ABSTRACT

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The current study is an investigation of health, sexuality, and relationship attachment in adult men. Drawing on the sexual identity literature and the body of work on men who have sex with men (MSM), predictions were made about level of congruence between self-defined sexual orientation and self-reported sexual thoughts, feelings, and behaviors.

One thousand male graduate students from a large, Mid-Atlantic university were emailed a web survey containing questionnaires asking about their experiences in close relationships, aspects of their sexuality, and their levels of depression. The return rate was only 10%, and the final sample consisted of 99 male graduate students. The hypotheses predicting that congruence would predict better health outcomes were carried out using one-way ANOVAS, and were not supported. Potential reasons for this are given, along with suggestions for clinical practice with adult men and areas for future research.

THE EXPLORATION OF IDENTITY, RELATIONSHIPS, AND HEALTH IN ADULT MEN

By

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Table of Contents

List of Tables

Chapter 1: Introduction

Men who have sex with men and who identify as straight (MSM-S) are a unique group in today's society, and one that the literature suggests has a number of physical and psychological concerns. Current theories of gay identity acceptance (Fassinger & Miller, 1996; Mohr & Fassinger, 2000) suggest that the less secure people are in their gay identity (e.g., being closeted about sexual orientation versus being out to other people), the lower their levels of psychological and physical wellbeing. Research on MSM-S has shown this population to have higher rates of depression, lower ratings of self-esteem, and more instances of unprotected anal intercourse (Herek & Glunt, 1995; Meyer & Dean, 1995; Mills et al., 2004; Peterson & Marin, 1988; Seibt et al., 1993) compared to men who have sex with men (MSM) whose self definition of sexual orientation is consistent with their actual behavior (e.g., men who have sex with men who identify as gay, bisexual, or queer; MSM-G, MSM-B, or MSM-Q).

Researchers have questioned what factors contribute to differences among sexual minorities in terms of self-acceptance and self-disclosure (Mohr & Fassinger, 2003). A review of several gay identity models sheds light on various ways that the coming out process can be conceptualized. Cass (1996) has attributed such individual differences to personality and life circumstances that create unique challenges for LGB people related to the coming out process. For instance, it would be difficult to refute the role of such social influences as family, religion, racial/ethnic group membership, legal and economic circumstances, and connection to other LGB individuals in a gay man's decision to accept and be open about his sexual identity

(Fassinger, 1991; Fassinger & Miller, 1996; Gonsiorek, 1995). However, personality variables such as attachment style and self-esteem also have been shown to play some role in the acceptance of same-sex feelings (Elizur & Mintzer, 2003; Herek & Glunt, 1995; Jellison & McConnell, 2003; Mohr & Fassinger, 2003).

While non-identification as gay or bisexual exists across all MSM, recently this phenomenon has been given more attention in specific racial/ethnic populations where percentages of men in this group may be higher. In the Black community, for example, men who have sex with men but who do not identify as gay or bisexual are referred to as being on "the down low" (Boykin, 2005). Recently, the rate of HIV/AIDS in the Black community has reached an all-time high, and men on the "down low" have been pinpointed as one of the main sources of new HIV cases among both Black men and the women with whom they are sexually involved. Among Latino men, it is common for a man who receives anal sex to be considered gay. However, a Latino man who gives anal sex to another man is considered straight. This is explained by the cultural belief among some Latino men that the act of giving anal sex to another male in the Latino community is considered to fall within the domain of masculine "machismo" behavior, but receiving anal sex falls outside the realm of socioculturally-sanctioned masculine behavior (Diaz, 1997).

The disproportionate rates of non-gay self-identification between White and racial/ethnic minority MSM usually is explained by the fact that minority males already are trying to manage multiple sources of oppression as a result of their racial/ethnic status (Diaz, Bein, & Ayala, 2006). Therefore, because they are expected to stand up for themselves and fight against oppression in an attempt to

break free from subjugated roles, such men are encouraged to act strong. For Black and Latino populations, therefore, having a gay identity would particularly mean being viewed as weak or feminine, and would not be acceptable.

Despite the recent interest in cultural explanations for differences in sexual identification in specific racial/ethnic MSM communities, there has been little attention given to predictors and outcomes associated with the internal process of identity-behavior discrepancies in the population of MSM. While an overwhelming majority of studies examining these men have contained samples primarily consisting of White/Caucasian men (see Bolding et al., 2004; Bull, McFarlane, Lloyed, & Rietmeijer, 2004; Rhodes, 2004), it is rare to find explanations as to why White men who have sex with men may identify as straight. In other words, excluding factors relating to a racial/ethnic minority status, why do a number of White MSM self-describe or identify as being straight? It is likely that there are aspects of culture and factors other than race/ethnicity that impact decisions regarding how same-sex attracted individuals will define their sexual orientation. An examination of models of gay identity development may help identify factors that predict which MSM will identify as gay or bi-sexual and which will identify as heterosexual.

Barret and Logan (2002) define coming out as the developmental process of first acknowledging one's gay or lesbian identity to one's self, and then later being able to acknowledge it to others. Indeed, current theories of gay identity development have placed the task of realizing one's sexual orientation at some of the earliest stages. Cass's model (1979) is outdated now, but was one of the first and most influential gay identity models. It characterized the first stage of gay identity as one in

which the individual is confused by feelings of difference compared to heterosexuals, which leads to despair and shame. It is the second stage of Cass's model which includes those men who might publicly act straight, but privately have same-sex feelings and behavior. Such a person might become hypervigilant, avoiding any contact whatsoever with the gay community for fear of guilt by association. A man in this stage might also compartmentalize his life, accepting and acting upon the homosexual feelings but rejecting the notion of a homosexual identity. The main reason Cass cites for individuals not progressing to the next stage of tolerating a gay identity is the perception that homosexuality is undesirable, perhaps established through some negative contact with the gay community.

The Coleman (1987) model of gay identity formation describes development from the perspective of the romantic attachments and relationships that the individual forms with same-sex others. According to this model, the first and second stages are characterized by initial consciousness and eventual acknowledgement of same-sex sexual feelings, respectively. However, same-sex behaviors are not typical until the last three stages of development; in this way, Coleman's theory seems to posit that same-sex experimentation occurs *after* increased contact with established gay men and lesbians.

Another recent model of gay identity development (Troiden, 1989) puts MSM-S at about the second of four stages of gay identity development. This stage, labeled Confusion, is characterized by a lack of contact with other gay people who can model healthy, integrated lives. Being gay is not viewed as a valid sexual orientation, and same-sex feelings or behaviors are compartmentalized or explained

away. It is typical for someone in this stage to believe or tell himself that he is not really gay but merely "just experimenting," or "having fun." Men in this stage often believe they can eventually make the choice to ignore or repress their feelings and behaviors for good, or at least permanently compartmentalize their personal and public lives. Not all men in this stage even act on their feelings; when they do, they are plagued by feelings of guilt, shame, and a deep sense of isolation. It seems, though, that "Confusion" may not be the best label for this stage. Since some men remain fixated in this developmental period for most of their adult lives, they may actually reach a point where they are no longer "confused" about their identity, but have internalized an identity that becomes lasting, based on incongruence between how they view their sexual orientation and what their actual thoughts, feelings, and/or behaviors may be.

The main problems with existing models of gay identity are ones that are true of all stage models: they are rigid, they assume that one progresses through the stages in an orderly manner, and they do not allow for individual differences. This is salient for the current study's population of interest, because existing research comparing straight-identified and gay-identified MSM shows that the former group is not adequately described in existing stage models. In proposing a new identity model for lesbians, McCarn and Fassinger (1996) discussed the importance of looking at multiple aspects of the identity formation process, including internal, social, and sociopolitical processes; they distinguish between the two separate but related process of personal and of group identification, and describe the process of identification as continuous and circular. While there may be differences in the lesbian and gay

identity processes, the usefulness of taking into consideration multiple contextual influences on the decision to personally identify as gay cannot be understated.

An additional limitation of gay identity models is that they generally have been developed retrospectively, based on men who eventually have come out. However, there is reason to believe that many men who have sex with men choose to define themselves as heterosexual for most or all of their lives (Isay, 1998; Ross, 1989). Such men, therefore, do not appear to fit into current models of gay identity. For many of these men, their sexual relationships have evolved to the point that they have had an established (over at least several years) period of same-sex sexual partners, but at the cognitive and behavioral levels, they still consider themselves to be straight and lead an otherwise-straight lifestyle.

What variables define MSM who score lower on the gay identity continuum (e.g., identify as heterosexual), and who therefore are excluded from research that typically recruits participants from certain listservs, events and organizations directed toward those who are "out" in their identities and which assume that those who participate acknowledge a sexual minority identity? Are existing theories of gay identity development relevant for this group of men who have sex with men but identify as straight? What about MSM who choose never to identify as gay, bisexual, or queer, and remain completely hidden and unidentifiable? Where do they fit in current models of gay identity development?

As a point of clarification, the current study does not posit that straight-identified MSM *are* gay or bisexual. "Gay" and "bisexual" are self labels, and one would have to consider himself a gay or bisexual male in order to be defined in this

manner. Nevertheless, regardless of personal identification of sexual orientation, MSM do share similar same-sex thoughts, attractions, and/or behaviors. For this reason it is useful to compare them within a sexual identity framework, yet existing literature does suggest striking differences based on personal identification of sexual orientation among this group of MSM. The purpose of the proposed study was to examine several possible correlates of identity-behavior discrepant (e.g., MSM-S) versus congruent (e.g., MSM-G, MSM-B, MSM-Q) groups.

Erikson's Theory of Social-Emotional Development (1950/1963) may be helpful in identifying key variables that differentiate between MSM-S and MSM-G/MSM-B/MSM-Q. According to Erikson, the stage during which most people establish a clear sense of sexual identity is the latter part of the Identity versus Identity Diffusion stage, which typically occurs during adolescence, from the age of about 13 or 14 to about 20. Successful completion of this stage frees up an individual to experience true intimacy as a young adult. Applying Erikson's model to MSM, the capacity to experience emotionally intimate experiences with another man may not occur until one has established a firm sense of self, including a sense of sexual identity. However, what about straight-identified men who have same-sex thoughts, feelings and/or behaviors: those men who are well into adulthood and who identify as heterosexual? Are there personal and interpersonal predictors and outcomes of this incongruence between their sexual self-identity and their sexual behavior?

These are the questions that this study examined. Existing research has suggested that men who report discrepancy between their self-defined sexual orientation and their actual pattern of thoughts, feelings and/or behaviors have

difficulties in maintaining secure adult attachments (Elizur & Mintzer, 2003; Mohr & Fassinger, 2003). The reasons for these difficulties in adult attachments typically has been explained by highlighting the importance for LGB-identified people to identify with members of a sexual minority community, who have a shared experience and who can provide support to one another as a means of coping with the personal distress caused by societal discrimination and prejudice. Sexual minorities (in thoughts, feelings, and behavior) who do not share this sexual minority identity may be removed or cut-off from this sense of community.

Research also suggests that MSM-S are at increased risk for threats to their physical and psychological wellbeing, such as higher rates of unprotected anal intercourse and depression. However, the limitation of research on sexual identity to date is that it has been developed on samples of men who are already LGB identified (see Herek, Cogan, Gillis, & Glunt, 1997; Herek & Glunt, 1995; Mohr & Fassinger, 2003). In fact, much of this recent literature on the MSM population has been carried out on samples of Internet sex seekers (see Bull, McFarlane, Lloyd, & Reitmeijer, 2004; Ross, Mansson, Daneback, & Tikkanen, 2005), which may confound sexual identity and sexual sensation seeking. While it may be that the vast majority of the population of MSM-S uses the Internet to solicit sexual partners, it is more likely that only a portion of MSM-S finds anonymous sexual partners via online mechanisms. It also has been a problem that there is virtually no empirical research on MSM-S as a distinct population, because of the difficulty in reaching these men and in getting them to participate.

In summary, what is missing from current research on MSM are studies that examine variables that are associated with self-identification of sexual orientation apart from the behaviors in which they engage. Furthermore, since MSM-S traditionally have been a population which has been hard to reach, knowledge about this group is quite limited. Researchers who have obtained information about MSM-S usually have done so within a larger sample of gay-identified men, in studies that are seeking information about gay male development and relationships; in this way, knowledge about MSM-S is limited, and based on small sample size. Other findings regarding the population of straight-identified MSM have been obtained through methods of sampling groups with particular behaviors, such as Internet sex-seeking populations; in these instances, conclusions can often only be generalized so far, and the process of what actually occurs for the behavior-identity discrepant group is left misunderstood. While findings are mixed, there is reason to believe that the population of MSM-S is larger than previously believed (Pathela et al., 2003); there is likely to be a good number of MSM-S who can be reached in a more heterogeneous sample.

The goal of the current study was to compare groups that are congruent in their same-sex identity and thoughts, feelings, and/or behavior (e.g., MSM-G, MSM-B, MSM-Q) and groups that are not (e.g., MSM-S, or men who have sexual thoughts, feelings or behaviors about women who identify as gay: MSW-G), along indices of their personal and interpersonal health and well-being. The pattern of identity-behavior discrepancy was viewed in light of the potential correlates of discrepancy hypothesized as insecurity of adult attachment relationships, higher instances of

depression, and a greater tendency toward sexual risk-taking. Perhaps by maintaining a sense of self which is at variance with one's actual experience, one is personally and socially maintaining an incongruent self, which may affect forming meaningful and genuine relationships with others, and put one at risk for certain health and psychological consequences, such as depression and sexual risk-taking.

The overall purpose of this research was to examine some of the variables associated with maintaining certain aspects of an incongruent sense of self, and possibly pose new directions for research and practice with the understudied population of straight-identified MSM in particular.

Chapter 2: Review of the Literature

Research on adult sexuality suggests that there is substantial variability within the general population; still, little is known about many of the factors that shape the relationship between sexual behaviors and sexual identity for men, and studies utilizing different methods have produced varying results. There is evidence that, regardless of self-defined sexual orientation, one's actual thoughts, feelings and/or behaviors can be directed towards members of the same sex, the opposite sex, both sexes, or neither sex. Moreover, this pattern can change over time and is fluid for some people (Berkey, Perelman-Hall, & Kurdek, 1990; McCarn & Fassinger, 1996). While many men with stable same-sex attractions take on a sexual minority identification (e.g., gay, bisexual, queer), others do not. The literature suggests that straight-identified MSM and gay-identified men who have difficulty accepting and revealing their sexual orientation are different in several key ways from those who could be described as having a secure sexual minority status. Research has shown differences in the ability to form adult attachments, level of psychological distress, and tendency towards sexual risk-taking.

Stage theories of gay identity development typically have placed an individual's realization of same-sex feelings and sexual minority self-identification at the earlier stages for same-sex attracted individuals (Cass, 1979; Coleman, 1987; Troiden, 1989). However, empirical research suggests that same sex attractions often are acted upon long before, and even without, a sexual minority identity. There are likely strong social influences on an individual's likelihood to identify as a sexual minority including societal prejudice, family context, religious affiliation, and

legal/economic considerations (Fassinger, 1991; Fassinger & Miller, 1996; Gonsiorek, 1995), but personality variables such as attachment style and self-esteem also have been shown to play a significant role (Elizur & Mintzer, 2003; Herek & Glunt, 1995; Jellison & McConnell, 2003; Mohr & Fassinger, 2003). It is probable that both personal and social variables combine to play a complex role in their impact on an individual's likelihood to identify as a sexual minority.

There has been a fair amount of empirical literature on predictors and outcomes associated with the internal process of identity-behavior discrepancies in subgroups of men and sexual minorities, but findings have been mixed and are not likely to reflect the ways identity and behavior operate in groups within the larger population. From this body of literature, attachment theory may offer a promising perspective in understanding the process of sexual minority identification. With its focus on the process of attachment and the ability to form secure adult relationships, this theory is often used as a framework to understand tendencies toward trust, self-disclosure, and confidence in adults, based on early experiences with caregivers and significant life happenings (Hazan & Shaver, 1987). It lends itself well to offering suggestions about people's ability to cope with significant relational challenges, and to rely on their ability to be secure with themselves.

The current study is based on the assumption that the process of sexual identify formation is one such significant challenge for men with same-sex attractions, given the likelihood that these men experience social, cultural, and contextual opposition associated with revealing their same-sex feelings. The sections that follow review attachment theory with a specific focus on explaining difficulties

associated with personal acceptance among men with same-sex feelings, and on identifying as a sexual minority. Next, this literature review presents the empirical work on gay identity and several known related outcomes (i.e., depression, and sexual risk-taking).

Attachment Theory and Associated Research

Bowlby's theory of infant attachment (1969/1982) holds that human infants have an instinctual drive to form a close emotional bond with a primary caregiver (usually the mother); this allows the infant to develop a sense of security and protection from what might be interpreted as otherwise hostile surroundings. According to attachment theory (Bowlby, 1979), an individual's early experiences with caregivers contribute to a broader working model of relationships concerning such things as the accessibility and responsiveness of caregivers and the individual's deservingness of care. For example, Bowlby noted that most infants demonstrate a three-stage reaction to prolonged caregiver absence: protest, despair, and finally, detachment. It is assumed that this detachment reaction plays a protective role, in allowing the infant to develop his or her own reservoir of coping behaviors as a means of self-reliance for regulating intense emotions.

In contrast, if a caregiver is sensitive and responsive in his or her interactions with a child, the child will internalize this type of relational model. These internal working models stay with the individual and provide an interpretive filter through which all subsequent relationships and social experiences are understood. The individual makes future relational choices and behaves accordingly, based on the expectations that are developed from the early caregiver relationships. If an individual

has a secure working model of relationships, he or she will expect supportive and satisfying encounters with others and will act in an open, positive manner that elicits such support. If the individual has an insecure working model, he or she may be more likely to distrust and to anticipate less support from others, and may actually deter the kind of supportive care from which she or he could benefit. Often these views are strengthened when others naturally react in a negative way to the distrust and hostility that an individual with an insecure working model of attachment (perhaps unknowingly) displays.

Ainsworth provided empirical support for Bowlby's original claims regarding infant reactions to parental absence (Ainsworth, Blehar, Waters, & Wall, 1978). Through her "Strange Situation" experiment, an infant was separated from his or her mother for increasing periods of time; through observing the infants' reactions, researchers found that their attachment styles seemed to fit three distinct categories. Securely attached infants showed a healthy balance of distress and independence when separated from their mothers; upon reunion, they were soothed relatively quickly and returned to play. Insecurely attached infants fit one of two profiles: they either showed little or no concern over the departure and arrival of their mothers (called avoidant) or they displayed a mix of clinging and protest behaviors upon reunion with their mothers (called anxious-ambivalent).

Bartholomew and Horowitz (1991) extended Bowlby's original theory by proposing a four-factor model of adult attachment that took into account both positive and negative views of one's self and others, as they contribute to internal working models and predict one's attachment style. The authors randomly sampled a group of

undergraduate psychology students, and found strong support for their four-category model of attachment style. Individuals with a *secure* attachment style (47% of the sample) had a positive view of self and of others. Individuals with a *preoccupied* attachment style (14% of the sample) had a negative view of self and a positive view of others. *Dismissing* individuals (18% of the sample) had a positive model of self and a negative model of others. Finally, *fearful* individuals (21% of the sample) had both a negative view of self and of others. Results were later replicated in a similar way (Brennan & Morris, 1997).

In an attempt to create a more concise and distinct measure of adult attachment in relationships, Brennan, Clark, and Shaver (1998) factor analyzed 323 different items from 60 attachment subscales they uncovered. Results suggested a two-factor solution consisting of avoidance of closeness and anxiety over abandonment; their solution is consistent with Ainsworth and colleagues' (1978) initial observations of infant attachment, prior research on adult attachment (Collins & Read, 1990; Hazan & Shaver, 1987), and Bartholomew's (1990) four-category approach to attachment styles.

According to the two-factor solution developed by Brennan and researchers (1998), secure individuals have low avoidance of intimacy and low anxiety over abandonment; in other words, they possess a healthy blend of comfort with closeness and independence. The remaining three types of individuals have varied patterns of insecure attachment. Preoccupied individuals display a low degree of avoidance in their relationships, yet have a great deal of anxiety over being abandoned; they frequently desire more intimacy than their partners are willing to give. Dismissing

individuals display low anxiety over abandonment, but have a tendency to avoid closeness with their partners; they may be satisfied with a superficial relationship, yet become uncomfortable with high demands for intimacy. Finally, fearfully attached individuals couple high avoidance of intimacy with high anxiety over separation; they harbor great fears of being abandoned, yet do not desire closeness with others.

Bowlby's theory of infant attachment also has been applied to individuals' adult romantic relationships (Hazan & Shaver, 1987), by drawing parallels between the security and trust an infant would have in the responsiveness of his or her caregivers and expectations of the same qualities in one's relationships with others. Hazan and Shaver (1987) found a degree of consistency between proportions of infants and proportions of adults who fit the categories of secure, avoidant, and anxious-ambivalent. Their discriminant analysis revealed a potential association between early parent-child relationships and later adult romantic relationships. They found that individuals who were classified as secure in their most important love relationship reported having warmer bonds with both parents as a child and warmer bonds between parents than did participants who were insecurely attached. Among the insecurely attached individuals, those who were avoidant were more likely to describe cold and rejecting mothers, while those who were anxious-ambivalent were more likely to hold a view of their fathers as unfair.

In summary, the past several decades have seen a tremendous growth of empirical studies using an attachment framework (e.g., Bartholomew & Horowitz, 1991; Brennan, Clark, & Shaver, 1998; Feeney, 1999; Hazan & Shaver, 1987; Simpson, Collins, Tran, & Haydon, 2007). This body of literature has shown that

many aspects of adult relationship functioning can be reliably predicted by differences in the working models of attachment that individuals hold. One of the most consistent findings is that for opposite-sex couples, the best predictor of relationship quality is females' levels of abandonment anxiety and males' levels of avoidance and discomfort with closeness (Collins & Read, 1990; Feeney, 1994). More generally, people tend to seek relationships with partners who confirm their attachment-related beliefs; highly anxious individuals are likely to be paired with highly avoidant types. Interestingly, couples with this discrepant combination of attachment styles are those that are most likely to report low ratings of satisfaction with their relationships (Feeney, 1994).

Despite the recent extensions of attachment theory, the majority of empirical research on attachment has focused on heterosexual individuals and relationships; there are only a few studies which have applied the theory to lesbian, gay, and bisexual people (Elizur & Mintzer, 2003; Jellison & McConnell, 2003; Landolt, Bartholomew, Saffrey, Oram et al., 2004; Mohr & Fassinger, 2003; Ridge & Feeney, 1998; Zakalik & Wei, 2006). Most research on attachment also historically has focused on the role of parenting quality; however, some evidence suggests that peer relationships may have their own independent influence on adult attachment strategies in LGB relationships (Elizur & Mintzer, 2003; Ridge & Feeney, 1998). There is a need to extend research on attachment to previously neglected populations, and to consider a range of influences on attachment patterns in adults.

While Bowlby (1979) spoke about the general ingrained nature of attachment behaviors, he emphasized the flexibility of working models and their ability to change

based on the different types of interactions that a person has over the course of his or her lifespan. It is possible that major life experiences or conflicts activate the emotional arousal system and create new challenges to existing attachment patterns. The current study examines one such major discrepancy: a perceived sexual identity which is at variance with one's actual experience of thoughts, feelings, and behavior. It is hypothesized that this type of discrepancy is related to difficulties in romantic attachments. The following sections explore the literature on romantic attachment patterns in various populations of adults, and consider how discrepancies between one's self-identity and one's thoughts, feelings, and/or behaviors contribute to attachment difficulties and distress.

Attachment in Sexual Minorities

Overall, research on attachment in same-sex couples compared to opposite-sex couples suggests that there are more similarities than differences in that individuals who are able to establish closeness with their partners and to trust in their partners' availability are more likely to be satisfied in their relationships and to have more positive patterns of communication (Mohr, 1999). Nevertheless, among LGB-identified and same-sex attracted individuals, there are a number of unique concerns that may be reflected in attachment patterns. LGB individuals have obtained substantial social and political gains in the past several decades alone; however, regardless of the climate now, many LGB individuals continue to be raised in environments that are altogether different and that promoted disapproval of same-sex desire and opposite-gender behavior. Given that research on attachment theory tends to support the idea of a general, broad relational stance towards others, an

individual's attachment style is likely developed before adulthood. For many same-sex attracted individuals, this unique experience of institutional and interpersonal intolerance likely makes substantial contributions to any attachment difficulties an LGB person experiences. While Landolt, Bartholomew, Saffrey, Oram et al. (2004) and Colgan (1987) used empirical research to cite childhood rejection and negative responses from family and peers to be the main contributors to attachment difficulties that some LGB individuals experience, other researchers (Elizur & Mintzer, 2003; Ridge & Feeney, 1998) have developed an explanation for attachment insecurity that is best explained by lack of supportive peers and the absence of other health-conducive processes associated with acculturation into the gay community.

This latter phenomenon is a key area of interest in the literature on attachment in LGB people. The process of establishing a gay identity is for many same-sex attracted individuals a lifelong process; it is comprised of a series of developmental challenges, perhaps the most important of which is establishing supportive and affirming connections with other LGB people – connections that were missing from many earlier relationships (Elizur & Mintzer, 2003). Moreover, LGB individuals must learn to identify potential sources of personal threat, and to manage the fear, shame and anger associated with homonegativity. Mohr (1999) has theorized that the process of gay identity development depends on managing these pervasive threats; an individual who is not equipped to withstand and confront these challenges (based on whatever obstacles are in place) may be more likely to avoid the situation. In other words, this same-sex attracted individual will be less likely to "come out" as an LGB individual, or at least less able to view him or herself as a sexual minority.

The Literature on Gay Identity and Attachment in Men

The reviewed empirical studies that follow explore gay identity and attachment patterns. This topic emerged in the gay identity literature about ten years ago (Ridge & Feeney, 1998), and recently has gained more importance; several of the most influential studies on attachment in sexual minorities have been published in the past 3-4 years. While in some cases attachment is viewed as the outcome variable and in some cases it is viewed as the predictor, the general conclusion remains the same: there is evidence supporting the idea that attachment insecurity is associated with difficulties in LGB identity development.

Elizur and Mintzer (2003) performed one of the most influential studies on attachment in gay men. They used an Israeli sample of 121 male participants who ranged in age from 23 to 72 years, with an average age of 32. Ninety-five percent of the sample identified themselves as Jewish, with 85% describing themselves as secular Jews. Men were recruited at different types of gay meeting places, clubs, and associations, at HIV testing clinics, and through the friendship networks of the research assistants. Participants were asked to provide their self-definition on a 7-point continuum that ranges from exclusive heterosexual identity to exclusive same-sex identity; the sample fell within the three highest categories of the scale: predominantly gay, but more than incidentally heterosexual; predominantly gay, only incidentally heterosexual; and exclusively gay. The authors found intra- and inter-personal variables to be useful in predicting attachment security and relationship satisfaction. Measures of attachment security, perception of social support from family and friends, perception of acceptance by family and friends, gay self-

definition, gay self-acceptance, relationship satisfaction, relationship durability, and involvement with casual partners were given. A path model was created; findings indicated that attachment security mediated the relationship between perceived friends' support and self-acceptance with relationship quality, and that self-acceptance mediated the association of self-definition as gay and perceived friends' acceptance with relationship quality. In other words, personal acceptance of one's homosexuality and social support from others were both predictive of attachment security, which in turn explained romantic relationship quality. Likewise, self-definition as gay and perception of friends' acceptance both predicted self-acceptance as gay, which better predicted relationship quality. The authors found a significant positive correlation between self-definition as gay and attachment security ($p < .05$) and a significant negative correlation between attachment security and number of casual sex partners ($p < .01$). While there was no relationship found between self-definition as gay and casual partners, it might be expected that such a relationship would exist in a more representative sample of men who have sex with men, based on the findings in other studies (Pathela, Hajat, Schillinger et al., 2006; Seibt, Ross, Freeman et al., 1993).

The authors concluded that both internal and contextual factors are important in gay acceptance and attachment security, and that acceptance and security predict satisfaction in romantic relationships. Elizur and Minter (2003) suggested that the process of consolidating a positive gay identity is a process unique to men who have same-sex romantic attractions. The family and social environment in which they grow up often distorts their experience and representation of what it means to be gay, and

such men consequently must struggle with their own internalized homophobia. The process of acceptance comes as a result of personal commitment to a gay identity and the expansion and deepening of relationships with friends who are supportive and accepting.

It is interesting that Elizur and Mintzer (2003) did not find an association between early parental relationships and adult attachment models in gay men and lesbians, as they cited a study (discussed below) by Ridge and Feeney (1998) which did find such an association. One must note that this is contrary to research on heterosexuals, which shows a more clear association between parental relationships and adult attachment models. Could it be that the support of friends and social networks serves an important function for men who identify as a sexual minority that mitigates or overshadows any negative influence of early parental relationships that might exist due to parental disapproval of gender variant behavior or expressions? One would expect, then, that straight-identified men who have same-sex thoughts, feelings and/or behaviors would likely miss out on these accepting peer and mentor relationships, and might subsequently mimic the pattern more likely for heterosexual populations: a more clear association between early parental relationships and adult attachment style.

Unfortunately, for inclusion in Elizur and Mintzer's (2003) study, self-definition as exclusively gay or predominantly gay was required by the researchers, and the entire sample was distributed in the highest three categories of the 7-point continuum (Kinsey, Pomeroy, & Martin, 1948) used for the purpose of self-definition. This restriction of range was probably due in large part to the recruitment

method used for the study; the majority of participants were recruited from different types of gay meeting places, clubs and associations, at clinics, and through the friendship networks of the research assistants. In using this method of sampling, the likelihood that participants would fall among the higher realms of the identity continuum was high. Due to this, researchers were able to pinpoint personal and contextual variables associated with attachment outcomes and relationship quality in men who were more comfortable in their gay identity. However, the relationships among such variables in more closeted gay males in and straight-identified men remain unknown.

Interestingly, while many studies have provided strong support for the relationship between early parenting and later romantic attachment style in straight-identified individuals, this pattern has been shown to differ in some studies on LGB-identified people (e.g., Green & Mitchell, 2002). Ridge and Feene (1998) wanted to assess whether attachment theory was applicable to the relationships of gay males and lesbians. The authors gave questionnaires to 77 gay males and 100 lesbians, to assess attachment style, working models of attachment, early relationships with parents and relationship history, status and functioning. A comparison sample of heterosexuals also completed the same measures.

Results indicated that despite a slight, nonsignificant tendency for gay males to report a preoccupied attachment style compared to the straight males, attachment styles were overall very similar for the gay and straight samples. Attachment style was unrelated to relationship status but secure attachment was linked to higher relationship satisfaction. Having sex was viewed as less instrumental by secure

participants, as more instrumental by dismissing participants, and as "communion" for pre-occupied individuals. However, a key difference did emerge between the gay and straight samples; there was a lack of association between early parenting and current attachment style in gay males and lesbians when compared to the straight sample. The authors explained that for the gay community, peers may exert a stronger influence on relationship styles than parents do. Due to the possibility of facing negative reactions from mainstream society and from family members, LGB individuals may perceive more emotional support from friends (Ridge & Feeney, 1998).

The authors concluded that although insecure attachment may not be over-represented in gay and lesbian samples, this attachment style is associated with less relationship satisfaction and with difficulties related to the disclosure of sexual orientation. While Ridge and Feeney's (1998) study was useful in comparing attachment patterns in gay and straight males, the main limitation of their study was the method of sampling participants; the sample of gay men and lesbians were recruited from gay and lesbian organizations, where respondents are typically less "closeted" than other gay males and lesbians. The sample used may have been further along the gay identity continuum which is a limitation with many of the other cited studies in this literature review. Less is known about how attachment looks for individuals with same-sex romantic attractions who do not identify as sexual minorities.

Mohr and Fassinger (2003) also conducted an important study on attachment patterns and outcomes in LGB individuals. They hypothesized that insecurely

attached LGB individuals may actively avoid certain components of the identity development process which are considered challenging, such as disclosing one's sexual orientation to straight friends and attending LGB functions. The authors studied 288 lesbian and bisexual women and 201 gay and bisexual men who were recruited through LGB email lists and newspaper advertisements, as part of a larger study of same-sex romantic relationships. Announcements had specified that same-sex romantic partners who had been together for at least 2 months were being sought.

A cross-sectional model linking attachment variables and two dimensions of the LGB experience, degree of difficulty in accepting one's LGB identity (identification) and degree of openness about one's sexual orientation in public realms (outness), was tested. Mohr and Fassinger (2003) hypothesized the following predictors of negative identity and public outness: childhood attachment representations (mother sensitivity, father sensitivity), parental support for sexual orientation (mother support, father support), and general attachment pattern (anxiety, avoidance).

Further, Mohr and Fassinger's (2003) conceptual model predicted indirect associations between representations of childhood attachment experiences with parents and LGB variables, through an effect on general attachment patterns. They believed parental support for sexual orientation would have both indirect and direct associations with the LGB variables; in other words, LGB support would have a direct influence on negative identity and public outness, but would also have an indirect influence on these LGB variables *through* its association with attachment anxiety and avoidance. The authors' rationale was that experiences in which parents

are supportive of one's LGB sexual orientation may influence general beliefs about one's worthiness of being cared for, and others' ability to be responsive.

Mohr and Fassinger (2003) conducted a confirmatory factor analysis to test the degree to which the proposed constructs accounted for covariation among the measured variables. After finalizing the measurement model, the proposed structural model was tested. Multiple-group analyses were used to test whether any of the path coefficients in the initial structural model varied according to participants' gender or perceived parental religious affiliation. Results provided support for many of the paths in the hypothesized model. Regarding the path for prediction of negative identity, the analysis revealed that LGB individuals who had difficulties with self acceptance were more likely to have high levels of attachment anxiety ($r = .36$, $p < .001$) and avoidance ($r = .23$, $p < .001$), and were also less likely than others to view their fathers as being supportive regarding sexual orientation ($r = -.34$, $p < .001$).

The authors posited that results provided strong support for the idea that attachment security is associated with intrinsic states and interpersonal stances that are associated with LGB identity. In other words, participants who reported difficulties accepting their own sexual orientation were more likely than others to exhibit a pattern of insecure attachment, a pattern connected to parental sensitivity surrounding LGB issues.

Mohr and Fassinger's (2003) study took a comprehensive approach to measuring negative identity, by using the Lesbian and Gay Identity Scale (LGIS; Mohr & Fassinger, 2000). They used three subscales containing items which clearly related to difficulties with accepting identity: Need for Acceptance, Internalized

Homonegativity, and Difficult Process. An example item from the Need for Acceptance subscale is, "I will never be able to accept my sexual orientation until all the people in my life have accepted me," while an item from the Internalized Homophobia subscale is "I wish I were a heterosexual." Such items are useful for measuring identity-related difficulties in individuals who are to some extent already LGB-identified. However, people with same-sex romantic attractions who identify as straight might not believe that these questions apply to them, and may not even be able to answer them.

Other researchers have been interested in predicting attachment patterns in gay men. Landolt, Bartholomew, Saffrey, Oram et al (2006) set out to explore childhood factors that predicted attachment anxiety and avoidance in gay and bisexual men. The authors cited previous research on heterosexuals that found attachment patterns to be strongly influenced by early parental relationships, and reasoned that while the exact manifestations of adult attachment development may be different for gay men, the underlying process may be the same.

Landolt et al. (2006) discussed the prevailing belief that gender nonconformity and childhood rejection by parents and peers are significant factors in self-reports regarding the lives of gay men. They hypothesized that these childhood factors were significant predictors of attachment anxiety and avoidance. Specifically, the authors hypothesized that childhood gender nonconformity would predict recollections of parental and peer rejection, that these recollections would predict adult attachment anxiety and avoidance, that peer rejection would at least partially mediate the relationship between parental rejection and attachment anxiety and

avoidance, and that any rejection (whether from mothers, fathers, or peers) would mediate associations between gender nonconformity and attachment anxiety and avoidance.

One hundred ninety one gay and bisexual men from a gay community in British Columbia, Canada completed a three-phase process that included a telephone survey, paper questionnaires, and an in-person interview. Measures assessed boyhood gender conformity, recollections of early childrearing, acceptance and rejection from mothers, fathers, and peers, and attachment to close others. Results indicated that gender nonconformity was significantly associated with paternal, maternal, and peer rejection in childhood. Further, paternal and peer rejection, but not maternal rejection, independently predicted attachment anxiety; peer rejection and paternal rejection also mediated the relationship between gender nonconformity and attachment anxiety. There was an association between paternal rejection and attachment avoidance, which was mediated by peer rejection. Landolt et al. (2006) highlighted the disappointing tendency for gender nonconformity to contribute to childhood rejection; they stressed the importance of developing more positive peer relationships for corrective socialization of gay men.

While the authors provided a sound explanation for attachment difficulties in some gay men, a major flaw of their study was that they did not use a straight male comparison group. It could be that parental and peer rejection and/or gender nonconformity are associated with attachment difficulties in general, and have nothing to do with males who identify as gay as a separate and unique population.

Indeed, there are some inconsistencies in research examining early parental influences on gay adult attachment development.

Jellison and McConnell (2003) call the process of accepting a gay identity a critical stage in the lives of men. It is during this period that gay men must seek support from the gay community in order to reevaluate negative beliefs about homosexuality and to develop positive beliefs. The authors set out to explore how attachment style might impact this stressful process, and the role that attachment played in gay males' attitudes toward homosexuality and their levels of disclosure. The authors gave measures of attitudes toward homosexuality, disclosure of sexual orientation, attachment style, and self esteem to a sample of gay men.

Results in Jellison and McConnell's (2003) study indicated that men with a secure attachment base were more likely to endorse positive attitudes toward their own homosexuality. Furthermore, these positive attitudes mediated the relationship between secure attachment style, greater levels of self-disclosure regarding their homosexuality, and greater self-esteem. The authors concluded that having a secure attachment style equipped gay men with the resources needed to have more positive attitudes toward homosexuality, and subsequently, higher levels of self-disclosure and self-esteem. The authors reasoned that having a secure attachment style enhances one's ability to acknowledge negative feelings, cope with stressful events, and develop satisfying relationships.

By this rationale, it makes sense that one's difficulties in attachment contribute to negative attitudes about homosexuality, and have consequences in terms of self-esteem and the ability to self-disclose one's sexual orientation as gay. The

authors suggested that some gay men with attachment difficulties may be unable or unwilling to seek the beneficial social support that is needed for them to feel comfortable in a gay identity. Perhaps for these men, the root of the difficulty in wrestling with internalized homophobia is the inability to cope with significant life stressors associated with attachment difficulties. While Jellison and McConnell (2003) provided a thoughtful suggestion for what occurs for gay men with attachment difficulties, their study overemphasizes the self-disclosure of sexual orientation to others, and does not attend to the decision to personally identify as gay (e.g., to one's self), an important process that precedes ability to disclose, and that therefore could be more predictive of adult attachment patterns and associated outcomes.

To sum up this section, there is evidence supporting the idea that difficulties in LGB identity development are associated with attachment insecurity. Perhaps attempting to maintain a sense of one's sexual orientation that is out of touch with one's actual same-sex thoughts, feelings, and behavior can contribute to the feeling of being disingenuous in one's relationships with others. Next, some of the specific health outcomes associated with such discrepancies will be reviewed.

Attachment Patterns and Health Outcomes in MSM

While there is a small but accumulating body of literature supporting the importance of studying attachment differences within a gay identity framework, there is a paucity of research examining behavioral and psychological outcomes based on attachment differences in populations of men who have sex with men. Only two empirical studies were found that examined the effects of attachment patterns in gay men and MSM (Gwadz, Clatts, Leonard, & Goldsamt, 2004; Zakalik & Wei, 2006).

The following section will examine the literature on attachment patterns in sexual minorities with a specific focus on outcomes associated with insecure attachment.

Zakalik and Wei (2006) found a relationship between certain attachment styles and depression in gay men. Their study used a sample of 234 self-identified gay males to examine perceived discrimination as both a mediator and a moderator between adult attachment (anxiety and avoidance) and levels of depression. While structural equation modeling analyses revealed that perceived discrimination partially mediated the relationship between anxiety and depression, the more relevant finding in terms of the proposed study were the zero-order correlations between attachment insecurity and depression; 40% of the variance in depression was accounted for by attachment anxiety ($r = .63$, $p < .001$), and 10% was accounted for by attachment avoidance ($r = .32$, $p < .001$). Since findings on rates of depression in gay males compared to the general population have been mixed (Mills, Paul, Stall, et al., 2004), Zakalik and Wei's (2006) study helps to provide an explanation for this inconsistency in the literature by pinpointing attachment as a significant predictor. However, it may be that this pattern is similar between attachment and depression in people in general (McBride, Atkinson, Quilty, & Bagby, 2006).

While Zakalik and Wei's (2006) study highlighted an important link between attachment insecurity and depression outcomes in gay men, it is unclear if this relationship would be found in a more heterogeneous population, and whether it will be stronger for straight-identified MSM. While other studies have shown a clear link between insecure attachment and depression in general populations (deMinzi, 2006; Kenny & Sirin, 2006; Zeck, de Ree, Berenschot, & Stroebe; 2006), it has not been

studied specifically in straight-identified MSM. As there is much evidence that this group is at risk for depression (Gwadz, Clatts, Leonard, & Goldsamt, 2004; Herek & Glunt, 1995; Mills et al., 2004), it may be that attachment plays an important role in contributing to this negative affect, and that there are associated behavioral outcomes (e.g., risk-taking) as well.

Gwadz, Clatts, Leonard, and Goldsamt (2004) examined attachment style and risk-taking in a sample of MSM. They wanted to examine the relationship among childhood adversity, attachment style and certain risk behaviors and contexts in an urban sample of young men who have sex with men (YMSM), a particular population which has been targeted as at risk. They defined the following risk factors as being particularly applicable to urban YMSM: homelessness, daily substance use, participation in sex work, involvement in the criminal justice system, and being out of school or work.

A targeted sampling approach was used by Gwadz, et al., (2004) to recruit 569 YMSM aged 17-28 years from bars, clubs, parks and bus stations in New York City. A structured interview was completed, which assessed lifetime and current risks and protective behavior. Univariate and multivariate statistical methods were used to analyze the data, including hierarchical logistic regression; the authors controlled for childhood adversity and demographic characteristics. Results indicated a link between attachment style and certain risk variables. YMSM with a fearful attachment style were more likely to have been homeless, to have participated in sex work, to use substances daily, to have been involved in the criminal justice system, and to be out of school/work. The authors explained that having a fearful attachment style put

YMSM in a position where they were less likely to interact with prosocial peers and adults; in this way, they remain outside of certain protective systems such as family, school and work. In comparing gay- and straight-identified YMSM in the current study, the researchers found that being straight-identified was a particular risk factor for the sample; these participants were significantly more likely to have engaged in the risk behaviors.

This study by Gwadz, et al., (2004) highlights the way that attachment theory can provide an understanding of how a certain relational stance (in this case, a fearful one) may be associated with certain major risk factors. It may be, as the authors suggest, that having an insecure attachment keeps individuals from protective and supportive systems that provide some sense of internal safety and security. The proposed study makes a similar prediction about MSM. By reporting a self-identity that is discrepant with one's actual thoughts, feelings, and/or behaviors, both an internal and an interpersonal rift may be felt and experienced. This incongruence may be associated with lower levels of trust and security in the outer world and in relationships with others; indeed, one is living a life whereby aspects of the self are compartmentalized. It is predicted that whether realized or unconscious by the individual, this discrepancy will be associated with current attachment difficulties, and will manifest itself in other consequences such as depression and sexual risk-taking.

While small, the literature on attachment patterns and health outcomes in MSM is even a bit more current than the literature on identity and attachment patterns in general, and is growing. Trends seem to suggest that incongruence between self-

identification of sexual orientation and sexual thoughts, feelings, and/or behaviors is associated with physical and psychological consequences.

Identity and Health Outcomes for MSM

There is evidence to suggest that identity-behavior discrepancies are associated with unique negative outcomes for MSM. While many studies have found this effect in specific populations such as in online communities of men (Ross, Mansson, Daneback, & Tikkanen, 2005), in public sex environments (Goldbaum, Perdue, Wolitski, Rietmeijer et al., 1998) and in populations recruited from community clinics or seminars (Ross & Rosser, 1996), research has rarely explored how the identity-behavior relationship operates in samples of men from the normative population of men at large. The studies that have attempted to sample from a heterogeneous population have used questionable methods such and obtained conflicting results (Mills, Paul, Stall, Pollack, et al., 2004; Pathela, Hajat, Schillinger, Blank, et al., 2006; Xia, Osmond, Tholandi, Zhou, et al., 2006). This section will provide a brief review of the literature on health-related outcomes pertaining to sexual identification in communities of men who have sex with men, and provide a basis for the proposed study to cast a wider net in order to study men who self identify as straight but who have same sex thoughts, feelings, and behavior. This group is important to study as the limited research that is available has shown them to be at greater risk both physically and psychologically than other men who have same sex attractions.

Several studies have suggested that acculturation into the gay community is associated with health outcomes; in particular, lower acculturation has been shown to

relate to self-esteem, distress, and unprotected sexual behaviors (Herek, Cogan, Gillis, & Glunt, 1997; Herek & Glunt, 1995; Rosario, Hunter, Maguen, Gwadz, & Smith, 2001; Seibt, Ross, Freeman, et al., 1993). Seibt and colleagues (1993) performed one of the first studies of gay acculturation and related outcomes. They explored the link between acculturation and safe sex using two indices of acculturation in the gay community: regular reading of local and national gay newspapers and magazines, and belonging to an organization for gay men. They found a relationship between identitifying as gay, acculturation into the gay community, and talking to sexual partners about HIV risk reduction. In turn, each of these variables significantly predicted condom use for anal sex; a regression equation indicated that together, they predicted 21% of the variance in anal condom use among participants.

Herek and Glunt (1995) examined personal identity, community identity, attitudes and involvement, sexual behavior, and psychological adjustment in two studies using community samples of gay-, queer-, and bisexually-identified men recruited from groups, organizations, social networks, and festivals throughout the greater Sacramento (CA) area. The authors found that several identity and community variables (i.e., gay self-esteem, community consciousness) significantly predicted sexual behaviors, but they did not emerge as significant predictors when combined with psychological variables in the regression equation. Authors described the indirect relationship between sense of gay/bisexual identity and risk reduction by explaining that men who were out of the closet, who had positive feelings regarding their sexual orientation, and who had a strong sense of connection to the gay and

bisexual community were more likely to have beliefs and attitudes that fostered HIV risk reduction. Also, having a strong sense of gay/bisexual community identity was predictive of higher self-esteem and lower depression.

Regarding outcomes specifically related to personal identity, the authors (Herek & Glunt, 1995) also found that bisexually-identified men were more prone to sexual risk than queer- and gay-identified men, while queer-identified individuals were more prone to depression than bisexual- and gay-identified men; the authors explained that queer-identified men and bisexual men were more likely to be grappling with HIV stigma and bereavement due to loss, and internalized homophobia, respectively. However, it is unclear whether these results would hold true today, as outcomes relating to identity have changed over the course of the past decade, perhaps due to societal changes; more recent research has not found a relationship between gay versus bisexual identity and certain mental health outcomes (Rosario, Schrimshaw, & Hunter, 2006). Furthermore, there is evidence for a drop in concern regarding HIV and sexual risk behavior in populations of gay and bisexual men (Crawford, Hammack, McKirnan, Ostrow, et al., 2003), perhaps due to declines in rates of HIV infection over the past two decades among men who have sex with men and perceptions that HIV is now a manageable chronic disease.

Herek, Cogan, Gillis, and Glunt (1997) explored predictors and outcomes of internalized homophobia in a sample of LGB individuals. They defined internalized homophobia as being a key variable that both influences self-disclosure and has implications for mental health. They examined a community sample of 150 gay men and lesbians, and found that lower levels of disclosure regarding sexual orientation

and having less of a sense of connection to the gay and lesbian community were predictive of internalized homophobia. Specifically, lesbians and gay men with the highest internalized homophobia scores reported significantly higher levels of depression, and significantly lower self-esteem. While their study shed light on the correlates of internalized homophobia in gay- and lesbian-identified individuals, none of their respondents were MSM-S; this could be in large part due to their method of recruitment (e.g., they recruited participants from a large lesbian/gay/bisexual street fair).

Rosario and researchers (2001) wanted to explore the coming out process and its links to psychological functioning and sexual behaviors. They found that individuals with higher levels of self-disclosure of sexual orientation reported higher self-esteem, lower distress, and more protective sexual behaviors. Furthermore, limited involvement in gay/lesbian activities and negative attitudes regarding homosexuality each predicted unprotected sex. Again, only individuals who identified as gay, lesbian, or bisexual were sampled.

Other studies have specifically considered the physical health risks associated with concealing one's sexual identity from others (Cole, Kemeny, Taylor, & Visscher, 1996), and with identifying as straight while harboring same sex thoughts, feelings, and/or behaviors (Mills et al., 2004; Pathela et al., 2006). Cole et al (1996) reviewed epidemiologic studies of disease incidence, and found an association between hidden psychosocial characteristics and increased risk of physical illness. They explored the incidence of cancer, pneumonia, bronchitis, sinusitis, and tuberculosis over 5 years in 222 HIV-seronegative gay and bisexual men, and found

that those who concealed their homosexual identity experienced a significantly higher incidence of cancer, and increased prevalence of infectious diseases (pneumonia, bronchitis, sinusitis, and tuberculosis) over the 5-year follow-up period. These effects held even after controlling for differences in age, ethnicity, socioeconomic status, repressive coping style, health-relevant behavioral patterns (e.g., drug use, exercise), anxiety, depression, and reporting biases (e.g., negative affectivity, social desirability). One limitation of their study was that Cole et al. (1996) did not consider the possibility that some same-sex attracted individuals identify as straight as they used items suggestive of "hiding" a gay identity from others (e.g., how much they are in or out of the closet). This strategy of identifying participants with a concealed homosexual identity may not have been problematic for this study as the men who participated had already identified as gay or bisexual as a precondition to participating, However, this approach would not work when sampling a more heterogeneous population containing same-sex attracted individuals who do not consider themselves *to be* a sexual minority (i.e., do not view themselves as *concealing* their sexual identity).

Pathela et al. (2006) used a telephone sampling technique to interview 4,193 men residing in New York City; not limited to men of any particular sexual orientation, and found that persons reporting a discrepancy between their sexual orientation and their self-reported sexual identity were more likely to engage in risky sexual behaviors than were the non-discrepant groups. Although straight-identified men who exclusively had sex with other men were more likely than their gay-identified counterparts to report having only 1 sexual partner in the previous year,

they were also less likely to have used condoms during their last sexual encounter. Other characteristics of the men who had sex with men but who identified as straight were that they were more likely to belong to minority racial and ethnic groups, to be foreign-born, to have lower education and income levels, and to be married than were the gay-identified MSM. Interestingly, more men who had sex only with men in Pathela's study defined themselves as straight (8.9% of total sample) than as gay (3.3% of total sample). Xia, Osmond, Tholandi, et al. (2006) have called Pathela et al's (2006) methodology into question. Specifically, they concluded that if another question answered by respondents was considered in the analyses (the percentage of men who reported being sexually active in general) only about 1.3% of the total sample of straight-identified men had sex exclusively with other men. In other words, participants gave conflicting estimates of their sexual identify based on the manner in which questions were asked and interpreted. Xia et al (2006) blamed the method of telephone interview sampling for possible confusion and confidentiality concerns that could have affected respondents' answers.

Mills (2004) used data from a household-based probability sample of men who have sex with men (n = 2,881) to explore the prevalence of distress and depression, and examine its correlates. As part of the Urban Men's Health study, telephone surveys lasting an average of 75 minutes were conducted between 1996 and 1998; in total, over 63,000 households were screened, and 5.8% of them (n = 3,700) were found to contain at least one man who has sex with men. Of these, 2,881 interviews were competed. Results indicated that depression in men who have sex with men was higher than in adult U.S. men in general, and that distress and

depression (measured by the CES-D) was associated with identifying as straight or bisexual (instead of as gay, queer, or homosexual). They also found that lacking a domestic partner, experiencing episodes of antigay violence, and very high levels of community alienation to be indicative of distress and depression. The authors suggested that prevention efforts for depressed men who have sex with men might target homophobia, identification with a sexual minority group, and connection to community.

Other studies have shown a link between health outcomes and lack of a sexual minority identity among specific subpopulations of men who have sex with men. Ross and Rosser (1996) sampled men from a sexual health seminar in a Midwestern U.S. city to examine measures and correlates of internalized homophobia. They performed an orthogonal factor analysis and found four dimensions of internalized homophobia: lack of public identification as gay, perception of stigma associated with being gay, social comfort with gay men, and moral and religious acceptability of being gay. These dimensions significantly predicted relationship satisfaction, length of longest relationship, extent of attraction to men and women, social time spent with gay people, identification of gay/bisexual, HIV serostatus, and disclosure of sexual orientation. Of particular interest to the proposed study was the association between lack of identity as gay/bisexual, HIV serostatus, and reduced relationship satisfaction. It seems that the discrepancy between identity and behavior may in some way be associated with isolation from gay people, HIV risk behavior, and difficulties in relationships.

Goldbaum, Perdue, Wolitski, Rietmeijer et al. (1998) interviewed 1,369 men who have sex with men at public sex environments in four U.S. cities. Ten percent of the sample (n = 136) of MSM self-identified as straight, while 40% (n = 546) identified as bisexual and 50% (n = 687) identified as gay. The straight-identified men were significantly more likely to report having oral sex with men than anal sex with men, and these straight-identified men were significantly less likely to report having anal sex than gay or bisexual men. The straight-identified and the bisexual-identified men were significantly less likely to have reported recent exposure to any HIV information which led the authors to conclude that non-gay identified men who have sex with men are a group that is particularly at risk for HIV transmission. A major criticism of these conclusions is that the actual risk behavior (e.g., condom use during sex, regular STD testing) was not assessed, only exposure to health-protective information related to sexual behavior. Furthermore, the straight-identified men were more likely to report having oral sex and less likely to report having anal sex than were other groups of men which suggests lower risk levels (even absent of knowing condom use). Another limitation of this study was the failure to assess whether exposure levels to HIV information actually differed between the straight-identified men who were having anal sex and those who were not; this would be an important piece to know, as only about half of the straight-identified men who engaged in sexual behaviors with men were participating in anal intercourse. Regardless, this study suggests the importance of tailoring protective health messages related to same-sex behaviors to all populations regardless of sexual orientation status, as there was a

large proportion of straight-identified men who have sex with men who were not receiving information regarding HIV transmission.

Several studies have looked at characteristics of online communities of men who have sex with men. Ross and researchers (2005) compared heterosexual men to gay and bisexual men in terms of just their online (e.g., cyber) sexuality and associated behaviors. Eight percent of their sample consisted of heterosexual-identified men who reported at least one male cybersex partner on the Internet. These men were significantly more likely than gay/bisexual identified men who have cybersex with men on the Internet to have reported that their sexual thoughts and/or behaviors were creating problems for them, and that they were failing to meet commitments in their daily lives due to their internet sexual behavior. While this study concluded that distress is associated with identity-behavior discrepancy, these results describe online behavior only, and do not necessarily generalize to in-person sexual behavior (and therefore, to sexual risk activity). Moreover, online communities of men seeking cybersex may have different characteristics than men who use the Internet to solicit real sexual experiences and men in the population at large.

Results of studies that have tried to identify the characteristics of online communities of MSM are mixed. A study by Rhodes (2004) showed that 30% of individual's in an MSM online chat community reported not being out at all in their daily lives; this figure is in stark contrast to the figure of 6-12% reported elsewhere in this review (Goldbaum, Perdue, Wolitski, Rietmeijer et al., 1998; Mills et al, 2004; Pathela et al., 2006; Ross, Mansson, Daneback, & Tikkanen; 2005). Nevertheless, these percentages suggest that straight-identified men who have sex with men may be

disproportionately reflected in online chat-based communities which may be because certain aspects of belonging to and participating in this type of community may cater to the needs of individuals who compartmentalize or hide certain aspects of their thoughts, feelings, and/or behaviors. On the other hand, another study (Bolding, Davis, Sherr, Hart et al., 2004) that examined gay Internet participation among 4,974 MSM in London found that 99% of that sample identified as gay or bisexual. Differences in percentages of straight-identified versus gay or bisexual-identified men in various studies of MSM chatrooms may reflect diffierences in methodologies used to access these men and to assess their characteristics and responses.

To sum up the literature on identity and health-related outcomes in individuals displaying same-sex feelings and behaviors, research has overwhelmingly provided support for the idea that maintaining a self-identity that is discrepant with one's thoughts, feelings, and/or behaviors is both distressing to the individual (Herek & Glunt, 1995; Mills et al., 2004; Rosario et al., 2001) and has physical health-related consequences (Cole, Kemeny, Taylor, & Visscher, 1996; Goldbaum et al., 1998; Pathela et al., 2006; Ross & Rosser, 1996).

Summary

The literature on outcomes associated with sexual identity overwhelmingly suggests psychological and physical health advantages associated with congruence between one's self-identification of sexual orientation and one's actual thoughts, feelings and behaviors. Yet an important limitation of this literature is that studies on sexual identity and outcomes rarely have studied samples that are representative of this population of MSM, as sampling methods consistently have targeted individuals

who are already higher on the LGB identity continuum than the average population (e.g., participants at LGB activities and social events). Samples that have included straight-identified men who have sex with men often reveal unique differences between these men and groups that have less discrepant behavior, but further exploration into the psychosocial variables associated with this identity is needed. The current study suggests that self-identifying one's sexual orientation in a manner that is incongruent with reported thoughts, feelings, and/or behaviors creates both an internal and an interpersonal rift. It was predicted that this incongruence would be associated with less trust and security in one's sense of self in relation to others, and in particular, in describing current attachment patterns. The purpose of the present study was to examine discrepancy between sexual minority identification and relevant thoughts, feelings, and/or behaviors for a population of men in general, and to examine associated psychological and health outcomes.

Chapter 3: Statement of the Problem

Men who have sex with men but who identify as straight (MSM-S) is a group which has been shown to have higher rates of psychological distress and riskier health behaviors, when compared to men who describe more congruency between their identity and their sexual thoughts, feelings, and/or behaviors. For example, straight-identified MSM have been shown to have higher ratings of depression, lower ratings of self-esteem, and report riskier sexual behaviors when compared to gay-identified MSM (Herek & Glunt, 1995; Meyer & Dean, 1995; Mills et al., 2004; Peterson & Marin, 1988; Seibt et al., 1993). Moreover, due to the nature of incongruence between their identity and behavior, MSM-S remain a relatively hidden group in today's society, and one which is difficult to locate and study.

A major limitation of existing studies on MSM is that the samples were drawn primarily from online gay sex sites, gay bars, gay clinics, gay events, or gay listservs (see Herek, Gillis, Cogan, & Glunt, 1997; Herek & Glunt, 1995; Mohr & Fassinger, 2003; Ross, Mansson, Daneback, & Tikkanen, 2005). While it is possible that large portions of MSM congregate in these areas, it is unlikely that all categories of MSM would be represented through such mechanisms, in particular MSM-S, and findings of these studies cannot be generalized to MSM in general anymore than they can be generalized to men who do not frequent gay bars, have high sex drives or who have Internet sex addictions. As Meyer and Colten (1999) showed, samples of gay/bisexual men drawn from the gay community and samples of gay/bisexual men drawn from random digit dialing were qualitatively different (e.g., gay/bisexual men who were randomly chosen from non-gay specific venues had higher levels of

internalized homophobia). Therefore, there is reason to believe that existing research, which has drawn heavily from the gay community, may provide an inadequate representation of the larger population of MSM.

The purpose of the current study was to examine predictors and outcomes associated with incongruence between how men self-identify their sexual orientation and the target (e.g., male, female, or both) of their sexual thoughts, feelings and behaviors. Due to a pervasive history of societal stigma, religious condemnation, and negative parental and peer reactions regarding same-sex attraction, many men who do have same-sex attractions are likely to experience difficulty in identifying as a sexual minority, and therefore more likely to experience an incongruence or discrepancy between these various aspects of their identity than are men with only opposite-sex attractions (Mohr, 1999). The proposed study hypothesized that experiencing a discrepancy between self-identity and thoughts, feelings, and/or behaviors poses a unique challenge for men with same-sex attractions (e.g., straight-identified MSM), and that the challenge gets manifested in difficulties around adult attachment, and higher ratings of depression and sexual risk-taking, compared to populations that identify as sexual minorities.

This study built on the study by Mohr and Fassinger (2003), which predicted outness and identity based on several variables, including childhood attachment representations, perceived parental support for sexual orientation, and general attachment pattern. In assessing outness, the Mohr and Fassinger (2003) study only examined the extent to which lesbians, gay men, and bisexuals identified their sexual orientation identity to others; in other words, the people who participated in the study

were already openly identified as LGB. The current study kept Mohr and Fassinger's (2003) idea for examining the link between identification of sexual orientation and attachment, but used a heterogeneous population to include sexual minorities (in the sense that they are MSM) who do not identify as such. The current study also looked at other outcomes that have been suggested by related research to be associated with identity difficulties in MSM, such as depression and sexual risk-taking.

Prior research has shown that men who do not identify as gay but report same sex attraction and/or behaviors have higher levels of distress (e.g., anxiety and depression) and take greater health risks (e.g., engaging in unprotected anal intercourse). The current study views gay identification on a continuum, with outness to self being on one end and outness to all other people on the other end. The current literature would suggest that MSM-S might have the highest rates of psychological distress and physical risk-taking, as they might be viewed on the same end as individuals who are out to self, but they currently do not even have a place on the continuum. MSM-S is the group that experiences the greatest discrepancy between their self-report of their sexual orientation and their actual experience of thoughts, feelings, and behavior; it is likely that the discrepancy keeps this group from various health-protective behaviors. The sample for the present study was drawn from a graduate student pool of male students at a large, public University. Therefore, in sampling this way a broader range of men who could be categorized as MSM were hoped to be represented than in samples drawn from LGB groups, as in most previous research on MSM.

The hypotheses that were examined in the current study are based on the limited body of research conducted on same-sex attracted individuals who do not identify as sexual minorities, but will differ from these studies in that it attempted to locate a sample of these men by examining a larger sample of men in general. Because it is very difficult to identify MSM-S due to the discrepancy between their thoughts, feelings and/or behaviors and their self-identity, the expectation was that an approach that solicits research participation from a more heterogeneous population also will include an adequate number of men who report discrepancy between their identification of sexual orientation and their sexual thoughts, feelings, and/or behaviors. This expectation was based on previous research that shows that same-sex thoughts, feelings and/or behaviors are not exclusive to individuals who identify as gay or bisexual (Goldbaum, Perdue, Wolitski, Rietmeijer et al., 1998; Mills et al, 2004; Pathela et al., 2006; Ross, Mansson, Daneback, & Tikkanen; 2005). This body of literature also suggests that, in the same population, there will be individuals who are congruent in their identification of sexual orientation and their sexual thoughts, feelings, and/or behaviors (such as MSM-G, MSM-B, MSM-Q, and men who have sex with women who identify as straight, MSW-S).

Attachment theory has been proposed as one of the ways to understand the process of sexual identity formation (Mohr, 1999). Existing research on attachment in individuals with same-sex attracted individuals is limited, but suggests differences between individuals who are more secure in a sexual minority identity and people who identify as straight or who have low levels of outness in their everyday lives (Elizur & Mintzer, 2003; Gwadz et al., 2004; Jellison & McConnell, 2003; Mohr &

Fassinger, 2003; Ridge & Feeney, 1998). Attachment theory serves as the basis for the first hypothesis:

Hypothesis 1: Men who report a discrepancy between their identification of sexual orientation and their sexual thoughts, feelings, and/or behaviors will have significantly higher scores on attachment anxiety than will men who do not report a discrepancy.

Hypothesis 2: Men who report a discrepancy between their identification of sexual orientation and their sexual thoughts, feelings, and/or behaviors will have significantly higher scores on attachment avoidance than will men who do not report a discrepancy.

Being high on attachment anxiety and on attachment avoidance would make someone's adult attachment style "Fearful," or insecure (Brennan et al., 1998). Bartholemew and Horowitz (1991) first described fearful individuals as having a negative view of themselves and others. Such individuals are fearful of intimacy and are socially avoidant. In close relationships, Brennan et al. showed that fearful individuals avoid intimacy and have high anxiety over separation and abandonment. In a sample of LGB-identified individuals, Mohr and Fassinger (2003) found that anxiety and avoidance predicted lower levels of disclosure to family and friends. Therefore, in the current study, attachment anxiety and attachment avoidance were hypothesized to predict one's lack of self-identification as gay.

The current study posited that distress will be associated with maintaining an incongruent sense of self, as previous literature has suggested that inability to be honest and open about one's sexuality is associated with distress and depression

among already-identified sexual minorities (Herek & Glunt, 1995; Herek et al., 1997; Mills et al., 2004; Rosario et al., 2001). The current study extended this theory to straight-identified sexual minorities.

Hypothesis 3: Men who report a discrepancy between their identification of sexual orientation and their sexual thoughts, feelings, and/or behaviors will report significantly higher levels of depression than will men who do not report a discrepancy.

Perhaps another outcome that is associated with the distress that is associated with MSM-S not identifying as having a sexual minority orientation (e.g., self-disclosure to others, supportive connections to LGB and allied communities) is the greater likelihood of same-sex attracted individuals who are lower on the sexual minority identity continuum to engage in more risky sexual behavior than individuals who are more secure in their sexual minority status (Herek & Glunt, 1995; Goldbaum et al., 1998; Pathela et al., 2006; Rosario et al., 2001; Seibt et al., 1993;). Again, there is a need for research to explore this phenomenon outside the realm of subcultures where this has shown to be prevalent (e.g., men who frequent bars and sex establishments, men who hook up with men via online chatrooms), and to examine whether sexual risk-taking varies between subgroups of men in an all-male sample of a population of men

in general (e.g., male graduate students).

Hypothesis 4: Men who report a discrepancy between their identification of sexual orientation and their sexual thoughts, feelings, and/or behaviors will report higher

numbers of different sexual partners in the past 12 months than men who do not report a discrepancy.

In summary, it was hypothesized that incongruence between sexual identification and sexual behavior manifests itself in adult attachment difficulties, and is related to distress and risky health behaviors in men who maintain a discrepancy between their self-identification of sexual orientation and their sexual thoughts, feelings, and/or behaviors (e.g., MSM-S).

Chapter 4: Method

Design Statement

This survey study utilized a quasi-experimental design to compare male graduate students who displayed congruence between sexual orientation and sexual thoughts, feelings, and/or behaviors to those who did not, on several relational, psychological, and health variables. In addition to congruence, variables included attachment anxiety, attachment avoidance, depression, and number of sexual partners in the past 12 months.

Power Analysis

Due to the fact that unequal cell sizes were expected, a rationale was followed for ensuring there were enough people in a particular group for adequate levels of power on that group's analyses. There were expected to be at least two groups with enough power (gay-identified men and straight-identified men), and likely more (e.g., bisexual, queer, non-identified, etc.), depending on whether enough people endorse other sexual minority groups. Based on Cohen (1988), an a priori power analysis for a one-tailed MANOVA comparing two groups with a power of 0.80 and an alpha level of 0.05 yields a sample size for each group of 26 to detect a medium effect (d=.25) and 64 to detect a large effect (d=.80). It was determined, then, that approximately 520-1,280 male participants needed to be surveyed to ensure a large enough sample size to account for the anticipated response rate of 40 - 50% projected by Cook, Heath, and Thompson (2000) in their investigation of response rates for online surveys.

Participants

One thousand email addresses of male graduate students were randomly selected by the Office of the Registrar out of the total population of 5,298 male graduate students at a large, Mid-Atlantic state university. An email was sent to each participant with a call for participation, a link to an online survey and an offer to be entered into a cash drawing after participating. Ten days after the initial email was sent, participants were emailed again, thanked for their participation if they had already completed the survey, and asked to consider participating if they had not already done so. Of the 1,000 emails that were sent, 14 were bounced back due to mailbox restrictions. The total number of email inboxes which received the survey was 986, but there was no way to determine how many potential participants actually opened the email, as opposed to deleting it unopened. Two hundred and one people opened the survey link, and 124 of them started it. Twenty-five people did not complete the full survey, and nearly all of them exited the survey at exactly the same point. This will be discussed in greater detail in the Discussion section. The final sample, therefore, consisted of 99 male graduate students. The mean age of the sample was 31 (*SD* = 9.40). The sample was slightly more Caucasian than the population of male graduate students (60% of the sample was Caucasian, versus 50.2% of the male graduate student population at the end of the Fall 2007 semester at the same university). However, the current sample included Biracial/Multiracial individuals (3%) and Middle Eastern men (4%), who were not distinguished by university statistics.

Measures

Experiences in Close Relationships Scale-Revised (ECR-R; Fraley, Waller, & Brennan, 2000). Quality of romantic attachment was measured using the ECR-R.

This is a 36-item self-report measure which is used to categorize an individual along the two dimensions of Anxiety and Avoidance. The anxiety dimension measures fear of rejection and abandonment, while the avoidance dimension measures discomfort with dependence and closeness. Participants answer each item on a 7-point Likert scale ranging from 1 (*disagree strongly*) to 7 (*agree strongly*). Total subscale scores range from 18-126, with higher scores indicative of more anxiety and avoidance in romantic relationships. Example items from the avoidance and anxiety scales are "I want to get close to my partner, but I keep pulling back," and "I worry about being alone," respectively. Brennan, Clark and Shaver (1998) reported Cronbach's alphas for the anxiety and avoidance subscales to be 0.91 and 0.94, respectively. Based on data obtained from the current sample, a coefficient alpha of 0.93 was found for the anxiety subscale, and an alpha of 0.94 was found for the avoidance subscale.

Sibley and Liu (2004) found that the ECR-R provided stable estimates of trait attachment which are mostly free from measurement error over short periods of assessment. Fraley, Waller, and Brennan (2000) reported that test-retest reliability of a subset of 5 of the ECR-R items demonstrated test-retest correlations greater than .70 over a period of 8 weeks. Validity was demonstrated when the authors found high correlations between their measure and scores on 60 other attachment subscales, providing strong support for the authors' 2-factor approach to attachment. Maunder, Lancee, Nolan, Hunter, et al. (2006) also found evidence for validity of the ECR-R when it correlated in the expected direction with the Perceived Stress Questionnaire. Please see Appendix A for the ECR-R.

Multidimensional Scale of Sexuality (MSS; Berkey, Perelman-Hall, & Kurdek, 1990). Sexual thoughts, feelings, and behaviors were measured using the Multidimensional Scale of Sexuality. This is a 45-item scale which is used to categorize participants according to behavioral and cognitive/affective components of sexuality as they exist within nine categories of sexual orientation. The authors developed the nine categories to account for subtle differences that exist in bisexuality, and to correct for errors that past scales have made in assuming that sexual orientation is a static phenomenon. Nine pre-determined categories contain 1 behavioral item (single item-scored) and 4 cognitive/affective items (mean-scored) in regards to the same and the opposite sex. While participants are asked to respond in a true/false format, the questions themselves allow for time variability.

Berkey et al. (1990) tested the MSS on 148 male and female participants who were almost evenly divided by sex. Most participants were from gay and bisexual organizations; however, straight participants were obtained through the personal contacts of the investigators. Self-reports of sexual orientation on the MSS were distributed as follows, "Heterosexual" (n=27), "Heterosexual with some homosexuality" (n=21), "Past gay, current heterosexual" (n=0), "Concurrent bisexual" (n=12), "Sequential bisexual" (n=7), "Gay with some heterosexuality" (n=20), "Past heterosexual, current gay" (n=28), "Homosexual" (n=33), and "Asexual" (n=0). The authors used participants' descriptions on the Kinsey Heterosexual-Homosexual Scale (1948) to compare subjects' self-descriptions on the MSS using a chi-square test, and found that the two were significantly consistent; however, the MSS provided a more variable description of sexual orientation (e.g.,

there were discrepancies). The authors also tested the correspondence between participants' self-descriptions and the behavioral and affective/cognitive items, separately. They found that cognitive/affective ratings were better predicted by self-reports of sexual orientation than were behavioral ratings, which were more discrepant among various groups. Finally, researchers found that cognitive/affective dimensions of sexuality were significantly more prevalent than were the behavioral realms.

Despite covering a comprehensive area of the construct, the MSS has been infrequently used in empirical research. However, one study (Howard, Longmore, Mason, & Martin, 1994) did use it in conjunction with the Human Sexuality Questionnaire; in addition to finding similarities between the two in measurement of sexuality in their sample, both were found useful in defining sexual orientation in samples of child sex offenders, and male and female control participants. One main limitation of the MSS is that it was not tested on a normative sample, despite its wide potential for use in the general population; an unrealistically substantial proportion of the participants identified as sexual minorities, compared to straight-identified participants. The MSS likely has not been frequently used because it is a measure of thoughts, feelings, and behaviors, in a research environment that is more likely to measure specific components of sexuality. However, the MSS assumes a broad approach to sexual orientation that likely covers a larger area of the construct than many other just looking at attractions or behavioral components alone. The original study (1990) showed that sexuality was broader than previously discussed; indeed, what came out of that initial study was evidence that incongruence exists. The current

study used the MSS as one of the two measures used (along with the demographic questionnaire) to group respondents in terms of congruence, much in the same manner as Berkey and researchers (1990) did. Please see the section on Congruence (below) to see how a congruence score was calculated for each participant. Because of the item structure of the MSS, alphas are not computed for this measure. The MSS can be found in Appendix B.

Center for Epidemiologic Studies Short Depression Scale (CES-D 10; Andresen, Malmgren, Carter, & Patrick, 1994). Depression was measured by the Center for Epidemiologic Studies Short Depression Scale (CES-D 10). The CES-D 10 is a widely-used self-report measure of depressive symptomotology among men and women, and was intended for use in the general population. Participants are asked to use a 4-point Likert scale to report on the ways that they have felt or behaved during the past week, ranging from 0=Rarely or none of the time (less than 1 day), to 3=All of the time (5-7 days). Scores can range from 0-30, with higher scores indicating more depression; a score of 10 or greater is considered depressed.

The original CES-D was developed by Radloff (1977) and contained 20 items; it demonstrated an internal consistency of 0.85 in the general population, and 0.90 in clinical populations. Cronbach's alpha for the current study was found to be 0.86. Andresen et al. (1994) sampled 1,206 well adults and found that the norms for the original scale differ for English and Spanish speakers; it was found to be not useful when aggregating data from different ethnic and racial groups. The researchers created a shortened version which contains only 10 items; validity for the 10-item scale was established when the CES-D 10 showed an expected positive correlation

with poorer health status scores and an expected strong negative correlation with positive affect. Lorig, Sobel, Ritter, Laurent, et al. (2001) used the CES-D 10 to test a sample of 489 subjects with chronic disease; they found an internal consistency reliability of .84. Please see Appendix C.

Sexual risk questions. Sexual risk-taking behavior was assessed through several behavioral questions adapted from Leigh, Temple, & Trocki (1993). Leigh et al. (1993) conducted a household probability survey of adults in the United States and gathered information including sexual orientation, frequency of intercourse, condom use, and number of sexual partners. They found that a significant proportion of respondents reported having sexual intercourse with multiple partners without using condoms. A minority of participants in this study acknowledged that their behavior may place them at risk for HIV transmission. The current study wanted to assess risk posed to self and others through sexual behavior, so questions such as number of sexual partners in the past 12 months and frequency of condom use with primary and nonprimary partners were asked of the current study's participants. Due to the fact that only a few questions were adapted from Leigh, Temple, and Trocki (1993), and only one question was used for analyses, Cronbach's alpha for the sexual risk questions was not computed for the current study. Please see Appendix D.

Marlowe Crowne Social Desirability Scale Form C (MCSD; Reynolds, 1982). For the purposes of this study, social desirability was measured to determine the extent to which participants may be concerned with presenting a positive picture to the researchers, and therefore may not be reflecting an honest portrayal of themselves on the other measures. This may occur because of perceived stigma attached to the content of some of the instruments, and also may be associated with less secure styles

of attachment. The original MCSD is a 33-item inventory designed by Crowne and Marlowe (1960). A short form was developed by Reynolds (1982). Participants are asked to use a true/false format to indicate whether the statements pertain to them. Socially desirable responses are tallied, and an overall score ranging from 0-13 is obtained; higher scores indicate greater social desirability. Sample items on the MCSD short form include, "I'm always willing to admit it when I make a mistake," and "I am always courteous, even to people who are disagreeable." Psychometrically, the short form was shown to perform similarly to the original scale, to other short scales of social desirability, and to the validity scales on the MMPI; the 13-item measure is preferred because of its brevity. Internal consistency and test-retest reliabilities for the measure range from 0.75-0.88 (Crowne & Marlowe, 1960). Cronbach's alpha for the MCSD-13 in the current study was 0.68. It was determined that this was close enough to the acceptable threshold of 0.70 to include social desirability in the correlation matrix. The MCSD-13 can be found in Appendix E.

Demographic questionnaire. A demographic page consisted of 13 questions. It asked participants for information regarding their gender, age, racial-ethnic status, religious affiliation, relationship status, political leanings, highest degree held, degree being sought, history with therapy, history with sexually-transmitted diseases, self-described overall health, and additional attitudes or experiences they wanted researchers to know. Sexual orientation was also measured on the demographic questionnaire by asking participants to choose how they wished to identify, using the following response options: gay, straight, bisexual, queer, and other. Participants who wanted to endorse "other" were given the option to self-define how they identify.

The question about sexual orientation was used for deriving the congruence of self-reported sexual orientation with sexual thoughts, feelings, and/or behaviors. Please see Appendix F for a copy of the demographic questionnaire.

Congruence of self-defined sexual orientation and sexual thoughts, feelings, and/or behaviors. Congruency between self-given sexual orientation label and actual sexual thoughts, feelings and behaviors was determined by a mismatch between one's self-definition of sexual orientation and one's overall rating of behavior, cognition, and affect regarding same and opposite sex on the Multidimensional Scale of Sexuality (MSS; Berkey, Perelman-Hall, & Kurdek, 1990). In order for this to be done, a congruency score was created for each participant, based on the items that he endorsed on the MSS and the sexual orientation that he self-reported on the demographic questionnaire. The definition of discrepancy differed slightly for each group, according to the prevailing understanding of what has been demonstrated to occur cognitively, affectively, and behaviorally for each group (e.g., bisexual people are believed to have varying degrees of cognitive, affective, and behavioral attractions toward both same- and opposite-sex others; self-defining sexual orientation as bisexual and demonstrating disposition toward both sexes when considering thoughts, feelings, and/or behaviors did not qualify as discrepancy for this group). A rubric was developed before analyses were run which outlined what responses had to be in order for participants to be labeled as congruent or incongruent in the match between their sexual orientation and their sexual thoughts, feelings, and behaviors. The sexual orientation of respondents (e.g., straight) was compared to each the nine categories that their responses on the MSS comprised (e.g., heterosexual,

heterosexual with some gay, etc). If a match occurred, the participant was dummy-coded as congruent, and if a mismatch occurred, a participant was dummy-coded as incongruent. This score of 0 (incongruent) or 1 (congruent) was used to compare participants along the study hypotheses.

Procedure

An email message was sent to each of the randomly selected male graduate students, containing a call for participation, a link to an online survey and an offer to be entered into a cash drawing after participating. Please see Appendix G for a copy of the email message. Potential participants were told that their responses to the online survey would not be linked to their names or email addresses in any way. Participants were informed of the possibility that confidentiality could not be completely guaranteed, as there is always a very small chance that a third party could intercept the transmitted message when Internet research is being conducted. Furthermore, participants were told that by participating, they had the option to leave their email address for a separate spreadsheet that is not connected to the survey website, and that by doing so, they would be entered in a drawing to win one of two $50 gift certificates.

Participants who decided they wished to participate could click on a link in the email that took them to the online survey. To help protect the validity of the study, the survey link was set up in such a way that it could not be forwarded or taken again after having been started. Participants were told they could take as much time as they needed, but that it would likely take 15-20 minutes to complete the study. After completing the measures, participants were presented with debriefing information, which described the nature of the study. The researcher's name and contact

information was included in the debriefing form, and participants were told they could contact him with questions or concerns. Also provided was the student experimenter's faculty advisor's name and contact information.

The number of participants who opened the survey link for the first email was 128. To protect confidentiality, there was no way to identify individuals who had responded versus those who had not. Therefore, a follow-up email was sent to the entire sample ten days after the initial email was sent. Please see Appendix H. This email included in the header that it was a reminder email about the study. An additional 73 participants opened the survey link after this email. Based on the lower response rate to the second email and an examination of respondents, it was obvious that the target group was not going to be identified. A decision was made to stop data collection. The survey was taken down and results were exported.

Chapter 5: Results

This section is divided into preliminary analyses, primary analyses of hypotheses, and additional analyses. The preliminary analyses describe Cronbach alphas for each measure, demographics of the surveyed sample, means and standard deviations for the scales and subscales, and a correlation matrix containing the variables of interest.

Preliminary Analyses

Alphas for subscales. Cronbach's alpha was computed for the following measures: ECR anxiety, ECR avoidance, CESD-10, and MCSD. With the exception of the MCSD (0.68), all reliabilities were acceptable as they were above 0.70. It was determined that Cronbach's alpha for the MCSD was close enough to 0.70 to be used in the analyses. Please see Table 1 for a list of internal consistency ratings.

Respondents. The demographic characteristics of the 99 total respondents were examined, along the dimensions of age, race/ethnicity, sexual orientation, relationship status, degree being sought, political views, history of receiving therapy, history of acquiring a sexually transmitted disease, and perception of overall health. The age of respondents ranged from 22 to 69, with a mean age of 30.80. Due to skew in participant age, the median was computed; it was 28 years of age. Eight percent of the sample self-reported a sexual minority orientation. Forty percent of the sample identified as a racial/ethnic minority. Nearly 70% of the sample reported being in a committed relationship, 80% were seeking their Master's degree, 30% had received counseling, 9% reported having had an STD, and 75% rated their overall health as excellent or good. In regards to political views, 37% of the sample reported being

Table 1.

Internal Consistency Ratings

Scale	Cronbach's Alpha
ECR-R Anxiety	0.93
ECR-R Avoidance	0.94
CESD-10	0.86
MCSD	0.68

very liberal or liberal, 35% reported moderate views, and 22% reported being conservative or very conservative (with 5% reporting "Other"). Table 2 breaks down

these categories further, and compares all of the demographic characteristics of the sample. Responses to the open-ended question on additional attitudes or experiences in close relationships, aspects of well-being, and/or aspects of sexuality are included in Table 3.

Means, standard deviations, and range of scores. Scale means and standard deviations were computed for the following variables and questions of interest: attachment anxiety, attachment avoidance, depression, social desirability, and number of sexual partners in the past 12 months.

Scores on attachment anxiety ranged from 18 – 103, with a mean of 52.36 (SD = 21.52). Scores on attachment avoidance ranged fro 18 – 105, with a mean of 49.70 (SD = 21.44). Depression scores ranged from 0 – 25, with a mean of 8.40 (SD = 5.83). It is worth noting that thirty-seven percent of the sample scored high enough on the CESD-10 to be considered clinically depressed. The mean number of sexual partners in the past 12 months was 1.32, with a minimum of 0 and a maximum of 8 (SD = 1.26). The median and modal numbers for sexual partners in the past 12 months were also computed; they were both 1. Means, standard deviations, and range of scores for the variables of interest can be found in Table 4.

Correlation Matrix. A correlation matrix of all the variables of interest was computed. Many of the distress variables were significantly correlated. For example, there was a positive correlation between attachment anxiety and depression ($r = 0.53$, $p < .01$), and between attachment avoidance and depression ($r = 0.37$, $p < .01$). Age

Table 2.

Demographic Characteristics of Sample (N=99)

Response	N	% of Sample

Age	21-25	32	32.32
	26-30	34	34.34
	31-35	14	14.14
	36-40	5	5.05
	41-45	2	2.02
	46-50	5	5.05
	51-55	3	3.03
	56-60	2	2.02
	>60	1	1.01
	Not Reported	1	1.01
Race/ethnicity	Black/Afr. Am.	5	5.05
	Hispanic/Latino	5	5.05
	Asian/Pacific Islander	18	18.18
	Middle Eastern	4	4.04
	Native Am./Alaskan	0	0.00
	European Am./Cauc.	58	59.60
	Biracial/Multiracial	3	3.03
	Other	4	4.04
	Not Reported	2	2.02
Sexual Orientation	Straight	91	91.92
	Gay	5	5.05
	Bisexual	2	2.02
	Queer	1	1.01
	Other	0	0.00
Relationship Status	Single, Not Dating	20	20.20
	Dating, Not Committed	9	9.09
	Married/Partnered	39	39.39
	In a Relationship	20	20.20
	Engaged	7	7.07
	In an Open Relationship	2	2.02
	Other	0	0.00
	Not Reported	2	2.02
Degree Sought	Master's	79	79.80
	Ph.D./Doctorate	19	19.19
	Other	0	0.00
	Not Reported	1	1.01
Political Views	Very Liberal	12	12.12
	Liberal	25	25.25
	Moderate	35	35.35
	Conservative	16	16.16
	Very Conservative	6	6.06
	Other	5	5.05
Received Therapy	Yes	30	30.30
	No	61	61.62
	Not Reported	8	8.08
STD History	Yes	9	9.09
	No	80	80.80
	Not Sure	4	4.04

	No Answer	6	6.06
Overall Health Perception	Excellent	35	35.35
	Good	39	39.39
	Above Average	8	8.08
	Average	10	10.10
	Below Average	2	2.02
	Poor	0	0.00
	Very Poor	0	0.00
	No Answer	5	5.05

Table 3.

List of Responses to the Open-ended Question

Question: Please describe anything else you would like us to know about your attitudes or experiences in close relationships, aspects of well-being, and/or aspects of sexuality.

Answers:

I will like to be more sexually active, but my work and academic responsibilities keep me away for doing it. Also my current partner cannot sexually arouse like me.
I truly love my boyfriend!
I like to make sexy time. It's very nice!
I have been happily married for 13 years.
My wife and I are currently in couples therapy receiving communications skills training.
"Men" whom are emotional and worry about their "feelings" are not men. These cowards should immediately enlist in the military and get over this sissy nonsense.
I did a thorough evaluation of myself where I considered whether I was attracted to men, and came to a very clear conclusion that I am not.
Commitment to God and Jesus Christ requires sexual purity: one heterosexual partner to whom you are married.
I think it curious that you are not interested in duration of relationships.
Lots of things in the world to be concerned about, I try to remain positive despite it all.
Homosexuality may be genetic or a choice, regardless, it's not natural and should not be encouraged or accepted. Unless human beings develop a way to reproduce in a biological manner with homosexuality, it should never be considered "normal".
Good communication was probably the most difficult thing in my relationship.
I am an African from Cameroon.
It's tough to start new relationships after a long failed marriage
Perhaps this could be expected considering my self identification as a conservative Christian but for me the only sexual partner (of any sex) that I have had has been my wife and not until after we were married. As might be expected, this is what I consider to only correct approach to sex and sexuality.
Haven't had that much relationship experience. Suppose I'm a bit spastic around girls I find attractive.
Accept them a what they are...and Live the Moment!!
I am dedicated to the idea of sexual activity between persons within marriage only for both religious (Christian) and practical reasons (keeps relationships simpler). Lack of sexual activity,however, does not indicate lack of desire,and my current sexual needs are unsatisfactorily met through approx. daily masturbation.
in second marriage; first child due soon

Table 4.

Means, Range, and Standard Deviations for Variables of Interest

Variable	M	Min	Max	SD	N
Attachment Anxiety	52.36	18.00	103.00	21.52	124
Attachment Avoidance	49.70	18.00	105.00	21.44	124
Depression	8.40	0.00	25.00	5.83	100
Social Desirability	6.15	1.00	12.00	2.82	99
# Sexual Partners in last 12 months	1.32	0.00	8.00	1.26	99

was negatively correlated with attachment anxiety ($r = -0.24$, $p < .05$). Perception of

overall health was negatively correlated with attachment anxiety ($r = -0.22$, $p < .05$) and with depression ($r = -.43$, $p < .01$). Being in a committed relationship was negatively correlated with attachment anxiety ($r = -0.59$, $p < .01$), attachment avoidance ($r = -0.35$, $p < .01$), and depression ($r = -0.29$, $p < .01$). Please see Table 5 for a listing of all the correlations among the main variables measured for the current study.

Participants' scores on the Multidimensional Scale of Sexuality (MSS). The MSS allowed for examination of participant responses to sexual thoughts, feelings, and behaviors toward same and opposite sex partners in the past and present. One hundred participants completed the MSS, but one participant did not complete subsequent scales, so was not included in primary analyses. Further, it was apparent from subscale analysis that two participants had randomly responded to questions on the MSS. Due to this response bias, their scores on the MSS were not considered for the analyses, bringing the total number of respondents for this scale to 97. Please see Table 6 for the groups created for the study analyses.

Primary Analyses

Hypothesis 1: Men who report a discrepancy between their identification of sexual orientation and their sexual thoughts, feelings, and/or behaviors will have significantly higher scores on attachment anxiety than will men who do not report a discrepancy.

A comparison was made between respondents' self-definition of sexual orientation from the demographic questionnaire and participants' responses on the

Table 5.

Correlation Matrix of the Main Variables of Interest

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Attachment Anxiety	-													
2. Attachment Avoidance	.57**	-												
3. Depression	.53**	.37**	-											
4. Social Desirability	-.21*	-.33**	-.36**	-										
5. Age	-.24*	-.13	-.17	.02	-									
6. Race/Ethnicity	.05	-.09	-.05	-.30**	.06	-								
7. Sex. Orientation	.12	.13	.10	-.18	.02	.14	-							
8. Political Views	-.30**	-.15	-.12	.02	.13	.09	-.23*	-						
9. Received Therapy	.18	.19	.17	-.21*	.22*	-.01	.27**	.01	-					
10. STD History	.18	.10	-.03	.03	.04	.19	.24*	-.17	.00	-				
11. Overall Health	-.22*	-.11	-.43**	.30**	.02	-.03	-.14	-.06	-.08	-.05	-			
12. # Sexual Partners	-.02	.03	-.06	-.06	.15	-.02	.13	-.06	.17	.52**	.10	-		
13. Committed Relationship	-.59**	-.35**	-.29**	.09	.24*	-.13	.04	.21*	.06	-.07	.07	.05	-	
14. Congruency Score	.09	.06	-.04	-.13	-.04	.02	-.02	-.11	.14	.04	.04	.05	-.03	-

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Table 6.

Associated Characteristics Based on Method of Grouping

Congruence by Comparing Sexual Orientation on the Demographic Questionnaire to Thoughts, Feelings and Behaviors from the MSS

Sexual Orientation Response	N Total (97)	N Congruent (DQ and MSS)	N Incongruent (DQ and MSS)
Straight	89	65	24
Gay	5	2	3
Bisexual	2	2	0
Queer	1	1	0

Congruence/consistency of Responses on the MSS alone

Sexual Orientation Response	N Total (97)	N Congruent (MSS only)	N Incongruent (MSS only)
Straight	89	63	26
Gay	5	2	3
Bisexual	2	1	1
Queer	1	0	1

nine thoughts, feelings, and behaviors subscales measured by the MSS. This made for 70 participants in the congruent group, and 27 participants in the incongruent group. A one-way analysis of variance was used to compare the congruent and incongruent groups on levels of attachment anxiety using the MSS and the sexual orientation response. The mean for the congruent group on attachment anxiety was 51.41 (*SD* = 22.40), while the mean for the incongruent group on attachment avoidance was 55.78 (*SD* = 21.22). This difference was not statistically significant, $F = 0.76$, $p > .05$.

Hypothesis 2: Men who report a discrepancy between their identification of sexual orientation and their sexual thoughts, feelings, and/or behaviors will have significantly higher scores on attachment avoidance than will men who do not report a discrepancy.

The second hypothesis was examined in the same manner as the first hypothesis. For the discrepancy score created while comparing responses on the demographic sexual orientation question to responses on the MSS, a one-way analysis of variance was created to compare the two groups on level of avoidant attachment. The mean avoidant attachment score for the congruent group was 49.39 (*SD* = 22.58), while the mean score for the incongruent group was 52.48 (*SD* = 20.47). This difference was not found to be statistically significant, $F = 0.39$, $p > .05$.

Hypothesis 3: Men who report a discrepancy between their identification of sexual orientation and their sexual thoughts, feelings, and/or behaviors will report higher levels of depression than will men who do not report a discrepancy.

Discrepant and non-discrepant men who were coded using the MSS and the sexual orientation question were compared on levels of depression. The mean

depression score for the congruent group was 8.44 (*SD* = 6.13), while the mean depression score for the incongruent group was 7.89 (*SD* = 5.26). This difference was in the opposite direction of the proposed hypothesis, and was not statistically significant, $F = 0.17$, $p > .05$.

Hypothesis 4: Men who report a discrepancy between their identification of sexual orientation and their sexual thoughts, feelings, and/or behaviors will report higher numbers of different sexual partners in the past 12 months than men who do not report a discrepancy.

Discrepant and non-discrepant men who were coded using the MSS and the sexual orientation question were compared on number of sexual partners in the past 12 months. Mean number of sexual partners for the congruent group was 1.30 (*SD* = 1.13), while mean number of sexual partners for the incongruent group was 1.44 (*SD* = 1.58). This difference was not statistically significant, $F = 0.25$, $p > .05$.

<u>*Additional Analyses*</u>

Question 1: Will looking at participant responses on the Multidimensional Scale of Sexuality (Berkey, Perelman-Hall, & Kurdek, 1990) alone, and grouping participants by consistency in their responses across dimensions of sexual thoughts, feelings, and behaviors, result in significant differences between congruent and incongruent men for the four study hypotheses? This question examined the above four hypotheses utilizing a different approach for grouping participants in terms of congruence among sexual experiences.

Responses on the MSS were examined alone, as the scale allows for this. This way of grouping participants was more strict, since there was no self-defined label to

which participants' responses could be compared; the scale itself served as the grouping mechanism. This enabled researchers to have access to a slightly larger sample of men who reported discrepancy; it made for 66 people in the congruent group and 31 people in the incongruent group. The nine subscales were compared for each participant. If participants reported a mix of thoughts feelings, and behaviors in one range (e.g., bisexual) but did not endorse having thoughts, feelings, or behaviors in other categories (e.g., exclusively gay or exclusively straight), they were *not* coded as discrepant, because their demonstration of thoughts, feelings, and behaviors was consistent based on their responses about their experiences.

A one-way analysis of variance was conducted using the MSS alone, to compare discrepant (M = 56.19; SD = 22.10) and non-discrepant (M = 50.95; SD = 22.00) men on attachment anxiety. The difference between these two groups was not found to be statistically significant (F= 1.19; $p > .05$).

Next, a one-way analysis of variance was conducted to compare the groups that were created using the MSS alone on attachment avoidance. The difference between discrepant (M = 55.58; SD = 23.84) and non-discrepant (M = 47.74; SD = 20.73) men was not statistically significant (F = 2.74; $p > .05$).

Discrepant and non-discrepant men who were coded using the MSS alone were also compared on levels of depression. Means for the discrepant group (M = 8.42; SD = 5.83) and the non-discrepant group (M = 8.23; SD = 5.95) were not distinct enough to be statistically different from one another (F = 0.02; $p > .05$).

Finally, discrepant and non-discrepant men who were coded using the MSS alone were compared on number of sexual partners in the past 12 months. Discrepant

(M = 1.42; SD = 1.52) and non-discrepant (M = 1.30; SD = 1.14) men did not differ significantly in number of sexual partners (F = 0.18; p > .05).

Question 2: Does attachment anxiety, attachment avoidance and being in a committed relationship each predict unique variance for depression?

Pearson bivariate correlations suggested strong correlations between attachment anxiety and depression ($r = 0.53$; $p < .01$), attachment avoidance and depression ($r = 0.37$; $p < .01$), committed relationship and attachment anxiety ($r = -0.59$; $p < .01$), committed relationship and attachment avoidance ($r = -0.35$; $p < .01$), and committed relationship and depression ($r = -0.29$; $p < .01$). A simultaneous regression was run to test whether attachment anxiety, attachment avoidance and being in a committed relationship each predicted unique variance for depression. The overall model for regressing attachment anxiety, attachment avoidance, and committed relationship on depression was significant ($F = 12.00$; $p = .00$). An examination of the standardized beta coefficients showed that the only variable that added unique variance was committed relationship ($\beta = .02$). This finding allowed for the consideration regarding whether being in a committed relationship might moderate the relationship between anxious and/or avoidant attachment and depression.

Question 3a: Is the relationship between attachment anxiety and depression moderated by being in a committed relationship?

Question 3b: Is the relationship between attachment avoidance and depression moderated by being in a committed relationship?

Separate regressions were run to test the influence for committed relationship as a moderator in the relationship between attachment anxiety and depression, and attachment avoidance and depression. An interaction term was made by multiplying attachment anxiety and committed relationship, and was entered into the model along with the two variables alone. The overall model for regressing attachment anxiety, committed relationship, and the interaction term was significant ($F = 4.68$; $p < .01$), but none of the variables accounted for unique variance, so committed relationship was not found to serve as a moderator.

Next, a regression testing committed relationship as a moderator between attachment avoidance and depression was run. An interaction term was made by multiplying attachment avoidance and committed relationship and entering this term into SPSS along with attachment avoidance and committed relationship alone. The regression analysis was not significant ($F = 0.780$; $p > .05$), so it was concluded that committed relationship also did not moderate the relationship between attachment avoidance and depression.

Question 4: Will a five cluster analyses bear any light on the groups of men in the current study? Since the key variable of congruence was not significant in any of the study's analyses, but the attachment variables did have relationships with the outcome variable of depression, it was decided to further explore the clusters of men for whom these variables differed.

The Ward method was used to specify five clusters of men based on the following variables: attachment anxiety, attachment avoidance, being in a committed relationship, congruence and depression. Results showed that a five cluster solution

fit the data well, although means between groups on the congruence variable did not differ. This provided further evidence that congruence did not work to distinguish between sample participants. Clusters were made up of 14, 20, 19, 24, and 19 men respectively. Cluster three was the healthiest cluster, in that it had the lowest depression score (M = 5.63), and also the lowest score on attachment anxiety (M = 27.53) and attachment avoidance (M = 21.84). All of the men in cluster three were also in a committed relationship (M = 1.0). Please see Table 7 for mean scores on the variables of interest for all five clusters of men.

Table 7.

Clusters and Mean Scores for ComRelation, Congruency, CESD-10, ECR Anxiety, and ECR Avoidance

Clusters	1	2	3	4	5
N	14	20	19	24	19
M					
ComRelation (0 =n; 1=y)	.93	.33	1.0	.58	.68
Congruency (1=y; 2=n)	1.14	1.40	1.21	1.33	1.28
CESD-10	4.64	13.62	5.63	9.11	8.41
ECR-R Anxiety	34.07	80.67	27.53	50.21	53.16
ECR-R Avoidance	40.07	68.71	21.84	43.58	76.32

Chapter 6: Discussion

This section discusses findings from the study, relates results back to the relevant literature on adult men, discusses limitations and potential reasons for difficulties encountered in the study, and discusses implications and suggestions regarding future applications of this research.

Results from this study suggest that congruence between sexual orientation and sexual experiences, as defined and measured by the current study, does not relate to attachment anxiety, attachment avoidance, depression, or increased number of sexual partners. This was the central variable of interest in the present study. However, there were some interesting findings based on the correlation matrix of the main variables of interest. These relationships informed the additional regression analyses that were conducted, and the examination of being in a committed relationship as a moderator variable between attachment anxiety and depression, and between attachment avoidance and depression.

Primary Analyses

Hypotheses 1-4 all made predictions about health and psychological outcomes as a result of the level of congruence between self-defined sexual identity and reported experience of sexual thoughts, feelings, and/or behaviors toward others. Specifically, it was predicted that incongruence would be associated with having higher levels of attachment anxiety, attachment avoidance, depression, and number of sexual partners but none of these analyses found significant effects. Although research could not be found that directly examined these same variables, the hypotheses on attachment anxiety and attachment avoidance were based on related

findings (e.g., Mohr & Fassinger, 2003) that anxiety and avoidance predicted lower levels of disclosure to family and friends among sexual minorities. Because studies such as Mohr and Fassinger (2003) examined samples of men who self-defined as gay or bisexual, the present study attempted to locate a subsample of men who had sex with men or sexual fantasies about men but who identified as heterosexual. It appears that this group of men is difficult to reach because they do not respond to research requests for participation from gay or bisexual men; consequently, the present study examined male graduate students "in general" hoping that this broad approach would identify a subset of the men who were of central interest to this research. Therefore, a secondary focus of this study was to survey young adult men who present a range of sexual thoughts, feelings and behaviors and self-defined sexual orientations. The hypothesis on the relationship of congruence to depression was also based on studies that utilized already-identified sexual minority samples, which suggested that difficulties being honest and open about one's sexuality were associated with distress and depression (Herek & Glunt, 1995; Herek et al., 1997; Mills et al., 2004; Rosario et al., 2001). Finally, the hypothesis on number of sexual partners was based on research suggesting that maintaining a straight identity and having same-sex sexual behaviors with other men was a risk factor for unprotected sexual intercourse and for STDs (Herek & Glunt, 1995; Goldbaum et al., 1998; Pathela et al., 2006; Rosario et al., 2001; Seibt et al., 1993).

There are a number of reasons that could explain why the primary analyses were not supported. First of all, the current study attempted to combine the existing literature on MSM and health behaviors with the literature on identity and outcomes

in sexual minorities. However, these literatures are separate, don't use the same way of operationalizing sexuality and health, and don't reach the same conclusions. For example, the MSM literature doesn't usually define the sampled men in terms of where they stand in the process of coming out, just as the identity literature doesn't usually assess same-sex thoughts, feelings, and/or behaviors of straight-identified men. In combining these two ideas, the concept of congruence may have been lost. Conclusions that may have been drawn about how to group the men based on results from these different literatures may have been biased and may have inaccurately measured the way that identity and outcomes actually operate in men.Existing literature is not clear about how or whether to group participants based on risk to self or others, or level of identity or outness. Perhaps there is no accurate way of measuring this.

Secondly, it is possible that level of congruence between sexual orientation and sexual experiences is related to some important constructs that affect psychological and physical health but not to the variables that were investigated in the present study. For example, congruence may not be related to health outcomes such as depression and decisions regarding how many people with whom to have sexual relationships. While other studies have examined level of outness or being closeted with outcomes such as depression, the present study was the only one that could be found that operationalized the construct of congruence in this manner and made predictions about outcomes. Categorizing complex human behaviors, thoughts, and fantasies by using a demographic question and a single self-report measure is complicated. It may not be the best way to make groups and capture what congruence

between identification of sexual orientation and sexual thoughts, feelings, and/or behaviors looks like. If there is a mismatch, it is not necessarily clear what this means or whether it can be concluded that someone is maintaining an incongruent sense of self. The way that congruence was operationalized could have failed to capture the way this experience actually operates for men, or the construct could have been valid, but the manner in which it was measured might have affected finding differences between the groups. Also, with a larger sample size and a higher number of MSM-S in the sample, power would have increased and it is possible that differences between the two groups of men may have been found.

The nonsignificant results also could be due in part to measurement error. Some of the other studies that found outcomes such as increased depression and sexual risk-taking for men who have sex with men who identify as straight (MSM-S) looked only at respondents' sexual behavior with men. The current study aggregated sexual behavior with thoughts and feelings, which made for a sizeable group of men who were "incongruent" as defined by the current study. However, there could be important differences between self-defined straight men who report having some type of sexual thoughts about men (in past or present) and those who have actually carried out a sexual behavior with another man (in past or present). Indeed, some of the questions from the MSS are rather vague, and one question in particular about having a dream or fantasy containing another man could be interpreted or answered in the affirmative for a reason other than that the person has a conscious, known attraction toward someone else. Based on the method used in the current study, straight-identified men who answered "yes" to the question on the MSS about having had a

sexual fantasy or dream containing a member of the same sex were labeled as incongruent. However, the fact that the men had these fantasies or dreams may have had nothing to do with attraction towards or interest in the same sex Furthermore, men that did answer the survey in this way, and who had no other same sex thoughts, feelings, or behaviors, were coded as incongruent. These are all reasons why use of this measure may have been problematic and may have interfered with the precise measurement of our constructs of interest.

While the MSS defines the construct of sexual attraction more broadly than most measures, it could be that this instrument did not group participants as well as some other approach might have done. Indeed, as Leigh et al. (1993) point out, there are many difficulties in doing research on sexuality due to the fact that it is such a complex construct. Particularly, in regard to sexual risk, there are many different dimensions that a researcher has to know in order to make an informed prediction: the number of sexual partners, the number of sexual partners those partners had, exactly what the person did with each partner, whether protection was used, etc. Add to that the possibility that some participants may be reluctant to reveal parts of themselves on surveys that they consider to relate to highly personal or more stigmatizing information, and one can see that the nature of some of the questions asked in this study could have made some participants reluctant to divulge such information. There is a strong possibility that participant attitudes toward the subject matter had an influence on their completion of the survey in the current study. An examination of the dropout rate showed that 25 participants who had completed the first measure (ECR-R) dropped out without completing the second measure, which was the MSS.

This is the measure that had the most specific questions about sexual behaviors, thoughts, and fantasies. It is possible that participants stopped at this point because they did not want to take the time to complete the survey, but it is likely that many stopped because of the nature of the questions asked.

Additional Analyses

Subsequent analyses were carried out in addition to the general hypotheses. The first additional question considered an alternative way of grouping participants, based on congruence using the MSS alone. It was thought that consistency of experiences in the same general category (e.g., gay with some heterosexuality, concurrent bisexual) might make more intuitive sense than grouping participants based on a match between self-reported sexual orientation and sexual attraction experiences. When groupings were done this way, the rule for variability or incongruence was more strict, and a demographic label such as queer, gay or bisexual was not available against which to judge "fit" of participants' thoughts, feelings, and behavior; it was not possible to interpret based on the shared meaning of that label. This approach for determining congruence led to more participants being placed in the incongruent group. Next, each of the four hypotheses was examined using this method of grouping participants on congruence. Again, no significant effects were found for any of the hypotheses.

A second additional analysis was performed after examining correlations among the main study variables. Pearson bivariate correlations showed significant relationships between attachment anxiety and depression ($r = 0.53$; $p < .01$), attachment avoidance and depression ($r = 0.37$; $p < .01$), committed relationship and

attachment anxiety (r = -0.59; p < .01), committed relationship and attachment avoidance (r = -0.35; p < .01), and committed relationship and depression (r = -0.29; p < .01). In addition to examining whether key variables (attachment anxiety, attachment avoidance, and being in a committed relationship) predicted unique variance for depression, the possible moderating role of being in a committed relationship also was examined. The regression of attachment anxiety and attachment avoidance on depression, testing committed relationship as a moderator, did not show that being in a committed relationship moderated the relationship of attachment anxiety or attachment avoidance on depression. While the regression examining attachment anxiety, committed relationship, and their interaction on depression was significant (F = 4.68; p < .01), the regression examining attachment avoidance, committed relationship, and their interaction on depression was not (F = 0.780; p > .05). However, an examination of standardized beta coefficients showed that none of the variables added unique variance to either of the overall regressions using anxiety or avoidance to predict depression.

While the regression showing that relationship status and attachment anxiety together bear some significant relationship with depression, no directional relationships can be assumed. Since no interaction was found, no conclusions can be drawn about the manner in which these two variables might together affect ratings of depression. The Pearson correlations do not allow conclusions to be drawn about whether being in a committed relationship leads to reports of lower levels of depression, or whether reporting lower levels of depression make one more attractive to others potential partners and makes it more likely that one is in a committed

relationship. What can be concluded is that being in a committed relationship is related to lower levels of attachment anxiety and lower ratings of depression for the men who were studied. Although the focus of this study was on the role of congruence in predicting psychological and health variables, the correlational findings suggest possible connections between attachment anxiety in relationships, attachment avoidance in relationships, depression and relationship status in young men that might be studied in future research.

Limitations for the Current Study

There are a number of limitations for the current study which could have interfered with methodology and results. The greatest limitations were the sample size and response rate. While 99 men is usually an adequate number for exploring correlations and ANOVAs in a quantitative study, it was not enough to ensure adequate power in a regression analysis where respondents were grouped (in this case, based on congruence). However, two factors were considered in stopping data collection after one follow-up attempt. The first consideration was the drop in the number of responses to the second email which suggested that a third email would likely yield relatively few additional respondents. The second consideration, and the one that was most important, was that a review of the respondents to date showed that very few men in the primary target group (men who self-identified as heterosexual but who had sex with men) or men who could be clearly grouped as being incongruent were responding to the survey. The analyses examining congruence not only were non-significant, but they didn't even suggest trends. Doubling the sample size with similar men would have not likely led to any meaningful findings regarding

congruence. What is unknown are the characteristics of the large percentage of men who did not participate. Our sample was for the most part representative in terms of age, degree being sought, and racial/ethnic background of the male graduate student population at the University of Maryland. However, incongruent men from this population that were surveyed may have been less likely to participate given the expectation that they divulge information that they might deem sensitive or want to protect others from knowing. Moreover, the Institutional Review Board (IRB) at the University required that the researcher fully reveal the nature of the questions, including questions about sexual orientation and sexual behaviors and fantasies. This may help explain the unusually large percentage of men who declined to participate, as men who are more uncomfortable or anxious about these variables may have been less likely to participate in such research.

Furthermore, it could be that incongruent men were unlikely to represent a large enough segment in the population of graduate students. The current study was looking for a very small segment in the population in general and male graduate students may not have been the best population for finding the phenomenon. For example, male graduate students are likely to have had better sexual education, spend the majority of their time in a more liberal environment, and may have more liberal attitudes about sexuality and be more likely to have integrated a sexual minority status than the general population.

Another limitation for the current study was the method that was used for grouping participants. While an established measure for grouping participants into sexual categories was used, the measure was long and asked many similar types of

questions with just small variations in wording or pronouns. It is likely that some participants could have accidentally answered a question in a way they did not intend, which would have influenced the congruency score they were given by the researchers. Even though a standardized procedure for making groups was established and was adhered to, there is no evidence that this procedure made accurate distinctions between the men. There is no evidence that their congruence status resonated with their inner experience of negotiating a sexual identity that is personally held but culturally socialized, in tandem with the actual thoughts, feelings and behaviors that are sexually experienced.

Implications and Suggestions for Future Research

The current study did not find relationships between levels of congruence as defined, and psychological and health outcomes. The idea of congruence in this study defined the self-reported sexual experiences of the men to broadly include thoughts, feelings, and behaviors. Perhaps given the complex nature of sexual variables, future research might limit the sexual experience variable to something that is more observable, such as just sexual behavior (e.g., physical contact, anal intercourse). Indeed, past studies that have examined congruence between sexual identity and sexual behavior alone have found relationships of congruence between experience and identity with outcomes similar to many of the hypotheses that were proposed by the current study (Goldbaum et al., 1998; Herek & Glunt, 1995; Herek et al., 1997; Mills et al., 2004; Pathela et al., 2006; Rosario et al., 2001; Seibt et al., 1993). Because these previous studies examined men who were closeted or who identified as straight, it is possible that with a bigger sample results from the current study may

have produced similar findings. However, it is possible that the sample for the current study could have been different from other community samples that were used for previous studies. The current study did not even show a trend towards congruence relating to other variables, so there is only so much that a larger sample size could have done for making more distinctions between the congruent and incongruent group.

It is suggested that future research in this area make attempts towards strategic planning to recruit participants from the relatively small percentages of MSM-S found in the population. An attempt should be made to consider populations where MSM-S are more likely to be found; the graduate student population is not representative of the overall population, and may arguably have lower levels of MSM-S and lower levels of men who behave in risky sexual behavior. This study may be more successful at a community health agency, which sees more variability in clinical populations.

In regards to findings from the current study regarding likelihood to experience anxiety and avoidance in close relationships with others, the cluster analysis was able to make distinctions between the groups of men and show that there was variability in the sample. Five clusters of men emerged with varying levels of attachment anxiety, attachment avoidance, depression, and being in a committed relationship; congruence as a variable was not helpful in distinguishing any of the clusters. While the current study does not have a comparison base for which to compare ratings of attachment insecurity, future research on the male graduate student population could examine the role that attachment style plays in the quality of

their relationships and their satisfaction with what they have accomplished in terms of the developmental stage of life in which they are situated.

Another implication for the current study is to consider explanations for the ratings of depression found in the current sample. As a whole, the sample scored in the low range for depression (M = 8.40). However, 37% of the sample had a score above 10.00, described by Andreson et al. (2004) to be a general cutoff score to be considered clinically depressed when compared to a community sample. The CESD-10 was used in a study by Pesonen et al. (2004) to assess depression rates in adult fathers of about the same age range as the current sample. Unfortunately researchers did not use the established 4-point scale for the CESD-10, but established a 5-point scale instead. Regardless, the mean for depression in their sample was 18.82 (SD = 6.90), which is also in the low range, although perhaps slightly higher because their scale starts at 10 and contains five points instead of four. As a whole, perhaps our sample was not very different on depression ratings than the adult fathers that were described in the Pesonen et al. (2004) study.

It could be that for the men who scored higher on the depression scale, and potentially on other scales that measured distress variables such as attachment anxiety and avoidance, there were some additional stressors placed on them much like the demands placed on the fathers in the Pesonen et al. (2004) study. Balancing work, graduate school, and family could be typical roles for many of the men surveyed in our sample, but it does seem based on the correlations given above that family or being in a committed relationship might also serve some buffering role between daily demands and rate of depression. Future research on the adult male graduate student

population should explore with more depth the contextual barriers to high functioning, in addition to potential buffers and strengths that this population has in improving relationships and health outcomes.

Implications and Suggestions for Clinical Practice

Results from the current study suggest that there may have been problems in conceptualizing the match between self-identification of sexual orientation and experience of sexual thoughts, feelings, and behaviors. Clinicians who are working with men should be careful not to assign clients to categories based on how their sexuality seems to operate for them, and to try to prevent their own opinions of how identity processes work to influence the judgments they make and what they come to expect from clients. Clinicians should be aware that it is normative for sexuality to be complex and varied, and that it is different for each individual. They should be prepared to handle their client's expression of sexuality, and to control their own biases and reactions to it. As is expected, this should have no bearing on the quality of care that clients receive.

As mentioned, it is also possible that congruence of self-identification of sexual orientation and experience of sexuality has no bearing on outcomes such as attachment anxiety, attachment avoidance, depression, and sexual risk-taking. Clinicians should be prudent in making diagnoses based on congruence of sexual identity with outcomes, and they should be cautious when adhering to a developmental framework or model. Such models are biased and difficult to test empirically. Furthermore, as the current study has shown, there is variability in trends surrounding sexuality. However accurate a model may seem, it can never fully

describe an individual and there is no certain way for testing whether it captures an individual's actual experience of sexuality.

In summary, the current study made predictions about level of congruence or match between self-defined sexual orientation and self-reported sexual thoughts, feelings, and/or behaviors, in a population of men who were recruited from the graduate student population at a large university. It was predicted that level of congruence (i.e., congruent or incongruent) would predict attachment anxiety, attachment avoidance, depression, and number of sexual partners, because the experience of maintaining an aspect of oneself that is out of touch with one's actual experience is distressing. Hypotheses were not supported in the current study, which has called for reevaluation of the concept of congruence, and raised important questions for sexuality researchers and clinicians to consider in terms of how best to measure the sexual attractions and behaviors of men, and what weight to hold to the various aspects of an individual's sexuality. This study also raises the importance of finding ways to identify and learn more about populations that contain higher numbers of straight-identified men who have sex with other men other than graduate student populations in a university setting.

Appendix A

Experiences in Close Relationships Scale—Revised

The statements below concern how you feel in emotionally intimate relationships. We are interested in how you *generally* experience relationships, not just in what is happening in a current relationship. Respond to each statement by clicking a circle to indicate how much you agree or disagree with the statement. Each item is rated on a 7-point scale where 1 = strongly disagree and 7 = strongly agree.

Strongly Disagree — Neither Agree Nor Disagree — Strongly Agree

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

1. I'm afraid that I will lose my partner's love.
2. I often worry that my partner will not want to stay with me.
3. I often worry that my partner doesn't really love me.
4. I worry that romantic partners won't care about me as much as I care about them.
5. I often wish that my partner's feelings for me were as strong as my feelings for him or her.
6. I worry a lot about my relationships.
7. When my partner is out of sight, I worry that he or she might become interested in someone else.
8. When I show my feelings for romantic partners, I'm afraid they will not feel the same about me.
*9. I rarely worry about my partner leaving me.
10. My romantic partner makes me doubt myself.
*11. I do not often worry about being abandoned.
12. I find that my partner(s) don't want to get as close as I would like.
13. Sometimes romantic partners change their feelings about me for no apparent reason.
14. My desire to be very close sometimes scares people away.
15. I'm afraid that once a romantic partner gets to know me, he or she won't like who I really am.
16. It makes me mad that I don't get the affection and support I need from my partner.
17. I worry that I won't measure up to other people.
18. My partner only seems to notice me when I'm angry.
19. I prefer not to show a partner how I feel deep down.
*20. I feel comfortable sharing my private thoughts and feelings with my partner.
21. I find it difficult to allow myself to depend on romantic partners.
*22. I am very comfortable being close to romantic partners.
23. I don't feel comfortable opening up to romantic partners.
24. I prefer not to be too close to romantic partners.
25. I get uncomfortable when a romantic partner wants to be very close.
*26. I find it relatively easy to get close to my partner.
*27. Its not difficult for me to get close to my partner.
*28. I usually discuss my problems and concerns with my partner.
*29. It helps to turn to my romantic partner in times of need.
*30. I tell my partner just about everything.
*31. I talk things over with my partner.
32. I am nervous when partners get too close to me.
*33. I feel comfortable depending on romantic partners.
*34. I find it easy to depend on romantic partners.
*35. Its easy for me to be affectionate with my partner.
*36. My partner really understands me and my needs.

Anxiety: Items 1-18
Avoidance: Items 19-36

*Reverse-keyed

Appendix B

The Multidimensional Scale of Sexuality

The following questionnaire refers to thoughts, feelings, and behaviors which have occurred to you during your adult life. Any thoughts, feelings, or behaviors which occurred previous to age 18 should not be considered when answering these questions. Additionally, the following questions refer to situations in which both partners willingly participated.

Please read all of the questions carefully and answer them by checking either TRUE (1) or FALSE (2). If you feel that your answer falls somewhere between True and False, choose the answer which most closely fits your current thoughts, feelings, and behaviors. In regard to questions which refer to your current partner(s), if you are not currently in a relationship, please answer these questions based on your preferred choice of partner(s).

	True	False
	1	2

1. For the most part, I am sexually attracted to members of my same sex, and to a lesser degree I am sexually attracted to members of the opposite sex. 1 2

2. In the past, I have felt in love with members of the opposite sex, but currently I only feel in love with members of my same sex. 1 2

3. I have always been sexually active only with members of my same sex. 1 2

4. I have never been aroused by erotic material which features members of either my same or opposite sex. 1 2

5. I usually have sexual fantasies or dreams about members of the opposite sex, but occasionally I have sexual fantasies or dreams about members of the same sex. 1 2

6. I have always been attracted only to members of the opposite sex. 1 2

7. In general, I feel in love with members of my same sex, but occasionally I feel in love with members of the opposite sex. 1 2

8. In the past, I have engaged in sexual activity with members of the opposite sex, but currently I engage in sexual activity with members of my same sex. 1 2

9. There are periods of time when I find erotic material which features members of my same sex more arousing, while at other periods of time I find erotic material which features members of the opposite sex more arousing. 1 2

10. I have always sexually fantasized or dreamed only about members of my same sex. 1 2

11. There are periods of time when I feel more sexually attracted to members of my same sex, while at other periods of time I feel more sexually attracted to members of the opposite sex. 1 2

12. There are periods of time when I feel more in love with members of my same sex, while at other periods of time I feel more in love with members of the opposite sex. 1 2

13. I have always been sexually active only with members of the opposite sex.
1 2

14. In the past, I was aroused by erotic material which featured members of the opposite sex, but currently I am aroused only by erotic material which features members of my same sex.
1 2

15. I have always sexually fantasized or dreamed only about members of the opposite sex. 1 2

16. In the past, I was sexually attracted to members of my same sex, but currently I have an interest only in opposite sex partners. 1 2

17. I currently feel equally in love with members of both sexes. 1 2

18. Most of my current sexual activity involves members of the opposite sex, but occasionally I am sexually active with members of my same sex. 1 2

19. I am generally aroused by erotic material which features members of the opposite sex, and to a lesser degree I am aroused by erotic material which features members of my same sex. 1 2

20. There are periods of time when I sexually fantasize or dream mainly about members of my same sex, while at other periods of time I sexually fantasize or dream mainly about members of the opposite sex. 1 2

21. For the most part, I am attracted to members of the opposite sex, and to a lesser degree, I am sexually attracted to members of my same sex. 1 2

22. I have never felt in love with members of either my same or opposite sex. 1 2

23. In the past, I have engaged in sexual activity with members of my same sex, but currently I engage in sexual activity only with opposite sex partners. 1 2

24. I have always been aroused only by erotic material which features members of the opposite sex. 1 2

25. I have never sexually fantasized or dreamed about members of either my same or opposite sex. 1 2

26. I have always been attracted only to members of my same sex. 1 2

27. In the past, I have felt in love with members of my same sex, but currently I only feel in love with members of the opposite sex. 1 2

28. I engage in sexual activity with members of one sex for a period of months or years, followed by sexual activity with members of the other sex for the next few months or years.
1 2

29. I am generally aroused by erotic material which features members of my same sex, and to a lesser degree, I am aroused by erotic material which features members of the opposite sex. 1 2

30. In the past, I had sexual fantasies or dreams about members of my same sex, but currently I have fantasies or dreams only about members of the opposite sex. 1 2

31. I am not sexually attracted to members of either my same or opposite sex. 1 2

32. I have always felt in love with members of my same sex only. 1 2

33. I engage in sexual activity with members of both sexes equally frequently, on a fairly regular basis. 1 2

34. In the past, I was aroused by erotic material which featured members of my same sex, but currently I am aroused only by erotic material which features members of the opposite sex. 1 2

35. I currently have about equal numbers of sexual fantasies or dreams about members of my same and opposite sex. 1 2

36. In the past, I was sexually attracted to members of the opposite sex, but currently I have an interest only in same sex partners. 1 2

37. In general, I feel in love with members of the opposite sex, but occasionally I feel in love with members of my same sex. 1 2

38. I have never engaged in sexual activity with members of my same or opposite sex. 1 2

39. I am currently equally aroused by erotic material which features members of my same sex, as well as erotic material which features members of the opposite sex. 1 2

40. In the past, I had sexual fantasies or dreams about members of the opposite sex, but currently I have fantasies or or dreams about members of the same sex. 1 2

41. I currently feel equally sexually attracted to members of both sexes. 1 2

42. I have always felt in love with members of the opposite sex only. 1 2

43. Most of my current sexual activity involves members of my same sex, but occasionally I am sexually active with members of the opposite sex. 1 2

44. I have always been aroused only by erotic material which features members of my same sex. 1 2

45. I usually have sexual fantasies or dreams about members of the same sex, but occasionally I have sexual fantasies or dreams about members of the opposite sex. 1 2

Heterosexual: Items 6, 13, 15, 24, 42
Heterosexual with some gay: Items 5, 18, 19, 21, 37
Concurrent bisexual: Items 17, 33, 35, 39, 41
Sequential bisexual: Items 9, 11, 12, 20, 28
Gay with some heterosexuality: Items 1, 7, 29, 43, 45
Past heterosexual, currently gay: Items 2, 8, 14, 36, 40,
Gay: 3, 10, 26, 32, 44
Past gay, currently heterosexual: 16, 23, 27, 30, 34
Asexual: 4, 22, 25, 31, 38

Appendix C

Center for Epidemiologic Studies Depression Scale – Short Form

Below is a list of some of the ways you may have felt or behaved. Please indicate how often you have felt this way during the past week by checking the appropriate box for each question.

1. I was bothered by things that don't usually bother me
   - o Rarely or none of the time (less than 1 day)
   - o Some or little of the time (1-2 days)
   - o Occasionally or a moderate amount of the time (3-4 days)
   - o All of the time (5-7 days)

2. I had trouble keeping my mind on what I was doing
   - o Rarely or none of the time (less than 1 day)
   - o Some or little of the time (1-2 days)
   - o Occasionally or a moderate amount of the time (3-4 days)
   - o All of the time (5-7 days)

3. I felt depressed
   - o Rarely or none of the time (less than 1 day)
   - o Some or little of the time (1-2 days)
   - o Occasionally or a moderate amount of the time (3-4 days)
   - o All of the time (5-7 days)

4. I felt that everything I did was an effort
   - o Rarely or none of the time (less than 1 day)
   - o Some or little of the time (1-2 days)
   - o Occasionally or a moderate amount of the time (3-4 days)
   - o All of the time (5-7 days)

*5. I felt hopeful about the future
   - o Rarely or none of the time (less than 1 day)
   - o Some or little of the time (1-2 days)
   - o Occasionally or a moderate amount of the time (3-4 days)
   - o All of the time (5-7 days)

6. I felt fearful
   - o Rarely or none of the time (less than 1 day)
   - o Some or little of the time (1-2 days)
   - o Occasionally or a moderate amount of the time (3-4 days)
   - o All of the time (5-7 days)

7. My sleep was restless
   - o Rarely or none of the time (less than 1 day)

- Some or little of the time (1-2 days)
- Occasionally or a moderate amount of the time (3-4 days)
- All of the time (5-7 days)

*8. I was happy
- Rarely or none of the time (less than 1 day)
- Some or little of the time (1-2 days)
- Occasionally or a moderate amount of the time (3-4 days)
- All of the time (5-7 days)

9. I felt lonely
- Rarely or none of the time (less than 1 day)
- Some or little of the time (1-2 days)
- Occasionally or a moderate amount of the time (3-4 days)
- All of the time (5-7 days)

10. I could not “get going”
- Rarely or none of the time (less than 1 day)
- Some or little of the time (1-2 days)
- Occasionally or a moderate amount of the time (3-4 days)
- All of the time (5-7 days)

*Reverse-keyed

Appendix D

Sexual Risk and Behavior Questions

1. Have you ever had sexual intercourse (vaginal or anal)?
    - Yes
    - No
2. Have you had sexual intercourse in the past 12 months?
    - Yes
    - No
3. How many different sexual partners have you had in the past 12 months? ____
4. How often have you had intercourse in the past months with a primary partner (a person to whom you are married, or someone to whom you feel committed above anyone else)?
    - Not at all
    - Less than once a month
    - About once a month
    - Two or three times a month
    - Once or twice a week
    - Every day or nearly every day
    - N/A (I have never had a primary partner)
5. How often have you used condoms during intercourse with your current or most recent primary partner?
    - Not at all
    - Less than once a month
    - About once a month
    - Two or three times a month
    - Once or twice a week
    - Every day or nearly every day
    - N/A (I have never had a primary partner)
6. How often have you had intercourse in the past 12 months with any nonprimary partners (anyone other than primary partners, including casual acquaintances, new partners, one-night stands, and sex for pay)?
    - Not at all
    - Less than once a month
    - About once a month
    - Two or three times a month
    - Once or twice a week
    - Every day or nearly every day
    - N/A (I have never had a nonprimary partner)
7. How often have you used condoms during intercourse with your current or most recent nonprimary partner(s)?
    - Not at all
    - Less than once a month
    - About once a month
    - Two or three times a month
    - Once or twice a week
    - Every day or nearly every day
    - N/A (I have never had a nonprimary partner)

Appendix E

Marlowe Crowne Social Desirability Scale – Form C

Listed below are statements concerning personal attitudes and traits. Please read each item and decide whether the statement is *true* or *false* as it pertains to you personally.

Please respond to the following items as being either True (T) or False (F).

*1. It is sometimes hard for me to go on with my work if I am not encouraged. T F

*2. I sometimes feel resentful when I don't get my way. T F

*3. On a few occasions, I have given up doing something because I thought too little of my ability. T F

*4. There have been times when I felt like rebelling against people in authority even though I new they were right. T F

5. No matter who I'm talking to, I'm always a good listener. T F

*6. There have been occasions when I took advantage of someone. T F

7. I'm always willing to admit it when I make a mistake. T F

*8. I sometimes try to get even rather than forgive and forget. T F

9. I am always courteous, even to people who are disagreeable. T F

10. I have never been irked when people expressed ideas very different from my own. T F

*11. There have been times when I was quite jealous of the good fortune of others. T F

*12. I am sometimes irritated by people who ask favors of me. T F

13. I have never deliberately said something that hurt someone's feelings. T F

*Reverse-keyed

Appendix F

Demographic Questionnaire

1) Gender _____

2) Age ___

3) Race/ethnicity (check all that apply):
- ___ Black/African American
- ___ Hispanic/Latino(a)
- ___ Asian/Pacific Islander
- ___ Middle Eastern/Arab
- ___ European/Caucasian
- ___ Biracial/Multiracial
- ___ Native American/Native Alaskan
- ___Other

4) Sexual Orientation:
- ___ Straight/heterosexual
- ___ Gay/homosexual
- ___ Bisexual
- ___ Queer
- ___ Other

5) Religious affiliation: _____

6) Current relationship status:
- ___ Single, not dating at the moment
- ___ Dating, but not in a relationship
- ___ Married / partnered
- ___ In a relationship
- ___ Engaged
- ___ In an open relationship
- ___ Other

7) Political views:
- ___ Very Liberal
- ___ Liberal
- ___ Moderate
- ___ Conservative
- ___ Very Conservative
- ___ Other

8) Highest degree held: _____

9) Degree you are seeking (e.g., Master's degree): _____

10) Have you ever received therapy or counseling?

___ Yes
___ No

11) Have you ever had a sexually transmitted disease?

___ Yes
___ No

12) How would you describe your overall health?

___ Excellent
___ Good
___ Above Average
___ Average
___ Below Average
___ Poor
___ Very Poor

13) Please describe any other things you would like us to know about your attitudes or experiences in close relationships, aspects of well-being, and/or aspects of sexuality:

_____
_____
_____
_____
_____

Appendix G

Initial e-mail solicitation

Dear Fellow Graduate Student,

I am asking you to contribute to knowledge about men's experiences, relationships, and health by participating in my doctoral research project. My study explores various aspects of the male experience and how men view themselves in relationships. Your participation will contribute to knowledge about adult men. As part of this survey, you will be asked to complete several short questionnaires and a demographic form. Perceptions of men are rarely examined so your participation has the potential to add much to our understanding of how men cope personally and relationally in their daily lives. Please consider contributing! The materials should take no more than about 20 minutes to complete, and can be accessed by going to this website:

<web address>

You won't be required to leave ANY identifying information, but at the end of the survey you will be given the choice to leave your email address for a chance to compete for one of two gift certificates that will be randomly chosen. The survey program used ensures that your email address is stored separately from your responses, and coding is done in such a way that identifying you would be virtually impossible.

If you have any questions, please feel free to contact Kevin McGann at kjmcgann@umd.edu or Mary Ann Hoffman, Ph.D. (Project Advisor) at hoffmanm@umd.edu.

Again, the study is at <web address>

Thank you!

Kevin McGann, BA
Doctoral student in Counseling Psychology
University of Maryland, College Park
kjmcgann@umd.edu

Mary Ann Hoffman, Ph.D.
Professor, Counseling Psychology Program
University of Maryland, College Park
hoffmanm@umd.edu

Appendix H

Reminder e-mail solicitation

Hello again,

Just a reminder to ask you to complete my survey, exploring how men view their experiences, relationships, and health. Please consider participating and contributing to knowledge about adult men. This survey only takes 15-20 minutes to complete and your participation will add much to our understanding of how men cope personally and relationally in their daily lives. If you have already completed this survey; thank you for your time. If you haven't had the chance to participate yet, please help a fellow graduate student. You can access the questionnaire by going to this website:

<web address>

You won't be required to leave ANY identifying information, but at the end of the survey you will be given the choice to leave your email address for a chance to compete for one of two gift certificates that will be randomly chosen. The survey program used ensures that your email address is stored separately from your responses, and coding is done in such a way that identifying you would be virtually impossible.

If you have any questions, please feel free to contact Kevin McGann at kjmcgann@umd.edu or Mary Ann Hoffman, Ph.D. (Project Advisor) at hoffmanm@umd.edu.

Again, the study is at <web address>

Thank you!

Kevin McGann, BA
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Appendix I

Informed Consent for Present Study

This is a research project being conducted by Kevin McGann, B.A., and Mary Ann Hoffman, Ph.D., at the University of Maryland, College Park. The purpose of this research project is to gain knowledge about men's perceptions of interpersonal relationships, by examining various aspects of men's experiences, such as relationships, identity, well-being, and sexual behaviors and health. Your participation will contribute to knowledge about adult men.

If you choose to participate in this study, you will be asked to complete a survey about various aspects of your experiences, such as your relationships, identity, and well-being, and sexual fantasies, behaviors, and health. You will also be asked to respond to some demographic questions, but you will not be required to leave any identifying information. The survey takes approximately 15-20 minutes to complete.

Male graduate students of all backgrounds are encouraged to complete this survey. All information you provide will be confidential. The research materials are coded in such a way that makes identification of individual respondents very difficult, although absolute confidentiality when conducting internet research can never be guaranteed. If you do not exit or close your internet browser when you have completed your survey it is possible that another person using your computer at a later time could view your responses. It is therefore important that you exit your browser after you have submitted your survey. Data will be reported in aggregate form; no connection is made between you and your computer's IP address.

There may be some risks involved in participating in this research study. You should be aware that your participation in this survey could elicit negative emotions (e.g., memories of negative experiences in your relationship). The research is not designed to help you personally, but to help the investigator learn more about the physical and psychological experiences of men. Completion of the questionnaires would add to research on an important topic. We hope that in the future, other people might benefit from this study through improved understanding of men's experiences, relationships, and health.

Participation is voluntary, and you may choose to withdraw from the survey at any point, with no penalty whatsoever. At the end of the survey, you will be directed to a page where you can chose to enter your email address to be included in a drawing for one of two $50 gift certificates. Your email address will not in any way be connected to your survey responses, nor will your email address be used in any way by the investigator to identify the data you provide. After the study is completed, the record of your email address will be destroyed.

If you have any questions or comments concerning this study, please contact Kevin McGann, B.A., at <kjmcgann@umd.edu> or Mary Ann Hoffman, Ph.D., at <hoffmanm@umd.edu>. This study was approved by the University of Maryland Institutional Review Board. If you have questions about your rights as a research subject or wish to report a research-related injury, please contact: Institutional Review Board Office, University of Maryland, College Park, MD, 20742; irb@deans.umd.edu (email), or 301-405-4212 (telephone).

Thank you very much for your time and help. If you agree to the above terms and conditions, please start the survey now by clicking on the "I Accept" button below. By clicking the "I Accept" button, you state that you are over 18 years of age and wish to participate.

<I Accept>

Sincerely,

Kevin McGann, B.A.
Doctoral student in Counseling Psychology
University of Maryland, College Park
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Mary Ann Hoffman, Ph.D.
Faculty member in Counseling Psychology
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Appendix J

Debriefing Information

Thank you very much for completing this survey. The aim of this study is to examine patterns of romantic attachment, rates of depression, and rates of sexual risk taking in adult men, with a focus on how men identify themselves. Researchers are particularly interested in men who are self-identified as heterosexual but have some amount of sexual contact with other men. Data from this study will be aggregately reported; if you provided an email address, it will be stored separately from your data and identifying you would be very difficult. After the study is over, the record of your email address will be destroyed.

If you have any questions about this study, please do not hesitate to contact the primary researcher listed below. You may also contact him should you wish to receive a copy of this study's results when it is completed.

Thank you, again, for participating!

Kevin McGann, B.A.
Primary researcher
Doctoral student in Counseling Psychology
kjmcgann@umd.edu

Mary Ann Hoffman, Ph.D.
Project Advisor
Faculty member in Counseling Psychology
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