The Impact of Outness and Lesbian, Gay, and Bisexual Identity Formation on Mental Health

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ABSTRACT

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Conflicting literature exists for the relationship between first disclosure, outness, sexual minority identity, and mental health among lesbian, gay, and bisexual (LGB) individuals. That is, while the relationship between LGB identity and mental health has been relatively consistently positive in the literature, the relationship between outness and mental health is more mixed. In addition, the way these constructs differ among race, sex, and sexual orientation are rarely examined. The present study examined the complex relationship between first disclosure, outness, identity, and mental health among 192 lesbian, gay, and bisexual individuals collected from an online sample. The study explored differences on these variables by biological sex, race, age, and sexual orientation. The major findings revealed that bisexual males have less developed sexual minority identities and view their identities less positively than do lesbian, gay, and bisexual female individuals. In addition, bisexual individuals overall are less out and come out later for the first time in comparison to lesbian and gay individuals. In terms of race, Caucasians have a stronger and more positive view of their sexual identity in comparison to individuals of color. It was also found that individuals in later stages of sexual identity development experienced a more positive view of their sexual identity. In terms of mental health, it was revealed that a stronger sexual identity was related to better mental health. Greater degree of outness was found to overall have a moderately positive impact on mental health, though age of first disclosure of sexual minority status was, overall, not associated to measures of identity or mental health. When examined more closely, outness had a more complex, dual impact on mental health. Specifically, outness was found to have both positive and negative consequences for mental

health, with identity development accounting for the positive aspects of outness. Directions for future research and implications for clinicians are also discussed.

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Chapter One: Introduction

The United States is still a heterosexist society. That is, our society assumes that all individuals are heterosexual unless told otherwise. In addition, the government has set up its tax system and laws in ways which promote a heterosexual lifestyle and discourage a homosexual lifestyle, such as by allowing heterosexual marriage and not allowing homosexual marriage. In addition to not having equal rights, lesbian, gay, and bisexual (LGB) individuals are all too often subjected to discrimination, harassment, and even violence. Even the ways researchers study LGB individuals is often discriminatory, as LGB identity is cast as the "other" and is compared to the implicit heterosexual standard, which does not allow for the study of LGB individuals within their own context (Sampson, 1993). These environmental pressures can lead to great internal struggles and psychological problems. However, some individuals may face adversity with resilience and not suffer psychologically. It seems important to understand those factors that impact the mental health of sexual minority individuals. If it is better understood how sexual identity is formed and managed and how these factors interact with mental health outcomes, perhaps clinicians can be better able to help LGB clients. The current study investigates how LGB identity formation, age of first disclosure of sexual identity, and level of disclosure of sexual identity interact and impact outcomes of mental health.

LGB identity formation is important to understand as it informs how individuals view themselves and where their sexual orientation fits into their greater sense of self. Indeed, identity formation is a crucial part of the developmental process for any individual (Halpin, 2004), but may be particularly complex or more difficult for an LGB person due to the added societal pressures he or she faces.

LGB identity is often described as being a linear developmental progression, one which begins with questions about sexual identity in childhood and ends with self-acceptance of identity and integration into one's greater sense of self (Cass, 1984; Coleman, 1981/1982; Trodien, 1989). However, the literature suggests that gay identity development is more complex than this linear progression would suggest (Diamond, 1998; Eliason, 1996; Floyd & Bakeman, 2006). While these linear models, referred to as stage models, proffer that every individual goes through the same distinct developmental stages (Cass, 1984; Coleman, 1981/1982; Trodien, 1989), other theorists conceptualize identity formation by looking at discrete factors which affect LGB individuals throughout the lifetime (Mohr & Fassinger, 2000).

Similarly, disagreement in the literature exists about how LGB identity strength impacts mental health. Most of the literature on LGB identity formation and mental health outcomes demonstrate that those further along in their identity development and/or who view their sexual identity in a more positive way are also individuals who are more psychologically adjusted (Brady & Busse, 1994; Miranda & Storms, 1989; Rosario, Schrimshaw, & Hunter, 2010). However, other research has found no such relationship (D'Augelli, 2002; Floyd & Stein, 2002). It seems important to further clarify how identity formation and mental health outcomes are related.

Decisions of when and how to come out are essential questions that a LGB person must grapple with again and again. Disclosing for the first time can be a difficult task, one that can impact mental health later in life (D'Augelli, 2002; Friedman, Marshal, Stall, Cheong, & Wright, 2008). In addition, disclosure of sexual orientation occurs throughout the lifetime as individuals may be out in certain spheres of their lives, but closeted in others. Indeed, coming out to each person in an individual's life is a distinct process and each decision is weighed carefully as each

disclosure comes with different levels of risks and benefits (Evans & Brodio, 1999). This weighing of risks and benefits seems to be an important part of the coming out process (Evans & Brodio, 1999; Wells & Kline, 1987).

The relationship between degree of disclosure and mental health outcomes is not clear. Some authors have found there to be a positive correlation between degree of disclosure and mental health functionality (Lewis et al., 2009; Jordan & Deluty, 1998), while others found no correlation (Brady & Busse, 1994; Frost & Meyer, 2009). These differing results may be indicative of the fact that the degree to which an individual is out is often dependent on a variety of factors in the individuals life, which means that coming out more fully may be a good decision for some, have no impact, or be an unhealthy decision for others (Frost & Meyer, 2009). Frost and Meyer (2009) point out that making the right decision given individual differences and differences in circumstances may be the real indicator of psychological health.

The relationship between identity and outness is a complex one. Though coming out and identity formation are sometimes confounded in the literature, they are distinct entities—identity development is about discovering and labeling the self as LGB, while "coming out" is sharing this self-label with others (Jordan & Deluty, 1998). Some literature has found that a more developed identity or an identity that is viewed more positively is significantly correlated with higher degrees of disclosure (Miranda & Storms, 1989; Mohr & Fassinger, 2000). Other literature has indicated that this relationship may not exist (Maguen et al., 2002) and that individual or environmental factors (such as those listed above) may be more influential for coming out than identity development.

Taken together, it seems clear that the relationship between LGB identity formation, coming out, outness, and mental health outcomes are not fully understood, as discrepancies in

the literature exists. The present study aims to shed light on these issues in an effort to help mental health professionals better serve LGB individuals.

Chapter Two: Literature Review

Identity Formation of Lesbian, Gay, and Bisexual Individuals

Theory of identity formation.

Identity formation is a crucial part of the developmental process for any individual (Halpin, 2004). James Marcia (1966), who expanded the work of Erik Erickson, conceptualized identity development by focusing on adolescents. He believed that adolescence is the time when people grapple with and commit to values and make choices about their future in areas such as religion, political ideology, and occupation. Marcia (1966) called the consideration of our values and choices "crisis" and the ultimate adoption of specific values and roles "commitment." He believed that these two pieces are what form identity. Marcia (1966) proffered 4 identity statuses that adolescents can fall into, depending on how well formed (or not) their identity is: Identity diffusion, identity foreclosure, identity moratorium, and identity achievement. *Identity diffusion* is defined as having a lack of commitment, but not minding that there is a lack of commitment. In other words, the individual is not grappling with his or her values or actively considering choices, and perhaps does not think that these choices are important or necessary to make. *Identity foreclosure* is defined as an individual expressing commitment, but not going through crisis. That is, the individual has not yet grappled with his or her identity, but has already adopted values. These values are typically in line with what is expected of him or her by others, such as by parents. *Identity moratorium* occurs when the adolescent is in crisis and so is actively struggling towards commitment by grappling with different choices. Finally, *identity achievement* occurs when the individual has gone through crisis and has committed to certain choices and values and thus feels less confused and more at peace with his or her sense of self.

Marcia's model is important as it was one of the first conceptualizations of identity that incorporated both a process and a developmental framework into one theory.

Everyone must grapple with who he or she is, but for gay, lesbian, and bisexual individuals, the task of discovering and integrating their sexual identity into their overall self-concept is an often complex and sometimes difficult process. LGB identity development has been conceptualized in several ways, each attempting to come close to the experience of LGB individuals. Commonly, three aspects are present in most of the conceptualizations of LGB identity development: self-definition (discovering and defining oneself as a LGB individual), self-acceptance (accepting oneself as a LGB individual), and disclosure of LGB identity to others (commonly referred to as "coming out") (Elizure & Mintzer, 2001). These themes make up the backbone of how the literature currently thinks about gay identity formation. However, different models define and present the process in distinct ways.

Stage models of LGB identity formation.

LGB identity formation is often conceptualized as occurring in linear developmental stages, with each stage building on the previous stage and ultimately terminating in the LGB individual embracing and integrating his or her sexual identity into his or her greater sense of self. In general, the stage models attempt to categorize individuals' development into distinct stages that begin with noticing some sort of difference to peers and end with achieving an integrated full identity as a LGB individual. Numerous stage models of gay identity exist (e.g. Coleman, 1981, 1982; Troiden, 1989), and though theorists call their stages by different names and some of the stages occur at different times, in general they follow a similar pattern, which is outlined in greater depth below.

Cass's stage model for LGB identity formation.

The present study will focus on Cass's stage identity model as it is arguably the most common stage model quoted in the literature and because there is evidence that it has empirical validity (Adams, 2009; Cass, 1984). Cass conceptualized her model as having six stages: Identity confusion, comparison, tolerance, acceptance, pride, and synthesis (Cass, 1984). Individuals pass through these stages in a linear fashion, unless the individual rejects their homosexual identity, therefore arresting their development in what Cass called "identity foreclosure." Identity foreclosure is a term borrowed from Marcia's conceptualization of identity formation. Marcia defined it as the period when the individual stops struggling with his or her identity and instead adopts an identity that is expected of him or her by society or family. Cass used this term in much the same way; that is, identity foreclosure is defined as the individual no longer struggling with his or her gay identity and instead adopting what is expected by society—a heterosexual identity. Cass theorized that her model held true for both lesbian and gay (LG) individuals.

Stage 1: Confusion.

In this stage, individuals begin to question if some of their behaviors, thoughts, or feelings are homosexual and thus begin to question their heterosexual identity. In this stage, individuals can follow one of three different paths, depending on how the individual views him or herself in relation to homosexuality. The individual could consider adopting a LG identity in a positive way, could consider adopting a LG identity in a negative way, or reject a LG identity altogether.

Stage 2: Identity comparison.

In this stage, the individuals begin to accept the possibility of identifying as gay or lesbian. With this potentiality, individuals begin to feel estranged from those who are not

homosexual. In an effort to reduce some of the alienation they feel, individuals seek out contact with other LG people.

Stage 3: Identity tolerance.

In this stage, individuals more fully accept that they are likely gay or lesbian and both seek out role models and get involved in the gay community in order to further decrease alienation. If these interactions with the gay community are positive, individuals feel more identified with their culture, and so their LG identity is strengthened. However, if the interactions are negative, the culture is devalued, and their LG identity is also devalued. Disclosure to heterosexuals about one's self-image is limited at this stage, and thus the individual leads two different lives: a public life that is heterosexual and a private life that is homosexual.

Stage 4: Identity acceptance.

This stage is marked by more integration into homosexual culture as the individual gains a network of LG friends and is more fully involved in the LG community. Disclosure begins to occur to a select group of people close to the individual, namely friends and family. However, at other times the individual is still attempting to "pass" as a heterosexual person in certain spheres in order to limit possible negative reactions to the individual's homosexuality. Cass describes this stage as a "relatively peaceful and stable time" (1984, p.152) in development as individuals are finally finding a place where they feel they belong.

Stage 5: Identity pride.

In this phase, group identity is developed through further affiliation with the gay community and with issues that affect the gay community. The individual begins to split the world into two groups: other gay people who are valued and heterosexuals who are devalued. Individuals in this stage become angry about the prejudice that gay people experience in society,

anger which breeds confrontations with heterosexuals in an effort to prove the equality of LG identity. If these confrontations lead to negative reactions from others, it can lead to identity foreclosure (resulting in the individual rejecting his or her homosexuality). However, if individuals receive positive responses from heterosexuals, their split world view is challenged and individuals move into the final stage in order to resolve the dissonance created.

Stage 6: Identity synthesis.

The split between homosexual and heterosexual is reduced from the previous stage. Though anger about society's stigmatism and pride about one's own group still exists, it has significantly subsided from Identity Pride. Disclosure becomes commonplace, and as identity is no longer hidden, individuals experience a synthesis between how they view themselves and how others view them. Cass (1984) writes that this cohesion leads to "feelings of peace and stability," (p. 153) which completes identity formation.

Other stage models.

Coleman (1981/1982) and Troiden's (1989) models are two more of the most widely recognized stage models and thus were chosen to be highlighted. Though Coleman presented a 5-stage model of gay identity and Troiden used a 4-stage model, these models have much in common with each other and with Cass's model. The stages are outlined below.

Stage 1: Noticing difference.

The first part of these stage models entails the individual feeling different from his or her peers. Coleman (1981/1982) called his first stage *pre-coming out*. Coleman wrote that noticing this difference leaves the child feeling alienated, though he/she does not yet consciously know why he/she feels so different, though he/she may feel attraction to same-sex peers at a preconscious level. Troiden's (1989) first stage is called *sensitization* and is similar to Coleman

and Cass's first stage, consisting of the child feeling isolated and distinct from his/her same-sex peers, and also not consciously understanding why. Troiden's second stage, i*dentity confusion*, seems to fit in with Cass and Coleman's first stages. Identity confusion occurs in middle to late adolescence and is characterized by the adolescent starting to realize that he/she may be gay and coping with this knowledge through different avenues from denial of homosexual feelings to acceptance of them.

Stage 2: Coming out.

Disclosing one's sexual orientation to others is an important part of identity development as it demonstrates a level of self-acceptance and commitment to LGB identity. Coleman's (1981/1982) second stage, *coming out*, entails acknowledging same-sex attraction and eventual labeling himself/herself as gay and disclosing this to others. As in Cass's model (during *identity pride*), others' responses partly determine how identity progresses. If others respond to the disclosure in a positive way, identity formation progresses. However, if the response is negative, identity progression is delayed. In Troiden's model, coming out in full does not occur until the final stage of identity development, *commitment*.

Stage 3: Exploration.

The next stage in the models entails investigating one's sexual identity through interactions with other LGB individuals. Coleman's (1981/1982) third stage is in fact called *exploration*, and consists of the individual exploring his/her gay identity both socially and sexually, much like in Cass's model when individuals begin to associate with others in the gay community in *identity tolerance and identity acceptance*. This stage is similar to Troiden's (1989) third stage, *assumption,* which also entails individuals (during or after late adolescence) beginning to accept their identity and interact with other LGB people and engage in same-sex

sexual activity. Exploring identity in this way is similar to Marcia's theory of moratorium, which entails the individual being in crisis and actively struggling towards commitment to an identity by grappling with different choices.

Stage 4: First relationships.

Coleman's (1981/1982) next stage is *first relationships* in which individuals' primary need is for intimacy, and so they seek out relationships. However, these relationships are often marked by jealousy, unrealistic expectations, and an intense need for intimacy. In Troiden's model, first relationships do not occur until the final stage of identity development, (called *commitment*), once the individual has fully accepted his or her LGB status.

Stage 5: Identity consolidation.

The final stage of identity formation for stage models entails fully integrating sexual identity into overall identity. According to Coleman (1981/1982), once the individual gets through the intense relationships formed during stage 4, he/she goes onto this final stage, which he called *integration.* During this stage, individuals have healthier relationships and eventually have a sense of self that includes gay identity. This new sense of self is similar to Cass and Troiden's final stages of development. Trioden (1989) calls his final stage *commitment,* which occurs in early adulthood. In this stage the individual fully accepts his or her gay identity and begins to see LG identity as a way of being, rather than just a description of sexual behavior. During this stage, disclosure to non-homosexual others occurs and same-sex relationships begin, just as in Coleman's model. Finally, the individual experiences greater happiness and increased life satisfaction as gay identity is integrated into his or her overall identity. Troiden describes this as "identity synthesis," using the same terminology as Cass and the same conceptualization as Coleman.

Support for the stage models: Cass.

The stage models are both succinct and complex in their attempts to capture identity development in LG individuals. However, despite being quoted and referred to often in the literature, the research supporting this conceptualization is surprisingly sparse. However, several studies do lend support to this way of conceptualizing gay identity. This dissertation will focus on Cass's model as it is one of the most popular in the literature.

Cass herself evaluated her six-stage model, finding some validity for her conceptualization (Cass, 1984). For this study, Cass created the Homosexual Identity Questionnaire (HIQ), a scale which inquired about the behaviors and thoughts of homosexual subjects. Each behavior and thought was predicted to correspond with certain stages of the Cass model. She also wrote paragraph-long descriptions of each stage in her model, which she called the Stage Allocation Measure. She wanted to see if the behaviors and thoughts of the HIQ corresponded as she predicted to the correct stage of identity development. Her final sample consisted of 109 males and 69 females. She found that there was evidence that the predicted behaviors, thoughts, and feelings associated with each stage corresponded to the paragraph description of the stages. She also found that the six stage groups could be distinguished from one another, further evidence that identity formation unfolds in the ways she proffered. However, she did not find clear-cut evidence that individuals go through the stages in the order that she described. In addition, she found that some stages were depicted more accurately than others (for instance, Stage 3, Identity Tolerance, had lower correspondence between predicted behaviors/thoughts and the stage as compared to Stage 5, Identity Pride). Overall her study presents promising evidence for Cass's stage model.

Brady and Busse (1994) developed the Gay Identity Questionnaire (GIQ) based on Cass's model using 225 gay male subjects. The authors found no relationship between demographic variables and Cass's stages. Specifically, they could not predict identity stages based on their subjects' religion, political values, income, age, or education. As there is evidence that the GIQ has adequate validity and internal consistency (Brady & Busse, 1994; Mohr & Fassinger, 2000), these results may suggest that Cass's model has some kind of universality for all of gay experience. In addition, they found evidence that subjects were psychologically healthier and happier at later stages of development in comparison to those in earlier stages, as Cass proffered. However, the authors' data suggests that LGB identity is actually a two stage (consisting of Stage 1 which combines Cass's stages 1, 2 and 3 and Stage 2 consisting of stages 4, 5, and 6), rather than a six stage process as Cass suggested. Though overall the authors found support for Cass's model, it is important to note that the sample was primarily white and was all male, which makes generalizability to other LGB individuals problematic. In addition, the authors did not have a sufficient number of subjects in the first two stages of identity formation (identity confusion and identity comparison) to analyze their results, further complicating the generalizability of these results to those in the earlier stages of identity formation.

Halpin and Allen (2004) investigated the relationship between well-being and gay identity development with a sample of 425 gay males from ages of 12-64 in Australia. Subjects were given the GIQ and other outcome measures. The authors found evidence that individuals progress through the stage model as they age, lending support to the idea of a developmental model. In addition, qualitative data were collected (subjects were asked to write comments at the end of the study), and subjects reported feeling a "sense of personal growth and change" as they progressed through their identity development, giving validity to Cass's stage model. As with

Brady and Busse, the limitations to this study include that the authors did not collect information on race or ethnicity, so it is unknown if the results varied by different groups. In addition, the sample was all male, so we do not know if the results hold true for females.

Criticisms of the stage models.

There has been much criticism of the stage model conceptualization of identity. One major problem with these models is that they were often based upon samples of middle-class, white, gay men. This narrow sample limits the generalizability of these stages to women, bisexual individuals, and people of color (Diamond, 1998; Eliason, 1996; Floyd & Bakeman, 2006). Indeed, D'Augelli (1994) argues that identity development is a fluid process, one that is partly shaped and influenced by environment and interactions with others, thus acknowledging that that identity development does not occur in a vacuum, nor is it the same for everyone. He believes that stages of identity development will interact with the individual's context and thus be different depending on culture and environment. This is in opposition to the stage models which proffer that identity development is the same developmental process for everyone regardless of context.

Empirical evidence exists that supports D'Augelli's point of view as it demonstrates that identity development occurs differently depending on demographic variables such as gender, race, and ethnicity. For instance, research has shown that women and men have different identity developmental trajectories as women become self-aware of their identity, self-identity as lesbian, and have sexual experiences at a later age in comparison to gay men (Diamond, 1998; Floyd & Bakeman, 2006). Due to the different pressures that women, bisexual people, and people of color face, it makes intuitive sense that their experiences would be different from each other, and differ from the experiences of white gay men.

In addition, stage models make another assumption: that identity moves in a linear, developmental fashion (Yarhouse, 2004). Floyd and Stein (2002) actually found 5 different trajectories of identity development, including a short identity development, when a child quickly going through all the milestones by the time they enter adolescence. This assumption of linear, developmental stages also does not make room for bisexual individuals as each stage is thought to be progress towards forming a LG identity (Rust, 1993). Bisexual individuals will technically never reach the final stages in these models as the final stages are defined as adopting a LG identity. Because bisexual individuals cannot reach this stage, it is almost as if their identity is viewed as stunted (Rust, 1993).

Finally, this model does not account for historical factors that come into play. Cass assumes that individuals' identity formation process occurs in a heterosexist culture (Adams, 2009). Though LGB individuals still do not have basic rights (such as federal laws granting gay marriage) that heterosexuals have, many strides towards the acceptance of gay individuals in the culture at large have been made since Cass's model was conceptualized. These historical differences could make gay identity formation look quite different in the 80's versus individuals today. There is some empirical support for this: Floyd and Bakeman (2006) found that individuals self-identify as gay and have their first same-sex experiences closer in time as compared to individuals in the past. In addition, other contextual factors such as geography can impact LGB identity development (Harry, 1993): a child growing up in a city filled with role models of other gay individuals would likely have a different identity trajectory as compared to a child forming his identity in a small town with no support for his sexuality. This suggests that Cass's model may need to be updated to include historical and geographical considerations.

Finally, as is a problem when studying all models of identity, it is difficult to find subjects in the early stages of gay identity as such individuals do not identify as LGB and so do not participate in LGB research studies, resulting in the fact that this section of the population is not fully represented. Taken together, this evidence suggests that stage models do not take into account the gender, historical contexts, race, and other factors that greatly shape and affect identity development. Though these criticisms must be taken into account when evaluating the stage models, overall, stage models have some validity and represent one of the most coherent and widely used theories of LGB identity development (Brady & Busse, 1994; Cass, 1985; Halpin & Allen, 2004)

Dimensions perspective of lesbian, gay, and bisexual identity.

Instead of looking at identity as a progression of multidimensional stages, other theorists have conceptualized identity in terms of several discrete dimensions of experience that are thought to be important during all stages of life and identity development for LGB individuals (Mohr & Fassinger, 2000). These theorists argue that by looking at different areas related to LGB identity, that are unique to LGB identity, they are also able to examine psychological functioning (Mohr & Fassinger, 2000). These areas include aspects such as identity confusion, disclosure of gay identity to others, and homonegativity.

Support for the dimensions perspective.

Although many theorists' have not labeled examining aspects of LGB life as a way to look at LGB identity development as a "dimensions perspective," theorists have used this method as a way of conceptualizing identity (e.g. Hancock, 1995). In addition, other researchers have used dimensions to look at other aspects of gay life (Hershberger & D'Augelli, 1995; Waldo, 1999).

Looking at identity through dimensions important in LGB identity eliminates some of the assumptions made by the stage model theorists, such as the assumption that identity is formed in one linear progression. By instead examining different dimensions, identity becomes a more fluid process, one that changes over time, but not necessarily in one direction. In addition, the stage models assume that as individuals move through each stage, they adopt more positive identities with more self-acceptance. The dimension perspective can include positive, negative, and more neutral feelings and behaviors related to identity, such as disclosure of sexual orientation (Mohr & Fassinger, 2000). This allows for capturing greater nuances in identity formation.

A dimension model can also account for things that stage models cannot, such as the amount of prejudice experienced by the individual. The perception of prejudice faced will vary depending on things like ethnic, racial, gender, and religious status. As mentioned above, these issues are totally over-looked in the stage models, though they impact and shape identity significantly (Hancock, 1995). For instance, Chin (1995) points out that when a person of color adopts a sexual minority identity, others often view their sexual identity as primary, thus usurping their racial/ethnic identity. This may cause people of color to be more reluctant to adopt a LGB identity for fear that they could lose their status among their ethnic/racial group. This is something that Caucasian LGB individuals do not have to contend with, and thus their identity formation may look very different. The dimensions perspective allows researchers to measure aspects such as perception of prejudice, which gives a more realistic picture of LGB identity.

The degree to which one internalizes heteronormativity is another aspect of gay identity that can be captured in the dimension's perspective and not in any of the stage models.

Heteronormativity is defined as the societal-wide understanding that heterosexuality is the norm, which leads to societal institutions that promote and support heterosexual activity while at the same time seeming to ignore same-sex relationships (Maurer-Starks, Clemons, & Whalen, 2008). Heteronormativity leads to heterosexual privilege by giving heterosexuals benefits that are not afforded to same-sex couples, such as legalized marriage and insurance benefits for children and spouses. Maurer-Starks et al. (2008) discussed that during adolescence, heternormativity is strengthened as teenagers are beginning to questioning their sexual identities. One can imagine that a child who has internalized heteronormaitivity would perhaps have a more difficult time forming his or her gay identity as compared to a child who has not internalized these norms. Thus, the process of LGB identity development would be impacted by such a dimension. Such dimensions cannot be ignored when conceptualizing how the LGB identity process occurs.

Mohr and Fassinger (2000) seem to be the first and only investigators to operationalize this perspective. The authors created a measure that looked at 7 dimensions related to LGB identity: internalized homonegativity, confusion about one's sexual orientation, belief in the superiority of lesbian and gay people relative to heterosexual people, fear of judgment from others regarding one's sexual orientation, desire to hid one's sexual orientation, and perception of one's identity development process as having been difficult. Scores on the subscales have acceptable internal consistency reliability (Mohr & Fassinger, 2000). Construct validity was established though several measures including the Rosenberg Self-Esteem Scale (Rosenberg, 1965), Lesbian Identity Scale (Fassinger & McCarn 1997), the Gay Identity Scale (Fassinger, 1997), and the Multigroup Ethnic Identity Measure (Phinney, 1992) (Mohr & Fassinger, 2000). These results suggest that it is possible to measure identity through this conceptualization.

Criticisms of the dimensions perspective.

Though there is very little literature that directly criticizes the dimensions perspective, there are some obvious shortcomings to looking at identity in this way which are offered below. One of the major limitations is that this model is not as comprehensive as the stage models. Instead, it comes up with discrete aspects of identity, rather than giving one picture of where the person is in his or her identity formation process. This makes measuring and conceptualizing an individuals' identity through dimensions a more challenging procedure.

Another problem with measuring dimensions of gay identity is that it is impossible to measure every dimension that is relevant to gay identity. How can research possibly identify all of the internal and external pressures that affect LG and B individuals? There is danger that studies which utilize this perspective may miss some important dimensions that impact LGB identity or include extraneous aspects. Because it is difficult to determine which are the most significant aspects for LG and B individuals that impact identity formation, this method of conceptualization has inherent shortcomings.

Finally, the dimensions perspective does not have as much empirical validation as the stage models do. This does not mean that identity should not be looked at in this way, but it does mean that more empirical literature on this conceptualization should be conducted before researchers adopt this method fully.

LGB identity formation and psychological functioning.

Often literature about LGB identity highlights the distress and difficulty that these individuals experience (for a discussion on this topic, see Halpin & Allen, 2004). D'Augelli (1994) theorized that the process of moving into a LGB identity was sometimes a difficult one, fraught with depression and anxiety. Indeed, the discrimination that LGB individuals often face from family, friends, and society at large is real and can lead to psychological problems.

However, presenting all LGB people as damaged victims of their sexuality does not give a full picture of the LGB experience, as many individuals do not experience psychological difficulty.

A body of literature exists that suggests there is not an association between gay identity development and adjustment (D'Augelli, 2002; Floyd & Stein, 2002). However, other literature has shown that identity development does, in fact, affect self-esteem, symptom level, and life satisfaction, and that having a more well-formed identity is associated with better psychological outcomes (Bosker, 2002). In addition, literature on other minority groups has shown that a less developed racial/ethnic identity is associated with poorer adjustment (e.g., Adams et. al., 2001, Archer & Grey, 2009), suggesting that sexual minority identity formation would also affect adjustment.

Rosario and colleagues (2010) found a significant relationship between the dimension of what she calls identity integration (defined as "both acceptance and commitment to one's sexuality" (p. 10) and psychological adjustment. That is, the researchers found that among young LGB people (ages 14-21), those low in integration reported the lowest levels of self-esteem and distress. This suggests a relationship between how one feels and how fully one embraces his or her sexual identity. It is important to note that though this looked at lesbian, gay, and bisexual people over a range of different ethnicities and socioeconomic backgrounds, the results cannot be generalized to older LGB individuals as the age cut off was 21.

Miranda and Storms (1989) discovered a significant negative relationship between positive gay/lesbian identity and anxiety symptoms and ego strength. That is, the authors found that those more accepting and happy with their sexual orientation also reported fewer symptoms of neurotic anxiety and reported greater ego strength. These results hold validity as the findings were replicated by the authors in a younger college-age sample. However, the authors did not

report about the ethnicities or races of their samples, so it is unknown who these results are generalizable to. In addition, this data is correlational and so no causal relationships can be drawn.

Brady and Busse (1994), who used a scale based on Cass's identity model, also found a link between psychological heath and identity formation. The authors found that as identity becomes more fully formed, psychological well-being also improves. Psychological well-being was measured as a composite variable of factors such as anxiety level, perceived happiness, suicidal ideation, and loneliness. As mentioned above, Brady and Busse's study had some limitations in their sample which limit their finding's generalizability. Namely, as with much of the research in this area, the sample was all male and predominantly Caucasian.

Halpin and Allen (2004), also using Cass's identity model, found a different pattern between psychological well being and identity formation than Brady and Busse did. The authors discovered a U-shaped relationship between these variables, indicating that gay men experience similar levels of satisfaction with life, self-esteem, happiness, and sadness during the earlier stages of Cass's model (identity confusion and identity comparison) and the final stages (identity pride and identity synthesis). At both of these times subjects' experienced fairly low levels of distress and relatively high levels of self-esteem, satisfaction with life, and happiness. In the middle stages, participants experienced significantly more distress. The authors argue that in the initial stages of Cass's model, individuals are not as aware of their sexual identity and so do not have to actively struggle with it the way they do in the middle stages of development. In addition, they may be aware, but may not be disclosing it to others yet, and telling others can cause stress. They argue that the middle stages are the most stressful times for individuals as they are disclosing their identity, thereby putting themselves at risk for judgment and

stigmatization, and all the while not being fully integrated into the gay community. In the later stages of Cass's model subjects have more support and are more at ease as they have greater synthesis between their public and private identity. It is important to highlight that the sample was all male and mostly hailing from Australia. In addition, the race of subjects was not reported, so it is unknown if results are generalizable to those outside of white, gay, Australian men.

Lewis, Derlega, Griffin, and Krowinski (2003) reported that symptoms of depression experienced by gay men and lesbians was significantly determined by their belief in how prejudiced the world is towards gays and lesbians, another dimension of LGB identity. This study looked at 204 lesbian, gay, and bisexual individuals. Though this sample included both men and women, the results may not be generalizable to other ethnicities as the sample was primarily (79%) Caucasian. Lewis and colleagues found that participants who had an expectation of discrimination experienced greater psychological distress than those who perceived less discrimination and prejudice against them, suggesting that perhaps they had not yet developed into the final stage of identity development.

Taken together, it seems that the relationship between identity formation and psychological functioning is complex, but generally points to a trend that the more secure individuals are in their LGB identity, the better psychological outcomes they experience. This makes intuitive sense, as having to struggle with the fundamental question of who one is could cause problems in how one views themselves and therefore lead to distress.

Disclosure of Sexual Orientation

Theory of disclosure in general.

Disclosure of personal information to another can have profound effects on the discloser. Jourard (1968, 1971), who laid the foundation for the field of disclosure, wrote that the primary benefit of disclosure was self-awareness. Jourard believed that the self is formed through interactions with others and thus disclosure to another promotes an understanding of oneself (Farber, 2006). Indeed, through disclosures, individuals reveal thoughts and feelings to themselves that perhaps they were not aware of, as well as become more known by another (Farber, 2006). In addition, disclosure may come with other benefits: Stiles' (1987) fever model of disclosure proffers that those under higher degrees of distress are more likely to disclose information and that this distress is ameliorated through their disclosures. Farber (2006), who expanded on Jourard's work, theorized 6 potential benefits of self-disclosure: sense of closeness to another, being known and affirmed by another, forming a more cohesive sense of self, understanding different aspects of oneself, gaining a sense of greater authenticity, and experiencing cathartic relief. In summary, the theorists on disclosure believe that disclosure in general leads to greater self-awareness, greater closeness to others, and a reduction in anxiety through cathartic release.

However, disclosure is not always a good thing: there are downsides to disclosing personal information. These can include feelings of vulnerability, rejection from others, feelings of guilt for not sharing the secret earlier, and burdening another with a secret (Kowalski, 1999). In addition, any disclosure comes with a loss of control over the information disclosed, that is, the disclosee may choose to share the disclosure with others. This loss of control may produce anxiety in the discloser. All in all, disclosures come with both benefits and risks, something that is reflected in the literature on disclosure of sexual orientation status.

Theory of coming out.

"Coming out" is the term used to describe the process of LGB individuals acknowledging their sexual identity to themselves and disclosing their sexual identity to others. This is an important decision for LGB individuals to make, as it can signify a new level of self-acceptance and also allows others in their life to know an important piece of who they are. However, the initial disclosure of sexual orientation may not mean these things, as some individuals may come out to one individual and not disclose their sexual orientation again for many years. In short, the initial disclosure may signify an important step for some individuals, but may not be as meaningful for others.

In addition, it is important to highlight that disclosure of sexual orientation occurs over and over again, even among individuals who consider themselves "out." For instance, LGB individuals may be open with certain friends and closeted in the greater community, while others may be out to family members but not out at work, and still others may be out in all spheres of their lives. Thus, the initial disclosure of sexual orientation can signify different things to different individuals.

Coming out to every person in an individual's life is a distinct process and each decision is weighed carefully, as each disclosure comes with different levels of risks and benefits (Evans & Brodio, 1999). Indeed, disclosures of any kind are carefully weighed to strike the appropriate balance between the gain of sharing oneself with another with the risk of revealing too much (Farber, 2006). The differing levels of risks and benefits usually have to do with the fact that coming out is an interactive process as the LGB individual must deal with the reactions of the person he/she is disclosing to (Evans & Brodio, 1999). These reactions could range from acceptance, to confusion, to discrimination, or even to violence (Evans & Brodio, 1999; Rhoads, 1994). The risks may at times, with certain individuals, outweigh the benefits of coming out,

which include having closer relationships with both heterosexuals and other sexual minorities and not having to hide aspects of themselves (Evans & Brodio, 1999). However, despite the fact that coming out is often treated by the research as the desired goal to achieve (Grov, 2006; Phellas, 1999), the decision is not so simple and is usually a reflection of the environment an individual is in or his or her personal characteristics, rather than evidence of achieving full identity development.

There is evidence that this weighing of possible reactions is a part of the coming out process. Wells and Kline (1987), who used an open-ended questionnaire to interview 40 gay men and lesbians, found that before coming out occurs, across the board, individuals first calculate the reactions and potential risks of coming out. Evans and Brodio (1999), who interviewed 20 LGB college students in an open-ended, qualitative, retrospective study about the circumstances of their coming out experiences, found similar results. The authors found evidence that before individuals disclosed their own sexual orientation to others, they tended to gauge their peers' likely reaction by bringing up LGB sexual orientation in general and observing their peers' responses. However, it must be acknowledged that because the sample size is so small and because the students all hailed from the same university, it is unknown how generalizable these results are. However, the fact that two studies using two different samples at two different points in time found similar results may signify that this is a trend across groups of individuals.

Conceptualizing and measuring outness can be done in different ways. For instance, being out can be looked at in a multidimensional way, across several spheres in an individual's life (as described above), or outness can be conceptualized in a unidimensional way on a

continuum of outness (Mohr & Fassinger, 1999). Looking at outness in a unidimesional way gives a general picture of how out an individual is in his or her life.

Age of first disclosure.

The first time individuals disclose their sexual orientation is often an important moment in their lives. For the first time, individuals are sharing a piece of their identity that they have only thought about and never expressed. The age at which an individual comes out may vary**.** Maguen, Floyd, Bakeman, and Armistead (2002) completed a study with 117 lesbian, bisexual, gay, and queer youth (mean age was 20). Using a survey, the authors found that age of first disclosure (mean = 17 years old) did not significantly vary by sexual orientation. It is unknown if these results vary by ethnicity as the sample was not diverse enough to make firm conclusions.

However, it is possible that age of disclosure may vary depending on generation. Grov, Bimbi, Nanin and Parsons's (2006), using an ethnically diverse sample of LGB individuals, found that those 18-24 years old reported a younger age of coming out (mean age of coming out was 17 years old) as compared to older cohorts (those 25 and older). It is interesting to note that the authors found no differences between racial and ethnic groups in terms of coming out to others or to self.

Floyd and Bakeman (2006) showed a similar pattern for generation: among those LGB individuals who self-identified as LGB during adolescence, the older cohort (defined as those who self-identified as gay before 1988) came out to non-parents and parents at a later age as compared to younger gay individuals (defined as those who self-identified as gay after 1988). Those who self-identified as LGB in adulthood did not show this pattern of disclosure.

However, it is important to note that these authors also found two distinct age-related coming out trajectories for both the older and younger generations—a young pattern which

consisted of coming out during adolescence/early adulthood and an older pattern, which entailed coming out in adulthood (Floyd & Bakeman, 2006). These patterns demonstrate that age of coming out varies, with different people displaying different patterns. Some of the stage theories support this as the authors do not tie coming out to age, but rather proffer it as a step that occurs after other milestones in forming a gay identity have occurred (Cass, 1984; Coleman, 1981/1982). Taken together, this research indicates that age of coming out may vary, perhaps dependent on generation or identity development.

Factors that affect coming out.

Evans and Brodio (1999) found that supportive people, a perceived supportive climate, and having gay role models all encourage coming out. This is supported by research that has shown that social support is significantly related to more positive coming out experiences (Rabin & Slater, 1993) and that social support is significantly related to greater self-disclosure for lesbians (Jordan & Deluty, 1998). Evans and Brodio (1999) found that variables like lack of community, lack of support, and high hostility all discouraged coming out. They also found that negative reactions to coming out reduced how often participants disclosed in the future. Again, as mentioned above, these qualitative interviews were completed with a very limited sample of only 20 subjects, all hailing from the same university, which limits the findings' generalizability. However, the results suggest that if the environment is homophobic or heterosexist, individuals are less willing to come out.

Schope (2002) found that environment was associated with disclosure. He discovered that those in urban areas were significantly more likely to be out in all spheres of their lives as compared to those in more rural settings. He also found that once individuals moved to an urban setting they were more likely to be out to their parents than if they remained in a suburban/rural

environment. The authors hypothesized that urban settings are more accepting of LGB individuals, as they are more tolerant in general. However, it is important to note that this sample consisted of all gay males, who were mostly white and highly educated. Thus the results may not be generalizable to other individuals.

Personal characteristics, such as generation, may also impact how out an individual is. For instance, Schope (2002) found that older gay men were more likely to only be out to other gay individuals and remain closeted with non-gay people, while younger and middle-age gay men were out in most settings. The author hypothesized that the reason for this was twofold: one explanation is that that younger generations are exposed to greater tolerance in society than the older generations experienced, which has made it easier for them to come out. The other reason is that the older generation may have internalized the bigotry of their youth and so have held onto the more familiar coping strategy of staying in the closet.

Gender also plays a role in coming out as the experience seems to be different for lesbians than for gay men. For instance, it has been found that lesbians come out to themselves at a later age than to men (Grov, Bimbi, Nanìn, & Parsons, 2006). This may be explained by the theory that women typically have more emotionally close bonds with friends as compared to men. This means that when women experience a very close emotional connection to another woman, they might not immediately interpret the connection as something sexual (Hancock, 1995). In addition, perhaps because women have less strict gender roles than men they are allowed to experiment with their sexuality more without worry about labeling their behavior (Hancock, 1995). Importantly, Grov et al. found no difference in gender in disclosing sexual orientation to others.

Differences in sexual orientation have also been linked to disclosure. For instance, in a quantitative questionnaire-based study examining sexual minority stress in 78 bisexual individuals compared to a large sample of 727 lesbians and gay men, Lewis et al. (2009) found that bisexual individuals were less likely to be out as compared to lesbians and gay men. Koh and Ross (2006), using a sample of 1,304 lesbian, bisexual, and heterosexual women, found similar results. The authors administered an anonymous survey and found that lesbians were out longer and were more out as compared to bisexual women. However, their sample had only 143 bisexual women as compared to 525 lesbians, which makes comparison between groups more difficult. In addition, the sample was primarily Caucasian and was all female, so it is unknown how generalizable these results are.

Another personality characteristic that has been found to affect coming out is the extent to which an individual has internalized homophobia. Homophobia is defined as a significant overwhelming fear and disgust held by individuals (homophobes) who are confronted with the aspects of homosexuality in oneself, fear contagion of HIV/AIDS, fear of potential sexual advances, or threats to one's own sexual identity (Christensen, 2005). These attitudes often manifest in negative attitudes towards or behaviors against LGB individuals.

Internalized homophobia is defined as a LGB individual who is homophobic. These feelings create much conflict within individuals as they strive to accept themselves (Allen & Olsen, 1999). Allen and Olsen (1999) surveyed 100 gay men and found a significant negative relationship between disclosure of sexual identity and internalized homophobia. Brown and Trevethan (2010) surveyed 166 gay men in Australia and also found a significant relationship between coming out and internalized homophobia. The authors found that those who reported a delay in telling their siblings and parents about their gay identity also reported higher levels of

internalized homophobia. In addition, the men in their sample who were not out had higher levels of internalized homophobia. Finally, Frost and Myer's (2009) work confirms these results as the authors also found a strong negative relationship between being out and internalized homophobia. Frost and Myer's work was with a more diverse sample consisting of LGB individuals. These results suggest that those are struggling with their own feelings about homophobia may not be able to take the next step and come out to others.

Coming out/staying in the closet: Outcomes.

Many individuals experience feelings of relief, pride, and authenticity when they come out (Evans & Brodio, 1999). Finally, one's private and public identity line up and one can be his or her true self. This is in contrast to individuals who stay in the closet and report experiencing low self-esteem, depression, withdrawal, and engagement in self-destructive behavior (Waldner & Magruder, 1999). Those who are not out are not able to access formal and informal support from the LGB community (Meyers, 2003), which can lead to further isolation.

In addition, it is possible that not disclosing sexual orientation can impact physical health (Meyers, 2003). For instance, Cole et al. (1996b) found a significant relationship between negative health problems and being closeted as compared to those who were open about their sexual orientation. This sample consisted of 222 gay men and the results revealed that those who concealed their homosexual identity had a higher incidence of cancer and infectious diseases over a 5 year period. In addition, Peenebaker and Susman (1981) found that chronically inhibiting thoughts, feelings, and behaviors become an accumulative stressor and is related to psychosomatic disease. Though the authors were not looking at disclosure of sexual identity specifically, these data suggest that staying in the closet may be both psychologically and physically damaging.

Ford (2003) completed an extensive review of the literature and likens coming out to a "crisis state," as it can cause turmoil within in the family system, with friends, and within oneself. Coming out can result in such extreme reactions as violence, verbal harassment, or being kicked out of the house (Benton, 2003). Negative reactions from close others combined with the lack of resources that LGB individuals often experience can cause a crisis within the individual and result in heightened states of anxiety and isolation. However, these heightened states of anxiety are usually time-limited. The crisis state is responded to by the individual through coping mechanisms that are either adaptive or maladaptive. If the stress is handled in a maladaptive way, it can negatively impact the individual's sense of self permanently. Thus, Ford believes that the period just after coming out is a very difficult time that can be resolved if the proper support and resources are in place.

Age of first disclosure: Outcomes.

There is some evidence which indicates that age of first disclosure may impact mental health. In general, adolescence is a time of general stress related to identity development. For LGB youth, this time can be particularly challenging as they may experience gay-related stress such as disclosure of sexual orientation (Savin-Williams, 1998) and victimization based on sexual orientation (Rivers & D'Augelli, 2001). This type of stress and harassment comes at an age when youth have less support, placing them at greater risk for developing mental health problems later (Friedman, Marshal, Stall, Cheong, & Wright, 2008). This suggests that perhaps coming out later may be related to better mental health outcomes as compared to youth who come out at an earlier age as older individuals may be able to better cope with the victimization so many LGB individuals face. There are some data which supports this. For instance, D'Augelli (2002) completed a study which surveyed 542 LGB youths (ages 14-21) and found

that earlier first disclosure of sexual orientation was significantly correlated with higher scores on the BSI, indicating greater current symptomotology. However, the authors note that these results may have occurred by chance due to the fact that the correlation explains little variance and because they calculated a large number of correlations.

Friedman, Marshal, Stall, Cheong, and Wright (2008) found similar results. These authors analyzed retrospective and cross-sectional data from the Urban Men's Health Study (UMHS) database. The UMHS conducted phone interviews with men who identified as gay or bisexual, or with those who reported having sex with another man after the age of 14. The analysis, which included 1,383 men, found that those who became aware of sexual identity earlier, became aware of their sexual attraction to males earlier, and disclosed for the first time earlier were 86% more likely to experience gay-related victimization, 213% more likely to experience depression in adulthood, and 113% more likely to attempt suicide as an adult as compared to individuals who experienced these developmental patterns at an older age. It should be noted that this sample does not include lesbian participants, so the results may not generalize to other populations, but the findings are still important. Taken together, this evidence suggests that perhaps because LGB youth experience greater stress due to their sexual orientation at a younger age as compared to older LGB individuals, they will also experience more mental health problems.

Degree of outness: Outcomes.

Once an individual makes the decision to come out of the closet for the first time, he or she must then make important decisions about the degree to which he or she will be out. Research has found mixed results in regards to the relationship between the degree outness and psychological health outcomes.

Jordan and Deluty (1998) surveyed a sample of 499 lesbian women. The authors found that women who reported more substantial amounts of self-disclosure of sexual identity also reported less anxiety and greater self-esteem. However, because these data are correlational, it is impossible to know if coming out leads to better psychological outcomes or if those who are experiencing fewer psychological problems are more likely to disclose. Importantly, this sample included women of color, though Caucasian women still made up the majority of the sample (83%). This suggests that for lesbians, outness is associated with greater self-esteem and less anxiety.

Lewis et al. (2001) found a significant negative relationship between level of outness and depressive symptoms. The authors gave surveys to 979 gay and lesbian participants to investigate the relationship between gay-related stress and various variables, such as outness. Though this study included males, the sample was primarily Caucasian and did not include bisexual participants. Still, the results here, combined with those by Jordan and Deluty (1998), suggest that the more LGB individuals are open about their sexual orientation, the happier they are.

However, as mentioned above, the relationship between psychological health and degree of outness is not clear. Brady and Buse (1994) did not find a relationship between degree of outness and psychological well-being, even when comparing their subjects who were mostly closeted to those who were fully out. However, the authors did not define exactly how they calculated "psychological well-being," which makes comparison to other studies more difficult. In addition, this study was based on an all-male sample and the authors did not report information on race or ethnicity, so it is unknown if the results are generalizable.

Frost and Myer (2009) found similar results to Brady and Buse (1994). Though the authors were primarily interested in relationship quality and internalized homophobia, they also measured degree to which their sample was out. The authors used a sample of 396 LGB individuals and did not find a significant relationship between depression symptoms and degree of outness. This sample was highly diverse and included almost equal numbers of black, white, and Latino participants as well as male and female participants. This diverse sample gives this study strength as it suggests that the results apply to multiple populations.

There is some evidence that suggests that the relationship between psychological health and outness is affected by sexual orientation status. For instance, Koh and Ross (2006) found that that bisexual participants were more likely to report recent suicidal ideation if they disclosed orientation more often as compared with participants who disclosed less often. Among lesbian participants, those who disclosed their sexual orientation less often reported more suicidal ideation as compared to those who disclosed more often. However, Lewis et al. (2009) also examined lesbian, gay, and bisexual individuals and did not find a significant relationship between depression symptoms and outness among bisexuals. It is important to point out that their sample was mostly white and contained a small number of bisexual participants. In addition, these results are not necessarily in conflict with one another as each study examined only one aspect of mental health.

It seems likely that authors are finding differing results on the link between mental health and outness because, as outlined above, the degree to which one is out is dependent on many varied aspects of the individual's life, which means that it may be a good decision for some, an unhealthy decision for others (Frost & Meyer, 2009), or have no impact, as much of the literature above illustrates. For some, being out in all areas of life is advantageous and may indicate a level

of self-acceptance and lead to self-cohesion. However, for others who know they will be faced with homophobia or violence, it is perhaps more prudent not to disclose as often. In fact, the decision may be mixed—not inherently positive or negative, but containing both elements. The decision of to what degree one is out requires a great deal of calculation. Making the right decision given individual differences and differences in circumstances may be the real indicator of psychological health (Frost & Meyer, 2009).

Identity Formation and Outness

The relationship between identity formation and outness.

Often identity development and coming out are presented in the literature as interchangeable concepts. However, these are two distinct entities. Identity development is about discovering and labeling the self as LGB, while "coming out" is externalizing this identity by sharing it with others (Jordan & Deluty, 1998). However, coming out can be an important part of identity development and is often considered to be proof of entering the final stages of identity formation (Troiden, 1989). This makes intuitive sense, as individuals cannot tell another that they are LGB if they haven't come out to themselves first. Indeed, coming out may be at least in part dependent on identity development as individuals who are not entirely sure about or comfortable with their identity will be less likely to come out.

There is some evidence that suggests that outness and identity are positively correlated. Mohr and Fassinger (2000) sought out to create measures that quantify level of outness as well as identity formation using over 400 lesbian and gay men. The authors found that their two measures were positively correlated. That is, those who were generally more open about their sexual orientation also tended to be in the more final stages of identity formation. However, it is important to note that the participants were mainly Caucasian (86%) and highly educated (77%

had either a bachelor's degree or a graduate and professional degree), so it is not known if these results will translate to other populations. In a quantitative questionnaire-based study examining sexual minority stress in 78 bisexual individuals, Lewis et al. (2009) found that bisexual individuals who reported less internal conflict about their sexual orientation were also more disclosing of their sexual identity. These results suggest that those who are more open about their sexual identity are also more secure in their sexual identity.

Some authors have found a positive relationship between self-disclosure and development of a positive identity. For instance, Miranda and Storms (1989) had 100 gay and lesbian participants (50 men and 50 women) complete a questionnaire which included questions about how positively or negatively they felt about their sexual identity as well as questions regarding level of self-disclosure of their sexual orientation. The authors found that self-disclosure was positively related to positive lesbian and gay identity. That is, those who disclosed at a greater level felt more acceptance of their sexual identity. These results hold validity as the findings were replicated by the authors in 131 college-aged participants. However, the authors did not report about the ethnicities or races of their participants, so it is unknown to which populations these results are generalizable to.

However, as discussed previously, it is often the case that the degree to which an individual comes out varies. That is, once an individual has come out to his or herself and then comes out to another, it does not mean that the individual is then completely out in all spheres of his or her life. In addition, even the first disclosure might not be indicative of identity development being fully formed, as is proffered by many of the stage models. For instance, Maguen et al. (2002)'s study of 116 LGB subjects found that among lesbian and bisexual youth, disclosure and first same-sex sexual encounters occurred at the same age. The authors believe

that this implies that lesbians and bisexuals may be coming out to others before acting on their desire. For gay men, however, the pattern was different as they had their first sexual experiences well before coming out. It should be noted that the sample consisted mostly of LGB individuals recruited from a LGB youth conference, which suggests that this sample contains individuals who are more open and comfortable with their sexual orientation and so may not be represent the experience of LGB individuals who are less disclosing and comfortable with their sexuality. This may serve to demonstrate how these two concepts (coming out and identity formation) are related, but not the same. Coming out seems to be dependent on more than just identity formation and identity formation seems to be dependent on more than just coming out.

However, other authors have proffered that level of disclosure of sexual identity is not tied to identity formation. For instance, Evans and Brodio (1999), in their study of 20 LGB individuals, found that the decisions made about level of disclosure largely depended on risk assessment. That is, individuals would decide to come out based on how they perceived their disclosure would be taken. If there was too much risk (such as of violence or a negative reaction) the individual was less likely to come out than if they anticipated a more positive reaction. These results suggest that coming out fully in one's life is not a decision based only on the strength of one's identity, but may also be dependent on environmental factors. Though it appears that identity formation was not assessed outright by the interviewers, it also appears that it did not come up as a major factor that participants mentioned as it is not discussed in the article. It is important to note that because the sample size is small and is confined to students hailing from one university, the results may not be generalizable. However, other studies have demonstrated that environmental factors do play a large role when deciding how out an individual will be, which were detailed in the outness section above.

Chapter Three: The Current Study

More research must be conducted in order to better understand the relationship between identity formation, disclosure, and mental health outcomes. The divide in the literature with regard to how both identity formation and outness are related to mental health outcomes is still not well understood.

In addition, the fact that many of these studies do not incorporate bisexual individuals or individuals of differing ethnicities is problematic, as these factors may look different for different groups. The current study will use data from the Gay and Lesbian Identity and Personality Project (GLIPP), a larger study which examines risk and resilience in the LGB community. The aspect of the GLIPP that the current study is investigating evaluates the relationships between LGB identity, level of outness, coming out, and how these impact mental health outcomes. In addition, an effort is being made to incorporate a diverse sample of participants in order to investigate if these factors vary according to demographic differences individual differences.

Specifically, measures that look at LGB identity from both a stage model perspective (the *Gay Identity Questionnaire*; Brady & Busse, 1994) and from a dimensions perspective (*The Lesbian, Gay, and Bisexual Identity Scale*; Mohr & Fassinger, 2000) were used. By examining LGB identity in these two different ways, it is hoped to gain a fuller picture of identity in the sample. Degree of disclosure of sexual orientation was looked at by examining level of outness, including what spheres individuals are out in. Finally, age of first disclosure was inquired about.

Mental health was measured be examining several spheres. Current symptom level was examined because symptom level has been linked to both outness (Jordan & Deluty, 1998; Koh & Ross, 2006; Lewis et al., 2001) and LGB identity formation (Brady & Busse, 1994; D'Aguelli, 1994; Halpin & Allen 2004; Miranda & Storms, 1989; Rosario, Schrimshaw, & Hunter, 2010).

Self-esteem was looked at as it has been linked to both outness (Jordan & Deluty, 1998; Waldner & Magruder, 1999) and LGB identity formation (Halpin & Allen, 2004; Rosario, Schrimshaw, & Hunter, 2010). Finally, general life satisfaction was looked at as life satisfaction and happiness have been linked to both outness (Evans & Brodio, 1999) and LGB identity formation (Bosker, 2002; Brady & Busse, 1994; Halpin & Allen, 2004). Taken together, these are major areas that the literature has shown to be impacted by identity formation and outness.

Hypotheses and Research Questions

Aim 1: Evaluate if the predictors vary by demographics.

Hypothesis 1. LGB Identity, level of outness, and age of first disclosure will vary by race, age, and sex. Specifically:

1a. Caucasian individuals will have a more developed LGB identity as compared to minority individuals.

1b.Older individuals will have a more developed LGB identity as compared to younger individuals.

1c. Males will have a more developed LGB identity as compared to females.

1d. Caucasian individuals will be more disclosing of their sexual orientation as compared to individuals of color.

1e. Level of outness will not vary by sex.

1f. Females will come out than males.

1g. Caucasian individuals will come out earlier as compared to individuals of color.

Aim 2: Evaluate if the predictors are related.

Research Question 1. Given discrepancies in the literature, are outness and identity formation related?

Research Question 2. Given the discrepancies in the literature, will the earlier individuals come out be related to a more well-formed identity and a higher degree of outness?

Aim 3: Evaluate whether the predictors are related to the outcomes.

Hypothesis 2. A well-formed identity will be related to fewer symptoms, greater life satisfaction, and higher self-esteem as compared to those with a less well formed identity.

Research Question 3. Given the discrepancies in the literature, will a higher degree of outness be related to fewer symptoms, greater life satisfaction, and higher self-esteem as compared to those who are less out?

Hypothesis 3. An older age of first disclosure will be related to fewer symptoms, greater life satisfaction, and higher self-esteem as compared to those who came out at an earlier age.

Research Question 4: To what extent do outness, identity, and age of first disclosure of sexual orientation predict current self-esteem, symptom level, and life satisfaction?

Aim 4: Evaluate if identity mediates the relationship between the other predictors and the outcomes.

Research Question 5: Does the individual's level of identity account for the relationship between outness and self-esteem, symptom level, and life satisfaction?

Research Question 6: Does an individual's level of identity account for the relationship between age of first disclosure and self-esteem, symptom level, and life satisfaction?

Chapter Four: Methods

Participants

The sample consisted of 192 individuals who self-identified as lesbian, gay, or bisexual. All individuals were at least 18 years old. See Table 1 for complete demographics. The participants' ages ranged from 18-67, with a mean age of 31.57 (SD=10.11). Age was significantly positively skewed such that participants were on the younger end of the age spectrum. About half the sample was female (49%). About three-quarters (73.8%) of the sample self-identified as Caucasian, while the rest identified as Latino/a (6.2%), Black/African American (5.4%), Asian/Pacific Islander (7%), Native American/Alaskan Native (1%), and Other (2.0%). For the analyses, race was collapsed into Caucasian and Minority (non-Caucasian). A little fewer than half of the sample self-identified as gay men (43.8%), a third were lesbians (29.2%), and a quarter identified as bisexual, with three-quarters of the bisexual individuals being female (19.8%).

About two-thirds of participants lived in urban communities (66.3%), 22.8% lived in suburban communities, and 5.9% lived in rural communities. Half of the participants were raised in urban communities (51%), over a quarter were raised in urban communities (28.7%), and about 15% were raised in rural communities. Chi-square analyses were conducted to see if current community size or community size participants were raised in were significantly associated with either race or sexual orientation, and none were found to be significant (current community size by sexual orientation χ^2 (2, 192) = 11.18, p =.08; community size raised in by sexual orientation χ^2 (2,192) = 6.02, p = .42; current community size by race χ^2 (2, 192) = 2.32, p = .31; size of community raised in by race χ^2 (2, 192) = 5.21, p = .07).

Table 1.

Demographics

Characteristic		Frequency (%)
Sex		
	Female	94 (49%)
Sexual Orientation		
	Lesbian	56 (29.2%)
	Gay	84(43.8%)
	Bisexual Male	14 (7.3%)
	Bisexual Female	38 (19.8%)
Race		
	Caucasian	149 (73.8%)
	African American	11 (5.4%)
	Latino/a	12 (5.9%)
	East Asian	10 (5.0%)
	South Asian	3 (1.5%)
	Native American/Alaskan	2 (1%)
	Hawaiian/Pacific Islander	1 (.5%)
	Other	4 (2.0%)
Yearly income		
	Less than $20,000	27 (14.1%)
	$20,000 to $39,000	33 (17.2%)
	$40,000 to $59,000	28 (14.6%)
	$60,000 to $79,000	22 (11.5%)

$80,000 to $99,999	17 (8.9%)
$1000,000 to $119,000	21 (10.9%)
$120,000 to $139,999	18 (9.4%)
$140,000 to $159,999	6 (3.1%)
$160,000 to$179,999	4 (2.1%)
$180,000 to $199,999	4 (2.1%)
More than $200,000	12 (6.3%)
Relationship Status	
Single/Never Married	86 (44.8%)
Divorced/Widowed/Separated	3 (1.5%)
In a significant relationship	49 (25.5%)
Partnered/Married	46 (23.9%)
Other	8 (4.2%)
Recipient of first disclosure	
Parent	13 (6.8%)
Sibling	13 (6.8%)
Family Friend	6 (3.1%)
Friend	142 (74.0%)
Teacher	2 (1.0%)
Counselor	2 (1.0%)
Significant Other	9 (4.7%)
Other	5 (2.6%)
Size of community born in	
Urban	58 (28.7%)
Suburban	103 (51%)

Rural	31 (15.3%)
Current size of community	
Urban	134 (66.3%)
Suburban	46 (22.8%)
Rural	12 (5.9%)

Characteristic	Mean	SD	Range
Age	31.57	10.11	18-67
Age of first awareness of sexual identity	15.34	6.53	7-63
Years of education completed	16.96	2.70	12-25

Procedure

Recruitment targeted LGB individuals from several sources. Some participants were recruited through flyers posted or emailed to several New York City Universities and mental health clinics and hospitals. In addition, advertisements were placed on websites that tailor to LGB communities. Subjects could participate in the study through two sources: 1) a link which contained only the measures listed below, and 2) a link which contained the measures listed below as well as other measures which are part of a greater study on LGB issues. Identical participant entries were deleted. In all cases, participants were told that they were invited to participate in an online survey that explored LGB identity, personality characteristics, and other aspects of their lives. Participants in the smaller study were told that if they emailed the PI upon completion of the study they would be entered into a lottery for a chance to receive $100. Participants in the larger study were told that if they emailed the PI upon completion of the study they would receive a $25 amazon.com gift card. Participants were given a web address and a password to type in at the website in order to be connected to the survey.

Participants were then led to a page which stated that continuing with the survey was equivalent to giving informed consent to participate in the study and that the study had been approved by the Teachers College, Columbia Institutional Review Board. They were told that their responses would be kept confidential. In addition, they were told that they could terminate their participation at any point. Finally, participants were given an email address and phone number to contact the principle investigator of the study should they have any concerns or questions.

Measures

Demographics.

Demographics. This self-report measure consists of 16 items which assess demographic information such as ethnicity and income level.

Predictors.

First disclosure of sexual identity. Participants were asked at what age they first came out .

Lesbian, Gay, and Bisexual Identity Scale (LGBIS) Mohr, J. & Fassinger, R., 2000: This self-report measure consists of 27 items which assess gay, lesbian, and bisexual identity across 6 dimensions on a likert scale ranging from 1 (disagree strongly) to 7 (agree strongly). The 6 dimensions, each which range from 1 to 7, are internalized homonegativity/binegativity, need for privacy, need for acceptance, identity confusion, difficult process, and superiority. This scale was based off of the Lesbian Gay Identity Scale (LGIS), which contains similar items as the LGBIS, with the main difference being that the wording for some of the items was changed in order to include bisexual subjects. The authors report that though there is no published data on the LGBIS, unpublished data suggests that the measures are comparable in terms of their psychometric properties. Scores on the subscales have acceptable internal consistency reliability (Mohr & Fassinger, 2000). Construct validity was established though several measures including the Rosenberg Self-Esteem Scale (Rosenberg, 1965), Lesbian Identity Scale (Fassinger & McCarn 1997), the Gay Identity Scale (Fassinger, 1997), and the Multigroup Ethnic Identity Measure (Phinney, 1992) (Mohr & Fassinger, 2000).

Gay Identity Questionnaire (GIQ) Brady, S., & Busse, W.J., (1994)*:* The GIQ is designed to assess the stage of gay identity development (as outlined by Cass, 1984) subjects are

currently in. This 45-item true-false checklist consists of statements that represent assertions or beliefs associated with one of the six stages of identity. The six stages are called confusion, comparison, tolerance, acceptance, pride, and synthesis. The total number of true responses for each stage is calculated. The stage with the highest number of true responses indicates the identity stage the subject is in. Internal consistency of the stages has been previously found to be: tolerance (.76), acceptance (.71), pride (.44) and synthesis (.78). Confusion and comparison were not analyzed for reliability. Mohr and Fassinger (2000) found high scores on validity.

Outness Inventory (OI) Mohr, J. & Fassinger, R. (2000): The OI is an 11-item scale designed to assess the degree to which gay, lesbian, and bisexual individuals have disclosed their sexual orientation to others using a 7-point likert scale ranging from 1 (person definitely does NOT know about your sexual orientation status) to 7 (person definitely knows about your sexual orientation status and it is OPENLY talked about). A score of 0 indicates that the item is not applicable. The OI assess which spheres the individual is out in by examining to whom the individual has disclosed to (i.e. family, friends, strangers, work peers) across 4 subscales: out to family, out to world, out to religion, and overall outness. Overall outness is the average of the three subscales and ranges from 1-7, with 7 indicating the highest degree of outness. There was strong evidence for the 3-factor structure (out to family, out to world, out to religion) that the OI uses to evaluate the degree and where the person is out. Scores on the subscales have acceptable internal consistency reliability (Mohr & Fassinger, 2000). There is also evidence of discriminate validity of scores (Mohr & Fassinger, 2000).

Outcomes.

Satisfaction with Life Scale (SWLS) Diener, E., Emmons, R.A., Larsen, R.J., & Griffen, S. (1985): This measure consists of 5 items to assess global life satisfaction (i.e. subjective well-

being) using a 7-point likert-type scale ranging from 1 (strong agree) to 7 (strongly disagree). Scores range from 5 to 35, with higher scores representing greater life satisfaction. Test-retest reliability was reported to be .82 after a two-month period (Diener et al., 1985). Internal consistency reliability was reported as .87 (Diener et al., 1985). Validity was demonstrated as this scale was found to be positively and significantly correlated with other measures of subjective well-being and negatively associated with measures of psychopathology (Diener et al., 1985).

Brief Symptom Inventory (BSI) (Derogatis, L. & Spencer, 1982): This self-report measure consists of 53 items that assesses subjects' level of psychological functioning over the past 7 days on a likert scale ranging from 0 (Not at all) to 4 (extremely). Scores range from 0-212, with higher scores indicating greater number of symptoms. The BSI was developed from its longer version, the SCL-90-R (Derogatis, Lipman, & Covi, 1973). The BSI measures current distress on 9 primary symptom dimensions such as somatization, anxiety, and depression and also on three global indices. For the current study, we analyzed only the Global Severity Index (GSI), which is the average rating given to all 53 items in order to asses overall perceived psychological distress (Payne, 1985). Assuming subjects filled out every item, the raw scores on this index range from 0-4, with 4 indicating greater level of symptomotology. The BSI and the SCL-90 were validated by administering them to a large outpatient sample. Derogatis and Melisaratos (1983) reported that the correlations between the BSI and the SCL-90-R ranged from .92 to .99. The three global measures demonstrated test-retest reliability over .80 (Cundick, 1989). Reliability and construct validity were established for the Hopkins Symptom Checklist (Derogatis, Rickels, & Rock, 1976), from which both the SCL-90-R and the BSI were derived.

Rosenberg Self-Esteem Scale (RSE) Rosenberg, M., (1979): This 10-item scale is designed to measure self-esteem by measuring personal worth, self-confidence, self-satisfaction, self-respect, and self-deprecation on a 4-point scale ranging strongly agree to strongly disagree. Scores range from 0-30. A score of 15-25 is considered to be in the normal range. Scores under 15 suggest low self-esteem. The scale was originally created from a sample of 5,024 high school junior and seniors from 10 NY state high schools. Rosenberg reported test-retest reliability to be between .82 and .88. Silber and Trippet (1965) reported a test-retest correlation of .85. Internal consistency was demonstrated by several authors: Rosenberg (1986) reported a cronbach alpha ranging from .77 to .88; Dobson et al. (1979) obtained a cronbach alpha of .77, and Fleming and Cournety (1984) obtained a cronbach alpha of .88. Evidence for validity was demonstrated as Rosenberg (1986) found the internal consistency of this scale to have a coefficient of reproducibility of 92%.

Chapter Five: Results

Preliminary Analyses

General measures descriptors.

Prior to performing the analyses required to assess the veracity/refutability of the present study's hypotheses, preliminary analyses were performed. Participants' mean scores on the outcome and predictor measures are presented in Table 2. These analyses revealed that individuals are coming out for the first time in young adulthood (mean age = 19.60) and are fairly out in their lives (as measured by their scores on the Outness Inventory (M = 4.79), which ranges from 1-7 with higher scores indicating a greater degree of outness). Participants feel fairly positive about their sexual identity as measured by the Lesbian Gay Bisexual Identity Scale Negative Identity Scale (LGBIS/NI Scale; M = 3.37), which ranges from 1-7 with higher scores indicating more negative views of identity. The scores on the Gay Identity Questionnaire (GIQ) indicated that over 70% of participants were in the two highest stages, representing the most advanced identity development.

On the mental health measures, participants scored in the average range of self esteem on the Rosenberg Self-Esteem Scale (M = 16.91), which ranges from 0-30, with higher scores indicating better self-esteem. Average amount of distress experienced in the last 7 days (as measured by the Global Severity Index score on the Brief Symptom Inventory), which ranges from 0-4, fell between scores of 0 (indicating a symptom level of "not at all") to 1 (indicating a symptom level of "a little bit"). Thus, subjects were experiencing few psychological difficulties. Scores on the Satisfaction with Life Scale, which ranges from 1-7 with higher scores indicating more satisfaction, indicated that participants were fairly satisfied with their lives (M = 4.89).

Table 2

General Measures Descriptors (n = *192*)

Measures	*M*	*SD*	Range	Theoretical Range
Age of First Disclosure	19.60	6.15	6-60	
Outness Inventory	4.79	1.73	1-7	1-7
LGBIS/NI	3.37	1.14	1.05-6.71	1-7
Rosenberg Self-Esteem Scale	16.91	2.08	9-22	0-30
Brief Symptom Inventory	.75	.67	.00-3.11	0-4
Satisfaction with Life Scale	4.89	1.34	1.6-7	1-7
	Frequency (%)			
GIQ Stage 1	4 (2.1%)			
GIQ Stage 2	12 (6.3%)			
GIQ Stage 3	11 (5.7%)			
GIQ Stage 4	30 (15.6%)			
GIQ Stage 5	31 (16.1%)			
GIQ Stage 6	104 (54.2%)			

Note. LGBIS/NI = Lesbian Gay Bisexual Identity Scale Negative Identity Scale (higher scores indicate more negative identity); GIQ=Gay Identity Questionnaire.

Associations of identity measures.

Analyses were run to determine if the two identity measures used (the LGBIS/NI Scale and the Gay Identity Questionnaire) were associated. Table 3 presents the means and standard deviations of the LGBIS/NI Scale for those individuals in each stage of development on the GIQ. An ANOVA (see table 4) indicated a significant relationship ($F(5, 186) = 35.92$, $p = .00$) between the identity measures, and a post-hoc comparisons using a Tukey HSD revealed significant differences between GIQ stage 5 ($M = 3.27$) and each of the stages before it, and between stage 6 ($M = 2.75$) and each of the stages before it. This indicates that those in the later stages view their identity in a less negative way as compared to those in earlier stages. Table 5 presents these post-hoc Tukey HSD analyses.

Table 3

Means and Standard Deviations of LGBIS/NI Scale by GIQ Stage (n=*192)*

Stage	*M*	*SD*	Range	Theoretical Range
GIQ Stage 1	4.31	.81	3.19-5	1-7
GIQ Stage 2	4.36	.63	3.24-5.52	1-7
GIQ Stage 3	4.53	.62	3-5.19	1-7
GIQ Stage 4	4.69	.73	3.62-6.71	1-7
GIQ Stage 5	3.27	.91	1.71-4.62	1-7
GIQ Stage 6	2.74	.86	1.05-6.71	1-7

Note. LGBIS/NI = Lesbian Gay Bisexual Identity Scale Negative Identity Scale (higher scores indicate more negative identity); GIQ = Gay Identity Questionnaire.

Table 4.

Analysis of Variance Summary Table for GIQ Stage on the LGBIS/NI Scale (n=*192)*

Source	*Df*	*SS*	*MS*	*F*	*P*
Between-group	5	122.16	24.43	35.92	.00**
Within-group	186	126.52	.68		
Total	191	248.68			

Note. LGBIS/NI = Lesbian Gay Bisexual Identity Scale Negative Identity Scale (higher scores indicate more negative identity); GIQ = Gay Identity Questionnaire.
**$p < .01$.

Table 5.

Tukey HSD Comparison for GIQ Stage and LGBIS/NI Scale (n=*192)*

Comparisons	Mean Difference	Std. Error	95% CI Lower Bound	95% CI Upper Bound
Stage 1 vs. 2	-.05	.48	-1.42	1.32
Stage 1 vs. 3	-.22	.48	-1.61	1.17
Stage 1 vs. 4	-.38	.44	-1.65	.88
Stage 1 vs. 5	1.04	.44	-.22	2.30
Stage 1 vs. 6	1.56*	.42	.35	2.77
Stage 2 vs. 3	-.17	.34	-1.16	.82
Stage 2 vs. 4	-.33	.28	-1.15	.48
Stage 2 vs. 5	1.09**	.28	.28	1.89
Stage 2 vs. 6	1.60**	.25	.88	2.32
Stage 3 vs. 4	-.16	.29	-1.0	.67
Stage 3 vs. 5	1.26**	.29	.42	2.09
Stage 3 vs. 6	1.77**	.26	1.02	2.53
Stage 4 vs. 5	1.42**	.21	.81	2.03
Stage 4 vs. 6	1.94**	.17	1.45	2.43
Stage 5 vs. 6	.52**	.17	.03	1.00

Note. GIQ = Gay Identity Questionnaire; LGBIS/NI = Lesbian Gay Bisexual Identity Scale Negative Identity Scale (higher scores indicate more negative identity).
**$p < .01$.

Because a significant association between the identity measures was found, a principal components analysis (PCA) was conducted, and one significant component emerged with an eigenvalue of over 1 (eigenvalue of component = 1.61). This component accounted for 80.47% of the variance in the identity measures. See Table 6 for the loadings onto this combined identity component, which represents sexual identity strength, with higher scores indicating greater identity strength. This new Combined Identity variable is used in future analyses, in addition to each of the separate identity measures.

Table 6.

Principal Component Analysis for Combined Identity Variable (n=*192)*

Measure	Component Loadings
GIQ	.90
LGBIS/NI	-.90

Note. GIQ = Gay Identity Questionnaire; LGBIS/NI = Lesbian Gay Bisexual Identity Scale Negative Identity Scale (higher scores indicate more negative identity).

Associations of mental health measures.

Intercorrelations between the mental health measures were run and revealed that the RSE, BSI Global Severity Index, and SWLS were all significantly associated in the expected direction. Specifically, more positive self-esteem was associated with greater satisfaction with life, and both of these were associated with fewer symptoms as measured by the BSI (see Table 7).

Because an association between the mental health measures was found, a principal components analysis was conducted and 1 component emerged with an eigenvalue of over 1 (eigenvalue of component = 1.84). This component accounted for 60.46% of the variance in the mental health measures. See Table 8 for the loadings onto this combined mental health component, which represents mental health strength, with higher scores indicating better mental health. This new Combined Mental Health variable is used in future analyses, in addition to the individual measures of mental health.

Table 7.

Intercorrelations of Mental Health Variables (n=*192)*

Measures	1.	2.
1. BSI	--	
2. RSE	-.35**	--
3. SWLS	-.49**	.42**

Note. BSI = Brief Symptom Inventory Global Severity Index (higher scores indicate greater symptomotology); RSE = Rosenberg Self-Esteem Scale; SWLS = Satisfaction with Life Scale.
**$p < .01$.

Table 8.

Principal Component Analysis for Combined Mental Health Variable (n=*192)*

Measure	Component Loadings
RSE	.74
BSI	-.79
SWLS	.82

Note. RSE=Rosenberg Self-Esteem Scale; BSI = Brief Symptom Inventory (higher scores indicate greater symptomotology); SWLS = Satisfaction with Life Scale.

Sexual orientation differences.

Sexual orientation and demographics.

Several analyses were run to investigate if sexual orientation varied by demographic variables. An ANOVA was conducted to see if age varied by sexual orientation. Means and standard deviations of age by sexual orientation are presented in Table 9. The ANOVA revealed that age does vary by sexual orientation ($F(3,88) = 3.00$, $p = .03$) (see Table 10). A post-hoc comparison using the Tukey HSD revealed that bisexual females in this sample tended to be significantly younger than bisexual males (see Table 11).

Table 9

Means and Standard Deviations of Age by Sexual Orientation

Sexual Orientation	*M*	*SD*	Range
Gay (*n* = 21)	31.87	9.74	18-67
Lesbian (*n* = 56)	32.38	11.20	18-63
Bisexual Male (*n* = 14)	36.50	12.85	18-62
Bisexual Female (*n* = 38)	27.92	6.76	18-46

Table 10.

*Analysis of Variance Summary Table for Sexual Orientation and Age (*n *= 192)*

Source	*Df*	*SS*	*MS*	*F*	*p*
Between-group	3	890.03	296.68	3.00	.03*
Within-group	186	18614.95	99.02		
Total	191	19504.98			

Note. **$p < .05$.

Table 11.

*Tukey HSD Comparison for Sexual Orientation and Age (*n *= 192)*

Comparisons	Mean Difference	Std. Error	95% CI Lower Bound	95% CI Upper Bound
Gay vs. Lesbian	-.51	1.72	-5.0	3.94
Gay vs. Bi Male	-4.63	2.87	-12.08	2.82
Gay vs. Bi Female	3.95	1.95	-1.09	8.99
Lesbian vs. Bi Male	-4.13	2.97	-11.83	3.58
Lesbian vs. Bi Female	4.45	2.09	-.97	9.88
Bi Male vs. Bi Female	8.58*	3.11	.51	16.64

Note. *p < .05.

A chi-square was run to investigate if sexual orientation significantly varied by race, but was found to be not significant. Therefore, there were no differences among sexual orientation groups by race.

Sexual orientation and age of first disclosure.

Because the literature has revealed that gay, lesbian, and bisexual males and females have different experiences, analyses were conducted to see if differences existed in this sample by the predictor and outcome measures. Means and standard deviations of age of first disclosure by sexual orientation are presented in Table 12. An ANOVA was run to investigate if age of first disclosure of sexual orientation varied by sexual orientation and was found to be significant ($F(3,188) = 4.96$, $p = .01$) (see Table 13). A post-hoc comparison using the Tukey HSD revealed significant differences between bisexual males ($M = 25.36$) and all other sexual orientations such that bisexual males come out for the first time at a later age than bisexual females, gay, and lesbian participants (see Table 14).

Sexual orientation and outness level.

Outness level, which ranges from 0-7 with higher scores indicating greater levels of outness, varied by sexual orientation ($F(3,188) = 16.31$, $p = .00$), and post-hoc Tukey HSD tests revealed that bisexual individuals (bisexual male M = 2.86; bisexual female M = 3.82) were significantly less out as compared to lesbian and gay participants (gay M = 5.24; lesbian M = 5.27).

Table 12.

Means and Standard Deviations of Age of First Disclosure by Sexual Orientation

Sexual Orientation	*M*	*SD*	Range
Gay (*n* = 84)	19.06	4.18	18.16-19.97
Lesbian (*n* = 56)	19.68	5.62	18.17-21.18
Bisexual Male (*n* = 14)	25.36	14.04	16.88-20.22
Bisexual Female (*n* = 38)	18.56	5.08	18.72-20.48

Table 13.

*Analysis of Variance for Sexual Orientation and Age of First Disclosure (*n *= 192)*

Source	*df*	*SS*	*MS*	*F*	*p*
Between-groups	3	530.59	176.87	4.96	.00**
Within-groups	188	6703.53	35.66		
Total	191	7234.12			

Note. ***p* < .01

Table 14.

*Tukey HSD Comparison for Sexual Orientation and Age of First Disclosure (*n *= 192)*

			95% CI	
Comparisons	Mean Difference	Std. Error	Lower Bound	Upper Bound
Gay vs. Lesbian	-.62	1.03	-3.23	2.05
Gay vs. Bi Male	-6.30**	1.72	-10.77	-1.83
Gay vs. Bi Female	.51	1.17	-2.52	3.53
Lesbian vs. Bi Male	-5.68**	1.78	-10.30	-1.05
Lesbian vs. Bi Female	1.13	1.23	-2.13	4.38
Bi Male vs. Bi Female	6.80**	1.87	1.97	11.64

Note. ** $p < .01$

Sexual orientation and identity.

The identity measures also varied by sexual orientation. Means and standard deviations of the LGBIS/NI Scale by sexual orientation are presented in Table 15. There was a significant association between the LGBIS/NI Scale (which ranges from 0-7 with higher scores indicating a more negative attitude towards sexual identity) by sexual orientation ($F(3,188) = 8.8$, $p = .00$) (see Table 16), and a post-hoc Tukey HSD revealed that bisexual males ($M = 4.75$) have a significantly more negative view of their identity as compared to bisexual females ($M = 3.19$), gay participants ($M = 3.38$), and lesbian participants ($M = 3.15$) (see Table 17).

Table 15.

*Summary Table of Sexual Orientation and the LGBIS/NI Scale (*n *= 192)*

Sexual Orientation	*M*	*SD*	Range	Theoretical Range
Gay (*n* = 84)	3.38	1.10	1.14-5.95	1-7
Lesbian (*n* = 56)	3.15	1.11	1.05-5.14	1-7
Bisexual Male (*n* = 14)	4.75	.87	3-6.71	1-7
Bisexual Female (*n* = 38)	3.19	1.04	1.67-5.86	1-7

Note. LGBIS/NI = Lesbian Gay Bisexual Identity Scale Negative Identity (higher scores indicate more negative identity).

Table 16.

*Analysis of Variance for Sexual Orientation and the LGBIS/NI Scale (*n *= 192)*

Source	*df*	*SS*	*MS*	*F*	*p*
Between-groups	3	30.62	10.21	8.8	.00**
Within-groups	188	218.06	1.16		
Total	191	248.68			

Note. LGBIS/NI = Lesbian Gay Bisexual Identity Scale Negative Identity Scale.
**$p < .01$

Table 17.

*Tukey HSD Comparison for Sexual Orientation and the LGBIS/NI Scale (*n *= 192)*

			95% CI	
Comparisons	Mean Difference	Std. Error	Lower Bound	Upper Bound
Gay vs. Lesbian	.23	.19	-.25	.70
Gay vs. Bi Male	-1.37**	.31	-.22	-.57
Gay vs. Bi Female	.18	.21	-.36	.73
Lesbian vs. Bi Male	1.37**	.32	-2.44	-.77
Lesbian vs. Bi Female	-.04	.22	-.63	.54
Bi Male vs. Bi Female	1.56**	.34	.68	2.43

Note. LGBIS/NI = Lesbian Gay Bisexual Identity Scale Negative Identity Scale (higher scores indicate more negative identity).
** $p < .01$

A Kruskal-Wallis one way ANOVA was run to investigate if GIQ stage varied by sexual orientation and found similar results (means and standard deviations are presented in Table 18). The test (see Table 19) was significant (χ^2 (3, 192) = 36.08, $p = .00$). Post-hoc tests of pairwise Mann-Whitney *U* tests were conducted to compare lesbian and gay individuals (see Table 20), gay and bisexual females (see Table 21), gay and bisexual males (see Table 22), and bisexual females and bisexual males (see Table 23). The Mann-Whitney *U* tests revealed that bisexual males overall were at a significantly lower GIQ stage as compared to bisexual female participants and that bisexuals overall were at a significantly lower GIQ stage in comparison to lesbian and gay participants.

Table 18.

Kruskal Wallis Mean Ranks and Test Statistic of GIQ Score and Sexual Orientation

Sexual Orientation	Mean Rank		
Gay (*n* = 84)	105.38		
Lesbian (*n* = 56)	110.60		
Bisexual Male (*n* = 14)	27.61		
Bisexual Female (*n* = 38)	81.49		
	Chi-Square	*Df*	*p*
	36.08	3	.00**

Note. GIQ = Gay Identity Questionnaire.
**p < .01.

Table 19.

Mann-Whitney U *Test of GIQ Scores for Gay and Lesbian Individuals*

	Mean Rank		*U*
	Gay (*n* = 84)	Lesbian (*n* = 56)	
GIQ Scores	68.78	73.08	2207.50

Note. Mann-Whitney *U* test is not significant. GIQ = Gay Identity Questionnaire.

Table 20.

Mann-Whitney U *Test of GIQ Scores of Gay and Bisexual Females*

	Mean Rank		*U*
	Gay (*n* = 84)	Bisexual Female (*n* = 38)	
GIQ Scores	68.31	50.87	1192.00*

Note. GIQ = Gay Identity Questionnaire.
*$p < .05$.

Table 21.

Mann-Whitney U *Test of GIQ Scores of Gay and Bisexual Males*

	Mean Rank		
	Gay (n = 84)	Bisexual Male (n = 14)	U
GIQ Scores	55.29	14.79	102**

Note. GIQ = Gay Identity Questionnaire.
**$p < .01$.

Table 22.

Mann-Whitney U *Test of GIQ Scores and Bisexual Individuals*

	Mean Rank		
	Bisexual Male (n = 14)	Bisexual Female (n = 38)	U
GIQ Scores	15.79	30.45	116.00**

Note. GIQ = Gay Identity Questionnaire.
**$p < .01$.

Finally, it was investigated if the Combined Identity variable varied by sexual orientation. See Table 23 for means and standard deviations of the combined identity variable by sexual orientation. An ANOVA revealed that there was a significant association between the Combined Identity variable and sexual orientation ($F(3,188) = 15.61$, $p = .00$) (see Table 24). A post-hoc Tukey HSD test (see Table 25) revealed that bisexual males ($M = -1.53$) have a significantly weaker sexual identity as compared to bisexual females ($M = -.10$), gay participants ($M = .12$), and lesbian participants ($M = .26$). Because these results showed that bisexual individuals, and especially bisexual men, have a generally less well-developed identity and more negative views about their identity than their peers, it was decided to control for sexual orientations in all analyses of interest.

Table 23.

Means and Standard Deviations of Combined Identity Variable by Sexual Orientation

Sexual Orientation	*M*	*SD*	*Range*	Theoretical Range
Gay (*n* =84)	.12	.86	-2.42-1.62	1-7
Lesbian (*n* = 56)	.26	.90	-2.15-1.61	1-7
Bisexual Male (*n* = 14)	-1.53	.71	-2.32-1.28	1-7
Bisexual Female (*n* =38)	-.10	1.05	-2.65-1.62	1-7

Table 24.

*Analysis of Variance Summary Table for Sexual Orientation and Combined Identity Variable (*n *= 192)*

Source	*Df*	*SS*	*MS*	*F*	*p*
Between-group	3	38.09	12.70	15.61	.00**
Within-group	188	152.91	.81		
Total	191	191.00			

Note. $^{**}p < .01$

Table 25.

*Tukey HSD Comparison for Sexual Orientation and Combined Identity Variable (*n *= 192)*

			95% CI	
Comparisons	Mean Difference	Std. Error	Lower Bound	Upper Bound
Gay vs. Lesbian	-.14	.16	-.55	.26
Gay vs. Bi Male	1.65**	.26	.97	2.32
Gay vs. Bi Female	.22	.18	-.24	.67
Lesbian vs. Bi Male	1.80**	.27	1.09	2.49
Lesbian vs. Bi Female	.36	.19	-.13	.85
Bi Male vs. Bi Female	-1.43**	.28	-2.16	-.70

Note. ** $p < .01$

Sexual orientation and mental health.

ANOVAs were run to investigate if mental health level varied by sexual orientation. No significant differences were found between groups on any of the mental health measures including self-esteem (RSE: $F(3,188) = .90$, $p = .44$), symptom level (BSI GSI: $F(3,188) = 2.22$, $p = .09$), satisfaction with life (SWLS: $F(3,188) = 2.36$, $p = .07$), and the Combined Mental Health variable ($F(3,188) = 2.27$, $p = .08$).

Aim 1: Evaluate if the Predictors Vary by Demographics

Hypothesis 1: LGB Identity, level of outness, and age of first disclosure will vary by race, age, and sex. Specifically:

1a. Caucasian individuals will have a more developed LGB identity as compared to minority individuals.

In order to assess Hypothesis 1a, identity was investigated using the two identity measures separately (the LGBIS/NI Scale and the GIQ), as well as the Combined Identity variable. In order to asses if the LGBIS/NI Scale varied by race, a t-test was run (see Table 26) and revealed that people of color view their identity more negatively as compared to Caucasian individuals ($t(190) = -3.33$, $p < .01$).

Table 27 presents the number of participants in each GIQ stage by race. A Mann-Whitney *U* test (see Table 28) was conducted and was significant ($z = -3.37$, $p < .05$), which revealed that Caucasian individuals, on the average, are in later GIQ stages as compared to participants of color. Caucasians had an average rank of 103.12, while individuals of color had an average rank of 73.56.

Finally, a t-test (see Table 29) with the Combined Identity variable and race revealed a significant association between race and the Combined Identity variable such that individuals of

color had a less strong sense of identity as compared to Caucasians ($t(190) = 3.55$, $p < .01$). Thus, Hypothesis 1a was supported: Caucasian individuals have more developed sexual identities as compared to individuals of color.

Table 26.

T-Test for LGBIS/NI Scale and Race

	Means (SD)				
	Caucasian (n = 149)	Minority (n = 43)	t	df	p
LGBIS/NI	3.23 (1.12)	3.87 (1.07)	-3.33	190	.01*

Note. Standard Deviations appear in parentheses below means. LGBIS/NI = Lesbian Gay Bisexual Identity Scale Negative Identity Scale (higher scores indicate more negative identity).
*$p < .05$.

Table 27.

Frequency of Race by GIQ Stage

GIQ Stage	White Frequency (%)	Minority Frequency (%)
1	3 (2%)	1 (2%)
2	8 (5%)	4 (9%)
3	7 (5%)	4 (9%)
4	17 (11%)	13 (30%)
5	24 (16%)	7 (16%)
6	90 (60%)	14 (43%)

Note. GIQ = Gay Identity Questionnaire.

Table 28.

Mann-Whitney U *test for GIQ Scores and Race*

	Mean Rank		
	Caucasian (n = 149)	Minority (n = 43)	U
GIQ Scores	103.12	73.56	2217**

Note. GIQ = Gay Identity Questionnaire.
**$p < .01$.

Table 29.

T-Test for Combined Identity Variable and Race

	Mean (SD)		t	df	p
	Caucasian (n=149)	Minority (n=43)			
Combined Identity Variable	.13 (.97)	-.46 (.99)	3.55	190	.00**

Note. Standard Deviations appear in parentheses below means.
$^{**}p < .01$.

1b. Older individuals will have a more developed LGB identity as compared to younger individuals.

In order to evaluate Hypothesis 1b, identity was investigated using the two identity measures separately (the LGBIS/NI Scale and the GIQ), as well as the Combined Identity variable. A correlation that looked at the relationship between the LGBIS/NI Scale and age was not significant ($r(190) = -.08$, $p > .05$), an ANOVA that looked at the association between age and GIQ stage was not significant ($F(3,188) = 1.33$, $p = .25$), and the correlation of the Combined Identity variable and age was not significant ($r(190) = .07$, $p > .05$). Thus, Hypothesis 1b was refuted as there were no associations between age and any of the measures of identity.

1c. Males will have a more developed LGB identity as compared to females.

In order to evaluate Hypothesis 1c, identity was investigated using the two identity measures separately (the LGBIS/NI Scale and the GIQ), as well as the Combined Identity variable. A t-test was run to examine if differences existed in sex on the LGBIS/NI Scale and was significant, but in the opposite direction than expected, such that males had more negative feelings about their identity as compared to females ($t(190) = -2.50$, $p < .01$) (see Table 30).

A Mann-Whitney *U* test was run to assess differences in GIQ stage between males and females, but was not significant ($z = -.62$, $p > .05$).

Finally, a t-test was run to look at the Combined Identity variable and sex and was also not significant ($t(190) = 1.62$, $p > .05$). Thus, the Hypothesis was partially supported, indicating that males feel less positively about their identity as compared to females, but males and females do not vary in terms of identity strength or stage.

Table 30.

T-test of LGBIS/NI Scale and Sex

	Means (SD)				
	Male (n = 98)	Female (n = 94)	t	df	p
LGBIS/NI	3.57 (1.17)	3.17 (1.08)	-2.50	190	.01*

Note. Standard Deviations appear in parentheses below means. LGBIS/NI = Lesbian Gay Bisexual Identity Scale Negative Identity Scale (higher scores indicate more negative identity).
*p < .05.

1d. Caucasian individuals will be more disclosing of their sexual orientation as compared to individuals of color.

A t-test was conducted to evaluate if outness level, as measured by the Outness Inventory, varied by race. No significant differences were found ($t(190) = .62$, $p > .05$). Thus, Hypothesis 1d was refuted, revealing that outness did not vary by race.

1e. Level of outness will not vary by sex, though bisexual individuals will be out less overall as compared to gay and lesbian individuals.

In order to evaluate Hypothesis 1e, a t-test was conducted to evaluate if outness level, as measured by the Outness Inventory, varied by sex. No significant differences were found between males and females ($t(190) = -.85$, $p > .05$).

Next, analyses were conducted to investigate if outness level varied by sexual orientation. See Table 31 for means and standard deviations of outness level by sexual orientation. An ANOVA was run and revealed significant differences among groups (F (3,188) = 16.31, $p = .00$) (see Table 32), and a post-hoc Tukey HSD test revealed that bisexual participants (bisexual male $M = 2.86$; bisexual female $M = 3.82$) were less out as compared to gay ($M = 5.24$) and lesbian participants ($M = 5.27$) (see Table 33). Thus, Hypothesis 1g was supported, as level of outness did not vary by sex, but bisexual individuals were less out as compared to gay and lesbian individuals.

Table 31.

Means and Standard Deviations of Outness by Sexual Orientation

Sexual Orientation	*M*	*SD*	Range	Theoretical Range
Gay (*n* = 84)	5.24	1.56	1.40-7.00	1-7
Lesbian (*n* = 56)	5.27	1.28	2.29-7	1.-7
Bisexual Male (*n* = 14)	2.86	1.60	1-5.80	1-7
Bisexual Female (*n* = 38)	3.82	1.86	1-6.75	1-7

Table 32.

*Analysis of Variance Summary Table for the Effects of Sexual Orientation on Outness (*n *= 192)*

Source	*df*	*SS*	*MS*	*F*	*p*
Between-group	3	117.83	39.27	16.31	.00**
Within-group	188	452.68	2.41		
Total	191	570.52			

Note. $**p < .01$.

Table 33.

*Tukey HSD Comparison for Sexual Orientation and Outness Level (*n *= 192)*

Comparisons	Mean Difference	Std. Error	95% CI Lower Bound	95% CI Upper Bound
Gay vs. Lesbian	-.03	.27	-.73	.66
Gay vs. Bi Male	2.38**	.45	1.22	3.54
Gay vs. Bi Female	1.42**	.30	.63	2.20
Lesbian vs. Bi Male	2.42**	.46	1.21	3.62
Lesbian vs. Bi Female	1.44**	.33	-.60	2.29
Bi Male vs. Bi Female	.97	.49	-.29	2.22

Note. **$p < .01$.

1f. Females will come out later than males.

A t-test was conducted to evaluate if age of first disclosure varied by sex. No significant differences were found ($t(190) = -.83$, $p > .05$). Thus, Hypothesis 1f was refuted, as age of first disclosure of sexual orientation did not vary by sex.

1g. Caucasian individuals will come out earlier as compared to individuals of color.

A t-test was conducted to evaluate if age of first disclosure varied by race. No significant differences were found ($t(190) = -1.19$, $p > .05$). Thus, Hypothesis 1g was refuted as age of first disclosure of sexual orientation did not vary by race.

Aim 2: Evaluate if the Predictors are Related

Research Question 1: Given the discrepancies in the literature, are outness and identity formation related?

In order to evaluate Research question1, identity was investigated using the two identity measures separately (the LGBIS/NI Scale and the GIQ), as well as the Combined Identity variable. A correlation was run to investigate if the LGBIS/NI Scale and the Outness Inventory were related. There was no significant relationship ($r(190) = -.55$, $p > .05$).

Next, analyses were conducted to investigate if outness level varied by GIQ stage. See Table 34 for means and standard deviations of outness level by GIQ stage. An ANOVA was run and revealed significant differences among groups ($F(5,186) = 18.73$, $p = .00$) (see Table 35), so a post-hoc Tukey HSD test was run and revealed that participants in GIQ stages 1-4 were less out than those in GIQ stages 5 and 6 (see Table 36).

A correlation was run with the Combined Identity variable and outness and was found to be significant ($r(190) = .60$, $p < .01$) in the positive direction, such that stronger identity was

related to a higher degree of outness. Thus, Research question 1 was partially supported, as individuals who have a stronger identity are more out. However, how individuals feel about their identity is not associated with how out they are.

Table 34.

Means and Standard Deviations of Outness Level by GIQ Stage

Stage	*M*	*SD*	Range	Theoretical Range
Stage 1	-1.78	.93	1-3.10	1-7
Stage 2	3.47	1.77	1-5.85	1-7
Stage 3	3.17	1.30	1.57-6.20	1-7
Stage 4	3.49	1.94	1-6.8	1-7
Stage 5	5.44	1.57	1.7-7	1-7
Stage 6	5.42	1.18	2-7	1-7

Note. GIQ = Gay Identity Questionnaire.

Table 35.

*Analysis of Variance Summary Table for GIQ Stage and Outness (*n *= 192)*

Source	*df*	*SS*	*MS*	*F*	*p*
Between-group	5	191.06	38.21	18.73	.00**
Within-group	186	379.46	2.04		
Total	191	570.52			

Note. GIQ = Gay Identity Questionnaire.
**=p < .01.

Table 36.

*Tukey HSD Comparison for GIQ Stage and Outness Level (*n *= 192)*

			95% CI	
Comparisons	Mean Difference	Std. Error	Lower Bound	Upper Bound
Stage 1 vs. 2	-1.70	.82	-4.07	.86
Stage 1 vs. 3	-1.39	.83	-3.80	1.00
Stage 1 vs. 4	-1.70	.76	-3.90	.48
Stage 1 vs. 5	-3.67**	.76	-5.85	-1.48
Stage 1 vs. 6	-3.64**	.73	-5.74	-1.55
Stage 2 vs. 3	.30	.60	-1.41	2.02
Stage 2 vs. 4	-.02	.49	-1.42	1.39
Stage 2 vs. 5	-1.97**	.49	-3.37	-.57
Stage 2 vs. 6	-1.95**	.44	-3.20	-.69
Stage 3 vs. 4	-.32	.50	-1.77	1.13
Stage 3 vs. 5	-2.27**	.50	-3.72	-.83
Stage 3 vs. 6	-2.25	.45	-3.55	-.95
Stage 4 vs. 5	-1.95**	.37	-3.01	-.90
Stage 4 vs. 6	-1.93**	.30	-2.78	-1.08
Stage 5 vs. 6	.02	.29	-.82	.87

Note. GIQ = Gay Identity Questionnaire.
**= $p < .01$.

Research Question 2: Given the discrepancies in the literature, will the earlier individuals come out be related to a more well-formed identity and a higher degree of outness?

In order to evaluate whether age of first disclosure and feelings about one's sexual identity were associated, a correlation was run between age of first disclosure and the LGBIS/NI Scale. A small positive significant relationship was found between the LGBIS/NI Scale and age of first disclosure ($r(190) = .20$, $p < .01$), such that the later one came out, the more negatively he or she felt about his or her gay identity.

An ANOVA was run to assess whether age of first disclosure varied by GIQ stage. No significant differences were found between groups ($F(5, 186) = 1.33$, $p = .25$).

A significant negative relationship was found between the Combined Identity variable and age of first disclosure ($r(190) = -.19$, $p < .01$), such that the later individuals came out, the less strong their sexual identity. It should be noted that while this association is significant, it is very small.

In order to investigate if outness level varied by age of first disclosure, a correlation was conducted and revealed that there was no significant relationship between age of first disclosure and outness ($r(190) = -.08$, $p > .05$),. Thus, earlier age of first disclosure was partially related to identity as analyses revealed that the later individuals come out the less positive they feel about their identity and the less strong their identity, however age of disclosure is not related to what stage of identity development they are in. In addition, age of first disclosure is not related to how out an individual is.

Aim 3: Evaluate Whether the Predictors are Related to the Outcomes

Hypothesis 2: A well-formed identity will be related to fewer symptoms, greater life satisfaction, and higher self-esteem as compared to those with a less well formed identity.

In order to investigate if stronger identity is related to better mental health, analyses were conducted using the two identity measures separately (the LGBIS/NI Scale and the GIQ), as well as the Combined Identity variable and the three separate mental health measures (the Rosenberg Self-Esteem Scale, the Satisfaction with Life Scale, and the Brief Symptom Inventory Global Severity Index), as well as the Combined Mental Health variable.

First, analyses looked at if the stage of gay identity development, as measured by the GIQ, was related to each of the mental health variables. Table 37 presents means and standard deviations of self-esteem, as measured by the RSE, by GIQ stage. An ANOVA was run to investigate if self-esteem level varied by GIQ stage and found significant differences between groups (F (5,186) = 4.14, p = .00) (see Table 38). A post-hoc Tukey HSD revealed that those in GIQ stage 6 had significantly higher self-esteem as compared to those in the other GIQ stages (see Table 39).

Table 37.

Means and Standard Deviations of the Rosenberg Self-Esteem Scale by the GIQ Stage

GIQ Stage	*M*	*SD*	Range	Theoretical Range
Stage 1 (*n* = 4)	15.75	1.26	13.75-17.75	0-30
Stage 2 (*n* = 12)	15.50	1.51	14.54-16.46	0-30
Stage 3 (*n* =11)	16.55	2.11	15.12-17.97	0-30
Stage 4 (*n* = 30)	16.20	2.12	15.41-16.99	0-30
Stage 5 (*n* = 31)	16.55	2.31	15.70-17.39	0-30
Stage 6 (*n* = 104)	17.47	1.92	17.10-17.84	0-30

Table 38.

*Analysis of Variance for the Rosenberg Self-Esteem Scale and the GIQ Stage (*n *= 192)*

Source	*df*	*SS*	*MS*	*F*	*p*
Between-groups	5	82.63	16.53	4.14	.00**
Within-groups	186	742.87	3.99		
Total	191	825.50			

Note. ***p* < .01

Table 39.

*Tukey HSD Comparison for the Rosenberg Self-Esteem Scale and the GIQ Stage (*n *= 192)*

			95% CI	
Comparisons	Mean Difference	Std. Error	Lower Bound	Upper Bound
Stage 1 vs. 2	.25	1.15	-3.07	3.57
Stage 1 vs. 3	-.80	1.17	-4.16	2.56
Stage 1 vs. 4	-.45	1.06	-3.51	2.61
Stage 1 vs. 5	-.80	1.06	-3.86	2.26
Stage 1 vs. 6	-1.72	1.02	-4.65	1.21
Stage 2 vs. 3	1.05	.83	-1.36	3.44
Stage 2 vs. 4	-.70	.68	-2.67	1.27
Stage 2 vs. 5	-1.05	.68	-3.01	-.22
Stage 2 vs. 6	-1.97*	.61	-3.73	-.22
Stage 3 vs. 4	.35	.70	-1.68	2.37
Stage 3 vs. 5	-.00	.70	-2.02	2.02
Stage 3 vs. 6	-.93	.63	-2.75	.90
Stage 4 vs. 5	-.35	.51	-1.82	1.13
Stage 4 vs. 6	-1.23*	.41	-2.46	-.08
Stage 5 vs. 6	-.92	.41	-2.10	.25

Note. $^{*}p < .05$, $^{**}p < .01$.

Table 40 presents means and standard deviations of satisfaction with life, as measured by the SWLS, by GIQ stage. An ANOVA was run to see if differences existed in SWLS scores by GIQ stage. This ANOVA was significant, ($F\ (5,186) = 5.46$, $p = .00$) (see table 41). A post-hoc Tukey HSD test revealed that those in stage 6 have significantly greater satisfaction with life as compared to those in the other GIQ stages (see Table 42).

Table 40.

Means and Standard Deviations of Satisfaction with Life Scale by GIQ Stage

GIQ Stage	*M*	*SD*	Range	Theoretical Range
Stage 1 (*n* = 4)	4.4	.99	2.82-5.98	1-7
Stage 2 (*n* = 12)	4.23	1.18	3.48-4.98	1-7
Stage 3 (*n* =11)	4.09	1.23	3.26-4.92	1-7
Stage 4 (*n* = 30)	4.19	1.18	3.75-4.63	1-7
Stage 5 (*n* = 31)	4.90	1.21	4.46-5.35	1-7
Stage 6 (*n* = 104)	5.23	1.32	5.02-5.53	1-7

Table 41.

*Analysis of Variance Summary Table for GIQ Stage on Satisfaction with Life Scale (*n *= 192)*

Source	*df*	*SS*	*MS*	*F*	*p*
Between-group	5	43.57	8.71	5.56	.00**
Within-group	186	296.91	1.60		
Total	191	340.48			

Note. $^{**}p < .01$

Table 42.

*Tukey HSD Comparison for Satisfaction with Life Scale and GIQ Stage (*n *= 192)*

Comparisons	Mean Difference	Std. Error	95% CI Lower Bound	95% CI Upper Bound
Stage 1 vs. 2	.17	.73	-1.93	2.27
Stage 1 vs. 3	.31	.74	-1.82	2.43
Stage 1 vs. 4	.21	.67	-1.72	2.15
Stage 1 vs. 5	-.50	.67	-2.44	1.43
Stage 1 vs. 6	-.88	.64	-2.73	.98
Stage 2 vs. 3	.14	.53	-1.38	1.67
Stage 2 vs. 4	.05	.43	-1.20	1.29
Stage 2 vs. 5	-.67	.43	-1.90	.57
Stage 2 vs. 6	-1.04	.39	-2.15	.07
Stage 3 vs. 4	-.10	.45	-1.38	1.19
Stage 3 vs. 5	-.81	.44	-2.09	.46
Stage 3 vs. 6	-1.19*	.40	-2.34	-.03
Stage 4 vs. 5	-.72	.32	-1.65	.22
Stage 4 vs. 6	-1.09**	.26	-1.84	-.34
Stage 5 vs. 6	-.37	.26	-1.12	.37

Note. $*p < .05$, $**p < .01$

Table 43 presents means and standard deviations of BSI symptom level by GIQ stage. An ANOVA was run to investigate if BSI symptom level varied by GIQ stage and was found to be significant, ($F(5,186) = 16.86$, $p = .00$) (see Table 44). A post-hoc Tukey HSD test was run to find where the differences in GIQ were and revealed that those in the later stages of GIQ development had less symptomotology, as seen in Table 45.

Table 43.

Means and Standard Deviations of BSI Symptom Level by GIQ Stage

GIQ Stage	*M*	*SD*	Range	Theoretical Range
Stage 1 (*n* = 4)	.89	.51	.07-1.7	0-4
Stage 2 (*n* = 12)	1.88	.95	1.23-2.48	0-4
Stage 3 (*n* =11)	1.21	1.00	.54-1.88	0-4
Stage 4 (*n* = 30)	1.01	.65	.77-1.25	0-4
Stage 5 (*n* = 31)	.79	.52	.60-.98	0-4
Stage 6 (*n* = 104)	.49	.43	.40-.57	0-4

Note. GIQ = Gay Identity Questionnaire; BSI = Brief Symptom Inventory

Table 44.

*Analysis of Variance Summary Table for GIQ Stage on BSI Symptom Level (*n *= 192)*

Source	*df*	*SS*	*MS*	*F*	*p*
Between-group	5	27.05	5.41	16.86	.00**
Within-group	186	59.73	.32		
Total	191	86.80			

Note. GIQ = Gay Identity Questionnaire; BSI = Brief Symptom Inventory.
**$p < .01$.

Table 45.

Tukey HSD Comparison for GIQ Stage and BSI Symptom Level (n = 192)

Comparisons	Mean Difference	Std. Error	95% CI Lower Bound	95% CI Upper Bound
Stage 1 vs. 2	-.99*	.33	-1.94	-.05
Stage 1 vs. 3	-.32	.33	-1.28	.63
Stage 1 vs. 4	-.13	.30	-.99	.74
Stage 1 vs. 5	.10	.30	-.77	.97
Stage 1 vs. 6	.40	.29	-.43	1.23
Stage 2 vs. 3	.67	.24	-.01	1.35
Stage 2 vs. 4	.87**	.19	.31	1.43
Stage 2 vs. 5	1.09**	.19	.54	1.65
Stage 2 vs. 6	1.39**	.17	.90	1.89
Stage 3 vs. 4	.20	.20	-.38	.77
Stage 3 vs. 5	.42	.20	-.15	.99
Stage 3 vs. 6	.72**	.18	.21	1.24
Stage 4 vs. 5	.22	.15	-.19	.64
Stage 4 vs. 6	.53**	.12	.19	.86
Stage 5 vs. 6	.30	.12	-.03	.64

Note. GIQ = Gay Identity Questionnaire; BSI = Brief Symptom Inventory.
$*p < .05$, $**p < .01$.

Table 46 presents means and standard deviations of the Combined Mental Health variable by GIQ stage. An ANOVA was run to examine if the Combined Mental Health variable varied by GIQ stage. This ANOVA was significant ($F(5,186) = 12.72$, $p = .00$) (see Table 47). A post-hoc Tukey HSD test revealed that overall, those in later GIQ stages have better mental health (see Table 48). These analyses indicate that that overall, as hypothesized, the higher stages of sexual identity development are associated with better mental health.

Table 46.

*Means and Standard Deviations of the Combined Mental Health Variable by the GIQ Stage (*n = *192)*

GIQ Stage	*M*	*SD*	Range
Stage 1	-.47	.47	-.87-.03
Stage 2	-1.21	.98	-2.42-.96
Stage 3	-.63	1.27	-2.29-1.28
Stage 4	-.54	.89	-2.16-1.63
Stage 5	-.09	.93	-1.96-1.41
Stage 6	.41	.80	-2.23-1.90

Note. GIQ = Gay Identity Questionnaire.

Table 47.

*Analysis of Variance for the Combined Mental Health Variable and the GIQ Stage (*n*=192)*

Source	*df*	*SS*	*MS*	*F*	*p*
Between-groups	5	48.68	9.74	12.72	.00**
Within-groups	186	142.32	.77		
Total	191	191.00			

Note. GIQ = Gay Identity Questionnaire.
**$p < .01$.

Table 48.

*Tukey HSD Comparison for the Combined Mental Health Variable and the GIQ Stage (*n *= 192)*

			95% CI	
Comparisons	Mean Difference	Std. Error	Lower Bound	Upper Bound
Stage 1 vs. 2	.73	.51	-.72	2.19
Stage 1 vs. 3	.15	.51	-1.32	1.62
Stage 1 vs. 4	.06	.47	-1.28	1.4
Stage 1 vs. 5	-.39	.56	-1.72	.95
Stage 1 vs. 6	-.88	.45	-2.16	.40
Stage 2 vs. 3	-.58	.37	-1.63	.47
Stage 2 vs. 4	-.67	.30	-1.53	.19
Stage 2 vs. 5	-1.12**	.30	-1.97	-.26
Stage 2 vs. 6	-1.61**	.77	-2.38	-.84
Stage 3 vs. 4	-.09	.31	-.98	.80
Stage 3 vs. 5	-.54	.31	-1.42	.34
Stage 3 vs. 6	-1.03**	.28	-1.83	-.23
Stage 4 vs. 5	-.45	.22	-1.09	.20
Stage 4 vs. 6	-.94**	.18	-1.46	-.42
Stage 5 vs. 6	-.49	.18	-1.01	.02

Note. GIQ = Gay Identity Questionnaire.
**$p < .01$.

In order to investigate if the way individuals feel about their identity was associated with their mental health, intercorrelations were run with the LGBIS/NI Scale and the three separate mental health measures (the Rosenberg Self-Esteem Scale, the Satisfaction with Life Scale, and the Brief Symptom Inventory Global Severity Index), as well as the Combined Mental Health variable. All mental health measures were significantly correlated with the LGBIS/NI Scale, such that the greater the negative identity, the worse mental health. See Table 49 for results.

Table 49.

*Intercorrelation for Mental Health Measures and the LGBIS/NI Scale (*n *= 192)*

Measure	1.
1. LGBIS/NI	---
2. BSI Symptom Level	.46**
3. Satisfaction with Life Scale	-.40**
4. Rosenberg Self-Esteem Scale	-.24**
5. Combined Mental Health Variable	-.47**

Note. Coefficients are significant at $p < .01$. LGBIS/NI = Lesbian Gay Bisexual Identity Scale Negative Identity Scale (higher scores indicate more negative identity); BSI=Brief Symptom Inventory (higher scores indicate greater symptomotology).

Finally, correlations were run with the mental health measures and the combined identity variable. All of the correlations were significant in the expected direction (see Table 50), such that the stronger the identity, the better the mental health. Thus, Hypothesis 2 was supported as the analyses demonstrated that the stronger the identity, the better the mental health.

Table 50.

*Intercorrelation for Mental Health Measures and the Combined Identity Variable (*n *= 192)*

Measure	1.
1. LGBIS/NI	---
2. BSI Symptom Level	-.54**
3. Satisfaction with Life Scale	.40**
4. Rosenberg Self-Esteem Scale	.30**
5. Combined Mental Health Variable	.53**

Note. Coefficients are significant at $p < .01$. LGBIS/NI = Lesbian Gay Bisexual Identity Scale Negative Identity Scale (higher scores indicate more negative identity); BSI=Brief Symptom Inventory (higher scores indicate greater symptomotology).

Research Question 3: Given the discrepancies in the literature, will a higher degree of outness be related to fewer symptoms, greater life satisfaction, and higher self-esteem as compared to those who are less out?

In order to investigate if outness level was associated with mental health, intercorrelations were run with the Outness Inventory and the three separate mental health measures (the Rosenberg Self-Esteem Scale, the Satisfaction with Life Scale, and the Brief Symptom Inventory Global Severity Index), as well as the Combined Mental Health variable. As seen in Table 51, the RSE was not significantly correlated with the Outness Inventory ($r(190) = .04$, $p > .05$). However, the BSI was modestly but significantly correlated with the Outness Inventory ($r(190) = -.18$, $p < .05$), as was the SWLS ($r(190) = .24$, $p < .05$), and the Combined Mental Health variable ($r(190) = .20$, $p < .01$), all indicating that higher degrees of outness is significantly related to better mental health. Thus, Research question3 was partially supported such that a higher degree of outness was related to fewer symptoms, greater life satisfaction, and better overall mental health, but was not associated with self-esteem level.

Table 51.

*Intercorrelation for Mental Health Measures and Outness (*n *= 192)*

Measure	1.
1. Outness	---
2. BSI Symptom Level	-.18*
3. Satisfaction with Life Scale	.24**
4. Rosenberg Self-Esteem Scale	.04
5. Combined Mental Health Variable	.20**

Note. BSI = Brief Symptom Inventory (higher scores indicate greater symptomotology).
*p < .05, **p < .01.

Hypothesis 3: An older age of first disclosure will be related to fewer symptoms, greater life satisfaction, and higher self-esteem as compared to those who came out at an earlier age.

In order to investigate if age of first disclosure of sexual orientation was related to mental health, intercorrelations were run with the four mental health measures and age of first disclosure. None of the correlations were significant (RSE: $r(190) = -.08$, $p > .05$; BSI: $r(190) = -.07$, $p > .05$; SWLS: $r(190) = -.03$, $p > .05$; Combined Mental Health variable $r(190) = -.02$, $p > .05$). Thus, Hypothesis 3 was refuted as age of first disclosure of sexual orientation was not related to mental health.

Research Question 4: To what extent do outness, identity, and age of first disclosure of sexual orientation predict current self-esteem, symptom level, and life satisfaction?

In order to investigate Research question4, several regression analyses and an ANCOVA were run with the Combined Mental Health variable as the dependent variable, controlling for age, sexual orientation (with gay men as a reference group), and race. The first regression examined if outness and mental health were related and demonstrated that outness marginally predicted mental health, (β =.15, $t(190) = 1.80$, $p < .10$) while controlling for demographics (see Table 52), such that the more out individuals are, the better their mental health. The final model accounted for 9% of the variance in mental health, with outness accounting for 2% of mental health's the variance alone.

Controlling for age, sexual orientation, and race, a regression was run using the LGBIS/NI Scale to predict the Combined Mental Health variable. Table 53 shows that LGBIS/NI significantly predicted mental health (β = -.45, $t(190) = -6.29$, $p < .01$) (see Table 54), such that the more negative the identity, the worse the mental health. The final model accounted

for 24% of the variance in mental health, with outness accounting for 17% of mental health's the variance alone.

An ANCOVA was run to investigate if GIQ stage was associated with mental health controlling for age, sexual orientation, and race. The ANCOVA was found to be significant (F (1, 181) = 9.4, p = .00), (see Table 55), and post-hoc difference contrasts were run in order to explore where these differences were. As seen in Table 56, the analysis revealed that higher GIQ significantly predicts better mental health.

Age of first disclosure of sexual orientation did not significantly predict combined mental health when controlling for age, sexual orientation, and race (β = .02, t(190) = .19, $p > .05$). Taken together, these analyses indicate that greater outness and stronger identity significantly predict better mental health, but age of first disclosure is not related to mental health.

Table 52.

*Regression Analysis Summary for Outness Predicting the Mental Health Variable (*n *= 192)*

Variable		*B*	*SE B*	*β*	*t*	*p*
1.	Age	.01	.01	.05	.72	.47
	Lesbian	.21	.17	.10	1.26	.21
	Bisexual Male	-.59	.18	-.15	-2.07	.04
	Bisexual Female	-.08	.19	-.03	-.42	.67
	Race	-.43	.17	-.19	-2.67	.01
2.	Outness	.08	.05	.15	1.80	.07†

Note. 1. $R^2 = .07$, *2.* $R^2 = .09$, †$p < .10$.

Table 53.

Regression Analysis Summary for the LGBIS/NI Scale Predicting the Combined Mental Health Variable (n = 192)

Variable		*B*	*SE B*	*β*	*t*	*p*
1.	Age	.00	.00	.05	.72	.47
	Lesbian	.21	.17	.10	1.26	.21
	Bisexual Male	-.59	.28	-.15	-2.07	.04
	Bisexual Female	-.08	.19	-.03	-.42	.67
	Race	-.45	.17	-.19	-2.67	.01
2.	LGBIS/NI	-.40	.06	-.45	-6.29	.00**

Note. 1. $R^2 = .07$, *2.* $R^2 = .24$, ** $p < .01$. LGBIS/NI = Lesbian Gay Bisexual Identity Scale Negative Identity Scale (higher scores indicate more negative identity).

Table 54.

*Tests of Between-Subjects Effects for the Combined Mental Health Variable and GIQ Stage (*n *= 192)*

Source	*df*	*SS*	*MS*	*F*	*p*
Age	1	.01	.01	.01	.91
Lesbian	1	.83	.83	1.07	.30
Male Bisexual	1	.49	.49	.63	.43
Female Bisexual	1	.64	.64	.83	.36
Race	1	.58	.58	.75	.39
GIQ Stage	5	36.58	7.32	9.4**	.00
Error	181	140.33	.78		
Total	192	192			

Note. GIQ = Gay Identity Questionnaire.
**p < .01.

Table 55.

*Difference Contrasts for GIQ Stage and the Combined Mental Health Variable (*n *= 192)*

GIQ Stage Difference Contrasts	Contrast Estimate	Diff	SE	Significance
Level 2 vs. 1	-.67	-.67	.51	.20
Level 3 vs. Previous	.25	.25	.37	.51
Level 4 vs. Previous	.31	.31	.26	.24
Level 5 vs. Previous	.68	.68	.23	.00**
Level 6 vs. Previous	1.02	1.02	.18	.00**

Note. GIQ = Gay Identity Questionnaire.
**p < .01.

Aim 4: Evaluate if Identity Mediates the Relationship Between the Other Predictors and the Outcomes

Research Question 5: Does the individual's level of identity account for the relationship between outness and self-esteem, symptom level, and life satisfaction?

Barron and Kenny (1986) recommend using a 4-step regression and multiple regression model in order to investigate if mediation exists. The four regressions were run for main effects on the independent variable and dependent variable (step 1), the independent variable and the proposed mediator (step 2), the proposed mediator and the dependent variable (step 3), and predicting the dependent variable with both the independent variable and the proposed mediator in a multiple regression analysis (step 4). Assuming the first three steps are significant, analyzing step 4 reveals potential mediation. If the proposed mediator remains significant in the multiple regression while the independent variable does not, this supports a model of full mediation, such that the relationship between the independent variable and the dependent variable is accounted for by the mediator. This model was followed using the Combined Mental Health variable as the dependent variable and the Combined Identity variable as the proposed mediator.

The first step was to conduct a regression analysis with outness (the independent variable) predicting mental health (the dependent variable) to test for that path alone. This was already run in Aim 3 and was found to be marginally significant (see table 52) such that the more out individuals are, the better their mental health (β = -.15, $t(190)$ = 1.80, $p < .10$).

Next, a regression analysis was run with outness (the independent variable) predicting identity (the proposed mediator) to test for that path alone. This was found to be significant (β =

.51, $t(190) = 8.43$, $p < .01$), such that those who are more out have a stronger sense of identity (see table 56).

Table 56.

Regression Analysis Summary for Outness Predicting the Combined Identity Variable (n = 192)

Variable		*B*	*SE B*	*β*	*t*	*p*
1.	Age	.01	.01	.10	1.62	.11
	Lesbian	.16	.15	.08	1.10	.27
	Bisexual Male	-1.7	.25	-.44	-6.81	.00
	Bisexual Female	-.22	.17	-.09	-1.29	.20
	Race	-.63	.15	-.26	-4.20	.00
2.	Combined Identity	.30	.04	.51	8.43	.00**

Note. 1. $R^2 = .28$, 2. $R^2 = .48$, ** $p < .01$.

The third regression analysis was with identity (the proposed mediator) predicting mental health (the dependent variable) and was also found to be significant (β = .55, $t(190) = 7.5$, $p < .01$), such that those with stronger identity have better mental health (see table 57).

Table 57.

Regression Analysis Summary for the Combined Identity Variable Predicting the Combined Mental Health Variable (n = 192)

Variable		*B*	*SE B*	*β*	*T*	*p*
1.	Age	.01	.01	.05	.72	.47
	Lesbian	.21	.17	.10	1.26	.21
	Bisexual Male	-.59	.28	-.15	-2.07	.04
	Bisexual Female	-.08	.19	-.03	-.42	.67
	Race	-.45	.17	-.19	-2.67	.01
2.	Combined Identity	.55	.07	.55	7.5	.00**

Note. 1. $R^2 = .07$, 2. $R^2 = .29$,** $p < .01$.

Barron and Kenny (1986) state that if regressions 1-3 are significant, a fourth multiple regression analysis should be run which includes all of the predictor variables on the outcome measure. Thus, a multiple regression was run with both outness (the independent variable) and the Combined Identity variable (the proposed mediator) predicting the Combined Mental Health variable (the dependent variable), controlling for sexual orientation, age, and race. As seen in Table 58, as predicted, the Combined Identity variable was significant such that the stronger the identity, the better the mental health (β = .65, t(190) = -7.64, p <.01). Outness was also significant, however in the opposite direction, such that the more out individuals are, the worse their mental health (β = -.19, t(-.19) = -2.27, p <.05). Thus, the main effect for outness on mental health is somewhat positive (see Figure 1), but when identity is in the model (and thus controlled for), the effect of outness on mental health becomes negative (see Figure 2). Using Hayes and Preacher (2010)'s estimate of instantaneous indirect effects of meditational models, the indirect effect of this model was determined to be significant (θ = .19, p<.001).

Table 58.

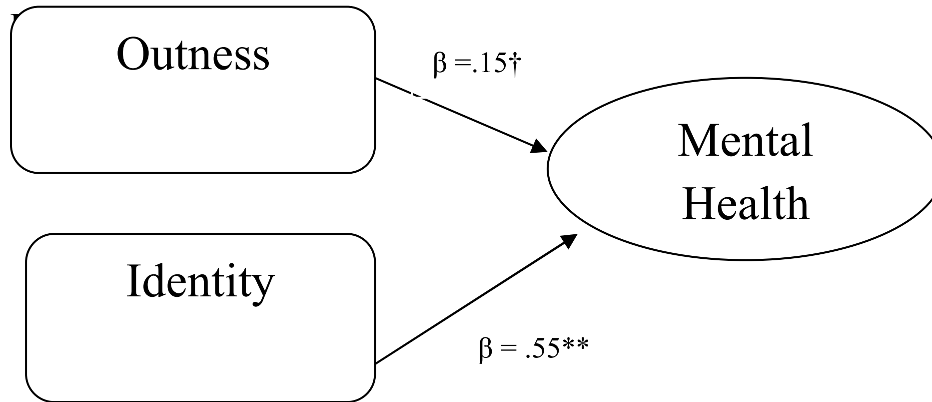
*Regression Analysis Summary for Outness and the Combined Identity Variable Predicting the Combined Mental Health Variable (*n *= 192)*

Variable		*B*	*SE B*	*β*	*t*	*p*
1.	Age	.01	.07	.05	.72	.47
	Lesbian	.21	.17	.10	1.26	.21
	Bisexual Male	-.59	.28	-.15	-2.07	.04
	Bisexual Female	-.08	.19	-.02	-.42	.67
	Race	-.45	.17	-.19	-2.67	.01
2.	Outness	-.11	.05	-.19	-2.27	.02*
	Combined Identity	.65	.09	.65	7.64	.00**

Note. 1. $R^2 = .07$, 2. $R^2 = .29$, *$p < .05$, **$p < .01$.

Figure 1.

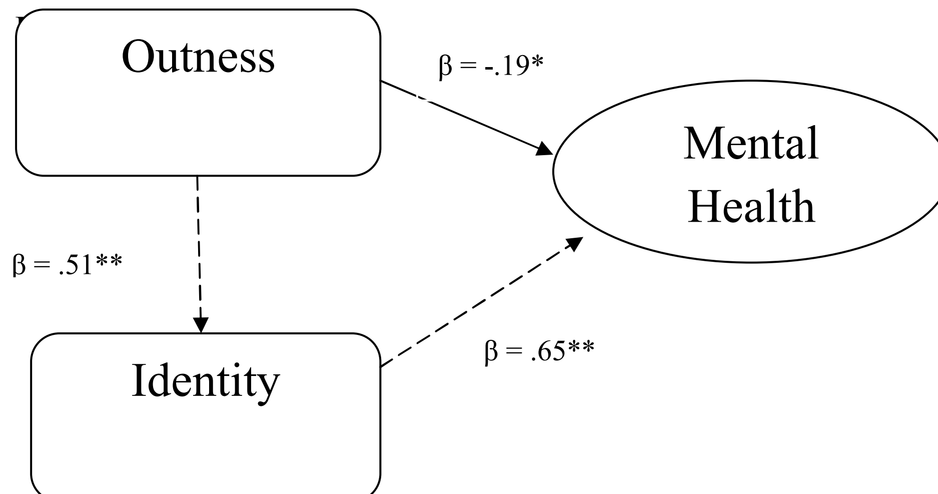
Meditational Model Summary for Outness Predicting Mental Health and Identity Predicting Mental Health



Note. †$p < .10$, **$p < .01$

Figure 2.

Meditational Model Summary for Outness and Identity Predicting Mental Health



Note. *$p < .05$, ** $p < .01$

Research Question 6: Does an individual's level of identity account for the relationship between age of first disclosure and self-esteem, symptom level, and life satisfaction?

Research Question 6 was not explored as age of first disclosure did not significantly predict mental health or identity strength.

Chapter Six: Discussion

The current study investigated how LGB identity formation, age of first disclosure of sexual identity, and level of disclosure of sexual identity interact and impact outcomes of mental health. Many discrepancies and misunderstandings exist about how these factors interact with each other. It seems important to understand how identity and outness work together to affect mental health in order to aid clinicians in understanding and helping their LGB clients.

Current Sample

The literature on LGB individuals has revealed certain consistencies. For instance, the literature has found that mean age of first disclosure to be in late teens and early adulthood (Maguen, Floyd, Bakeman & Armistead, 2002). In addition, once LGB individuals disclose for the first time, they seem to have a fairly high degree of outness (Balsam & Mohr, 2007; Frost & Meyer, 2009; Miranda & Storms, 2001; Schnidhelm & Hospers, 2004). In terms of how individuals feel about their sexual identity, studies have found that LGB individuals have moderate levels of internalized homophobia (Frost & Meyer, 2009) and that though the majority feel positive and accepting of their identity, a significant part of the population do not (Miranda & Storms, 2001). Additionally, studies have found that LGB individuals have fairly high levels of identity development as measured by the GIQ (Brady and Busse, 1994; Halpin & Allen, 2004). However it is important to note that these samples only consisted of males.

In terms of mental health, some literature has concluded that LGB individuals, often in their youth, suffer psychologically (D'Augelli, 2002) and are at greater risk for suicide and depression in comparison to heterosexuals (Cochran, 2001), while many other studies have found relatively low levels of symptomotology. For instance, Frost and Meyer (2009) found little to no

symptoms of depression in their sample of LGB adults. D'Augelli (2002) found similar low symptom levels as measured by the BSI GSI in his sample of LGB youths. Finally, Maguen, Floyd, Bakeman, and Armistead (2002) found that their sample of LGB youth had high levels of self-esteem.

The current sample was fairly consistent with the literature. The preliminary analyses revealed that the mean age of first disclosure of sexual orientation was about 20 years old and participants had fairly high levels of outness. The sample had moderate amounts of negative feelings about their sexual identity and had highly developed sexual identities. This finding is not surprising given that this sample was recruited from places such as online LGB communities, LGB groups on college campuses, and other places which attract individuals who are moderately to highly comfortable and accepting of their sexual identity. In terms of mental health, individuals had an average level of self-esteem, fairly high level of life satisfaction, and a low level of symptoms.

In general, this sample consisted of individuals who were psychologically healthy, fairly out, had a well-developed sexual identity, and were comfortable with their sexual orientation, comparable to other research samples in this area. As these findings seem fairly consistent with other samples of LGB individuals, this sample seems generalizable to greater LGB communities.

However, given the low number of both individuals of color and of bisexual males, these results may not be generalizable to these specific populations. Unfortunately, this too is reflective of much of the literature that exists. Too often LGB research does not include sufficient numbers of bisexual individuals or does not investigate possible differences between bisexual individuals and gays and lesbians (Navarro, 2010), including differences between bisexual males and females. In addition, little research exists on the experiences of individuals

of color who are also sexual minorities (Balsam, Lehavot, Beadnell, & Circo, 2010). Thus, much of the past and current literature cannot be generalized to populations beyond the white gay (and sometimes lesbian) experience. The current study adds to the effort that some researchers have put forth to investigate the different experiences that bisexual individuals and LGB individuals of color face.

Demographic Differences in Identity, Outness, and Mental Health

Differences between bisexuals and lesbian and gay individuals.

The literature has found differences between bisexual individuals and gay and lesbian individuals. However, as mentioned above, the bisexual experience is often ignored in the research, so data are lacking. However, the data that do exist point out that bisexuality is often misunderstood by heterosexuals, the lesbian and gay community, and the research community, casting bisexuality as illegitimate and perhaps a stage toward becoming lesbian or gay (Brewster & Moradi, 2010). Thus, bisexuals face added discrimination from both homosexuals and heterosexuals (Balsam & Mohr, 2007), making their experience unique and complex.

This lack of understanding of and support for bisexuality, coupled with increased discrimination, may explain the findings from the current study. Specifically, as has been found previously (Balsam & Mohr, 2007; Lewis et al., 2009; Koh & Ross, 2006), bisexuals were less out as compared to gay and lesbian individuals in this sample. Additionally, the current study found that bisexuals had less developed sexual identities as compared to lesbian and gay individuals. These findings support research that has shown more “identity confusion” in bisexual individuals as compared to lesbians and gay individuals (Balsam & Mohr, 2007). Additionally, evidence exists that reveals that bisexual individuals have a later age of awareness

of sexual orientation as compared to gay and lesbians, suggesting at least an initial delay in identity development (Maguen, Floyd, Bakeman, & Armistead, 2002). The added prejudice, lack of understanding, and delay in initial identity development that bisexuals face that lesbian and gay individuals do not is perhaps what is negatively impacting their identity development and outness level.

The literature regarding the differences in mental health between bisexuals and lesbians and gay men is mixed. Some authors have found that mental health is worse in bisexual individuals as compared to lesbian and gay individuals (Page, 2004). However, other authors have found no differences. For instance, Maguen, Floyd, Bakeman, and Armistead (2002) did not find differences in the self-esteem by sexual orientation in their sample of LGB youth. Balsam & Mohr (2007) also found that psychosocial measures did not vary by sexual orientation. The current study revealed that mental health measures did not vary between bisexuals, gays, and lesbians. As mixed results suggest that there may be more subtle and complex influences on mental health for sexual minority individuals, more studies investigating mental health and sexual orientation differences need to be conducted.

In addition to exploring the differences between bisexuals and lesbians and gay men, the differences between bisexual males and bisexual females were also examined. The current study revealed that bisexual males came out at a later age as compared to bisexual females, lesbians, and gay men. This has not been supported by some literature which has found that age of first disclosure did not vary by sexual orientation in a study of LGB youth (Maguen, Floyd, Bakeman, & Armistead, 2002). However, these authors did not look at sex differences in between bisexual men and bisexual women. In addition, these authors did find that bisexual individuals reported a later age of awareness of sexual orientation, suggesting an initial delay in identity development.

In addition, bisexual males in the current study were found to have a less positive view of their sexual identity and a significantly weaker identity as compared to bisexual females, lesbians, and gay men. Men who are sexual minorities are the target more often of antigay harassment and violence in comparison to women, which would likely explain why bisexual males have a less positive view of their identity (Luhtanen, 2003). Bisexual males also had significantly less developed sexual identities as compared to bisexual females. This finding is not supported by Balsam and Mohr (2007) who did not find significant differences in identity confusion between bisexual males and bisexual females. The discrepancy between the current study and this literature may be explained by the fact that identity development is a complex construct, made up of and influenced by both internal (e.g., identity confusion) and external (e.g., a culture that is more biased against male sexual minorities than female sexual minorities) factors. While Balsam and Mohr (2007) found that one internal influence did not vary between bisexual males and females, the findings from the current study suggest that maybe some of the external, societal factors or another internal influence may play roles in affecting how identity development is formed and thus affect bisexual males differently than bisexual females.

As mentioned, there is very little research on bisexual individuals and even less on the differences between bisexual males and females, making it difficult to know if the results from the current study are representative of the population overall or not. However, these results clearly point out that the experiences for bisexual individuals are different from lesbian and gays, and that differences exist between male and female bisexuals. Future researchers should take care not to group all sexual minorities together and instead look at each group and sex individually.

Differences between Caucasians and individuals of color.

Many authors have pointed out that identity development is influenced by environmental factors and interacts with the individual's context and thus may differ depending on the individual's culture (D'Augelli, 1994). Because individuals of color face discrimination that Caucasian individuals do not, this may influence how they view their identity (Hancock, 1995). Chin (1995) argues that often when individuals of color come out, their sexual identity is viewed as their primary identity and usurps their racial/ethnic identity. Understandably, this could cause individuals of color to feel less positive about or more reluctant to fully adopt an LGB identity for fear that they could lose status among their racial/ethnic group. Their dual status of both an ethnic minority and a sexual minority means that this population is exposed to greater discrimination, as they face prejudice from their own community, the society at large, and from the white sexual minority community (Dube & Savin-Williams, 1999; Smith, Foley, & Chaney, 2008). This increase of prejudice may make forming a sexual identity more challenging. This is consistent with the findings of the current study, which revealed that Caucasians have an overall stronger and more positive way of experiencing their sexual identity as compared to individuals of color.

In terms of coming out, the literature has theorized that because individuals of color run the risk of their sexual identity usurping their racial or ethnic identity (Chin, 1995), individuals of color may be more reluctant to come out. There is also some empirical data to support this claim: Rosario, Schrimshaw, and Hunter (2009) found that black LGB youth disclosed their sexual identity less than Caucasian LGB youth. This is not consistent with the findings from the current study. Specifically, no differences were found in amount of disclosure of sexual orientation among Caucasians and individuals of color. However, this study only looked at youth

ages 14-21, while the current study incorporates an older sample. Perhaps this explains the discrepancy between this literature and the current study. The results from the current study suggest that with outness comes both negative outcomes, such as discrimination, as well as potential benefits, such as the relief of not hiding who one is. These negative aspects of coming are potentially more present for individuals of color as they face discrimination for their sexual orientation and for their race or ethnicity (Smith, Foley, & Chaney, 2008). However, the current results suggest that the overall benefits of coming may out outweigh the potential negatives of coming out even in the face of such challenges, as individuals of color are out to the same degree as Caucasians.

The literature has revealed mixed results in terms of age of first disclosure between Caucasians and individuals of color. Some literature has found no differences in racial and ethnic groups in terms of coming out to others or to the self (Bimbi, Nanin, & Parsons, 2006; Rosario, Schrimshaw, & Hunter, 2004). However, others have found that ethnic minorities disclose later than ethnic majorities (Dube & Savin-Williams, 1999). The current study found no differences in age of first disclosure by race. Thus, despite the potential greater discrimination that LGB individuals of color may face, they are still coming out at the same time and to the same degree that Caucasians are.

Again, this finding may serve to demonstrate how important and strong the desire to come out is, as individuals of color are willing to risk potential discrimination from their own racial group as well as from others. It should be noted again that because this sample had so few individuals of color, it is unclear how generalizable these findings are. In addition, this sample was recruited from places such as online LGB communities, LGB groups on college campuses, and other places which attract individuals who are at least moderately out. Because of this, it is

unknown if this pattern would be observed among individuals who are less out. However, because there is so little literature that looks at or discusses racial differences among LGB populations, these finding are important, as they suggest that while there are no differences in terms of degree of disclosure and age of first disclosure, individuals of color did have significantly weaker and a less positive view of their identity as compared to Caucasians.

Differences between males and females.

The literature has found some differences between lesbians/bisexual women and gay/bisexual men, some similarities, and some mixed results. To begin with, much research has found that women become self-aware of their identity, self-identify as lesbian, and have sexual experiences at a later age as compared to men (Diamond, 1998; Floyd & Bakeman, 2006; Grov, Bimbi, Nanin & Parsons, 2006). This difference in identity development was not seen in the current sample, which revealed no differences in sex in terms of identity development. Some have argued that women are less apt to identify their sexual behavior with other women as "lesbian" or "bisexual," due to the more fluid gender roles and close friendships that women are afforded and men are not (Hancock, 1995). Perhaps the growing visibility and understanding of LGB individuals in the current culture has affected the way women view their sexual behavior and has caused them to be quicker to adopt sexual minority identities.

Similar to the literature, which has found that males have higher levels of internalized homonegativity as compared to females (Balsam & Mohr, 2007; Mohr & Fassinger, 2000), the current study found that males feel less positive about their identity as compared to females. This difference again may be accounted for by the fact that women have less strict gender roles in comparison to men (Hancock, 1995). This may make it easier for women to be more fluid in

their sexuality and not feel as much societal pressure to conform, thereby making them feel more comfortable with their sexuality in general. However, for men, the pressure to be masculine is great, and the stereotype that gay men cannot be masculine may lead to individuals feeling worse about their own sexuality. Being labeled as not masculine and as gay is, in effect, to be labeled as "feminine" and thus identified with being female (Pharr, 1997). When men are identified to be 'like women,' it threatens the sexist power structure of society and therefore perpetuates the social stigma against gay men (Pharr, 1997). The greater social stigma that men face may cause them to feel less positive about their own identity as compared to women. In addition, it has been suggested that gay and bisexual males are significantly more targeted for harassment and violence in comparison to bisexual women and lesbians (Luhtanen, 2003). This added discrimination would likely impact gay and bisexual men and cause them to feel less positive about their identity.

Coming out is an important and complex piece of identity. Women have been found to come out to themselves later in comparison to men, but were found to come out to others for the first time at roughly the same age as men (Grov, Bimbi, Nanin, & Parsons, 2006). The current study observed that women and men did not vary on age of first disclosure to others of sexual orientation. This suggests that women and men are coming out for the first time at generally the same time, and perhaps other environmental factors are more important in determining disclosure for the first time.

Age differences.

Much of the literature on stage models suggests that identity development happens in a linear developmental fashion, thus as an individual ages, his or her identity development should

also progress (Cass, 1984; Coleman, 1981/1982). However, some authors have found that identity does not progress in this linear fashion by age and that different patterns of identity development exist, with some individuals going through identity development more quickly than others (Floyd & Stein, 2004). In addition, other authors have found that identity development varies and is affected by demographic factors such as sex or generation (Diamond, 1998; Floyd & Bakeman, 2006). The current study found that identity development did not vary by age. Instead the results indicated that the age of the participants did not determine the stage of identity development or determine how positively individuals viewed their identity. This may be explained by the fact that younger individuals, because of changing societal norms, move more quickly through identity development, whereas older individuals have a tougher/slower time navigating their development, as they were raised in a more homophobic time, but have had longer to develop. Thus, a snapshot of individuals at a single point in time may reveal that they are currently in similar stages of development.

Overall demographic differences: Summary.

The findings from the present study support the literature which reasons that identity development, outness, and first disclosure are influenced by the individual's context and thus may differ depending on the individual's environment (D'Augelli, 1994; Jordan & Deluty, 1998; Schope, 2002). Specifically, differences have been found in the literature among sexual orientation, race, sex, and age. However, the literature has also revealed a need for more studies to be conducted which examine these demographic variables.

The analyses from the current study revealed significant differences among some but not all of the demographic variables. Specifically, the results suggest that bisexual individuals have a

different and seemingly tougher journey through identity development than lesbian and gay individuals, particularly bisexual males. In addition, the results suggest that in some ways individuals of color also have a more difficult time coming to terms with their sexual identity. Finally, bisexual and gay males may feel more negatively about their identity in comparison to females. Again, these results demonstrate that LGB individuals have varied experiences based on their individual differences. Although the overall negative climate for sexual minorities may be similar, individual differences and demographic variables affect LGB individuals and lead to different experiences and outcomes.

Age of First Disclosure

Disclosure of sexual identity for the first time is an important piece of identity development, but it is one of many things that make up the identity formation process. Identity formation encompasses how individuals feel about their identity, how integrated they are in the LGB community, the degree to which they share their identity with others, and other factors that lead up to acceptance and understanding of sexual identity. Thus, the relationship between outness, identity, and age of first disclosure is interconnected and complex.

The literature has found that age of first disclosure is related to how individuals feel about their identity. For instance, Brown and Trevethan's (2010) survey of gay men found that the men who reported a delay in telling family members about their gay identity also reported higher levels of internalized homophobia. The current study's findings were consistent with this literature. Specifically, the later individuals first came out, the more negatively they viewed their own sexual identity. A possible explanation for this is that individuals who came out at a later age were struggling more with accepting their identity and came out reluctantly. These individuals may still be having difficulty feeling positively about their identity. An alternative

explanation may have to do with generational effects. Younger generations of LGB individuals have been exposed to greater tolerance by society than older generations, and older generations may have internalized the bigotry of their youth (Schope, 2002), thereby causing them to feel less positive about their identity. It is possible that this internalized homophobia of their youth causes individuals to both come out later and to feel more negatively about their identity.

Age of disclosure has also been linked to identity development. Specifically, the stage models define disclosure of sexual identity is a sign of sexual identity maturity (Troiden, 1989). Thus, they proffer that coming out is a necessary piece of fully adopting an LGB identity. The findings from the current study revealed that age of first disclosure is not tied to how developed one's LGB identity is. That is, when individuals came out did not seem to influence what stage an individual is in. This may be explained by the fact that disclosure does not occur in a cultural vacuum and LGB individuals must contend with the potential threats of violence and discrimination if they share their identity with another. Wells and Kline (1987) found that before coming out occurs, individuals think about the potential risks, rewards, and reactions of disclosure. This may explain why coming out is not related to quality of sexual identity—an individual may feel perfectly secure about who he or she is, but just may not have shared this identity with another because of some potential environmental threat.

This explanation may also serve to shed light the finding that age of first disclosure was not related to outness level. That is, when an individual comes out was not tied to how out they eventually became. Perhaps environmental factors, such as perceived threat in the environment, may be better indicators of outness compared to age of first disclosure.

The literature on age of first disclosure of sexual orientation and mental health suggests that an older age of first disclosure is related to better mental health (D'Augelli, 2002; Friedman,

Marshal, Stall, Cheong, & Wright, 2008). This may be explained by the fact that adolescence is a tumultuous time for all individuals, not just LGB youth. Adding on gay-related stress and discrimination to an already difficult time when LGB youth have fewer supports places them at greater risk for developing mental health problems later (Friedman, Marshal, Stall, Cheong, & Wright, 2008).

The analyses from the current study do not reflect this literature. That is, age of first disclosure was not related to mental health. This association was not significant even when controlling for age, ethnicity, and sexual orientation. These findings suggest that other factors beyond age of coming out, such as reactions an individual receives once he or she is out, are more salient factors that determine mental health as compared to age of disclosure. The first time an individual comes out can be met with different reactions, regardless of age. For instance, an individual may come out for the first time, receive a positive reaction from others, which leads them to feel better about who he or she is, which leads to positive mental health outcomes. Or, an individual may come out and receive a very negative reaction, which may make him or her feel poorly about him or herself and lead to negative mental health outcomes. These reactions have nothing to do with the age of the individual, and each of these reactions, in combination with internal factors, could impact the trajectory of the individual's identity development, coming out to others, and other mental health outcomes. It seems likely that other factors beyond when an individual first comes out are potentially more important and impactful on mental health.

Identity and Mental Health

The literature on mental health and identity strength is somewhat mixed. Specifically, some literature has found a positive association between mental health and stronger identity formation (Brady & Busse, 1994; Bosker, 2002; Luhtanen, 2003; Miranda & Storms, 1989; Rosario et al., 2009), while other literature has not found an association (D'Augelli, 2002; Floyd & Stein, 2002). However, overall the literature seems to point to a general trend that the stronger the LGB identity, the better the mental health.

The analyses from the current study support this literature. That is, it was revealed that overall a more well formed and positive identity is associated with better the mental health. Notably, this association was observed even when controlling for sex, ethnicity, and sexual orientation. This trend is also seen in the literature on other minority groups, such as individuals of color (Adams et al., 2001; Archer & Grey, 2009). These findings clearly demonstrate that among individuals who are secure and feel positively about their sexual identity, they are also experiencing greater mental health. It is possible that stronger identity can lead to better mental health outcomes because those with more secure identities are exposed to other benefits, such as exposure to and connection with the LGB community and more security in who they are. These benefits may impact and lead to better mental health outcomes. It is also possible that better mental health can lead to a stronger identity, as individuals who have better mental health are feeling happier and more satisfied with their lives and themselves, which would improve how they feel about and experience their identity. Another explanation is that a whole array of third variables, such as a good family environment, can lead to both better mental health and stronger identity.

Outness and Mental Health

The literature has also revealed mixed results in regards to the relationship between degree of outness and mental health. Some authors have found that the more out individuals are, the better their mental health (Lewis et al., 2001; Jordan & Deluty, 1998), while others have not found these variables to be linked (Brady & Buse, 1994; Frost & Myer, 2009). Outness is a complex construct, one that seems to have both positive and negative aspects to it. For instance, individuals who are out are exposed to the positive benefits of being out, such as having the support and acceptance of the LGB community. This can be a very powerful positive piece of coming out that could be associated with better mental health outcomes. However, individuals who are out are also exposed to the negative pieces of being out, such as being exposed to discrimination based on their sexual orientation, which can also affect mental health negatively. Based on the fact that the literature has either found a positive association between outness and mental health or no association, it suggests that overall, the positive parts of outness outweigh the negative parts. Perhaps because individuals receive both the negative and positive consequences of being out, these factors sometimes neutralize each other and lead to the findings of no association between outness and mental health. However, when the positive aspects of being out outweigh the negative, the literature finds a positive correlation between outness and mental health. There does not seem to be literature that has found a negative association between outness and mental health, again suggesting that overall, outness is associated with positive mental health outcomes.

The analyses of the current study found that a higher degree of outness was related to overall better mental health. The more out individuals were, the fewer symptoms and the greater life satisfaction they experienced. However, surprisingly, outness was not related to self-esteem,

suggesting that being more or less out does not affect how individuals feel about themselves. This suggests that self-worth is not directly tied to how out an individual is. Perhaps this finding may be reflecting the more dual nature of being out, which is both positive and negative. The current finding may by revealing the more negative aspects of being out—that the discrimination that individuals receive once out affects self-esteem somewhat negatively, actually blocking the potential positive effects that are seen in other areas of mental health. This blockage results in a non-association between outness and self-esteem as the negative effects are not enough to cause a negative association between outness and self-esteem. Self-esteem is about how individuals feel about themselves, and so it is conceivable that this could be related to both the positive and the negative aspects of outness. Greater degrees of outness can cause individuals to feel both more sure and secure in who they are, as it brings comfort in who they are, perhaps through exposure and community support, but it also brings the potential of internalizing the discrimination and prejudice they may experience. Perhaps life satisfaction and mental health are more solely related to the positive aspects of outness as outness brings a better social life, connections to the LGB community, and other activities which would lead an individual to overall feel happier about their choice to be out. The current study also found a positive association between overall mental health and outness even when controlling for age, ethnicity, and sexual orientation.

Outness and Identity

Outness and identity are related, but not interchangeable concepts. Identity development involves the process of individuals labeling the self as LGB, while outness is about sharing this identity with others (Jordan & Deluty, 1998). The literature about the relationship between

outness and identity is mixed. While some literature has found these concepts to be positively associated (e.g., Lewis et al., 2009; Miranda & Storms, 1989; Mohr & Fassinger, 2010), other literature has suggested that degree of outness is more related to factors in the environment, such as perceived risk of disclosure (Evans & Brodio, 1999), which implies that this variable may not be based only on the strength of one's identity, but instead on other factors.

The analyses in the current study seem to reflect the literature, as they revealed that identity and outness are somewhat related. More specifically, it was found that those in the later stages of identity development are more out in comparison to those in the earlier stages. Although it makes intuitive sense that individuals with a more developed sense of their identity would be more ready to share this identity with others, it should be noted that part of the criteria for higher stages of identity development in Cass's Stage model includes coming out to others. Thus, this fact would de facto cause these variables to be associated.

However, analyses revealed that how individuals feel about their own sexual identity was not associated with level of outness. This result is in contrast to literature that has found a positive correlation between feeling positive about one's sexual identity and disclosure level (Lewis et al, 2009; Miranda & Storms, 1989). These results indicate that other factors likely influence outness level that are beyond how individual's view his or her own identity, such as factors in the environment (Evans & Brodio, 1999). Evans and Brodio's (1999) qualitative study of 20 LGB individuals found that individuals made decisions about coming out based on what they anticipated the reaction to be from the individuals they were coming out to. If there was too much risk involved (in the form of violence or a negative reaction), the individual would be less likely to come out than if he or she anticipated a positive reaction. Evans and Brodio also found that lack of community, lack of social support, past negative reactions from individuals they

came out to, and high hostility all discouraged coming out (Evans & Brodio, 1999). Thus, this suggests that outness level may be partially related to how positively or negatively individuals feel about their sexual identity, though other factors may be more important. Thus, an individual can feel good about their identity but not be fully out because they anticipate a negative reaction from the environment. Unfortunately, the discrimination that sexual minorities face is real and affects how out an individual can be.

The literature seems to point to a general trend that the stronger the sexual identity, the better mental health individuals experience (Brady & Buse, 1994; Bosker, 2002; Luhtanen, 2003; Miranda & Storms, 1989; Rosario et al., 2009). However, the literature on whether outness is associated with better mental health is still debatable, as mixed results have been observed (Brady & Buse, 1994; Frost & Myer, 2009; Jordan & Deluty, 1998; Lewis et al., 2001). These mixed results regarding the relationship between outnesss and mental health may be explained by the results of the current study, which revealed that identity strength mediates the relationship between outness and mental health. Specifically, the results revealed that outness is a positive factor that influences mental health because of its impact on identity strength. However, when identity is controlled for, outness actually has a negative association with mental health. This finding is important as it highlights the fact that outness is a complex construct, one with both positive and negative aspects to it. The positive parts of outness are related to identity. In fact, the reason outness is positive is because it is associated with a strong identity. The positive parts of outness actually promote identity-strength. Once individuals are out, they are able to connect to their identity in different positive ways. This includes connecting to the LGB community, engaging in romantic relationships more openly, and having one's internal identity as an LGB individual match his or her external one who is with others. In turn, these identity-strengthening

activities promote better mental health outcomes. Finally, individuals can experience the relief and satisfaction that comes from not having to hide their sexual identity, as well as experience the acceptance and connection from others that they have been missing. Thus, having a more secure identity leads individuals to experience more favorable mental health outcomes that come largely once an individual is out.

However, the results also revealed that outness has its challenges. The part of outness that is not related to identity strength was associated with worse mental health. Individuals who are out are often exposed to prejudice and discrimination. These factors understandably can impact mental health negatively. However, though these negative outcomes do not disappear, they overall are mitigated by identity strength. Identity strength works as a buffer to protect individuals against the negative effects of outness. Because outness also leads to identity strengthening activities, which in turn promotes positive mental health outcomes, these positive parts of outness overall are stronger than the negative pieces that come with being out.

These results explain the mixed literature that exists for the relationship between outness and mental health. Because outness has both positive and negative aspects to it, it makes sense that the literature would be mixed. However, these results point to the fact that overall, the more out an individual is, the better their mental health because these positive aspects of being more out is related to stronger identity.

Limitations

There are several limitations to the present study. The sample was not representative of all LGB individuals, as there were very few individuals of color. Though other authors have noted that LGB Caucasians and individuals of color have different experiences and outcomes,

largely due to the discrimination that individuals of color face (Dube & Savin-Williams, 1999), there is still a paucity of research on LGB ethnic minorities (Maguen, Floyd, Bakeman, & Armistead, 2002). Future data on how race influences identity development, outness, and mental health among individuals of color is sorely needed.

In addition, the sample also contained few bisexual males, making it difficult to draw conclusions to this population. The current study pointed to some differences in this population, but more data need to be collected comparing bisexual males with bisexual females, lesbians, and gay males. Again, there is little literature about bisexuality in general (Balsam & Mohr, 2007; Maguen, Floyd, Bakeman, & Armistead, 2002) and even less about how sex interacts with sexual orientation. Thus, though the current study is important as it serves to highlight these potential sex differences, other studies should investigate these complex interactions.

The study also suffered from selection bias as the sample consisted of individuals who are at least somewhat comfortable and out in their sexual orientation, as they all self-identified as gay, lesbian, or bisexual and were willing to fill out a survey regarding their sexual identity. This is a byproduct of the way individuals were recruited for the study, as subjects were sought out from places such as online LGB communities, LGB groups on college campuses, and other places which attract individuals who are at least moderately out and part of LGB communities. Though it would be impossible to capture individuals who did not yet identify as LGB, because the current sample had very few individuals in the early stages of identity development and in low levels of outness, the results are skewed and do not give a complete picture of LGB individuals' experiences.

In addition, all the scales used in the present study were self-report measures, without outside corroboration. It is possible that the way individuals see themselves may be different

from the way they actually are (Hoyle, Harris & Judd, 2002). The ways we see ourselves and experience our identity is influenced by unconscious processes outside of our awareness (Devos & Banaji, 2003), which may influence how individuals answer on a self-report measure. For example, some subjects have a tendency to present themselves in overly positive ways, referred to as socially desirable responding, which therefore biases the results (Risko, Quilty, & Oakman, 2006). Because this study did not include a socially desirable responding scale, it is unknown if some members within this particular sample were overly concerned with presenting themselves in a positive light or not. Future studies may wish to incorporate such a scale into their battery.

Another potential problem with the measures selected is the fact that the GIQ scale, used to assess identity development, uses the words “homosexual” in the majority of its items. It is possible that some bisexual individuals did not identify with this terminology, which may have impacted the way they responded on this scale and may have resulted in some of the findings that bisexuals had less developed gay identities.

Finally, the literature is still unsure of the optimal way to define and capture LGB identity formation. The current study attempted to capture identity by using two of the most widely accepted and used constructs in LGB identity development, including a stage model measure and a dimension perspective measure, specifically looking at negative feelings about one’s identity. These measures were significantly associated, suggesting that they in fact capture, at least in part, some of the same construct of identity development. However, both ways of conceptualizing identity have limitations. For instance, the stage models do not take environmental factors such as race or sex into account (Eliason, 1996; Floyd & Bakeman, 2006; Yarhouse, 2004) and ignore that sexuality development is often a dynamic process, one that can consist of skipping stages or temporarily going back to earlier stages before progressing, as

opposed to the smooth linear progression that the stage models propose (Rust, 1993). The dimensions model posits that the way to assess identity development is to look at discrete factors related to identity. The present study chose one (negative feelings about identity). However, it would be impossible to enumerate and operationalize every single possible dimension of identity in a comprehensive way. Therefore, both models of identity are necessarily lacking and so the present study may still be missing pieces of this complex construct.

Implications and Future Directions

The current study points to several areas that are in need of greater research. Specifically, future researchers should recruit more individuals of color and bisexual individuals. Because differences between these groups were found and because of the paucity of research that exists about these populations, more empirical inquiry is needed. Also, when examining these populations, researches should take care to look at bisexual individuals separately from lesbian and gay individuals and additionally to look at differences between bisexual males and bisexual females. In addition, researchers would do well to adapt the language on measures of LGB experience to make sure they apply to bisexual participants. Based on the findings from the current study, it seems clear that bisexuals overall and bisexual males in particular have different experiences from lesbian and gay individuals.

In addition, the relationship between sexual identity formation, outness, and mental health should be further explored. Specifically, it would be important to examine the hypothesized complex nature of outness by exploring both the positive correlates of being out (such as identity strength and LGB community involvement) as well as the negative correlates

(such as acts of discrimination and homonegativity). Additionally, this dual positive and negative nature of outness is likely moderated by environmental factors (such as family support or tolerance level of the community or region). These environmental factors should be investigated in this context as well to see how they impact the relative positive and negative components of outness. This future literature may further serve to explain the discrepant literature around the relationship between outness and mental health.

The findings from this study are important and may aid clinicians in their work with LGB clients. Specifically, when working with bisexual male clients, clinicians should note that they may have more difficulties than other LGB clients coming to terms with their sexual identity. Knowing this may aid clinicians in being particularly sensitive to bisexual male clients. In addition, clinicians should especially take note of the finding that outness has both positive and negative aspects to it and that identity is majorly responsible for the positive aspects of outness, contributing to a positive relationship with mental health. It is important for clinicians to understand the dual nature of outness when working with individuals who are not fully out their lives, so as to not encourage the individual to be more out without first taking their identity strength into account. Specifically, clinicians should not encourage clients with less developed LGB identities out of the closet too early, as these individuals may face the more negative aspects of outness without experiencing the positive pieces that come with a strong identity. Instead, therapists should help individuals build and strengthen their identities through exploration and by encouraging individuals to create identity-strengthening connections with other LGB individuals. This work may be particularly helpful for individuals who are in adolescence and thus more susceptible to the more negative aspects of being out, such as

bullying (Friedman, Marshal, Stall, Cheong & Wright, 2008). Having a secure sexual identity will help to mitigate these negative pieces of being out and serve as a protective factor.

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APPENDIX A

Demographic Questionnaire

1. Age:_________________

2. Please indicate your biological sex
   a. Female
   b. Male

3. Please indicate your ethnicity (circle all that apply)
   a. Caucasian
   b. African-American or Black
   c. Latino/a
   d. East Asian or East Asian American
   e. South Asian or South Asian American
   f. Native American or Alaska Native
   g. Native Hawaiian or other Pacific Islander
   h. Other (please specify) _________________

4. How many years of education have you completed (e.g., high school/GED = 12, Bachelors = 16, etc.)? _____________

5. What is your estimated yearly household income?
   a. Less than $20,000
   b. $20,000 to $39,999
   c. $40,000 to $59,999
   d. $60,000 to $79,999
   e. $80,000 to $99,999
   f. $100,000 to $119,999
   g. $120,000 to $139,999
   h. $140,000 to $159,999
   i. $160,000 to $179,999
   j. $180,000 to $199,999
   k. More than $200,000

6. What state do you currently live in?________________________

7. What is the size of the community you currently live in?
   a. Urban (population of more than 150,000)
   b. Suburban (population between 15,000 and 150,000)

c. Rural (population smaller than 15,000)

8. What state were you raised in primarily? (if multiple states, please list all of them)
____

9. What is the size of the community you were raised in?
   a. Urban (population of more than 150,000)
   b. Suburban (population between 15,000 and 150,000)
   c. Rural (population smaller than 15,000)

10. What is the best description of your current relationship status?
    a. Single/never married
    b. Single/divorced
    c. Widowed
    d. Separated
    e. In a significant relationship
    f. Partnered
    g. Married
    h. Not currently in a relationship
    i. Other

11. If you are currently in a relationship please indicate approximately how long you have been in this relationship:
______________years__________months

12. With what sexual orientation do you most identify yourself?
    a. Gay
    b. Lesbian
    c. Bisexual
    d. Other:_______________________________

13. At what age did you first become aware you were gay?:________________

14. At what age did you first come out to someone?:_______

15. Who did you first come out to?

    a. Parent(s)
    b. Sibling
    c. Other family member

d. Friend
e. Teacher
f. Counselor
g. Significant other
h. Other:________________

16. Where did you hear about this study?:__________________________

APPENDIX B

Lesbian Gay and Bisexual Identity Scale

For each of the following statements, mark the response that best indicates your experience as a lesbian, gay, or bisexual (LGB) person. Please be as honest as possible in your responses.

1----------2----------3-----------4----------5----------6----------7

Disagree Agree

Strongly Strongly

1. _____ I prefer to keep my same-sex romantic relationships rather private.
2. _____ I will never be able to accept my sexual orientation until all of the people in my life have accepted me.
3. _____ I would rather be straight if I could.
4. _____ Coming out to my friends and family has been a very lengthy process.
5. _____ I'm not totally sure what my sexual orientation is.
6. _____ I keep careful control over who knows about my same-sex romantic relationships.
7. _____ I often wonder whether others judge me for my sexual orientation.
8. _____ I am glad to be an LGB person.
9. _____ I look down on heterosexuals.
10. _____ I keep changing my mind about my sexual orientation.
11. _____ My private sexual behavior is nobody's business.
12. _____ I can't feel comfortable knowing that others judge me negatively for my sexual orientation.
13. _____ Homosexual lifestyles are not as fulfilling as heterosexual lifestyles.
14. _____ Admitting to myself that I'm an LGB person has been a very painful process.
15. _____ If you are not careful about whom you come out to, you can get very hurt.
16. _____ Being an LGB person makes me feel insecure around straight people.
17. _____ I’m proud to be part of the LGB community.
18. _____ Developing as an LGB person has been a fairly natural process for me.
19. _____ I can't decide whether I am bisexual or homosexual.
20. _____ I think very carefully before coming out to someone.
21. _____ I think a lot about how my sexual orientation affects the way people see me.
22. _____ Admitting to myself that I'm an LGB person has been a very slow process.
23. _____ Straight people have boring lives compared with LGB people.
24. _____ My sexual orientation is a very personal and private matter.
25. _____ I wish I were heterosexual.
26. _____ I get very confused when I try to figure out my sexual orientation.
27. _____ I have felt comfortable with my sexual identity just about from the start.

APPENDIX C

Outness Inventory

Use the following rating scale to indicate how open you are about your sexual orientation to the people listed below. Try to respond to all of the items, but leave items blank if they do not apply to you.

1 = person definitely does NOT know about your sexual orientation status
2 = person might know about your sexual orientation status, but it is NEVER talked about
3 = person probably knows about your sexual orientation status, but it is NEVER talked about
4 = person probably knows about your sexual orientation status, but it is RARELY talked about
5 = person definitely knows about your sexual orientation status, but it is RARELY talked about
6 = person definitely knows about your sexual orientation status, and it is SOMETIMES talked about
7 = person definitely knows about your sexual orientation status, and it is OPENLY talked about
0 = not applicable to your situation; there is no such person or group of people in your life

1. mother	1	2	3	4	5	6	7	0
2. father	1	2	3	4	5	6	7	0
3. siblings (sisters, brothers)	1	2	3	4	5	6	7	0
4. extended family/relatives	1	2	3	4	5	6	7	0
5. my new straight friends	1	2	3	4	5	6	7	0
6. my work peers	1	2	3	4	5	6	7	0
7. my work supervisor(s)	1	2	3	4	5	6	7	0
8. members of my religious community (e.g., church, temple)	1	2	3	4	5	6	7	0
9. leaders of my religious community (e.g., church, temple)	1	2	3	4	5	6	7	0
10. strangers, new acquaintances	1	2	3	4	5	6	7	0
11. my old heterosexual friends	1	2	3	4	5	6	7	0

APPENDIX D

Gay Identity Questionnaire

Please read each of the following statements carefully and then select whether you feel the statements are true (T) or false (F) for you at this point in time. A statement marked as true if the entire statement is true, otherwise it is marked as false.

	TRUE	**FALSE**
1. I probably am sexually attracted equally to men and women.	**T**	**F**
2. I live a homosexual lifestyle at home, while at work/school I do not want others to know about my lifestyle.	**T**	**F**
3. My homosexuality is a valid private identity, that I do not want to made public	**T**	**F**
4. I have feelings I would label as homosexual.	**T**	**F**
5. I have little desire to be around most heterosexuals.	**T**	**F**
6. I doubt that I am homosexual but still am confused about who I am sexually.	**T**	**F**
7. I do not want most heterosexuals to know that I am definitely homosexual.	**T**	**F**
8. I am very proud to be gay and make it known to everyone around me.	**T**	**F**
9. I don't have much contact with heterosexuals and can't say that I miss it.	**T**	**F**
10. I generally feel comfortable being the only gay person in a group of heterosexuals.	**T**	**F**
11. I'm probably homosexual even though I maintain a heterosexual image in both my personal and public life.	**T**	**F**
12. I have disclosed to 1 or 2 people (very few) that I have homosexual feelings, although I'm not sure I'm homosexual.	**T**	**F**
13. I am not as angry about society's treatment of gays because even thought I've told everyone about my gayness, they have responded well.	**T**	**F**

14. I am definitely homosexual but I do not share that knowledge with most people.	**T**	**F**
15. I don't mind if homosexuals know that am have homosexual thoughts and feelings, but I don't want others to know.	**T**	**F**
16. More than likely I'm homosexual, although I'm not positive about I yet.	**T**	**F**
17. I don't act like most homosexuals do, so I doubt I'm homosexual.	**T**	**F**
18. I'm probably homosexual, but I'm not sure yet.	**T**	**F**
19. I am openly gay and fully integrated into heterosexual society.	**T**	**F**
20. I don't think I'm homosexual.	**T**	**F**
21. I don't feel I'm heterosexual or homosexual.	**T**	**F**
22. I have thoughts I would label as homosexual.	**T**	**F**
23. I don't want people to know that I may be homosexual, although I'm not sure if I am homosexual or not.	**T**	**F**
24. I may be homosexual and I am upset at the thought of it.	**T**	**F**
25. The topic of homosexuality does not relate to me personally.	**T**	**F**
26. I frequently confront people about their irrational, homophobic (fear of homosexuality) feelings.	**T**	**F**
27. Getting in touch with homosexuals is something I feel I need to do, even though I'm not sure what I want to do.	**T**	**F**
28. I have homosexual thoughts and feelings but I doubt that I'm homosexual.	**T**	**F**
29. I dread having to deal with the fact that I may be homosexual	**T**	**F**
30. I am proud and open with everyone about being gay, but it isn't the major focus of my life.	**T**	**F**
31. I probably am heterosexual or non-sexual.	**T**	**F**

32. I am experimenting with my same sex, because I don't know what my sexual preferences are.	**T**	**F**
33. I feel accepted by homosexual friends and acquaintances, even though I'm not sure I'm homosexual.	**T**	**F**
34. I frequently express to others, anger over heterosexuals' oppression of me and other guys.	**T**	**F**
35. I have not told most of the people at work that I am definitely homosexual.	**T**	**F**
36. I accept but would not say I am proud of the fact that I am definitely homosexual.	**T**	**F**
37. I cannot imagine sharing my homosexual feelings with anyone.	**T**	**F**
38. Most heterosexuals are not credible sources of help for me.	**T**	**F**
39. I am openly gay around gays and heterosexuals.	**T**	**F**
40. I engage in sexual behavior I would label as homosexual.	**T**	**F**
41. I am not about to stay hidden as gay for anyone.	**T**	**F**
42. I tolerate rather than accept my homosexual thoughts and feelings.	**T**	**F**
43. My heterosexual friends, family, and associates think of me as a person who happens to be gay, rather than as a gay person.	**T**	**F**
44. Even thought I am definitely homosexual, I have not told my family.	**T**	**F**
45. I am openly gay with everyone, but it doesn't make me feel all that different from heterosexuals.	**T**	**F**

APPENDIX E

Brief Symptom Inventory

Here I have a list of problems people sometimes have. Please rate HOW MUCH THAT PROBLEM HAS DISTRESSED OR BOTHERED YOU DURING THE PAST 7 DAYS INCLUDING TODAY. These are the answers I want you to use:

0 = Not at all

1 = A little bit

2 = Moderately

3 = Quite a bit

4 = Extremely

R = Refused

DURING THE PAST 7 DAYS, how much were you distressed by:

1. Nervousness or shakiness inside 0 1 2 3 4 R

2. Faintness or dizziness 0 1 2 3 4 R

3. The idea that someone else can control your thoughts 0 1 2 3 4 R

4. Feeling others are to blame for most of your troubles 0 1 2 3 4 R

5. Trouble remembering things 0 1 2 3 4 R

6. Feeling easily annoyed or irritated 0 1 2 3 4 R

7. Pains in the heart or chest 0 1 2 3 4 R

8. Feeling afraid in open spaces 0 1 2 3 4 R

9. Thoughts of ending your life 0 1 2 3 4 R

10. Feeling that most people cannot be trusted 0 1 2 3 4 R

11. Poor appetite 0 1 2 3 4 R

12. Suddenly scared for no reason 0 1 2 3 4 R

13. Temper outbursts that you could not control 0 1 2 3 4 R

14. Feeling lonely even when you are with people 0 1 2 3 4 R

15. Feeling blocked in getting things done 0 1 2 3 4 R

16. Feeling lonely 0 1 2 3 4 R

17. Feeling blue 0 1 2 3 4 R

18. Feeling no interest in things 0 1 2 3 4 R

19. Feeling fearful 0 1 2 3 4 R

20. Your feelings being easily hurt 0 1 2 3 4 R

21. Feeling that people are unfriendly or dislike you 0 1 2 3 4 R

22. Feeling inferior to others 0 1 2 3 4 R

23. Nausea or upset stomach 0 1 2 3 4 R

24. Feeling that you are watched or talked about by others 0 1 2 3 4 R

25. Trouble falling asleep 0 1 2 3 4 R

26. Having to check and double check what you do 0 1 2 3 4 R

27. Difficulty making decisions 0 1 2 3 4 R

28. Feeling afraid to travel on buses, subways, or trains 0 1 2 3 4 R

29. Trouble getting your breath 0 1 2 3 4 R

30. Hot or cold spells 0 1 2 3 4 R

31. Having to avoid certain things, places, or activities because they frighten you 0 1 2 3 4 R

32. Your mind going blank 0 1 2 3 4 R

33. Numbness or tingling in parts of your body 0 1 2 3 4 R

34. The idea that you should be punished for your sins 0 1 2 3 4 R

35. Feeling hopeless about the future 0 1 2 3 4 R

36. Trouble concentrating 0 1 2 3 4 R

37. Feeling weak in parts of your body 0 1 2 3 4 R

38. Feeling tense or keyed up 0 1 2 3 4 R

39. Thoughts of death or dying 0 1 2 3 4 R

40. Having urges to beat, injure, or harm someone 0 1 2 3 4 R

41. Having urges to break or smash things 0 1 2 3 4 R

42. Feeling very self-conscious with others 0 1 2 3 4 R

43. Feeling uneasy in crowds 0 1 2 3 4 R

44. Never feeling close to another person 0 1 2 3 4 R

45. Spells of terror or panic 0 1 2 3 4 R

_46. Getting into frequent arguments 0 1 2 3 4 R

47. Feeling nervous when you are left alone 0 1 2 3 4 R

48. Others not giving you proper credit for your achievements 0 1 2 3 4 R

49. Feeling so restless you couldn't sit still 0 1 2 3 4 R

50. Feelings of worthlessness 0 1 2 3 4 R

51. Feeling that people will take advantage of you if you let them 0 1 2 3 4 R

52. Feeling of guilt 0 1 2 3 4 R

53. The idea that something is wrong with your mind 0 1 2 3 4 R

APPENDIX F

Rosenberg Self-Esteem Scale

Instructions: *Below is a list of statement with you general feelings about yourself. If you strongly agree, circle* ***SA.*** *If you agree with the statement, circle* ***A****. If you disagree, circle* ***D****. If you strongly disagree, circle* ***SD.***

Statement				
1. On a whole, I am satisfied with myself.	SA	A	D	SD
2. At times, I think I am no good at all.	SA	A	D	SD
3. I feel that I have a number of good qualities.	SA	A	D	SD
4. I am able to do things as well as most other people.	SA	A	D	SD
5. I feel I do not have much to be proud of.	SA	A	D	SD
6. I certainly feel useless at times.	SA	A	D	SD
7. I feel that I'm a person of worth, at least on an equal plane with others.	SA	A	D	SD
8. I wish I could have more respect for myself.	SA	A	D	SD
9. All in all, I am inclined to feel that I am a failure.	SA	A	D	SD
10. I take a positive attitude toward myself.	SA	A	D	SD

APPENDIX G

Satisfaction with Life Scale

Below are five statements which you agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by circling the number that corresponds to it.

1 = Strongly Disagree
2 = Disagree
3 = Slightly Disagree
4 = Neither Agree Nor Disagree
5 = Slightly Agree
6 = Agree
7 = Strongly Agree

1. In most ways my life is close to ideal 1 2 3 4 5 6 7
2. The conditions of my life are excellent 1 2 3 4 5 6 7
3. I am satisfied with my life 1 2 3 4 5 6 7
4. So far I have gotten the important things I want in my life 1 2 3 4 5 6 7
5. If I could live my life over, I would change almost nothing 1 2 3 4 5 6 7