degree to which an individual sees members as similar to one another and distinct from non-members. Each one of these subdomains of group identification are important to both the process of identifying with a group and accessing the protective factors afforded to its members (Leach et al., 2008). Considering LGB communities as an in-group, it is easy to see how the Rejection Identification Model could be used to conceptualize the experiences of LGB people and their subsequent identification with an LGB in-group. What is unknown is the degree to which this is possible in online spaces.

LGB People

Research on LGB people, identity, and community has expanded exponentially in the past forty years. Prior to 1970, LGB identities in the United States were widely regarded as pathologized mental illnesses (Buhrke, Ben-Ezra, Hurley, & Ruprecht, 1992). LGB people were seen as sexually “inverted,” as psychosexually underdeveloped, and as mentally unhealthy. Even after its removal from the *Diagnostic and Statistical Manual*, early research conducted on LGB identities was conducted from a deficits model. Researchers uncovered a host of negative health outcomes that were associated with LGB identities, including substance abuse (Cabaj, 1988) and depression (Lewis et al., 2003). Despite negative outcomes associated with LGB identity, modern researchers have yielded an understanding of LGB identities as healthy, albeit marginalized, sexual identities (Theodore et al., 2013). From a strengths-based perspective, negative outcomes related to LGB identity can be understood as a byproduct of living in an inherently heterosexist society.

Researchers have been able to highlight many specific negative outcomes LGB people may face as a result of living in a heterosexist society. LGB people are likely to have their identities attacked and devalued through microaggressions (Nadal et al., 2011). They are often the victims of physical assault and acts of violence as a result of their sexual identity (Balsam & Mohr, 2007). Even when LGB people are not the victims of hate crimes individually, they may feel the vicarious effects of trauma when other LGB people are attacked and victimized (Noelle, 2002). Pervasive attacks on identity, devaluation of LGB people, and general heterosexist attitudes and beliefs may cause LGB people to internalize negative beliefs about LGB people, a phenomenon called internalized homonegativity (Shelton & Delgado-Romero, 2011). Microaggressions, physical violence, vicarious trauma, and internalized homonegativity are all threats to LGB people, each with their own host of associated negative outcomes (Balsam & Mohr, 2007; Nadal 2013; Nadal et al., 2011; Noelle, 2002; Shelton & Delgado-Romero, 2011). LGB people need buffers to protect themselves from the negative consequences of heterosexist microaggressions.

Internalized Homonegativity

Internalized homonegativity is sometimes referred to as internalized homophobia (Mayfield, 2001). It refers to the internalized, negative societal attitudes toward LGB people that devalue and delegitimize LGB identities (Theodore et al., 2013). Prior to 1973, LGB identities themselves were pathologized and associated with a host of negative outcomes (Mayfield, 2001). In more modern literature, psychologists make an attempt to understand negative outcomes as a result of the treatment LGB people face from a homonegative society, (Mayfield, 2001). In 1973,

“homosexuality” was removed from the *Diagnostic and Statistical Manual of Mental Disorders* as a movement to reframe the discussion around negative outcomes for LGB people began (Mayfield, 2001). Rather than seeing LGB identities as the direct cause of negative outcomes, researchers began to examine negative outcomes and their association with poor treatment at the hands of a homonegative society. Nadal and colleagues (2011) describes modern, Western society as being prominently homonegative, rife with messages that assert the abnormality and inferiority of LGB identities. Negative outcomes once believed to be inherently associated with LGB identities have been shown to be more accurately associated with internalized, homonegative values (Nadal et al., 2011).

Societal messages about homonegativity are not always explicit, but they are ubiquitous (Nadal et al., 2011). Implicit messages, such as microaggressions, reflect an outwardly heterosexist society (Nadal et al., 2011). Recipients of microaggressive speech may face numerous negative health outcomes (Nadal et al., 2011). These microaggressions are pervasive and degrade LGB persons, presume inferiority of LGB culture and behaviors, assume a universal experience among LGB people, exoticize LGB people, disapprove of LGB people, deny heterosexism, assume the abnormality of LGB identities, and may threaten the existence of LGB people (Nadal et al., 2011). Internalizing homonegative beliefs opens LGB people up to the vast number of negative health outcomes associated with internalized homonegativity. Without a larger community reinforcing the positive attributes of LGB identity, these internalized oppressions may never be challenged and a positive view of one’s own identity may be impossible (Greywolf, 2007).

Internalizing homonegative values espoused by Western society has been significantly and positively correlated with many negative outcomes. Internalized homonegativity has been shown to be related to poor self-esteem and shame (Allen & Oleson, 1999), perpetration of intimate partner violence (Edwards & Sylaska, 2013), depression (Cramer et al., 2015; Lewis et al., 2003; Szymanski et al., 2001), and suicidality (Cramer et al., 2015). Rather than attribute these outcomes to something inherent in LGB people, the construct of homonegativity allows researchers to examine how the stressors associated with living in a homonegative society may drive LGB people to these negative outcomes. Homonegativity is an incredibly important variable that allows for the study of negative outcomes associated with LGB identities without infecting blame on LGB people and recognizing the fault and damage perpetrated by a larger homonegativity society. Internalized homonegativity has been used to examine many outcome variables, a few of which are outlined below.

The Rejection Identification Model provides the theory to suggest that identification with a minority community provides a buffer against perceptions of prejudice. The link between affiliation with the LGB community and decreased levels of internalized homonegativity is well established in the literature. For example, Sheets and Mohr (2009) examined how social support from friends and family impacted bisexuals' life satisfaction and internalized bi-negativity. The researchers found that general support from one's family ($r = .37, p < .01$) and sexuality specific support ($r = .30, p < .01$) from one's family was significantly related to life satisfaction. Furthermore, bi-negativity was shown to be significantly and negatively related to life satisfaction ($r = -.19, p < .01$). Similar to Sheets and Mohr (2009), I am

predicting that identification with online communities provides buffers similar to real life communities against negative psychological outcomes and increases satisfaction with life. I also predict that group affiliation both online and in real life will be negatively associated with internalized homonegativity.

Similar results are well established for populations of people who identify as gay as well. Davidson and colleagues (2017) examined the relationship between internalized homonegativity, sense of belonging to the gay community, and depressive symptoms in a sample of 246 Australian gay and bisexual men. The researchers showed that internalized homonegativity was clearly negatively related to sense of belonging within the gay community ($r = -.31, p < .001$). This study further solidifies the theory that an individual's sense of affiliation with the LGB community can stave off negative outcomes like internalized homonegativity and depression.

Many researchers have examined the relationship between internalized homonegativity and depression. In a study of 204 LGB people, 110 of whom were men, internalized homophobia was significantly correlated with depression ($p < .05, r^2 = .14$; Lewis et al., 2003). This study was originally intended to examine gay-related stress and stigma consciousness as they relate to depressive symptoms. The researchers found that internalized homonegativity is itself a significant predictor of depression (Lewis et al., 2003).

In a study of 336 LGB people in an urban setting, internalized homophobia was found to be significantly related to both depression ($r^2 = .32, p < .001$), and proneness to suicide ($r^2 = .32, p < .001$; Cramer et al., 2015). However, when the researchers used linear regression to examine multiple independent variables at once,

internalized homophobia, while correlated with depression, was not as important as both depressive symptoms and suicide attempt history when predicting suicide proneness (Cramer et al., 2015). Regardless, internalized homonegativity may play a significant predicting role in suicide proneness and, keeping in mind the results from Lewis and colleagues (2003), internalized homonegativity may be significantly related to depression. LGB people, through exposure and subsequent internalization of homonegativity attitudes, are at risk of developing homonegative attitudes about themselves that may result in depression or even thoughts of suicide.

While these studies have focused on depression and suicidal ideation, internalized homonegativity has also been used as a predictor for other types of outcomes, such as life satisfaction. In a study of 862 gay men in Australia with an average age of 32.1, internalized homonegativity was inversely correlated with life-satisfaction ($p < .01$). Outcomes like depression, while distinct, are conceptually similar constructs to satisfaction with life because each is a component of overall subjective well-being (Diener et al., 1985). Outcomes that negatively impact subjective well-being will likely impact satisfaction with life. The relationships between real life affiliation with LGB community and life satisfaction with internalized homonegativity have been supported by previous research. This study seeks to fill a gap in research by examining these variables with affiliation to online communities of LGB people.

Life Satisfaction

Life satisfaction is a construct that refers to an individual's contentment with their life overall (Pavot & Diener, 1993). Attempts to measure satisfaction with life

have often been based on a single item or items created specifically for use with a single sample (*viz.* Danielsen, Samdal, Hetland, & Wold, 2009; Baldwin, Bedell, & Johnson 1997). Single item scales, while simple and easy to understand, often have poor psychometric validity due to measurement error and grossly unexplained variance. While life satisfaction is particularly valuable because of its ability to measure subjective well-being and its distinction from positive affect, negative affect, and loneliness (Pavot & Diener, 1993), these traits also make it particularly difficult to measure; what is valuable to some may not be valued by others. Similarly, individuals with identical life circumstances may appraise them differently and have different subjective judgments of their satisfaction with life. Diener and colleagues (1985) attempt to avoid this by having items that do not relate to any particular domain in life, but choose rather to allow individuals to determine for themselves the standards against which they are comparing their lives.

Life satisfaction has previously been linked to a sense of community. Sense of community in these circumstances refers to the degree a person feels that they are a member of a community and that they have positive perceptions of that community, similar to how group affiliation is measured by the IGIM. In a study examining 156 men and women living in urban communities in several cities across the United States, connection and satisfaction with community was associated with hedonic well-being ($r = .22, p < .05$), where hedonic well-being was calculated using Diener and colleagues' (1985) SWLS. Similarly, in a study examining 630 adult subjects distributed in five distinct communities in Italy, sense of community was positively related to satisfaction with life ($r = .31, p < .001$; $r = .24, p < .05$; $r = .51, p < .001$; r

= .49, $p < .001$; $r = .52$, $p < .001$; Prezza, Amici, Roberti, & Tedeschi, 2001). The degree to which an individual enjoys the groups to which they belong, as well as how well they see themselves fitting in with these groups, may be significantly related to their satisfaction with life.

Life satisfaction has also been linked to internalized homonegativity ($r = -.20$, $p < .05$), depression ($r = 0.49$, $p < .05$), and anxiety ($r = -.30$, $p < .05$) in a sample of 371 self-identified LGB adults (Ngamake et al., 2014). Furthermore, Morandini and colleagues (2015) used a sample of 862 gay-identified, Australian men to demonstrate how internalized homonegativity significantly and directly impacts psychological well-being ($r = -.47$, $p < .001$), which in turn significantly and directly impact life satisfaction ($r = .84$, $p < .001$). The connection between real life community and internalized homonegativity with life satisfaction is supported by the literature, but its relationship to online community is unknown.

Life Satisfaction with LGB People

Life satisfaction has not been extensively researched among LGB communities, and those that do often focus on negative impact on LGB people's life satisfaction. For example, in one study examining 12,288 Australian and English people between the ages of 16 and 64, gay and lesbian people ($r = -.160$, $p < .001$) and bisexual people ($r = -.166$, $p > .01$) had lower satisfaction with life compared to their heterosexual counterparts (Powdthavee & Wooden, 2015). The authors attribute lower levels of life satisfaction to a number of different causes, namely differences in economic and personal factors directly affected by heterosexual bias and discrimination. In another study that examined 220 adult gay men living in Spain, the

authors demonstrated that higher levels of comfort with one's own sexual identity were positively correlated with satisfaction with life ($r = .273, p < .001$; Dominguez-Fuentes, Hombrados-Mendieta, & Garcia-Leiva, 2012). These studies do not examine affiliation with an LGB community, but do show that satisfaction with life can adequately be measured by the SWLS.

One study that was designed to examine positive aspects of LGB identity did include a relationship between participation and support from an LGB community with satisfaction with life. In this study, 624 participants between the ages of 15 and 75 who identified as LGB showed significant, positive associations between satisfaction with life and self-awareness as an LGB person ($r = .11, p < .05$), authenticity and comfort with LGB identity ($r = .36, p < .001$), involvement with the LGB community ($r = .31, p < .001$), intimate relationships with other people ($r = .22, p < .001$), and ideals about social justice ($r = .17, p < .01$; Riggle et al., 2014). This study provides credence to using the SWLS to measure satisfaction with life in LGB people and provides evidence that affiliation with an LGB community may contribute positively to an individual's satisfaction with life. In the absence of real life LGB communities, however, LGB people may seek LGB communities online. This study seeks to examine how online LGB community may contribute positively to an individual's satisfaction with life.

LGB Community

While there are few studies that directly examine both affiliation with the LGB community and satisfaction with life, there is a large established base of literature that examines LGB individual's affiliation with an LGB community.

Affiliation with an LGB community has been shown to decrease internalized homonegativity (Halpin & Allen, 2004), promote a shared history and a supportive social network (Herek & Greene, 1995), increase one's sense of belonging in the gay community, promote positive depictions of LGB people (Greywolf, 2007), and reduce minority stress associated with being LGB (Sheran & Arnold, 2012). While none of these studies have examined affiliation with online LGB communities, they all function on the basic premise that affiliation with a larger community provides the protective buffers necessary for LGB people to flourish in an otherwise LGB-negative society. Existing literature examining LGB populations with regard to life satisfaction also suggests affiliation to a larger community promotes life satisfaction.

Existing literature that examines life satisfaction in LGB people suggests that LGB individuals who have a more difficult time connecting to an LGB community tend to have poorer outcomes. Lyons and colleagues (2015) postulated that gay men in rural communities would have a much harder time connecting to a larger gay community, and therefore would experience poorer outcomes than their urban counterparts in the areas of self esteem and life satisfaction. To test their theory, Lyons and colleagues (2015) assessed 1,034 gay identified men between the ages of 18 and 39 years of age. The researchers found that rural gay men tended to have significantly lower satisfaction with life compared to their urban counterparts ($F [1, 877] = 4.18, p < .04$). The researchers also found significant relationships between living in a rural environment and lower self-esteem, lower social support, and increased psychological distress. Lyons and colleagues (2015) argue that their results are a clear indication that gay men without access to a social network lack the

resources and support available to communities of gay men in urban environments. This study provides support for the importance of affiliation with a gay community, and my study will build upon this scholarship by examining the degree to which online communities can provide the same support.

There is also scholarship that has examined how loss of community can impact LGB people. Murray and Adam (2001) interviewed gay and bisexual Canadian men 40 years of age and older. They found that gay and bisexual men became more prone to negative outcomes, such as symptoms of depression and increased sexual risk taking, as they became older. The researchers found that poorer outcomes seemed particularly related to widowerhood and loss of support networks from AIDS. Similar to how researchers like Lyons and colleagues (2015) found that affiliation with community predicted positive outcomes, Murray and Adam (2001) found that loss of connection and lack of affiliation with other LGB people may predict negative outcomes. Because the relationship between affiliation with a community and positive outcomes seems to be quite clear, my study could establish the degree to which online communities are analogous to face-to-face communities for similar outcomes.

Risk Taking

Risk-taking generally refers to behavior that may have a short-term, or temporary benefit at the risk of harmful outcomes, particularly in the long-term. Leigh (1999) distinguishes between being “at risk,” for generally negative outcomes, and being a “risk taker,” or a person who engages in behavior that has potentially negative repercussions. A person who is a risk taker may be subject to threats to their

well-being at the benefit of adventure or small probability of benefit. In the conceptualization of risk, there are some positive associations with risk taking (e.g., bravery and adventurism) and negative associations with risk taking (e.g., dangerous health outcomes and STI infection) (Byrnes et al., 1999). Leigh (1999) emphasizes the aspect of uncertainty with risk-taking that, while stakes are often low for risk taking behavior, repeated endeavors increase the likelihood that an individual will encounter a negative outcome. Therefore, individuals who are more risk-averse tend to have better outcomes in certain areas of their lives compared to individuals who are more prone to risk-taking.

Assessing risk taking can be difficult because of the ways in which it is independent of, yet related to, similar constructs including impulsivity and sensation seeking. Lejeuz and colleagues (2002) conceptualize risk taking as behavior that is rewarded but, particularly when repeated often, becomes a risk for increasingly poorer outcomes. To illustrate this conceptualization of risk, Lejeuz and colleagues (2002) created the Balloon Analogue Risk Task (BART), in which participants “pump” to fill a virtual balloon with air for money, but risk losing all money won if the “balloon” bursts from overfilling. This assessment could be seen as analogous to real life risk-taking behavior. For example, cigarette smoking is a “risky” behavior that rewards the individual with nicotine high at the risk of developing cancer. Research examining LGB people and risk taking has predominantly focused on sexual risk-taking, but scholars have also examined LGB populations and general risk. In a study of 3,279 LGBT people, Smalley and colleagues (2016) examined propensity for risk-taking within subpopulations of LGBT people. Smalley and

colleagues (2016) found several instances where certain subgroups of LGBT people had significantly greater risk-taking behavior compared to other subgroups of LGBT people. In particular, cisgender, gay men had higher levels of alcohol related risk taking than any other group, and bisexual people, regardless of gender, tended to engage in riskier behavior related to substance abuse than any other group. LGB people are already particularly at risk for sexual risk taking (Groves et al., 2013). This study seeks to better understand how affiliation with online LGB communities may impact sexual risk taking. This is particularly important given the potential impact that participation in online social networks may already have on risk taking.

Risk Taking and Online Social Networks

Participation in online social networks may actually *require* risk-taking behavior. Engaging with online social networks is an inherently risky behavior (Livingstone & Helsper, 2007; Livingstone, 2008), and Livingstone and Helsper (2007) assert that divulging personal information is necessary to join and participate in close-knit, online social networks. Rau and colleagues (2008) qualitatively examined how and why SNS users chose to provide personal information online. Rau and colleagues (2008) found that in order to receive the benefits that a SNS provides, users must be willing to engage in the risk of revealing personal, private details of their lives to the social network. If users did not engage in the risk of providing personal information to the network, they did not feel connected to or supported by the network.

Providing risky, personal, private information to online social networks is required to gain access to online social networks. Lampe, Ellison, and Steinfield

(2007) found that the number of publicly visible, personal information fields and the amount of information in each field were both predictive of the number of online friends an individual had. By placing personal information online, individuals are allowing others to have access to personal, potentially private, information (Livingstone, 2008). While some networks allow you to limit the amount of information that is available to your friends, other SNSs allow any personal information you provide to be visible and open to the public (Livingstone, 2008).

Risk taking behavior of SNS users extends beyond willingness to provide personal information online. Users of SNSs tend to have greater risk taking attitudes than their peers who do not socialize online. In a sample of 205 students in a university setting, Fogel and Nehmad (2009) found that users of SNSs were less risk averse ($F = 4.05, p < .046$), and had more trust that their information would be protected by Facebook ($F = 19.64, p < .001$). Men in particular were less risk averse than female users of SNSs ($F = 9.07, p < .003$), and had fewer concerns about the private information that they were providing online ($F = 3.93, p < .05$). SNSs seem to be a double-edged sword; while SNSs give unique opportunities to engage in self-expression (Livingstone, 2008), meet others (Gudelunas, 2012), and bridge social capital (Steinfeld, Ellison, & Lampe, 2008), these benefits come at the cost of engaging in the risky behavior of revealing personal or private information to the SNSs (Livingstone & Helsper, 2007).

Sexual Risk Taking

Sexual risk-taking refers to sexual behavior that is related to potential long-term negative health outcomes. Pluhar, Frongillo, Stycos, and Dempster-McClain

(2003) refer to sexually risky behaviors as those that could result in inadvertent pregnancy or STI infection or transmission. Sexual risk taking is conceptually distinct but related to general risk taking. When Lejuez and colleagues (2002) developed the BART, they found that unsafe sex practices ($r = .25, p < .05$), impulsiveness ($r = .24, p < .05$), venturesomeness ($r = .28, p < .01$), and sensation seeking ($r = .31, p < .01$) were all related to risk taking. Researchers have long been interested in sexual risk taking and LGB populations, particularly gay and bisexual men, because of their association with infection and transmission of HIV. This project hopes to build upon that foundation of research.

Researchers have previously examined LGB identifying people and their propensity to engage in sexual risk taking behavior. Smalley and colleagues (2016) found that 57.7% of lesbian women, 37.8% of gay men and 44.8% of bisexuals in their sample that included 3,279 LGBT people engaged in unprotected sex most of the time, almost always, or always. They also found that 12.4% of lesbian women, 11.7% of gay men and 15.8% of bisexual people engaged in sex under the influence of alcohol or other drugs. In a separate study examining 556 Peruvian men who have sex with men who use Facebook, Young and colleagues (2016) found that 53.02% of their sample of men who have sex with men had engaged in unprotected sex. While neither study uses a cisgender, straight referent group, both suggest that nearly half of LGB people in their samples engage in sexually risky behavior.

Amin (2016) did use statistical analysis to find a connection between sexual orientation and willingness to engage in unprotected sex. Amin (2016) examined data from the General Social Survey conducted in 2012 to examine sexual risk-taking

behaviors in older adults. Amin's (2016) sample included 547 individuals over the age of 55. He found that gay and bisexual adults were significantly more likely to engage in unprotected sex compared to heterosexual adults ($B = 2.48, p < .01$). If participation in online communities increases propensity for risky sex, counseling psychologists who are considering recommending LGB people become involved in online LGB communities may also need to discuss sexual risk taking and safe sex practices with their clients.

Previous research has also shown that depression and sexual risk taking are correlated. Millar and colleagues (2017) used cross sectional data from a national sample of gay and bisexual men to gather responses from 1071 participants who were HIV-negative and not taking pre-exposure prophylaxis. Men who scored higher on the Center for Epidemiological Studies Depression Scale were more likely to have engaged in risky receptive anal sex during the past 90 days ($b = .36, p < .01$), controlling for age, race, education, and relationship status. Furthermore, men with higher depression scores were also more likely to have had risky receptive sexual encounters with larger numbers of people ($b = .68, p < .001$).

In a more general sample, researchers have also examined the relationship between well-being and sexual risk taking. Schwartz and colleagues (2011) found a connection between well-being and sexual risk taking. In their study of 9,515 college-age adults, individuals who reported greater well-being also reported fewer instances of casual sex and fewer instances of having sex under the influence. Similarly, Valois and colleagues (2015) examined life satisfaction and risky sexual behaviors in high school students. Valois and colleagues (2015) found that students with lower life

satisfaction were much more likely to engage in risky sexual behaviors. If group affiliation with LGB communities positively influences life satisfaction, group affiliation with LGB communities may also negatively impact sexual risk taking.

Many researchers have already examined the potential links between gay and bisexual men who use SNSs specifically to meet men for sex and their propensity to have unprotected sex. Liao, Millett, and Marks' (2006) meta-analysis of literature examining men who seek other men with whom to have sex concluded that men who seek out partners online are much more likely to have unprotected anal intercourse than those who met in face-to-face interactions (OR = 1.68; 95% CI, [1.18 –2.40]; $k = 11$). However, Grov and colleagues (2013) examined differential risky sex practices with men who met online versus those who met in public spaces. The researchers analyzed data from 2,865 men who had oral or anal sex with a first time male partner. In the study, Grov and colleagues (2013) found that men who met their partners online were no more or less likely to have unprotected anal intercourse with their partner than those who met in person. While my study does not specifically focus on men who use SNSs to seek out sexual partners, these studies suggest that involvement with gay online social networks may promote sexual risk taking. This study may fill in an important gap in understanding what other factors may play into risky sex practices for men who use SNSs in many capacities.

At the present time, there is no literature exploring the relationship in-group affiliation in online communities and sexual risk taking behavior. Examining the links between online group affiliation and risky sex may help explain sexual risk taking behavior for LGB people. My hypothesis is that group affiliation online will be

associated with higher life satisfaction. However, the literature also provides evidence users of online social networks are less risk averse, must engage in risky behavior to access benefits offered by online social networks, and that gay and bisexual men who use online social networks to connect with other gay and bisexual men are more likely to take sexual risks. While being less risk averse is not immediately related to sexual risk taking, Lejeuz and colleagues (2002) and Turchik and Garske (2009) both demonstrate how risk taking and impulsive behavior are both related to sexual risk-taking behavior. This study may uncover a potential significant relationship between group affiliation online and sexual risk taking.

Online Social Networks and the Present Study

While existing literature provides support to suggest that group affiliation online may be related to life satisfaction in general populations, there are very few studies that examine social networks in LGB communities in real life or online. Those that do, however, tend to focus on aging and elderly LGB people. For example, Masini and Barrett (2008) examined the relationships of 250 LGB adults over 50. They found that each had participant an average of 2.5 other adults in their network. Support from these friends predicted high mental quality of life ($r = .442, p < .001$), lower depression ($r = -.439, p < .001$), lower anxiety ($r = -.418, p < .001$), and lower internalized homophobia ($r = -.267, p < .001$). This study highlights the importance of social connectivity for older LGB adults specifically, but is nonetheless important in showcasing how important social connectivity is for positive outcomes in general.

Social Networking Sites

Boyd and Ellison (2008) wrote a detailed history of SNSs and their use through 2008. They define an SNS as:

“web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system.” (boyd & Ellison, 2008, p. 211).

The authors note that the terminologies to which each of these three components refer may differ from site to site. While terminology may differ, the three components listed are the essential components of a website that make it an SNS. Most SNSs are intended to be used by a wide variety of people and to be widely accessible (boyd & Ellison, 2008).

Similar to face-to-face social networks, boyd and Ellison (2008) state that many websites cater specifically to certain groups of people. SNSs that do not cater to a specific group, however, are not necessarily heterogeneous in their user bases. While SNSs are often open to any users, homogenous populations tend to segregate themselves by interests (Ahn et al., 2007) or social identity, including race or sexuality (boyd & Ellison, 2008). Entire cultures seem to emerge based on the groups that frequent a particular SNS (boyd & Ellison, 2008). This is not surprising given that many users tend to flock to SNSs to find other users who are similar to them in terms of identity (boyd & Ellison, 2008). The tendency to search for similar peers in a

network is called homophily (Brown, Broderick, & Lee, 2013), and is often seen in real life social networks as well. For example, gay men were among the earliest adopters of SNSs, particularly a website called Friendster (boyd & Ellison, 2008). Friendster was one of the first websites that allowed gay men to come together and connect through the Internet (boyd & Ellison, 2008). Finding other gay and bisexual men in real life social networks requires that men be publicly out and publicly identifying as gay or bisexual. Those choices, however, can be both dangerous and risky (Gudelunas, 2012). Identifying as gay or bisexual in an online space that is populated predominately by other gay and bisexual men who have similar interests (Ahn et al., 2007) poses a far smaller risk.

SNSs also tend to have network structures that are similar to face-to-face social networks. Ahn and colleagues (2007) concluded that the SNSs they examined tended to have underlying structures and patterns of interaction that very closely matched real life social networks. Online social networks tend to be very close-knit and show similar degree correlation compared to real life friend groups. Boyd and Ellison (2008) also explain that even in heterogeneous SNSs, researchers will find smaller clusters that are homogenous in terms of identity, similar to how many segments of human society are divided. Many researchers have already conducted research to showcase how online and offline social interactions can be seen as similar.

Social Networking Sites and Online Social Network Research

While social networking sites (SNSs) have been in existence since soon after the advent of a publicly available Internet, SNSs have only become immensely popular in the past 15 years (boyd & Ellison, 2008). SNSs are still new and research

surrounding SNSs themselves and how people interact with and use SNSs is still in its infancy. The reasons that people join and take part in SNSs seem to be varied and multifaceted. Some SNSs serve specific functions for specific groups of people, such as bringing together communities of particular interests, nationalities, or sexualities (boyd & Ellison, 2008). Other SNSs serve to enhance existing, offline relationships by allowing people to perform relationship maintenance behaviors over the Internet (Cheung, Chiu, & Lee, 2011; Nip, 2004; Ellison, Steinfield, & Lampe, 2007). Gay men were early adopters of SNSs (boyd & Ellison, 2008), and still today LGB people tend to use SNSs more than their straight counterparts and in markedly different ways (Gudelunas, 2012).

Gudelunas' (2012) participants were seeking gay media, gay and bisexual sexual and romantic partners, and a means to keep track of real life gay and bisexual friends. They also reported that they were heavy users of Facebook and other SNSs having an average of 5 SNS profiles each. The disparate rates of SNS use compared to heterosexual peers found in Gudelunas' (2012) study, however, may be changing. Steinfield and colleagues (2008) recruited a sample of 477 students who used Facebook from a large university for a longitudinal study examining social capital and self-esteem. The researchers found that one year into their data collection, participants were using SNSs much more frequently than the year previous ($t(84) = 4.30, p < .001$). This may indicate that as years pass, SNS use may have up across a more general population.

Using online SNSs, LGB people may be able to reap the benefits of being affiliated to a larger community of LGB people. Researchers have shown that people,

for whom face-to-face interaction is challenging, like users with low self-esteem, are able to use SNSs to build social capital and interact with others in a social network when such face-to-face interactions might otherwise be difficult. LGB people may often find that face-to-face avenues of interaction are unavailable or dangerous, and may seek online communities of LGB people to find LGB community. This study seeks to fill the gap in the research to determine what effects similar to affiliation with real life communities of LGB people may be afforded to LGB people who seek affiliation with a larger community online.

Chapter 3: Method

Participants

A total of 296 LGB adults over the age of 18 who reside in the United States were gathered in the sample for this path analysis (see Table 1). Participants were gathered through MTurk, and each responded to an advertisement requesting the participation of members of the LGB community who use online social networking sites. In this sample, 88.5% of participants identified as cisgender, 8.8% identified as transgender, and 2.7% indicated they were unsure of their gender identity. Of those that identified themselves as cisgender, 39.5% identified as men. All participants identified themselves as being between 18 and 75 years of age, with an average of 32.5 years of age. In the sample, 7.8% identified themselves as being HIV+, and 3.0% indicated that they did not know their serostatus. Of those that identified themselves as being seronegative, or HIV-, only 2.0% indicated that they were currently taking Pre-Exposure Prophylaxis (PrEP). The sample was only somewhat diverse in terms of race and ethnicity, with 69.9% of respondents identifying as White, 12.2% identifying as Black or African American, 5.1% identifying as Latino/a, and 4.4% identifying as Asian or Asian American. More than half the sample, 60.5%, indicated that they had received at least one post-secondary degree. Only 21.3% of respondents indicated that they lived in a rural geographic region, while 35.8% indicated living in an urban region and 42.9% indicated living in a suburban region. Nearly half, 47.6%, of respondents, identified themselves as being middle class, 30.1% identified themselves as working class, and 7.1% identified themselves as being lower class. In the sample,

33% identified themselves as Atheists or Agnostic and 14.2% identified themselves as having no religious or spiritual affiliation. In this sample of 296 LGB participants, 46.3% identified themselves as bisexual, 34.5% identified themselves as lesbian or gay, and 1.4% identified themselves as Asexual. The majority of the sample, 69.3% of participants, identified themselves as not having a disability.

Procedure

Participants were recruited using Amazon's Mechanical Turk (MTurk) web service. The MTurk service provided by Amazon allows "requesters" to recruit "workers" to perform "human intelligence tasks" (HITs) in exchange for monetary compensation. Researchers often use MTurk to become "requesters," offering HITs that involve research participation to "workers" (Duffy, Douglass, Autin, & Allan, 2014; Buhrmester, Kwang, & Gosling, 2011; Goodman, Cryder, & Cheema, 2013). MTurk's "workers" who participate in research are similar in gender, ethnicity, income, and education level compared to the general U.S. population (Duffy et al., 2014), and are considered to be as trustworthy as samples recruited via other methods (Buhrmester et al., 2011; Goodman et al., 2013).

When MTurk was first gaining popularity as a means of recruiting participants for research, it was widely understood that MTurk workers completed tasks for entertainment and out of curiosity. As such, \$.25 for an academic survey lasting approximately 20 minutes was relatively common (Azzam & Jacobson, 2013; Goodman et al., 2013; Paolacci & Chandler, 2014). Goodman and colleagues (2013) suggest that short surveys should pay somewhere between \$.10 and \$.50, and themselves paid workers \$.10 for a 10 minute survey and \$.20 for a 15 minute survey.

While researchers have found that the lower compensation rates associated with MTurk studies do not decrease data quality (Buhrmester et al., 2011), in recent years increased attention has come to the ethicality of paying participants so little to participate in research studies (Haug, 2017). While MTurk is a source of fast, cheap research participants, the ethicality of crowd sourced participation and the potential to exploit participants is an ongoing conversation that requires constant revisiting.

In this research project, I have attempted to recruit and compensate my participants with the ethics of crowd sourced research participation in mind. While I was unable to compensate each participant with minimum wage due to limited funds, I made efforts to be transparent about the process of participating in my research project and to reduce the burden placed on participants themselves. MTurk workers freely choose which HITs they would like to complete, and are never required to complete any HIT (Paolacci & Chandler, 2014). It was my hope that participants would see themselves first and foremost as volunteers who were being partially compensated for their time.

First, I opted for a “planned missingness” design, described below, allowing each participant to respond to fewer items, aimed at reducing the burden of work on each individual participant while maximizing the rate of pay. Next, the HIT I created clearly advertised that each participant in the study would receive only \$.75 for completing the 10-minute survey but would also help contribute to generalizable knowledge about LGB people. Last, while being consented, participants were notified that there would be no benefit for participating in this research, and that the benefit of participating would be in the form of generalizable knowledge that may help LGB

people in the future. Participants were reminded that they could cease participation at any time and for any reason.

MTurk was instructed to only allow workers who were above the age of 18 and living in the United States to accept the HIT associated with this research project. The HIT was described as participation in a research study examining how participating in online and real life LGB spaces can impact LGB people. The advertisement clearly stated that only people identifying as lesbian, gay, or bisexual who were above the age of 18 would be eligible for participation. Once an interested worker accepted the HIT, they were presented with an informed consent page. The informed consent page gave more information about the nature of the project, the potential risks involved in participating in research conducted online, the goals and aims of the research, and examples of questions that they may be asked to answer in the course of participation. Participants who remained interested and who consented to participation were then allowed to confirm that they were an adult above the age of 18 and identified as LGB before continuing to the survey. Workers who were no longer interested in the HIT or who were ineligible to continue were allowed to return the HIT without negative consequence.

After completing informed consent, participants were asked to complete a battery of assessments using the Qualtrics web-based service. Participants first completed a number of qualitative questions (see Appendix A), followed by several assessments including the Lesbian, Gay, and Bisexual Identity Scale (LGBIS), the Satisfaction with Life Scale (SLS), the Sexual Risk Survey (SRS), the In-Group Identification Measure (IGIM; repeated for both online and real life LGB

communities), and a number of demographic questions. The demographic questions were aimed at understanding the demographic composition of the sample and the ways in which the sample might identify. Throughout the survey were several validity checks (“Please select ‘Strongly Agree’ as your response to this question”), and participants who failed validity checks were excluded from analysis. A total of 45 participants were removed from final analysis because of failed validity checks. Each participant was asked how many hours per day they spend on social networking sites to address a potential confound; controlling for hours per day spent on social networking sites assures me that I am measuring the relationships between affiliation with the LGB community and outcomes, rather than number of hours spent online per week and outcomes. The qualitative questions were intended for exploratory analysis.

Measures

Demographic Measures

Participants were asked to indicate several demographic items including age, gender identity, sexual orientation, HIV serostatus, religious affiliation, geographic location, socioeconomic status, and race/ethnicity.

Satisfaction with Life

Diener and colleagues (1985) created the Satisfaction with Life Scale as a means to measure life satisfaction. The authors noted that previous attempts to measure satisfaction with life were often based on a single item, leading to poor psychometric validity. Furthermore, satisfaction with life is a subjective construct that is not based on any external qualification; individuals with similar life circumstances may have

very different perceptions of satisfaction with life due to their own individual values. Diener and colleagues (1985) created the SWLS with 5 items, each scored in a Likert-style from 1 (Strongly Disagree) to 7 (Strongly Agree). The authors initially developed their scale using a sample of 176 undergraduate students, re-testing 76 of them. Diener and colleagues (1985) found that sample exhibited a test-retest validity of .82 and a Cronbach alpha of .87. When analyzed using principal axis factoring, items loaded into a single factor and explained 66% of variance. The developed scale correlated well with the Life Satisfaction Index ($r = .68$), a conceptually similar scale. Last, the SWLS did not correlate significantly with social desirability scales. The SWLS has been used successfully with online samples of adult, mostly LGBTQ participants exhibiting coefficient alphas of at least .90 (Gray & Moore, 2018; Tatum, 2016) and with online samples of only LGB adults with a Cronbach alpha of .90 (Conlin, Douglass, & Ouch, 2017). In the present sample, the Cronbach alpha for the SWLS was .937.

Sexual Risk Survey

While a good deal of research exists on risky sexual behaviors and gay and bisexual men, most researchers do not use a psychometrically validated measure for ascertaining the degree to which an individual is sexually risky. In a study examining depression and sexual risk taking (Millar, Starks, Grov, & Parsons, 2017), for example, researchers dichotomized sexual behavior in the previous ninety days as either risky (one or more instances of sex without a condom) or not risky (no instances of sex without a condom). Regardless, many studies have used numbers of

partners with whom one has had condomless sex within a certain time period as an approximation for sexual risk taking behavior.

Rather than use one of these methods, this study will use the Sexual Risk Survey (SRS). Turchik and Garske (2009) created the SRS to fill the need for a measure of sexual risk taking that was psychometrically sound and covered a wide variety of sexual risk taking behaviors. The SRS consists of 23 items that allow for a free-response of frequencies of each behavior described in the items. The scale is scored assuming that data will be skewed; frequencies of “0” are coded as 0, frequencies in within the lowest 40% of responses are coded as “1”, frequencies within the next 30% of responses are coded as “2”, frequencies within the next 20% of responses are coded as “3”, and the highest 10% of responses are coded as “4.” While this scale does not give a norm based on a population, it is able to succinctly determine who within a sampled group has the highest rates of sexually risky behavior, and is thus ideal for this application. Once data are normalized based on skewedness, scores are added to result in a score between 0 and 92, where higher scores indicate more risky sexual behavior. There are also five subscales that can be scored independently including Risky Sex Acts, Sexual Risk Taking with Uncommitted Partners, Impulsive Sexual Behaviors, Risky Anal Sex Acts, and Intent to Engage in Risky Sexual Behaviors. In Turchik and Garske’s (2009) original sample mostly heterosexual, traditional college-aged adults, the overall scale has a Cronbach alpha of .88, and subscales’ Cronbach alphas range between .61 and .88. The two-week test-retest reliability was .93 and has demonstrated low correlation with social desirable responding (Turchik & Garske, 2009). The measure has been

used successfully with samples of mostly LGB identifying men and women, with a Cronbach alpha of .77 (Shepler, Johnson, & Width, 2017), and in samples of adult women who identify as cisgender and as lesbian, bisexual, or queer, with acceptable measures of internal consistency for each of the five subscales ($\alpha = .88$, $\alpha = .80$, $\alpha = .78$, $\alpha = .89$, and $\alpha = .61$, respectively; Smith, Perrin, & Rabinovitch, 2018). Using the present sample, the Cronbach alpha for the overall scale was .936.

The Lesbian, Gay, and Bisexual Identity Scale

The Lesbian, Gay, and Bisexual Identity Scale (Mohr & Kendra, 2012) is a 27-item scale intended to measure several constructs related to LGB identity including internalized homonegativity and is useful for assessment of lesbian, gay, and bisexual participants because of its inclusive language (Mohr & Kendra, 2012). The 27 items use a 6-point Likert-type scale (*disagree strongly* [1], through *agree strongly* [6]). Several items are reverse coded. While scores on subscales of the instrument can be averaged to receive overall scores for the subscales, I have opted to use participants' responses to items to generate a latent factor based on items in the internalized homonegativity subscale. Higher scores are indicative of greater endorsement of that particular subscale. Sample items include "If it were possible, I would choose to be straight," and "I wish I were heterosexual." For a sample of traditional college-aged, LGB identifying adults, internal consistency reliability estimates for the scale ranged from .75 to .91, and test retest reliability was reported to be between .70 and .92 (Mohr & Kendra, 2012). In the present sample, the Cronbach alpha for the overall scale was .880. For the Internalized Homonegativity subscale, it was .881.

In-Group Identification Measure

The In-Group Identification Model (IGIM; Leach et al., 2008) is an instrument designed to measure the degree to which an individual identifies with an in-group in a psychologically meaningful and socially consequential way. The instrument is designed to measure both group-level self-investment and group-level self-definition. Self-investment is comprised of subscales measuring solidarity, satisfaction, and centrality. Self-definition is comprised of subscales measuring individual self-stereotyping and in-group homogeneity. Individuals completing the instrument endorse their agreement to each item on a 7-point Likert-type scale (*strongly disagree* [1] to *strongly agree* [7]). Sample items include “I feel a bond with [In-group],” and, “I am similar to the average [In-group] person.” The instrument was first validated on university samples in Europe, with fit indices exceeding .930 across several samples, item loadings all in excess of .60 ($p < .05$), and second order factor loading in excess of .50 ($p < .05$). Good reliability was evidenced with their undergraduate, university sample across several studies, each with a Cronbach alpha value of at least .86. In a study of first year university students, Jans, Leach, Garcia, and Postmes (2015) created methodology meant to mimic indirect online interactions present in online communities. After only 4 days, the researchers found that 18% of variance in self-definition could be explained by group membership. After two weeks, the model could explain 29% of variance in self-definition and 11% of variance in self-investment with good fit. For this study, participants were asked to complete this instrument twice, once for in-grouping with online LGB communities, and once for in-grouping with real life LGB communities. While this sample is not limited to

university students and includes only people identifying as LGB, this instrument is unique in its prior use for measuring in-group identification in online communities. When assessing group affiliation online, the Cronbach alpha for the overall scale using this sample was .941. When assessing for group affiliation in real life, the Cronbach alpha for the overall scale using the present sample was .938.

Data Analysis

Rather than examine group affiliation online and in real life with sexual risk taking, life satisfaction, and internalized homonegativity individually, I used structural equation modeling using MPlus software to analyze multiple relationships to determine the unique variance accounted for by each latent variable (*see Figure 1*). Multiple regression would not allow me to examine both group affiliation in real life as well as online simultaneously as they pertain to various outcome variables. By including group affiliation in real life within the model, I hope to learn more about the associations between group affiliation online and the outcomes for LGB people who potentially do not have access to group affiliation in real life. Furthermore, structural equation modeling allows me to use items to generate latent variables that take into account measurement error inherent in each item. Although several methods exist for determining a required sample size based on numbers of items or factors, Wolf, Harrington, Clark, and Miller (2013) suggest that many of these methods are inaccurate or may overestimate the required sample size for analysis. Wolf and colleagues (2013) suggest that for a sample with missing data, a sample size of 320 observations for a data set missing 20% of its values is likely sufficient.

Path analysis techniques are most appropriate when paths follow previously established or theoretically sound relationships with adequate empirical support (Cook & Campbell, 1979). Previous literature has established how real life community affiliation is significantly and negatively related to internalized homonegativity (*viz.* Davidson et al., 2017; Sheets & Mohr, 2009). Previous literature has also established a significant positive relationship between access to LGB communities and life satisfaction (*viz.* Lyons et al., 2015). Internalized homonegativity has been shown to negatively predict life satisfaction (*viz.* Ngamake et al., 2014), and life satisfaction in turn has been shown to negatively predict sexual risk taking (*viz.* Schwartz et al., 2011). Each of these is a previously established relationship, but the relationships involving group affiliation online have not previously been explored. I have made the assertion that there are benefits afforded to individuals through affiliation with an LGB community based on theory, regardless of real life or internet-based. As such, a path analysis is an appropriate analysis technique that will allow me to examine a full model of relationships and examine for the unique variance accounted for by each of the variables.

Chapter 4: Results

To avoid the assumptions of normality and independence of observations and to account for missing data, I instructed Mplus to use the MLR estimator. The MLR chi-square test statistic is considered to be equivalent to the Yuan-Betler T2 test statistic (Muthen & Muthen, 1998-2015). Mplus identified 6 patterns of missing data, indicating that missingness is due to planned missingness of the research design. All results given have been standardized.

Path Analysis

Results of the path analysis alongside the proposed model can be found in Figure 2. While individual portions of the path model may be statistically significant, it is important to review the overall fit of the model to determine how well the data are explained by the model. The proposed path model had an AIC value of 36492.035, and resulted in a significant chi-square test for fit when compared to a null model ($\chi^2 = 2737.462$, $df = 1610$, $p < .001$). Hu and Bentler (1999) have suggested several thresholds a model must meet in order to be considered to have “good” fit. These thresholds include a CFI of greater than .95, an SRMR of less than .08, and an RMSEA of less than .06. CFI refers to the amount of variance explained by a path model compared to a null model where parameters are allowed to estimate freely. SRMR refers to the amount of covariance that is left unexplained by the path model. RMSEA refers to the parsimoniousness of the model and the degree to which it explains covariance.

The proposed model did not meet Hu and Bentler's (1999) recommendations for a model with good fit. The proposed path model's CFI value was .889, meaning it might have been somewhat limited in the amount of variance that it was able to explain overall. The proposed path model had an SRMR value of .083, falling just short of the proposed guideline of .08, indicating that there may be some covariance that is left unexplained in the proposed model. Last, the RMSEA value of the proposed model was .049, with a 95% confidence interval of [.046,.052]. This RMSEA value does meet Hu & Bentler's (1999) guidelines, and indicates that the proposed model is fairly parsimonious for the degree of covariance that it explains. Individual portions of the model and their statistical significance can still be interpreted.

All items loaded significantly ($p < .001$) onto their respective latent factors. In constructs for which there were both first order and second order latent factors, all first order factors loaded significantly ($p < .001$) onto their respective second order factors. Only one first order factor had a loading of less than .616: "Risky Sex Acts" had a loading of .244 onto the overall sexual risk-taking latent variable.

Many of the proposed paths failed to reach statistical significance in the model. Sexual risk taking could not be significantly predicted by group affiliation online ($p = .357$) or group affiliation in real life ($p = .492$). Satisfaction with life could not be significantly predicted by group affiliation online ($p = .843$) or internalized homonegativity ($p = .075$). Internalized homonegativity could not be significantly predicted by group affiliation online ($p = .716$) or group affiliation in real life ($p = .114$).

Sexual risk taking was significantly positively predicted by satisfaction with life with a small effect size (.225, $p = .017$). Satisfaction with life was significantly positively predicted by group affiliation in real life with a large effect size (.671, $p < .001$). Group affiliation in real life was significantly correlated with group affiliation online with a large effect size (.624, $p < .001$).

Chapter 5: Discussion

Findings

Group affiliation online was not able to significantly predict sexual risk taking, life satisfaction, or internalized homonegativity. Based on these results, it does not seem that any sort of protection similar to real life group affiliation is provided by online communities of LGB people. However, given the extensive research that associates affiliation with the LGB community with lower internalized homonegativity (Davidson et al., 2017; Sheets & Mohr, 2009; Halpin & Allen, 2004; Greywolf, 2007; Sheran & Arnold, 2012), it is surprising to find a lack of significant relationship between real life group affiliation and internalized homonegativity. Moreover, it is even more perplexing that there was not a significant relationship between internalized homonegativity and life satisfaction. It is possible that for this sample collected from MTurk, affiliation with real life groups of LGB people is not significantly related to internalized homonegativity. Some researchers have emphasized the role of heterosexual family and friends in internalized homonegativity rather than LGB community (Bregman, Malik, Page, Makynen, & Lindahl, 2013, Cox et al., 2011). Rather than being able to affiliate oneself with an LGB community to solidify identity and combat negative societal messages about LGB people, these researchers suggest that an individual's family and friends, regardless of sexuality, have a large impact on the degree to which a person has internalized homonegative

society values. Therefore, for this current study, the degree to which LGB people are able to affiliate themselves with online and real life LGB communities may not be as impactful as the unmeasured degree to which they feel supported by friends and family in their LGB identity. Similarly, it is possible that for this sample, factors other than group affiliation are more important with regard to internalized homonegativity. Regardless, based on the results of this study, affiliation with online groups of LGB people may not provide any of the benefits associated with affiliation with real life groups of LGB people.

One potential explanation for the lack of significant relationship is the potentially truncated variance from the measurement of internalized homonegativity. Taking a closer look at the data, it appears that participants' responses to the internalized homonegativity items were skewed. Between 30-40% of participants endorsed a 1 (disagree strongly) on each item related to internalized homonegativity, potentially introducing an artificial floor effect. Without sufficient variance in the sample's responses to items related to internalized homonegativity, the statistical analysis is unable to reveal how the latent construct of internalized homonegativity may truly be related to any other variables included in the path model. I suspect that analysis using a larger, more diverse sample with larger variances in the responses to each of the internalized homonegativity items may have resulted in a stronger relationship between group affiliation online and in real life in the hypothesized directions.

While a lack of variance in measured internalized homonegativity may have contributed to non-significance, there is also the potential that specific pieces of the

In-Group Identification Measure may have been a better measure for examining internalized homonegativity than the In-Group Identification Measure in its entirety. The Rejection Identification Model suggests that group affiliation can impact perceptions of discrimination, collective self-esteem, internalization of microaggressive messages, and more (Branscombe et al., 1999). No one piece of group affiliation was hypothesized to be more impactful than others. However, Latrofa and colleagues (2009) argue that self-stereotyping, while related to other constructs tied to self-concept, is the most important buffer between prejudice and negative impact on psychological well-being. Furthermore, Latrofa and colleagues (2009) suggested that the protective factor arose when individuals saw themselves as part of a group that would rise to collective action against perceived injustice. It is possible that rather than the myriad ways in which group affiliation is hypothesized to provide buffers against prejudice (Branscombe et al., 1999), self-stereotyping may be the true agent in the relationship between group affiliation and internalized homonegativity.

While the full In-Group Identification Measure may have been the best measure to examine the relationship between affiliation and life satisfaction, the self-stereotyping measure alone may have been better to examine a relationship with internalized homonegativity. The In-Group Identification Measure did include a self-stereotyping component, but the noise created by other components of the model may have suppressed any significant relationship it alone would have had on the proposed outcome measure, not only its relationship with internalized homonegativity. Further inquiry seeking to parse out potential effects from the various pieces of in-group

affiliation may be warranted. However, there were some outcomes that did have significant relationships with real life group affiliation.

Group affiliation in real life was able to significantly and positively predict life satisfaction. For participants in the sample, affiliating oneself with a larger, real life community of LGB people had significant impacts on their outlook on life. This finding reinforces previous research that implicates belongingness and community in overall satisfaction with life for marginalized people (Riggle et al., 2014; Elliot & Doane, 2015; Doane & Elliot, 2015; Giamo et al., 2012; Latrofa et al., 2009; Schmitt et al., 2003; Jetten et al., 2001). More specifically, it reinforces previous findings suggesting positive psychological outcomes for LGB people who are able to identify and align themselves with real life communities of LGB people (Bachmann & Simon, 2014; Doyle & Molix, 2014; Frable et al., 1998). What is significant about this finding is the sheer strength with which group affiliation in real life is able to predict life satisfaction. However, the benefits provided by affiliation to a real life LGB community do not seem to be afforded to those who find community in online spaces.

Group affiliation online was not significantly related to life satisfaction. The lack of relationship here may have significant implications for LGB people who do not have access to real life LGB communities. It may be necessary to seek out and join with groups of LGB people in real life in order to accrue the benefits associated with affiliation with the LGB community. However, it is important to examine potential reasons the relationship may not have been significant. Group affiliation online had no significant predicting power across outcome measures. It is also possible that relationships that develop between members of a community in online

spaces lack some key component of real life interactions that is necessary to provide protective factors against internalized homonegativity and boost life satisfaction. Online spaces as a medium for human interaction may not allow for the same meaningful, self-concept altering processes that occur in real life communities. However, there are several other important considerations to make when examining how group affiliation to online community was unable to significantly predict psychological outcomes in this model.

While I tried to measure group affiliation in online communities as effectively as possible, there were several foils that may have impacted the latent variable's ability to significantly predict outcomes. First, I did not discriminate what social networking sites could be considered "communities," and for what purpose individuals were using social networking sites. Participants were free to imagine any online or real life LGB communities and report their perceived affiliation with them. Some participants indicated that they participated mostly in social networking sites like Facebook or Tumblr, sites that actively encourage interaction and communication among their users. Many others also indicated dating or "hook-up" sites like Grindr or Scruff. Furthermore, while some participants did endorse using social networking sites for interacting with a community and enhancing affiliation with other LGB people, some participants were very clear that their only use for online spaces of LGB people was to seek others for sex and dating. The measure for group affiliation asks participants about their own perceptions of the online and real life communities in which they participate. I would hypothesize that individuals who predominantly interact with other LGB people through SNSs like Grindr and Scruff would rate

themselves fairly low on group affiliation with online LGB communities. People who use online LGB spaces may use these spaces for different reasons, and those who use them to create community may have different psychological outcomes than those who use them for other reasons. A more targeted study that examines a specific website or type of interaction may be warranted.

Some of the qualitative responses gathered in the study may provide some credence to this explanation. Few participants mentioned using online spaces to meet new LGB people, and those that did often discussed meeting new people in the context of seeking sexual partners or online dating. Several participants also indicated that, while they are active voyeurs in online communities of LGB people, they rarely participate.

“I am a member of one or two of the pages and occasionally scroll through, but I rarely participate.”

“I am in such a community but, [sic] don't participate regularly”

Rau and colleagues (2008) call these types of participants “lurkers,” and suggest that lurkers are not fully incorporated members of online communities because they do not share enough of their own experiences to allow others to reach out and connect. Rau and colleagues (2008) point out that revealing personal information online is risky, but emphasize that only those who reveal such information seem to gain the psychosocial benefit of belonging in an online space. Recruitment that specifically targeted LGB people who are active participants in online communities may change the way affiliation is related to outcomes.

Other qualitative responses have alluded to specific online social networks as their primary means to access community online. Participants who mentioned using Tumblr as a social networking site seemed to regard it as the largest and most cohesive online social network for LGB people.

“I participate on Tumblr, with my own site there, and actively follow other gay/bisexual men there. I have a small amount of involvement on Facebook, but not as much as Tumblr.”

“Most of my friends who are in the LGBTQ+ community I have met online. There is definitely a LARGE [sic] community on Tumblr.”

The information gathered from open responses to questions about participants’ social network use was not systematically analyzed nor can I draw any conclusions about social media use or utility of online communities from them. However, these responses do provide an interesting launching point into further inquiry into the online communities of LGB people and the value that LGB people see as being participants in them. .

Another important result to consider is the significant, positive relationship between group affiliation in real life and group affiliation online. Such a strong relationship suggests that the people who engage with LGB social networks in real life also have LGB social networks in virtual spaces. Furthermore, the relationship suggests that those without real life spaces may also lack online spaces in which to find community with other LGB people. It is possible that within this sample, the majority of people who have real life communities in which they feel they belong also

connect with and find fellowship in online spaces. In fact, many of these participants may interact with the same people in both real life and online. For participants who have both a strong affiliation to LGB communities both online and offline, it may be that the protections afforded by real life affiliation render the potential benefit of online communities unnecessary. Alternatively, due to the high intercorrelation between Group Affiliation Online and Group Affiliation in Real Life (*see Figure 2*), it is possible that both constructs were actually measuring general affiliation to a community rather than specific affiliation to an online or real life community. More specific attention with a sample of LGB people who lack real life social networks, or for whom online spaces are the only means by which they can access other LGB people, might showcase different relationships between group affiliation and psychological outcome variables.

Sexual risk taking was not significantly related to group affiliation online or group affiliation in real life in this model. It is possible that affiliation with the LGB community, neither online nor in real life, is not associated with sexual risk taking. It is important to note that, looking at the data, not all latent components of sexual risk taking loaded well onto the overall latent variable representing sexual risk taking behavior. Specifically, “Risky Sex Acts” had a loading of only .244 on sexual risk taking behavior. Looking more closely at the items within “Risky Sex Acts” identifies a potential heterosexist bias within the construction of the scale. Specifically, the “Risky Sex Acts” factor asks about participants’ behavior regarding vaginal sex without a condom, vaginal sex without birth control, fellatio without a condom, cunnilingus without protection, and sex under the influence of substances. Vaginal

sex without condoms and vaginal sex without birth control may not contribute as highly to sexual risk taking behavior in LGB samples as in heterosexual samples. Sexual risk taking behavior in LGB samples does seem to be captured in other areas of the SRS, with items regarding numbers of sex partners and anal sex without condoms, but once again questions may be biased toward exposing sexual risk taking propensity in gay men rather than a more general sample of LGB people. Because only a single subscale failed to load well onto the overarching latent factor, it is unlikely that it had dire psychometric consequences on its ability to be predicted by other latent variables in this sample. However, it may have contributed somewhat to a lack of sufficient variance to measure the relationship between sexual risk taking and other components of the path model. Future inquiries might consider omitting that particular subscale.

Sexual risk taking was significantly and positively related to life satisfaction. This result is unexpected and contrary to the hypothesized negative relationship between the two latent variables. Schwartz and colleagues (2011) showed that life satisfaction decreases the degree to which individuals engage in all risk taking behavior, including sexual risk taking. Schwartz and colleagues' (2011) analysis considered a sample of young adults attending colleges in the United States. While the study explicitly states that the sample is racially diverse, no information about the sexual orientations of members of the sample is given. While my results directly contradict Schwartz and colleagues' (2011) findings, similar results positively linking life satisfaction and sexual risk taking have been found before. Schroder, Johnson, & Wiebe (2009) found that in a sample of low-income, Latino students, *positive* mood

was actually more predictive of sex without condoms, contrary to the researchers' own hypothesis. More information mood and sexual risk taking specifically in the LGB population needs to be gathered.

Summary of Findings

While many of the paths within the propose path model were non-significant, useful information can be gleaned from the significant relationships within it. This statistical analysis provided further evidence to suggest that LGB people can improve their satisfaction with life by affiliating themselves with a larger community of LGB people. Furthermore, the results call into question the appropriateness of the LGBIS as a means to study internalized homonegativity in this sample given the floor effect and subsequent lack of variability in responses. The relationships between group affiliation in real life and group affiliation online, as well as the relationship between satisfaction with life and sexual risk taking, are both interesting and requiring further investigation to make any assertions about their potential meaning for LGB people.

Clinical Implications

Affiliation with real life LGB communities positively impacts quality of life for LGB people. Counseling psychologists should consider encouraging LGB people to connect with and integrate into larger LGB communities that can support and strengthen their LGB identities when they are able. This may be particularly relevant for LGB people for whom real life community is inaccessible because of proximity or safety. Counseling psychologists may also need to provide psychoeducation to their

clients that, pending further investigation, online communities may not be able to provide the same kind of support and well-being provided by real life communities.

Life satisfaction was significantly related to sexual risk taking. Given the significant path between affiliation with LGB communities in real life and sexual risk taking, counseling psychologists may need to pay specific attention to the sexual risk taking of their LGB clients. Access to information about safer sex practices is limited for LGB people (Pingel et al., 2013; Kubicek et al., 2010). LGB identities and information about non-heteronormative forms of sexual contact are often omitted entirely from sexual health curricula provided to students (Pingel et al., 2013; Kubicek et al., 2010). Taking a strengths-based approach, it is important not to attribute sexual risk taking behavior to LGB identities themselves rather than a lack of information and institutional support. Counseling psychologists must be willing to seek this information out for themselves so that they can speak knowledgeably with their clients about safer sex practices for LGB people. Counseling psychologists' ability to speak knowledgeably about safer sex practices for LGB people is made all the more important given the connection between life satisfaction and sexual risk taking. To best serve their LGB clientele, counseling psychologists must be prepared to help clients better understand sexual risk taking and their general sexual health.

Research Implications

Given the several non-significant relationships present in the proposed model, further investigation may be needed to elucidate relationships that are otherwise supported in literature. More research needs to be done to understand how real life

communities provide protective factors, through self-stereotyping or otherwise. The role of self-stereotyping as a component of group affiliation needs to be further examined in its role of providing protections for minority group members as theorized by the Rejection Identification Model. Subsequent analyses may examine if any portions of in-group affiliation, including self-stereotyping specifically, are more significantly able to predict internalized homonegativity or sexual risk taking.

More research needs to be done to understand how the positive, buffer creating aspects of real life communities might be replicated online. This analysis showed no significant relationships between group affiliations online with any psychological outcomes. Further inquiry might examine what pieces of real life interactions with communities are absent from online interactions, and how manipulating those components might impact affiliation with online communities' relationship internalized homonegativity, life satisfaction, and sexual risk taking. For example, future research may examine how virtual "face-to-face" interaction through video conferencing software, topics of conversation, or frequency of interaction could augment online interactions to more approximate real life interactions to provide protective factors. Moreover, further inquiry needs to be conducted on the type of online social environments to which LGB people may belong and their relationships to these psychological outcomes.

Limitations

This research was not without limitations, all of which should be considered when examining both the significant and non-significant results of the proposed model. The analysis itself provides several limitations given the sample and the

method. The limited sample size, for example, may have impacted the statistical analysis' ability to detect small effect sizes. Furthermore, although planned missingness was an appropriate methodology to use with this sample and analysis, it is possible that the planned missingness design impacted the analysis' ability to detect significant relationships among latent variables. The study also did not discriminate as to which social networks participants used; it is possible that responses to self-reported group affiliation would vary drastically between users who predominantly use SNSs like Scruff or Grindr, compared to users who predominantly use Facebook. Last, path modeling itself is appropriate when relationships between variables are well established in the literature and when directionality can be well assumed. Given some of the non-significant results in this model and the surprising directionality of one significant result, replication of the significant and non-significant relationships in this model may strengthen the assertions made in this analysis.

Future Directions

The significant relationship between group affiliation in real life with group affiliation online may have impacted the study's ability to test its hypotheses as designed. In particular, it is possible that the sample failed to capture LGB people for whom real life communities are inaccessible. Given that this study aimed to examine how online communities might be used similar to real life communities when real life communities are inaccessible, one future direction may be to replicate this study with a sample of LGB people who do not have access to real life communities. Targeting this subset of the population in particular may provide some clarity about how online communities may benefit them.

The limited qualitative data collected as part of this study provides an interesting base for potential future qualitative analysis. Without any formal analysis, no conclusions can be made about data provided by participants. Looking at individual responses to qualitative questions, however, suggests that there are some participants who believe different virtual spaces are able to provide differential degrees of community that are analogous to real life communities. Future qualitative research may focus on participants' beliefs about their own use of online social networks and how they are similar and different from real life social networks. Researchers may also investigate how successful different social networking sites are at creating cohesive, supportive community for LGB people and how LGB peoples' use of these sites may differ.

Appendix A

Qualitative Questions

- What social networks do you use most often?
- Are there any social networks that you use to connect with other lesbian, gay, bisexual, or queer people?
- Do you believe that there are online communities of lesbian, gay, bisexual, and queer people who use these social networks? Why or why not?
- If you answered yes to the previous question, do you feel that you are a part of these online communities of lesbian, gay, bisexual, and queer people? Why or why not?
- Do you feel drawn to connect with other members of the lesbian, gay, bisexual, and queer community? Why or why not?
- How do you feel like your use of online social networks might be similar or different from heterosexual people?
- What is the primary reason you use social networking sites?

Appendix B

Demographic Questions

1. Do you identify as trans?
2. Which of the following best describes your gender identity?
 - a. Man
 - b. Woman
 - c. Trans Man
 - d. Trans Woman
 - e. Gender non-binary, non-conforming
 - f. None of these, I describe my gender as :
3. What is your age?
4. Are you currently being treated with antiretrovirals to manage a viral load?
 - a. Yes
 - b. No
 - c. Unsure
 - d. Prefer not to say
5. Are you currently taking PrEP (pre-exposure prophylaxis)?
 - a. Yes
 - b. No
 - c. Unsure
 - d. Prefer not to say
6. Which of the following best describes your racial or ethnic identity?
 - a. Asian/Asian American
 - b. Black/African American
 - c. White/European American
 - d. Latino/a/x
 - e. Native/Native American/Indigenous People
 - f. Native Hawaiian
 - g. Middle Eastern
 - h. North African
 - i. Pacific Islander
 - j. None of these, I describe my racial or ethnic identity as:
7. Do you reside in the United States?
 - a. Yes
 - b. No
 - c. Prefer not to say
8. What is your highest level of education completed?
 - a. Did not receive high school diploma or GED
 - b. High school diploma or GED
 - c. Trade school/technical school/certification
 - d. Associate's degree
 - e. Bachelor's degree
 - f. Professional degree (e.g., JD, MD)

- g. Graduate degree
 - h. Other (please specify)
9. Would you describe your geographic location as rural, suburban, or urban?
10. In what socioeconomic status have you spent the majority of your life?
- a. Working class
 - b. Lower class
 - c. Middle class
 - d. Upper Middle class
 - e. Upper class
11. How would you describe your religion/spirituality
- a. Agnostic
 - b. Atheist
 - c. Buddhist
 - d. Catholic
 - e. Christian
 - f. Hindu
 - g. Jewish
 - h. Mormon/Latter Day Saints
 - i. Muslim
 - j. Unitarian Universalist
 - k. No religious affiliation
 - l. Other faith/religious tradition (please specify)
12. How would you identify your sexual orientation/sexual identity (please select all that apply)
- a. Asexual
 - b. Bisexual
 - c. Heterosexual/straight
 - d. Lesbian/Gay
 - e. Pansexual
 - f. Queer
 - g. Questioning
 - h. None of these, I identify as:
13. Do you identify as a person with a disability?
14. In your honest opinion, should we use your data in our analysis in this study?
- a. Yes, you should use my data for analysis
 - b. No, you should not use my data for analysis

Appendix C

The Lesbian, Gay, Bisexual Identity Scale

For each of the following questions, please mark the response that best indicates your current experience as an LGB person. Please be as honest as possible: Indicate how you really feel now, not how you think you should feel. There is no need to think too much about any one question. Answer each question according to your initial reaction and then move on to the next.

1 = Strongly Disagree

2 = Disagree

3 = Somewhat Disagree

4 = Somewhat Agree

5 = Agree

6 = Strongly Agree

1. I prefer to keep my same-sex romantic relationships rather private.
2. If it were possible, I would choose to be straight.
3. I'm not totally sure what my sexual orientation is.
4. I keep careful control over who knows about my same-sex romantic relationships.
5. I often wonder whether others judge me for my sexual orientation.
6. I am glad to be an LGB person.
7. I look down on heterosexuals.
8. I keep changing my mind about my sexual orientation.

9. I can't feel comfortable knowing that others judge me negatively for my sexual orientation.
10. I feel that LGB people are superior to heterosexuals.
11. My sexual orientation is an insignificant part of who I am.
12. Admitting to myself that I'm an LGB person has been a very painful process.
13. I'm proud to be part of the LGB community.
14. I can't decide whether I am bisexual or homosexual.
15. My sexual orientation is a central part of my identity.
16. I think a lot about how my sexual orientation affects the way people see me.
17. Admitting to myself that I'm an LGB person has been a very slow process.
18. Straight people have boring lives compared with LGB people.
19. My sexual orientation is a very personal and private matter.
20. I wish I were heterosexual.
21. To understand who I am as a person, you have to know that I'm LGB.
22. I get very confused when I try to figure out my sexual orientation.
23. I have felt comfortable with my sexual identity just about from the start.
24. Being an LGB person is a very important aspect of my life.
25. I believe being LGB is an important part of me.
26. I am proud to be LGB.
27. I believe it is unfair that I am attracted to people of the same sex.

Appendix D

The Satisfaction with Life Scale

Instructions: Below are five statements that you may agree or disagree with. Using the 1 -

7 scale below, indicate your agreement with each item by placing the appropriate number

on the line preceding that item. Please be open and honest in your responding.

7 - Strongly agree

6 - Agree

5 - Slightly agree

4 - Neither agree nor disagree

3 - Slightly disagree

2 - Disagree

1 - Strongly disagree

____ In most ways my life is close to my ideal.

____ The conditions of my life are excellent.

____ I am satisfied with my life.

____ So far I have gotten the important things I want in life.

____ If I could live my life over, I would change almost nothing.

Appendix E

Sexual Risk Survey (SRS)

Instructions: Please read the following statements and record the number that is true for you over the past 6 months for each question on the blank. If you do not know for sure how many times a behavior took place, try to estimate the number as close as you can. Thinking about the average number of times the behavior happened per week or per month might make it easier to estimate an accurate number, especially if the behavior happened fairly regularly. If you've had multiple partners, try to think about how long you were with each partner, the number of sexual encounters you had with each, and try to get an accurate estimate of the total number of each behavior. If the question does not apply to you or you have never engaged in the behavior in the question, put a "0" on the blank. Please do not leave items blank. Remember that in the following questions "sex" includes oral, anal, and vaginal sex and that "sexual behavior" includes passionate kissing, making out, fondling, petting, oral-to-anal stimulation, and hand-to-genital stimulation. Refer to the Glossary for any words you are not sure about. Please consider only the last 6 months when answering and please be honest.

In the past six months:

1. How many partners have you engaged in sexual behavior with but not had sex with?
2. How many times have you left a social event with someone you just met?
3. How many times have you "hooked up" but not had sex with someone you didn't know or didn't know well?
4. How many times have you gone out to bars/parties/social events with the intent of "hooking up" and engaging in sexual behavior but not having sex with someone?
5. How many times have you gone out to bars/parties/ social events with the intent of "hooking up" and having sex with someone?
6. How many times have you had an unexpected and unanticipated sexual experience?
7. How many times have you had a sexual encounter you engaged in willingly but later regretted?

For the next set of questions, follow the same direction as before. However, for questions 8–23, if you have never had sex (oral, anal or vaginal), please put a "0" on each blank.

8. How many partners have you had sex with?
9. How many times have you had vaginal intercourse without a latex or polyurethane condom? Note: Include times when you have used a lambskin or membrane condom.
10. How many times have you had vaginal intercourse without protection against pregnancy?

11. How many times have you given or received fellatio (oral sex on a man) without a condom?
12. How many times have you given or received cunnilingus (oral sex on a woman) without a dental dam or “adequate protection” (please see definition of dental dam for what is considered adequate protection)?
13. How many times have you had anal sex without a condom?
14. How many times have you or your partner engaged in anal penetration by a hand (“fisting”) or other object without a latex glove or condom followed by unprotected anal sex?
15. How many times have you given or received anilingus (oral stimulation of the anal region, “rimming”) without a dental dam or “adequate protection”(please see definition of dental dam for what is considered adequate protection)?
16. How many people have you had sex with that you know but are not involved in any sort of relationship with (i.e., “friends with benefits”, “fuck buddies”)?
17. How many times have you had sex with someone you don’t know well or just met?
18. How many times have you or your partner used alcohol or drugs before or during sex?
19. How many times have you had sex with a new partner before discussing sexual history, IV drug use, disease status and other current sexual partners?
20. How many times (that you know of) have you had sex with someone who has had many sexual partners?
21. How many partners (that you know of) have you had sex with who had been sexually active before you were with them but had not been tested for STIs/HIV?
22. How many partners have you had sex with that you didn’t trust?
23. How many times (that you know of) have you had sex with someone who was also engaging in sex with others during the same time period?

Appendix F

(Group-Level) Self-Investment

Solidarity

1. I feel a bond with [In-group].
2. I feel solidarity with [In-group].
3. I feel committed to [In-group].

Satisfaction

4. I am glad to be [In-group]
5. I think that [In-group] have a lot to be proud of.
6. It is pleasant to be [In-group].
7. Being [In-group] gives me a good feeling.

Centrality

8. I often think about the fact that I am [In-group].
9. The fact that I am [In-group] is an important part of my identity
10. Being [In-group] is an important part of how I see myself.

(Group-Level) Self-Definition Individual

Self-Stereotyping 1

11. I have a lot in common with the average [In-group] person.
12. I am similar to the average [In-group] person.

In-Group Homogeneity

13. [In-group] people have a lot in common with each other.
14. [In-group] people are very similar to each other.

Appendix G

Demographic Make-up of the Sample

Table 1 <i>Demographic Make-up of the Sample</i>		
Characteristic	<i>n</i>	%
<u>Gender</u>		
Transgender	26	8.8
Unsure	8	2.7
Cisgender	262	88.5
Men	117	39.5
Women	140	47.3
<u>Serostatus</u>		
HIV+	23	7.8
Unsure	9	3.0
HIV-	260	87.8
Taking PrEP	6	2.0
<u>Race/Ethnicity</u>		
White	207	69.9
Black or African American	36	12.2
Latino/a	15	5.1
Asian or Asian American	13	4.4
<u>Education</u>		
Less than High School	1	0.3
High School or GED Equivalent	43	14.5
Associate's Degree or Trade School	72	24.3
Bachelor's Degree	132	44.6
Master's Degree	18	6.1
PhD or Professional Degree	28	9.5
<u>Geographic Region</u>		
Rural	63	21.3
Suburban	127	42.9
Urban	106	35.8
<u>Class</u>		
Working class	89	30.1
Lower class	21	7.1
Middle class	141	47.6
Upper middle class	39	13.2
Upper class	6	2.0
<u>Religious affiliation</u>		
Atheist or Agnostic	98	33.1
<u>Sexual Orientation</u>		

Bisexual	137	46.3
Lesbian/Gay	102	34.5
Asexual	4	1.4
<u>Disability Status</u>		
No disability	205	69.3
<u>Age, mean (SD)</u>	32.5 (9.4)	
Total	296	

Appendix H

Correlations of Path Analysis Variables

Table 2

Correlations of Path Analysis Variables

Variables	1	2	3	4	5
1. Group Affiliation Online	-	-	-	-	-
2. Group Affiliation in Real Life	.556***	-	-	-	-
3. Sexual Risk Taking	.137*	0.129	-	-	-
4. Life Satisfaction	.208*	.516***	.222***	-	-
5. Internalized Homonegativity	-0.131	-.224**	.397***	-.012	-

* $p < .05$ ** $p < .01$ *** $p < .001$

Appendix I

Hypothesized Path Model

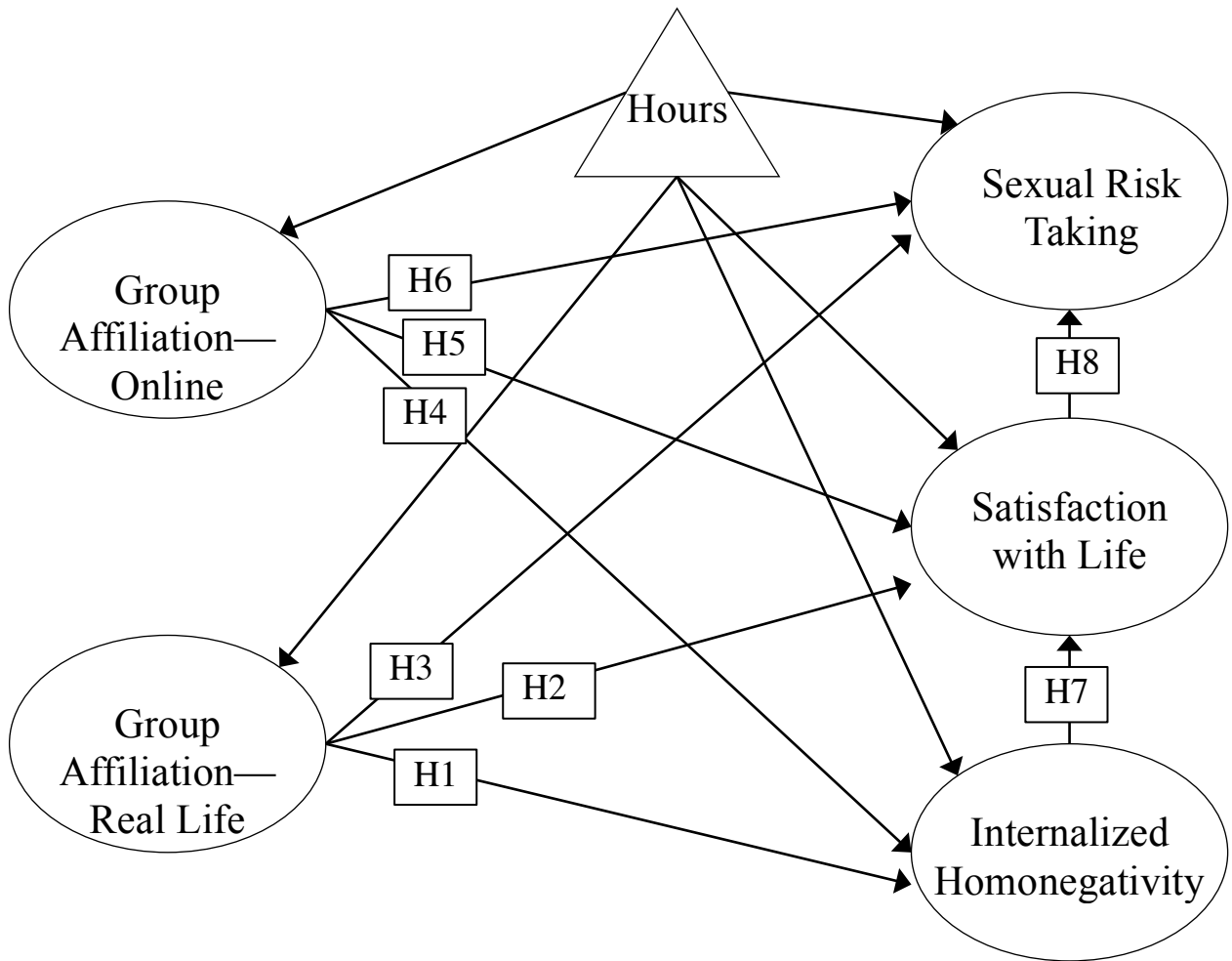


Figure 1 Hypothesized Path model

Appendix J

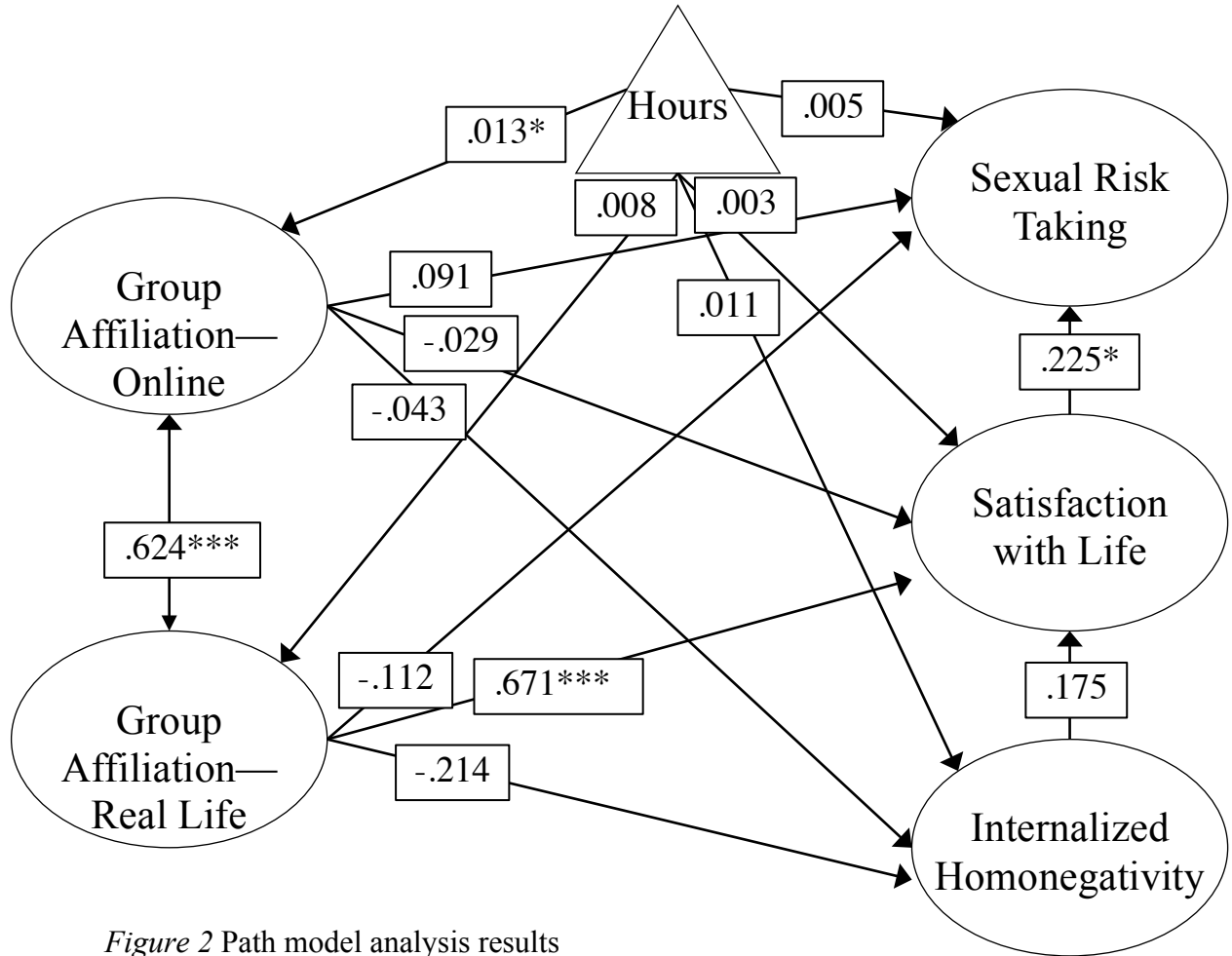


Figure 2 Path model analysis results

References

- Abrams, D., & Hogg, M. A. (Eds.). (1990). *Social identity theory: Constructive and critical advances*. New York, NY: Springer-Verlag Publishing.
- Ahn, Y., Han, S., Kwak, H., Eom, Y., Moon, S., & Jeong, H. (2007). Analysis of topological characteristics of huge online social networking services. *Proceedings of the 16th International Conference on World Wide Web*, 835–844.
- Allen, D.J., & Oleson, T. (1999). Shame and internalized homophobia in gay men. *Journal of Homosexuality*, 37(3), 33-43.
- Amin, I. (2016). Social capital and sexual risk-taking behaviors among older adults in the United States. *Journal of Applied Gerontology*, 35(9), 982–999.
<http://doi.org/10.1177/0733464814547048>
- Azzam, T., & Jacobson, M. R. (2013). Finding a comparison group: Is online crowdsourcing a viable option? *American Journal of Evaluation*, 34(3), 372-384.
<https://doi.org/10.1177/1098214013490223>
- Bachmann, A.S., & Simon, B. (2014). Society matters: The meditational role of social recognition in the relationship between victimization and life satisfaction among gay men. *European Journal of Social Psychology*, 44(3), 195. <https://doi-org.proxy-um.researchport.umd.edu/10.1002/ejsp.2007>
- Baldwin, T. T., Bedell, M. D., & Johnson, J. L. (1997). The social fabric of a team-based M . B . A . program : Network effects on student satisfaction and performance. *The Academy of Management Journal*, 40(6), 1369–1397.

- Balsam, K. F., & Mohr, J. J. (2007). Adaptation to sexual orientation stigma: a comparison of bisexual and lesbian/gay adults. *Journal of Counseling Psychology, 54*(3), 306.
- boyd, danah m., & Ellison, N. B. (2008). Frameworks for understanding the nature of interactions, networking, and community in a social networking site for academic practice. *Journal of Computer-Mediated Communication, 13*, 210–230. <http://doi.org/10.1111/j.1083-6101.2007.00393.x>
- Branscombe, N. R., Schmitt, M. T., & Harvey, R. D. (1999). Perceiving pervasive discrimination among African Americans: Implications for group identification and well-being. *Journal of Personality and Social Psychology, 77*(1), 135-149.
- Bregman, H.R., Malik, N.M., Page, M.J.L., Makynen, E., & Lindahl, K.M. (2013). Identity profiles in lesbian, gay, and bisexual youth: The role of family influences. *Journal of Youth and Adolescence, 42*(3), 417-430. <https://doi.org/10.1007/s10964-012-9798-z>
- Brown, J., Broderick, A. J., & Lee, N. (2013). Word of mouth communication within online communities: Conceptualizing the online social network. *Journal of Interactive Marketing, 21*(3), 2–20. <http://doi.org/10.1002/dir>
- Buhrke, R. A., Ben-Ezra, L. A., Hurley, M. E., & Ruprecht, L. J. (1992). Content analysis and methodological critique of articles concerning lesbian and gay male issues in counseling journals. *Journal of Counseling Psychology, 39*(1), 91.
- Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data?. *Perspectives on Psychological Science, 6*(1), 3-5. <https://doi.org/10.1177/1745691610393980>

- Byrnes, J., Miller, D., & Schaffer, W. (1999). Gender differences in risktaking: A meta-analysis. *Psychological Bulletin*, *125*, 367–383.
- Cabaj, R. P. (1988). Homosexuality and neurosis: Considerations for psychotherapy. *Journal of Homosexuality*, *15*(1-2), 13-23.
https://doi.org/10.1300/J082v15n01_03
- Cheung, C. M. K., Chiu, P. Y., & Lee, M. K. O. (2011). Online social networks: Why do students use Facebook? *Computers in Human Behavior*, *27*(4), 1337–1343.
<http://doi.org/10.1016/j.chb.2010.07.028>
- Conlin, S. E., Douglass, R. P., & Ouch, S. (2017). Discrimination, subjective wellbeing, and the role of gender: a mediation model of LGB minority stress. *Journal of Homosexuality*, *66*(2), 238-259. <https://doi.org/10.1080/00918369.2017.1398023>
- Cook, T. D., & Campbell, D. T., (1979). *Quasi-experimentation: Design & analysis issues for field settings* (Vol. 351). Boston: Houghton Mifflin.
- Cox, N., Dewaele, A., Van, H., & Vincke, J. (2011). Stress-related growth, coming out, and internalized homonegativity in lesbian, gay, and bisexual youth. An examination of stress-related growth within the minority stress model. *Journal of Homosexuality*, *58*(1), 117-37. doi:10.1080/00918369.2011.533631
- Cramer, R. J., Burks, A. C., Stroud, C. H., Bryson, C. N., & Graham, J. (2015). A moderated mediation analysis of suicide proneness among lesbian, gay, and bisexual community members. *Journal Of Social And Clinical Psychology*, *34*(7), 622-641. doi:10.1521/jscp.2015.34.7.622
- Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological review*, *96*(4), 608.

- Danielsen, A. G., Samdal, O., Hetland, J., & Wold, B. (2009). School-related social support and students' perceived life satisfaction. *Journal of Educational Research, 102*(4), 303–320. <http://doi.org/10.3200/JOER.102.4.303-320>
- Davidson, K., McLaren, S., Jenkins, M., Corboy, D., Gibbs, P. M., & Molloy, M. (2017). Internalized homonegativity, sense of belonging, and depressive symptoms among Australian gay men. *Journal of Homosexuality, 64*(4), 450–465. <http://doi.org/10.1080/00918369.2016.1190215>
- De La Cruz, R.A. (2018). Gay men in the rural borderlands: Exploring the experiences of using gay dating applications (Doctoral dissertation). Retrieved from ProQuest.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*(1), 71–75.
- Doane, M. J., & Elliott, M. (2015). Perceptions of discrimination among atheists: Consequences for atheist identification, psychological and physical well-being. *Psychology of Religion and Spirituality, 7*(2), 130-141.
- Doyle, D. M., & Molix, L. (2014). Perceived discrimination and well-being in gay men: The protective role of behavioural identification. *Psychology & Sexuality, 5*(2), 117-130. <https://doi.org/10.1080/19419899.2011.653689>
- Duffy, R.D., Douglass, R.P., Autin, K.L., & Allan, B.A. (2014). Examining predictors and outcomes of a career calling among undergraduate students. *Journal of Vocational Behavior 85*(3), 309-318. <https://doi.org/10.1016/j.jvb.2014.08.009>

- Edwards, K. M., & Sylaska, K. M. (2013). The perpetration of intimate partner violence among LGBTQ college youth: The role of minority stress. *Journal of Youth and Adolescence*, 42(11), 1721–1731. doi:10.1007/s10964-012-9880-6
- Elliott, M., & Doane, M. J. (2015). Stigma management of mental illness: Effects of concealment, discrimination, and identification on well-being. *Self and Identity*, 14(6), 654-674.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook “friends:” Social capital and college students’ use of online social network sites. *Journal of Computer-Mediated Communication*, 12(4), 1143–1168.
<http://doi.org/10.1111/j.1083-6101.2007.00367.x>
- Fogel, J., & Nehmad, E. (2009). Internet social network communities: Risk taking, trust, and privacy concerns. *Computers in Human Behavior*, 25(1), 153–160.
<http://doi.org/10.1016/j.chb.2008.08.006>
- Frable, D. E., Platt, L., & Hoey, S. (1998). Concealable stigmas and positive self-perceptions: Feeling better around similar others. *Journal Of Personality And Social Psychology*, 74(4), 909-922.
- Frisch, M. B., Cornell, J., Villanueva, M., & Retzlaff, P. J. (1992). Clinical validation of the Quality of Life Inventory. A measure of life satisfaction for use in treatment planning and outcome assessment. *Psychological Assessment*, 4(1), 92–101. <http://doi.org/10.1037/1040-3590.4.1.92>
- Ghavami, N., Fingerhut, A., Peplau, L. A., Grant, S. K., & Wittig, M. A. (2011). Testing a model of minority identity achievement, identity affirmation, and psychological well-being among ethnic minority and sexual minority

individuals. *Cultural Diversity and Ethnic Minority Psychology*, Vol 17(1), Jan 2011, 79-88. <http://dx.doi.org/10.1037/a0022532>

Giamo, L. S., Schmitt, M. T., & Outten, H. R. (2012). Perceived discrimination, group identification, and life satisfaction among multiracial people: A test of the rejection-identification model. *Cultural Diversity and Ethnic Minority Psychology*, 18(4), 319-328.

<http://dx.doi.org/10.1037/a0029729>

Goodman, J. K., Cryder, C. E., & Cheema, A. (2013). Data collection in a flat world: The strengths and weaknesses of Mechanical Turk samples. *Journal of Behavioral Decision Making*, 26(3), 213-224. <https://doi.org/10.1002/bdm.1753>

Gray, A. L., & Moore, E. W. (2018). Understanding the relationship between sexual identity, life satisfaction, psychological well-being, and online community use. *Modern Psychological Studies*, 23(2), 4.

Greywolf, D. S. (2007). *Social support, sexual identity development stage, internalized, and external homophobia in lesbian, gay, bisexual youth*. Walden University.

Grov, C., Hirshfield, S., Remien, R. H., Humberstone, M., & Chiasson, M. A. (2013). Exploring the venue's role in risky sexual behavior among gay and bisexual men: an event-level analysis from a national online survey in the US. *Archives of sexual behavior*, 42(2), 291-302.

Gudelunas, D. (2012). There's an app for that: The uses and gratifications of online social networks for gay men. *Sexuality and Culture*, 16(4), 347-365.

<http://doi.org/10.1007/s12119-012-9127-4>

- Halpin, S. A., & Allen, M. W. (2004). Changes in psychosocial well-being during stages of gay identity development. *Journal of homosexuality*, 47(2), 109-126.
- Haug, M. C. (2017). Fast, cheap, and unethical? The interplay of morality and methodology in crowdsourced survey research. *Review of Philosophy and Psychology*, 9(2), 363-379. <https://doi.org/10.1007/s13164-017-0374-z>
- Herek, G. M., Gillis, J. R., & Cogan, J. C. (1999). Psychological sequelae of hate-crime victimization among lesbian, gay, and bisexual adults. *Journal of Consulting and Clinical Psychology*, 67(6), 945.
- Herek, G. M., & Greene, B. (1995). *AIDS, Identity And Community: The HIV Epidemic And Lesbians And Gay Men*. London: Sage
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55.
- Jans, L., Leach, C. W., Garcia, R. L., & Postmes, T. (2015). The development of group influence on in-group identification: A multilevel approach. *Group Processes & Intergroup Relations*, 18(2), 190-209.
<https://doi.org/10.1177/1368430214540757>
- Jetten, J., Branscombe, N. R., Schmitt, M. T., & Spears, R. (2001). Rebels with a cause: Group identification as a response to perceived discrimination from the mainstream. *Personality and Social Psychology Bulletin*, 27(9), 1204-1213.
- Kubicek, K., Beyer, W.J., Weiss, G., Iverson, E., & Kipke, M.D. (2010). In the dark: Youn men's stories of sexual initiation in the absence of relevant health

information. *Health Education & Behavior*, 37(2), 243-263. <http://dx.doi.org.proxy-um.researchport.umd.edu/10.1177/1090198109339993>

- Lampe, C., Ellison, N., & Steinfield, C. (2007). A familiar Face(book): profile elements as signals in an online social network. *CHI 2007 Proceedings*, 435–444. <http://doi.org/10.1145/1240624.1240695>
- Latrofa, M., Vaes, J., Pastore, M., & Cadinu, M. (2009). “United we stand, divided we fall”! The protective function of self-stereotyping for stigmatised members’ psychological well-being. *Applied Psychology: An International Review*, 58(1), 84-104. doi: 10.1111/j.1464-0597.2008.00383.x
- Leach, C. W., Van Zomeren, M., Zebel, S., Vliek, M. L., Pennekamp, S. F., Doosje, B., ... & Spears, R. (2008). Group-level self-definition and self-investment: a hierarchical (multicomponent) model of in-group identification. *Journal of Personality and Social Psychology*, 95(1), 144-165. <http://dx.doi.org/10.1037/0022-3514.95.1.144>
- Leigh, B. C. (1999). Peril, chance, adventure: Concepts of risk, alcohol use and risky behavior in young adults. *Addiction*, 94(3), 371–383. <http://doi.org/10.1046/j.1360?0443.1999.9433717.x>
- Lejuez, C. W., Read, J. P., Kahler, C. W., Richards, J. B., Ramsey, S. E., Stuart, G. L., ... Brown, R. A. (2002). Evaluation of a behavioral measure of risk taking: The Balloon Analogue Risk Task (BART). *Journal of Experimental Psychology: Applied*, 8(2), 75–84. <http://doi.org/10.1037/1076-898X.8.2.75>
- Leonardelli, G. J., Pickett, C. L., & Brewer, M. B. (2010). Optimal distinctiveness theory: A framework for social identity, social cognition, and intergroup

- relations. *Advances In Experimental Social Psychology*, 43, 63-113.
[https://doi.org/10.1016/S0065-2601\(10\)43002-6](https://doi.org/10.1016/S0065-2601(10)43002-6)
- Lewis, R.J., Derlega, V.J., Griffin, J.L. & Krowinski, A.C. (2003). Stressors for gay men and lesbians: Life stress, gay-related stress, stigma consciousness, and depressive symptoms. *Journal of Social and Clinical Psychology*, 22, 716-729.
- Liau, A., Millett, G., & Marks, G. (2006). Meta-analytic examination of online sex-seeking and sexual risk behavior among men who have sex with men. *Sexually Transmitted Diseases*, 33(9), 576-584.
- Livingstone, S. (2008). Taking risky opportunities in youthful content creation: Teenagers' use of social networking sites for intimacy, privacy and self-expression. *New Media & Society*, 10(3), 393-411.
<http://doi.org/10.1177/1461444808089415>
- Livingstone, S., & Helsper, E. J. (2007). Taking risks when communicating on the Internet: The role of offline social-psychological factors in young people's vulnerability to online risks. *Information Communication and Society*, 10(5), 619-644. <http://doi.org/10.1080/13691180701657998>
- Luhtanen, R. K. (2003). Identity, stigma management, and well-being: A comparison of lesbians/bisexual women and gay/bisexual men. *Journal of Lesbian Studies*, 7(1), 85-100. http://dx.doi.org/10.1300/J155v07n01_06
- Lyons, A., Hosking, W., & Rozbroj, T. (2015). Rural-urban differences in mental health, resilience, stigma, and social support among young Australian gay men. *The Journal Of Rural Health*, 31(1), 89-97.

- Masini, B. E., & Barrett, H. A. (2008). Social support as a predictor of psychological and physical well-being and lifestyle in lesbian, gay, and bisexual adults aged 50 and over. *Journal of Gay & Lesbian Social Services, 20*(1-2), 91–110.
<http://doi.org/10.1080/10538720802179013>
- Mayfield, W. (2001). The development of an internalized homonegativity inventory for gay men. *Journal of homosexuality, 41*(2), 53-76.
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. *Psychological bulletin, 129*(5), 674-697. doi: 10.1037/0033-2909.129.5.674
- Millar, B. M., Starks, T. J., Grov, C., & Parsons, J. T. (2017). Sexual risk-taking in HIV-negative gay and bisexual men increases with depression: Results from a US national study. *AIDS and Behavior, 21*(6), 1665-1675.
- Mohr, J. J., & Kendra, M. S.. (2012) . The Lesbian, Gay, & Bisexual Identity Scale (LGBIS) . Measurement Instrument Database for the Social Science. Retrieved from www.midss.ie
- Morandini, J. S., Blaszczynski, A., Ross, M. W., Costa, D. S., & Dar-Nimrod, I. (2015). Essentialist beliefs, sexual identity uncertainty, internalized homonegativity and psychological wellbeing in gay men. *Journal Of Counseling Psychology, 62*(3), 413.
- Murray, J., & Adam, B. D. (2001). Aging, sexuality, and HIV issues among older gay men. *The Canadian Journal of Human Sexuality, 10*(3/4), 75.
- Muthén, L. K., & Muthén, B. O. (1998-2015). *Mplus User's Guide* (6th ed.). Los Angeles, CA: Muthén & Muthén.

- Nadal, K. L. (2013). *That's so gay! Microaggressions and the lesbian, gay, bisexual, and transgender community*. Washington, D.C.: American Psychological Association.
- Nadal, K. L., Issa, M. A., Leon, J., Meterko, V., Wideman, M., & Wong, Y. (2011). Sexual orientation microaggressions: “Death by a thousand cuts” for lesbian, gay, and bisexual youth. *Journal of LGBT Youth*, 8(3), 234-259.
- Ngamake, S. T., Walch, S. E., & Raveepatarakul, J. (2014). Validation of the coping with discrimination scale in sexual minorities. *Journal of homosexuality*, 61(7), 1003-1024.
- Nip, J. Y. M. (2004). The relationship between online and offline communities: The case of the queer sisters. *Media, Culture & Society*, 26(3), 409–428.
<http://doi.org/10.1177/0163443704042262>
- Noelle, M. (2002). The ripple effect of the Matthew Shepard murder: Impact on the assumptive worlds of members of the targeted group. *American Behavioral Scientist*, 46(1), 27–50. doi:10.1177/0002764202046001004
- Oswald, R. F., & Culton, L. S. (2003). Under the rainbow: Rural gay life and its relevance for family providers. *Family Relations*, 52(1), 72-81.
- Paolacci, G., & Chandler, J. (2014). Inside the Turk: Understanding Mechanical Turk as a participant pool. *Current Directions in Psychological Science*, 23(3), 184-188.
<https://doi.org/10.1177/0963721414531598>
- Pavot, W., & Diener, E. (1993). Review of the Satisfaction With Life Scale. *Psychological Assessment*, 5(2), 164–172.

- Pluhar, E. I., Frongillo, E. A., Stycos, J. M., & Dempster-McClain, D. (2003). Changes over time in college student's family planning knowledge, preference, and behavior and implications for contraceptive education and prevention of sexually transmitted infections. *College Student Journal*, 37(3), 420-435.
- Pingel, E.S., Thomas, L., Harmell, C., & Bauermeister, J.A. (2013). Creating comprehensive, youth centered, culturally appropriate sex education: What do young gay, bisexual, and questioning men want? *Sexuality Research & Social Policy*, 10(4), 293-301. <http://dx.doi.org.proxy-um.researchport.umd.edu/10.1007/s13178-013-0134-5>
- Powdthavee, N., & Wooden, M. (2015). Life satisfaction and sexual minorities: Evidence from Australia and the United Kingdom. *Journal of Economic Behavior & Organization*, 116, 107-126.
<https://doi.org/10.1016/j.jebo.2015.04.012>
- Prezza, M., Amici, M., Roberti, T., & Tedeschi, G. (2001). Sense of community referred to the whole town: Its relations with neighboring, loneliness, life satisfaction, and area of residence. *Journal of Community Psychology*, 29(1), 29-52.
- Rau, P. L. P., Gao, Q., & Ding, Y. (2008). Relationship between the level of intimacy and lurking in online social network services. *Computers in Human Behavior*, 24(6), 2757–2770. <http://doi.org/10.1016/j.chb.2008.04.001>
- Riggle, E. D., Mohr, J. J., Rostosky, S. S., Fingerhut, A. W., & Balsam, K. F. (2014). A multifactor Lesbian, Gay, and Bisexual Positive Identity Measure (LGB-PIM). *Psychology of Sexual Orientation and Gender Diversity*, 1(4), 398.

- Robinson, J. L., & Rubin, L. J. (2016). Homonegative microaggressions and posttraumatic stress symptoms. *Journal of Gay & Lesbian Mental Health, 20*(1), 57-69.
- Russell, G. M., & Richards, J. A. (2003). Stressor and resilience factors for lesbians, gay men, and bisexuals confronting antigay politics. *American Journal of Community Psychology, 31*(3-4), 313-328.
- Schmitt, M. T., Spears, R., & Branscombe, N. R. (2003). Constructing a minority group identity out of shared rejection: The case of international students. *European Journal of Social Psychology, 33*(1), 1-12.
- Schroder, K. E., Johnson, C. J., & Wiebe, J. S. (2009). An event-level analysis of condom use as a function of mood, alcohol use, and safer sex negotiations. *Archives of Sexual Behavior, 38*(2), 283-289. <https://doi.org/10.1007/s10508-007-9278-9>
- Schwartz, S. J., Waterman, A. S., Vazsonyi, A. T., Zamboanga, B. L., Whitbourne, S. K., Weisskirch, R. S., ... Ham, L. S. (2011). The association of well-being with health risk behaviors in college-attending young adults. *Applied Developmental Science, 15*(1), 2036. <http://doi.org/10.1080/10888691.2011.538617>
- Seelman, K. L., Woodford, M. R., & Nicolazzo, Z. (2017). Victimization and microaggressions targeting LGBTQ college students: Gender identity as a moderator of psychological distress. *Journal of Ethnic & Cultural Diversity in Social Work, 26*(1-2), 112-125.
- Sheets, R. L., & Mohr, J. J. (2009). Perceived social support from friends and family and psychosocial functioning in bisexual young adult college students. *Journal*

of Counseling Psychology, 56(1), 152–163. <http://doi.org/10.1037/0022-0167.56.1.152>

Shelton, K., & Delgado-Romero, E. (2011). Sexual orientation microaggressions: the experience of lesbian, gay, bisexual, and queer clients in psychotherapy. *Journal of Counseling Psychology*, 58(2), 210–221. doi:10.1037/a0022251

Shepler, D. K., Johnson, K. P., & Width, A. A. (2017). Risky sexual behavior and knowledge of HIV/AIDS transmission in a community sample: Sexual orientation, race, and gender. *Journal of Social, Behavioral, and Health Sciences*, 11(1), 10.

Sheran, N., & Arnold, E. A. (2012). Fairy godmothers and guardian angels: A qualitative study of the gay mentorship relationship. *Journal of Gay & Lesbian Social Services*, 24(3), 201-220.

Smalley, K. B., Warren, J. C., & Barefoot, K. N. (2016). Differences in health risk behaviors across understudied LGBT subgroups. *Health Psychology*, 35(2), 103-114. <http://dx.doi.org/10.1037/hea0000231>

Smith, E. R., Perrin, P. B., & Rabinovitch, A. E. (2018). Sexual behavior in sexual minority women and connections with discrimination. *Sexuality Research and Social Policy*, 15(1), 1-11. <https://doi.org/10.1007/s13178-017-0293-x>

Steinfeld, C., Ellison, N. B., & Lampe, C. (2008). Social capital, self-esteem, and use of online social network sites: A longitudinal analysis. *Journal of Applied Developmental Psychology*, 29(6), 434–445.

<http://doi.org/10.1016/j.appdev.2008.07.002>

- Szymanski, D.M., Chung, Y.B., & Balsam, K. (2001). Psychological correlates of internalized homophobia in lesbians. *Measurement and Evaluation in Counseling and Development, 34*, 27-38.
- Tajfel, H. (1981). *Human groups & social categories: Studies in social psychology*. New York, NY: Cambridge University Press.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W.G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations*, (33-47). Monterey, CA: Brooks/Cole.
- Tatum, A.K. (2016). The interaction of same-sex marriage access with sexual minority identity on mental health and subjective wellbeing. *Journal of Homosexuality, 64*(5), 638-653. <https://doi.org/10.1080/00918369.2016.1196991>
- Theodore, J. L., Shidlo, A., Zemon, V., Foley, F. W., Dorfman, D., Dahlman, K. L., & Hamid, S. (2013). Psychometrics of an internalized homophobia instrument for men. *Journal of Homosexuality, 60*(4), 558-574.
- Turchik, J. A., & Garske, J. P. (2009). Measurement of sexual risk taking among college students. *Archives of Sexual Behavior, 38*(6), 936–948. <http://doi.org/10.1007/s10508-008-9388-z>
- Valois, R. F., Kerr, J. C., Hennessy, M., DiClemente, R. J., Brown, L. K., Carey, M. P., ... Romer, D. (2015). Perceived difficulty of performing selected HIV/AIDS preventive behaviors and life satisfaction: Is there a relationship for African American adolescents? *AIDS and Behavior, 19*(7), 1288–1297.
- Wolf, E.J., Harrington, K.M., Clark, S.L., & Miller, M.W. (2013). Sample size requirements for structural equation models: An evaluation of power, bias, and

solution propriety. *Educational and Psychological Measurement*, 76(6), 913-934. doi: 10.1177/0013164413495237

Young, S. D., Nianogo, R. A., Chiu, C. J., Menacho, L., & Galea, J. (2016). Substance use and sexual risk behaviors among Peruvian MSM social media users. *AIDS care*, 28(1), 112-118.