STIGMATIZED STD STATUS AND WELL-BEING:
THE ROLE OF SEXUAL ATTITUDES

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CHAPTER 1

INTRODUCTION

STD infections have a considerable impact on the lives of the many individuals who have these health statuses. Researchers estimate that one in four American teenagers contracts an STD each year and that roughly 65 million Americans have contracted characteristically-persistent viral STDs (ASHA 1998). The consequences of having an STD can be substantial, largely due to the social stigma associated with these statuses. Stigma is generally defined as an “attribute that is deeply discrediting,” which reduces the stigmatized individual “from a whole and usual person to a tainted, discounted one” (Goffman 1963: 3). Though STDs are typically not visible to others, those who have STD statuses may still experience the impact of stigma. Individuals can internalize messages about how others perceive STD infection, and can imagine how STD stigma would be applied if their health status were known to others. Research concerned with the experience of having a stigmatized STD status has primarily consisted of qualitative approaches to the study of HIV/AIDS-related stigma experience (Alonzo and Reynolds 1995; Deacon 2006; Tewksbury and Mcgaughey 1997; Rohleder and Gibson 2006). Scholars often use social psychological concepts to describe STD stigma and related management processes (Nack 2000, 2008; Roberts 1997; Rohleder and Gibson 2006;
Tewksbury 1994); however, the relationship between STD status and well-being remains largely unexplored by social psychologists.

In this thesis, I explore how the relationship between a stigmatized status and well-being can be better understood by taking into account attitudes about sexual behavior. I use the stress process model to examine this relationship. The model suggests that stressors cause disruption, which in turn results in decreased health and mental health (Aneshensel 1992; Burke 1991; Pearlin 1989). I conceptualize STD status as a stressor because STDs represent a stigmatized status (Lee and Craft 2002; Nack 2000; Tewksbury and Mcgaughey 1997). Stress process researchers have shown that attitudes and beliefs related to a stressor can exacerbate or attenuate the influence of a stressor (Simon and Marcussen 1999). Thus, I examine how sexual attitudes condition the relationship between having an STD health status and well-being. Finally, scholars have criticized the individualistic focus that is prominent in stigma research, calling for a conceptualization that incorporates how broader social forces shape stigma (Herek 2007; Link and Phelan 2001). Therefore, I also examine how these processes vary by gender, which may help to elucidate structural aspects of sexual attitudes and the experience of stigmatized STD statuses.

To examine these relationships, I use quantitative methods to analyze the National Health and Social Life Survey data (NHSLS), which emphasizes a social approach to the study of sexual attitudes, behaviors, and health. I expect that those who receive a positive STD diagnosis will report lower well-being than those who have not received a positive STD diagnosis. I also expect that sexual attitudes will moderate the relationship between
STD status and reported well-being, such that the negative relationship between STD status and well-being will be stronger for those who hold more conservative attitudes about sexual behavior, compared to those who hold more permissive attitudes about sexual behavior. I also examine whether these processes vary by gender. This study contributes to current knowledge about the role of sexual attitudes in the relationship of stigmatized STD health statuses to well-being for women and men.
CHAPTER 2

BACKGROUND

Stigma

Since the publication of Goffman’s (1963) seminal work, *Stigma*, researchers have launched considerable efforts to explore the nature, sources, and consequences of stigma (Link and Phelan 2001:363). In his initial description of the concept, Goffman (1963: 3) defines stigma as an “attribute that is deeply discrediting,” such that the stigmatized individual is “reduced in our minds from a whole and usual person to a tainted, discounted one.” He adds that stigma may be characterized as the relationship between an “attribute and a stereotype” (Goffman 1963:4; Link and Phelan 2001). Thus, stigma is an attribute or mark, which links an individual to a stereotype or undesirable characteristic (Jones, Farina, Hastorf, Markus, Miller, and Scott 1984). Though researchers often introduce stigma by invoking Goffman’s (1963) initial account, definitions vary based on the focus of research (Link and Phelan 2001; Phelan, Link, and Dovidio 2008; Sayce 1998; Stuber, Meyer, and Link 2008). For example, researchers who focus on negative attributes associated with groups tend to use concepts like prejudice and discrimination to discuss the phenomenon. Alternatively, researchers
concerned with negative attributes applied to individuals tend to focus on the concept of stigma (Link and Phelan 2001; Phelan et al. 2008; Stuber et al. 2008).

*STD Stigma*

STD statuses are not typically visible to others and STD-related stigma is associated with the use of management strategies that often result in further concealment (see note 1) (Lee and Craft 2002). Despite the relative invisibility of STDs, those who are aware of their positive status nonetheless experience potent effects of STD-related stigma. The pervasive effects of secret or concealed stigma are based on perceptions of stigma risk and related threats to identity. Goffman (1963: 32) explains that secret stigma can occur “when a stigmatized person initially learns society’s standpoint and gains a general idea of what it might be like to possess a certain stigma.” Yang and colleagues’ (2007) explain that stigma processes are decidedly pragmatic and tactical responses to real or perceived threats.

Stigma researchers who conceive of stigma as a psychosocial stressor note that individuals may anticipate negative treatment by groups in power and experience chronic stress from maintaining a state of vigilance (Meyer 2003), or may direct negative societal

Note 1. *Stigma Management.* To avoid or minimize the impact of stigma consequences for the self, individuals engage in efforts to manage the threat of stigma through their thought and behavior. The activation of these efforts or strategies is based upon the centrality of labels to the social construction of identities (see Scheff 1966). As Tewksbury (1994: 337) notes, this centrality is especially relevant for persons who live with stigmas; though, he continues, “labels and the consequences of labels are within the scope of influence for those to whom they are attached.” (Tewksbury and Mcgaughey 1997). These can be managed by individuals through manipulation of thought and behavior, thereby minimizing consequences for the self. Researchers have identified these efforts, often termed ‘stigma management strategies,’ primarily categorizing them three ways: secrecy, withdrawal, and preventive telling or educative telling (Goffman 1963; Link et al. 1991; Schneider and Conrad 1980).
attitudes towards the self, ‘internalizing’ stigma (Stuber et al. 2008: 352). Once an individual is labeled with a stigmatized status, negative societal attitudes, once innocuous to the individual, become personally applicable (Link 1987:97). Thus, if an STD health status is known to be highly stigmatized, receipt of such a status or label through the diagnostic process - even if kept hidden - may cause a person to perceive stigma-related threats and to experience decreased well-being. In other words, a stigmatized STD status operates as a stressor that has the potential to influence well-being.

A key component in the internalization of stigma concerns the attitudes one holds about the stigmatized status or identity. As such, I propose that including sexual attitudes is important to better understand the impact and experience of stigma. Attitudes are also important for understanding how individuals comprehend and respond to the social world, and how understanding and behavior are shaped by broader social factors (Hill 1992; Maio et al. 2003). Below, I discuss current literature on attitudes, as well as literature concerned specifically with attitudes about sexual behavior.

**Attitudes**

Research concerned with attitudes has long been the subject of debate, producing vastly divergent conclusions about the nature and utility of the concept (Hill 1992). Consequently, attitudes research has been both lauded as “indispensable” (Allport 1935:798), and dismissed as obsolete (Turner 1968). One issue at the center of the debate is concern over conceptual clarity (Hill 1992). Researchers have increased conceptual clarity by using more precise definitions in an effort to reduce the conflation of “attitudes” with other similar concepts (i.e., value, ideology) (Fishbein 1978; Maio,
Olson, Bernard, and Luke 2003). Attitudes are defined as “tendencies to evaluate an object positively or negatively” (Maio et al. 2003:284), and are based upon three components: beliefs, evaluations, and behavioral predispositions (Pratkanis and Greenwald 1989). The bipolar evaluative judgment of an object is a unifying feature across most definitions of attitudes (Bem 1972; Fishbein 1978; Hill 1992).

To distinguish attitudes from similar concepts, I briefly summarize how researchers define other related cognitions. Maio et al. (2003) point to similarities and differences among three prominent, related constructs: attitudes, values, and ideologies. Values are defined as abstract ideals “that function as important guiding principles,” and ideologies as “systems of attitudes and values that are organized around an abstract theme” (Maio et al. 2003: 284; Bem 1972; McGuire 1985). These constructs are similar in several ways. They are interrelated, evaluative, subjective, and can be both conscious and nonconscious (Maio et al. 2003). The constructs differ, however, by level of abstraction. Attitudes represent the lowest level of abstraction across the three constructs, while values and ideologies represent the middle and highest levels of abstraction, respectively. Researchers tend to focus on the influence of ideologies and values on attitudes (Maio et al. 2003). This direction of effect presupposes that a few changes in an individual’s ideologies would result in numerous changes to her related attitudes. Therefore, the dynamics of this relationship have important implications for attitudes research. Attitudes researchers draw upon cognitive consistency theory to explain the dynamics of within-attitude components, linkages across attitudes, and the relationship

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1 Probability judgments that link an object or concept to an attribute (Hill 1992:356)
between attitudes and behavior. Social psychologists and attitudes researchers suggest that individuals seek to maintain consistency among their cognitions, and between their cognitions and behaviors (Petty and Cacioppo 1981; Chaiken and Yates 1985).

Scholars propose that attitudes have three primary functions: to help summarize a wide variety of beliefs, help others predict our behavior, and express aspects of personality (Katz 1960). These functions reflect key similarities with definitions of stereotyping functions, such as the ability to summarize a large amount of information, increase cognitive efficiency, and preserve cognitive resources (Gaertner and McLaughlin 1983; Link and Phelan 2001; Macrae et al. 1994). Link and Phelan (2001) identify stereotyping as an integral aspect of stigma processes. Katz (1960) also notes that attitudes function to protect the self or close others from threats. This ego-defensive or protective function of attitudes bears similarity to Yang and colleagues’ (2007) description of stigma processes as pragmatic and tactical responses to both perceived and real threats (see note 1). The conceptual overlaps between attitude functions and stigma processes suggest that attitudes may be important to the study of stigma.

**Sexual Attitudes**

Consistent with the more general definition of attitudes cited above (Maio et al. 2003), I define a sexual attitude as a tendency to evaluate a sexual behavior positively or negatively. Researchers choose to examine different types and groupings of sexual attitudes, but each is consistent with this definition. Most sexual attitudes researchers focus on what are broadly termed “conservative” or “permissive” attitudes (Earle, Perricone, Davidson, Moore, Harris, and Cotten 2007; Fugère, Escoto, Cousins, Riggs,
Haerich 2008; Harding and Jencks 2003; Hendrick, Hendrick, Slapion-Foote, and Foote 1985; Oliver and Hyde 1993). Permissive attitudes may, for example, reflect positive evaluations of casual sex, number of sex partners, and “one-night stands” (Hendrick et al. 1985). In contrast, conservative attitudes may emphasize having sex only with well-known sex partners, only within the context of marriage, or within the context of a loving relationship (Hendrick et al 1985). Some researchers group sexual attitudes by highlighting positive or negative evaluations of premarital sex and of casual sex, as is evidenced by Oliver and Hyde’s (1993) meta-analysis of research concerned with gender differences and sexuality. Researchers have also examined attitudes toward fidelity, degree of equality in sexual activities, and sexual novelty seeking (Træen and Martinussen 2008), as well as attitudes toward erotophilia (evaluations of sexual stimuli), sexual assertiveness, and the sexual double standard (Bay-Cheng and Zucker 2007). Others divide measures of attitudes about sexual behavior into three classifications: traditional, relational, and recreational sexual attitudes (Laumann, Gagnon, Michael, and Michaels 1994).

Sexual attitudes researchers often reference the sexual double standard (Fugère et al. 2008), or the “cultural belief that premarital sex is unacceptable for women but excusable or even appropriate for men” (Oliver and Sedikides 1992:321; Fugère et al. 2008; Greene and Faulkner 2005; Reiss 1964; Sprecher and Hatfield 1996). This type of attitude is particularly relevant to an evaluation of the relationship between gender and sexual attitudes. Attitudes toward the double standard not only assess one’s tendency to
evaluate premarital sex positively or negatively, but call for individuals to evaluate whether that assessment differs for women compared to men.

Researchers concerned with the relationship between stigma and sexual attitudes have focused primarily on attitudes about homosexuality and the stigma associated with identifying as homosexual (Crandall 1991; Herek 1984; Herek and Capitanio 1999; Walkey, Taylor, and Green 1990). Researchers draw heavily upon Katz’s (1960) description of attitude function, emphasizing the protective function of attitudes (Herek 1986). For example, by expressing negative attitudes toward homosexuality, an individual may protect herself from the stigma associated with the status (Herek 1984). There appears to be considerable conceptual overlap between such research and research concerned with stigma management strategies (see note 1) (Lee and Craft 2002; Herman 1993; Link, Mirotznik, Cullen 1991; Schneider and Conrad 1980). Each approach highlights individuals’ efforts to create distance between stigma and the self, and reduce the likelihood that stigma will be applied to the self. This conceptual similarity points to the importance of sexual attitudes as a way to better understand the impact of STD stigma on dimensions of well-being.

**Gender, Stigma and Sexual Attitudes**

Research concerned with prejudice is largely independent of literature on stigma, despite considerable and potentially fruitful conceptual overlap (Herek 2007; Stuber et al. 2008, Phelan et al. 2008). Researchers who focus on social structural variables, such as race, class, and gender tend to draw on prejudice and discrimination literatures, while researchers who focus on more “unusual” health statuses or physical attributes tend to
draw on stigma literature (Stuber et al. 2008, Phelan et al. 2008). Phelan, Link, and Dovidio (2008) have proposed a single typology of both stigma and prejudice functions in an effort to draw on the strengths of both research traditions. The three functions include: exploitation and domination, norm enforcement, and disease avoidance. Put another way, stigma and prejudice operate to keep people “down,” “in,” and “away” (Phelan et al. 2008). These functions point to the importance of understanding not only how stigma operates for and among individuals, but also how stigma is shaped by broader social factors, such as gender.

Link and Phelan’s (2001) call for the accounting of how macro-social forces, such as gender, are related to stigma processes points to the importance of examining how stigmatized statuses and related attitudes may impact men and women differently. An individual’s stratified social location has been shown to significantly impact her health, life chances, longevity (Link and Phelan 1995; Kessler and McLeod 1984; Mechanic 2002), and even perceptions of illness (Triplet 1992). Literature concerned with the social distribution of health and the experience of health explores the significant role of gender in these processes (Bird and Reiker 2008; Link and Phelan 1995). Bird and Reiker (2008) note, however, that findings concerning the impact of gender on health are complex, even paradoxical. That is, while women experience better health relative to men for certain health outcomes, men appear to have a health advantage for others. Adding to the complexity of the relationship between gender and the experience of

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2 For stigma research tradition, see Goffman 1963; for prejudice research tradition, see Allport 1958 (Phelan et al. 2008).
health, one gender may experience better health relative to the other only under a set of specific conditions (Bird and Reiker 2008).

Most researchers concerned with how sexual attitudes vary by gender have found that men and women have different attitudes about sexual behavior. As noted above, the term “sexual attitudes” refers to the tendency to evaluate a sexual behavior positively or negatively. While some researchers have focused on attitudes about specific sexual behaviors (Green and Faulkner 2005), most researchers concerned with sexual attitudes have focused on the extent to which an attitude or group of attitudes is permissive or conservative (Fugère et al. 2008; Oliver and Hyde 1993). Studies indicate that permissive sexual attitudes differ by gender—specifically, that men possess more permissive attitudes compared to women (Earle et al. 2007; Fugère et al. 2008; Harding and Jencks 2003; Hendrick et al. 1985; Oliver and Hyde 1993). That men possess more permissive sexual attitudes than women is also reflected in research concerning evaluations of sexual double standards. Males are not only likely to express more positive evaluations of their own sexual behavior, relative to their evaluations of female sexual behavior, but males have also been shown to evaluate the sexual behavior of other males more positively, relative to their evaluations of female sexual behavior (Reiss 1964). Although researchers have identified gender differences in sexual attitudes, these studies do not investigate the potential consequences of such gender differences for well-being.
Stigma, Sexual Attitudes and Well-being

Social psychologists have used the stress process model to explore the impact of attitudes and beliefs on the relationship between stressors and mental health outcomes (Simon and Marcussen 1999). The stress process model supposes that stressors cause disruption, which in turn results in compromises to health and mental health (Aneshensel 1992; Burke 1991; Pearlin 1989). This supposition is based on assumptions similar to those identified in congruency and cognitive dissonance theories (Petty and Cacioppo 1981). These theories posit that individuals strive to maintain congruence between the ideas they hold about themselves and the feedback, or reflected appraisals, that they receive from others. An individual will engage in efforts to reestablish congruence if self-conceptions do not match feedback received. Thus, when a stressor causes disruption, distress results. Previous research has shown that attitudes and beliefs related to a stressor can exacerbate or attenuate the influence of a stressor (Simon and Marcussen 1999). I draw upon this theoretical framework to construct my analytic model. Because of the stigma associated with STDs and subsequent negative consequences, I conceptualize STD status as a stressor. I examine how sexual attitudes impact the relationship of this stressor and well-being.

Sexual attitudes consist of an individual’s thoughts and feelings about sexual behavior, and how he or she is inclined to act in relation to sexual behavior. If an individual has more conservative sexual attitudes, he or she is predisposed to respond less favorably to certain sexual behaviors (see Ajzen 1982). Conversely, if an individual has
more permissive sexual attitudes, he or she is predisposed to respond more favorably to certain sexual behaviors.

Although research indicates that attitudes do not always reflect or determine behaviors (Hill 1992; Maio et al. 2003), individuals are nonetheless likely to concern themselves with others’ perceptions of their sexual attitudes, which may be assumed by an STD diagnosis. In other words, the perception that one engages in the type of behavior that would lead to an STD may indicate permissive sexual attitudes. If the individual with an STD has such permissive attitudes, these perceptions may not pose a threat to her well-being. To the extent that her sexual attitudes are not permissive, but rather conservative, the presumption that she is permissive reflects an inconsistency and may exacerbate the already negative impact of an STD diagnosis.

Hypotheses

Drawing on the literature discussed above, my analyses are guided by the following research questions: (1) Is STD status related to well-being? (2) Do sexual attitudes condition the relationship between having a stigmatized STD status and well-being? (3) Does this relationship differ by gender?

I examine subjective well-being, measured by both physical and mental health related outcomes. My first set of hypotheses concern the relationship between STD status and health. Because STDs represent a stressor, I expect that STD diagnoses are negatively related to well-being. Specifically, I propose the following hypothesis:

_H1: Individuals with a STD positive diagnosis will report lower levels of self-rated health than those who have not received a positive STD diagnosis._
Given the proposed relationship between attitudes and well-being, I also expect that attitudes related to sexual behaviors will moderate the relationship between STD status and reported well-being, and therefore I propose the following hypothesis:

**H2a:** The negative relationship between STD status and self-rated health will be greater for those who hold more conservative “general attitudes” about sexual behavior, compared to those who hold more permissive “general attitudes” about sexual behavior.

**H2b:** The negative relationship between STD status and self-rated health will be greater for those who hold more conservative “personal attitudes” about sexual behavior, compared to those who hold more permissive “personal attitudes” about sexual behavior.

My second set of hypotheses examines the same relationships for overall happiness. Specifically, I propose the following hypotheses:

**H3:** Individuals with a positive STD diagnosis will report lower levels of happiness than those who have not received a positive STD diagnosis.

**H4a:** The negative relationship between STD status and happiness will be greater for those who hold more conservative “general attitudes” attitudes about sexual behavior, compared to those who hold more permissive “general attitudes” attitudes about sexual behavior.

**H4b:** The negative relationship between STD status and happiness will be greater for those who hold more conservative “personal attitudes” attitudes...
about sexual behavior, compared to those who hold more permissive “personal attitudes” about sexual behavior.

Finally, the literature suggests that sexual attitudes vary by gender. It is possible that the way in which sexual attitudes influence the relationship between STD status and well-being also varies by gender. As such, I explore the relationship between gender, STD status and well-being. While I expect there will be gender differences in sexual attitudes, it is not clear whether, or to what extent, the relationship between these attitudes and health will vary by gender. Therefore, I do not propose specific hypotheses for this relationship.
CHAPTER 3

METHODS

Data

The National Health and Social Life Survey (NHSLS) is perhaps the most comprehensive study of sexual behavior, health, and attitudes since Kinsey and his associates (Kinsey, Pomeroy, and Martin 1948; Kinsey, Pomeroy, Martin, and Gebhard 1953). The data provide important bases for research with a uniquely social approach to the study of sexuality. Funded primarily by a Robert Wood Johnson Foundation grant, the colloquially dubbed “Chicago Sex Study” cross-sectional survey was conducted using national multistage area probability sampling to capture U.S., English-speaking respondents, ages eighteen to sixty. Blacks and Hispanics were intentionally oversampled. Data were collected over a seven month period in 1992 through ninety-minute structured interviews administered by 220 trained interviewers (N = 3,432; 78.6% response rate). The survey was conceived both in response to the emergence of HIV/AIDS, and to the relative dearth of sexuality data (Michael, Gagnon, Laumann, Kolata 1994).

3 Additional support was provided by the following foundations: The Henry J. Kaiser Foundation, The New York Community Trust, American Foundation for AIDS Research, and The Ford Foundation.
The NHSLS approach to STD status data addresses the key limitations of previous collection efforts. These data are ideal for my research questions because they contain highly valid and reliable measures of STD infection prevalence. Current research reflects a deficit in quantitative approaches to the study of STD experience and research concerned with STD-related experiences across types. These deficits may be a product of weaknesses in available STD prevalence data. The principle NHSLS investigators constructed measures to capture the prevalence of STD infection in response to considerable methodological limitations in national reporting. National infection rates data had previously been and continue to be limited for two main reasons: (1) STD infection rates reporting is elective, which results in an overrepresentation of public facilities dependent on external funding, relative to private facilities; and (2) case reporting is anonymous, which may result in the reporting of single, repeat visitors as multiple cases of infection (Michael et al. 1994).

Measures

STD Status

To measure STD status, NHSLS respondents were asked to indicate whether they had ever received a positive diagnosis for each of the following STD types (“yes”/“no”): HIV/AIDS, Genital Herpes, Hepatitis B, Human Papilloma Virus (HPV), Chlamydia,

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4 A third cause, that those with an STDs may not yet be diagnosed, is a concern both for national infection rates data as well as the NHSLS. Though, the NHSLS incorporates an additional measure concerning the experience of STD-related symptoms in an effort to bridge this information gap. Nonetheless and on the basis of the substantial improvement in STD prevalence measurement provided by the nationally representative sample, I include NHSLS data for diagnosed cases of STD infection.
Gonorrhea, Syphilis, PID, NGU, and Vaginitis. I did not include items that are gender-specific and commonly classified as “sexually-related” (PID, NGU, and Vaginitis) in my analyses to reduce the likelihood that less or non-stigmatized infections bias results. I conducted my analyses by using a dichotomous measure of STD status (Never STD = 0; Ever STD = 1). I constructed this measure by summing the responses of those who did not provide an affirmative answer (“yes” to receipt of a positive STD diagnosis) for any STD, excluding missing data (see Appendix A).

**Sexual Attitudes**

The NHSLS researchers measure sexual attitudes by asking respondents to evaluate statements about sexual behavior(s). These measures are consistent with prominent definitions of attitudes as bipolar evaluative judgments, or tendencies to evaluate an attitude object positively or negatively (see Appendix A). I constructed two measures of sexual attitudes by using attitude measures with Likert-scale response options and excluded measures where only yes or no responses were elicited.

The first sexual attitude measure, “general sexual attitudes,” is a scale that contains four items that asked the respondent to report her attitude about a given sexual behavior, that is, respondents’ judgments about the extent to which a given sexual behavior is wrong or not. I included the following items: attitude toward premarital sex, attitude toward teen sex, attitude toward extramarital sex, and attitude toward homosexuality (see Appendix B). For each of these measures, respondents were asked whether they believed the attitude was “always wrong” (1); “almost always wrong” (2); “wrong sometimes” (3); or “not wrong at all” (4). I reverse-coded these values to be
consistent with the language of my hypotheses. The alpha value for the scale indicated that it is a reliable measure (Cronbach’s $\alpha = .645$).

The second sexual attitude measure, “personal attitudes,” is an index that contains two items that measure the extent to which a respondent strongly agreed (1) to strongly disagreed (4) with a given statement about sexual behavior. I included the following items: respondent would not have sex unless in love, and religious beliefs guide respondent’s sexual behavior (see Appendix B). After reverse-coding the values for both sexual attitudes measures, higher values represent what sexual attitudes researchers define as more conservative sexual attitudes. The Pearson’s correlation coefficient for the index suggests that the two items are moderately correlated with one another ($R = .401, p \leq .01$).³

Well-Being

I examine individual well-being by including measures of self-rated health and happiness (see Appendix A). Self-rated health, or subjective health, measures are considered to be reliable measures of objective physical and mental health states, and have been found to be highly correlated with individual well-being (Feist, Bodner, Jacobs, Miles, and Tan 1995; Yang 2008). Therefore, to examine the impact of having an STD status on well-being and how sexual attitudes condition this relationship, I also

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³ Exploratory factor analyses revealed that, for each measure, the items load onto a single principle component. Both scales have Eigen values that exceed 1.000 (1.976 and 1.401, respectively). The general attitudes measure loading explains just under fifty percent of the total variance, and the personal attitudes loading explains just over seventy-percent of the total variance (49.403% and 70.030%, respectively).
include self-rated health as second outcome measure of well-being (Poor = 1 to Excellent = 4).

The NHSLS includes a measure of respondent happiness (Table 1), a measure of well-being and associated mental health states. Scholars note the strengths of happiness measures, which include high psychometric adequacy, validity, and reliability (Veenhoven 1996). Happiness, a component of quality of life, has been found to be the best summary indicator of life quality, compared with other component measures (Veenhoven 2000). Respondents were asked to report their degree of happiness over the course of the past year: “Generally, how happy have you been with your personal life during the past twelve months? Have you been…” Responses options include: “unhappy most of the time” (1) to “extremely happy” (5).

**Controls**

I control for basic demographic variables known to be related to stress, and physical and mental health outcomes, including: gender (Aneshensel, Rutter, and Lachenbruch 1991; Rosenfield, Vertefuille, and McApline 2000), race and ethnicity (Easterlin 2001; Mirowsky and Ross 1980), age (Blanchflower and Oswald 2008; Mroczek and Kolarz 1998), marital status (Coombs 1991; Stack and Eshleman 1998), income, degree status (Hartman 2005; Johnson and Krueger 2006; Link, Lennon, and Dohrenwend 1993; McLeod and Kessler 1990), and employment status (Link et al.

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6 Researchers have found that measures of depression are significantly (negatively) correlated with measures of happiness and subjective well-being (Van Hemert 2002; Cheng and Furnham 2003).
1991). I also control for aspects of sexual behavior, including sexual identification, and number of sexual partners.

Gender is coded with a dummy variable (male = 0, female = 1). Race is coded with a series of three dummy variables, where Black, Hispanic and other races are coded 1. Similarly, marital status is coded with two dummy variables, where married and previously married are coded 1. Employment status is coded with a single dummy variable (not working = 0, working = 1), as is sexual identification (heterosexual = 0, not heterosexual = 1). To control for respondent education, I use a measure of the highest degree a respondent achieved (grade eight or lower = 1 to graduate or advanced degree = 7). To control for respondent income, I use multi-factor measure of total household income from the previous year ($0 = 0 to $75,001 and higher = 8), which includes the sum of any valid responses on measures such as the respondent’s wages, other household members’ wages, child support and alimony, investment income, government transfers, gifts and fellowships.

Analytic Strategy

My first set of analyses presents descriptive information about the sample, as well as the distribution of my dependent and key theoretical variables. I then use Ordinary Least Squares (OLS) multiple regression techniques to examine my research questions. OLS is ideal for these analyses because it allows me to examine the independent and interactive relationships between STD status, sexual attitudes, well-being, and theoretically relevant controls. I examine the relationships between STD and well-being separately for self-rated health and happiness.
For each dependent variable, I assess five models. In model 1, I include the independent variable, STD status. In model 2, I add control variables. In model 3, I include general attitudes about sexual behavior and the interaction term for STD and general sexual attitudes (STD status * General Sexual Attitudes). In model 4, I include personal attitudes about sexual behavior and include the interaction term for STD and personal sexual attitudes (STD status * Personal Sexual Attitudes). If the two-way interaction term is significant, in model 5, I include a triple interaction to examine whether the process varies by gender.

To rule out the possibility of problematic correlations between key theoretical variables (e.g., the two attitudes scales), I ran supplementary diagnostic tests to assess to multicolinearity for all models. The results of these analyses indicated that Variance Inflation Factors (VIFs) did not exceed 10, and tolerance levels exceed .10, indicating that multicolinearity is not a problem in the models. Given NHSLS oversampling for race, I also conducted all analyses using both weighted and unweighted data. Differences were minimal and did not change the patterns of findings. For ease of interpretation, I present my analyses using unweighted data.
CHAPTER 4

RESULTS

In Table 1, I present means and standard deviations of all study variables. These analyses show that more than half of sample respondents are female (56%), with a mean age of approximately 36 years. Most respondents are white (76%), married (53%) and identify as heterosexual (97%). The average respondent is employed (70%), has attended additional schooling after completing a high school degree (56%), and reported an annual household income of $15,000 to $20,000 per year. Most respondents reported having between one and two sex partners during the preceding year ($\bar{x} = 1.25$).

With respect to the specific study variables, roughly one-sixth of sample respondents reported having ever received a positive STD diagnosis (n = 496). Most respondents reported conservative general sexual attitudes ($\bar{x} = 3.05$), and moderate to conservative personal attitudes about sexual behavior ($\bar{x} = 2.79$). In analyses not shown, I find that males have significantly more permissive general and personal sexual attitudes than females. This finding is consistent with previous research (Earle et al. 2007; Fugère et al. 2008; Harding and Jencks 2003; Hendrick et al. 1985; Oliver and Hyde 1993).

Finally, most respondents reported experiencing good general health ($\bar{x} = 3.29$), and characterized their level of happiness during the preceding twelve months as generally satisfied or pleased ($\bar{x} = 3.58$).
Table 1. Means and Standard Deviations of Study Variables (N=3,012).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Background Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender (1=female)</td>
<td>.56</td>
<td>.50</td>
<td>0,1</td>
</tr>
<tr>
<td>Age</td>
<td>36.14</td>
<td>10.94</td>
<td>18-60</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1=Black)</td>
<td>.16</td>
<td>.36</td>
<td>0,1</td>
</tr>
<tr>
<td>(1=Hispanic)</td>
<td>.05</td>
<td>.21</td>
<td>0,1</td>
</tr>
<tr>
<td>(1=Asian, Native American, Alaskan, Pacific Islander)</td>
<td>.03</td>
<td>.18</td>
<td>0,1</td>
</tr>
<tr>
<td>Sexual Identification (1=not heterosexual)</td>
<td>.03</td>
<td>.17</td>
<td>0,1</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1=married)</td>
<td>.53</td>
<td>.50</td>
<td>0,1</td>
</tr>
<tr>
<td>(1=no spouse currently)</td>
<td>.18</td>
<td>.39</td>
<td>0,1</td>
</tr>
<tr>
<td>Degree</td>
<td>4.17</td>
<td>1.60</td>
<td>1-7</td>
</tr>
<tr>
<td>Household Income Previous Year</td>
<td>4.77</td>
<td>2.27</td>
<td>0-8</td>
</tr>
<tr>
<td>Employment Status (1=working)</td>
<td>.70</td>
<td>.46</td>
<td>1,0</td>
</tr>
<tr>
<td>Number of Sexual Partners Last Year</td>
<td>1.25</td>
<td>1.04</td>
<td>0-8</td>
</tr>
<tr>
<td><strong>STD Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STD Status (1=yes)</td>
<td>.16</td>
<td>.37</td>
<td>0,1</td>
</tr>
</tbody>
</table>

**Sexual Attitudes**

| Sexual Attitudes                              |      |     |       |
| General Attitudes                             | 3.05 | .72 | 0-4   |
| Personal Attitudes                            | 2.79 | .77 | 0-4   |

**Well-Being**

| Happiness                                      | 3.58 | .98 | 1-5   |
| Health                                         | 3.29 | .72 | 1-4   |
The Relationship between STD Status and Self-Rated Health

In Table 2, I present the first set of OLS analyses, in which I examine the relationship between respondent STD status, respondents’ general and personal sexual attitudes, and self-rated health. Model 1 indicates that STD status is not significantly related to self-rated health. Therefore, Hypothesis 1, which predicts that individuals with a positive STD diagnosis will report lower levels of self-rated health than those who have not received a positive STD diagnosis, is not supported.

Model 2 includes demographic controls, and indicates that older, currently unemployed respondents, and respondents who do not identify as heterosexual, report lower levels of subjective health. In addition, respondents who have been previously married report lower levels of health than those who have never married. Model 2 also indicates that respondents with higher levels of education and income report higher levels of self-rated health. Interestingly, respondents who had more sexual partners during the previous year also report higher levels of subjective health.

Model 3 adds the interaction between STD status and general sexual attitudes, and shows that respondent general sexual attitudes do not significantly condition the relationship between STD status and self-rated health. Therefore, Hypothesis 2a, which predicts that the negative relationship between STD status and self-rated health will be greater for those who hold more conservative general attitudes about sexual behavior, compared to those who hold more permissive general attitudes about sexual behavior is not supported.
Table 2. Unstandardized Regression Coefficients for Self-Rated Health (N = 3,012) a

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>STD Status (positive status ever = 1)</td>
<td>-.027 (.035)</td>
<td>-.046 (.034)</td>
<td>.009 (.132)</td>
<td>.065 (.119)</td>
</tr>
<tr>
<td>Gender (female = 1)</td>
<td>-.015 (.026)</td>
<td>-.017 (.026)</td>
<td>-.025 (.026)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.009**** (.001)</td>
<td>-.009*** (.001)</td>
<td>-.009*** (.001)</td>
<td></td>
</tr>
<tr>
<td>Black (yes = 1) b</td>
<td>-.027 (.036)</td>
<td>-.032 (.036)</td>
<td>-.032 (.036)</td>
<td></td>
</tr>
<tr>
<td>Hispanic (yes = 1) b</td>
<td>.011 (.061)</td>
<td>.007 (.061)</td>
<td>.004 (.061)</td>
<td></td>
</tr>
<tr>
<td>Other Race c (yes = 1) b</td>
<td>-.1.14 (.072)</td>
<td>-.121 (.072)</td>
<td>-.122 (.072)</td>
<td></td>
</tr>
<tr>
<td>Sexual Identification (not heterosexual = 1)</td>
<td>-.1.98** (.074)</td>
<td>-.1.86* (.075)</td>
<td>-.1.92** (.074)</td>
<td></td>
</tr>
<tr>
<td>Married (yes = 1) d</td>
<td>-.051 (.035)</td>
<td>-.059 (.048)</td>
<td>-.063 (.035)</td>
<td></td>
</tr>
<tr>
<td>Previously Married e (yes = 1) d</td>
<td>-.081* (.042)</td>
<td>-.085* (.042)</td>
<td>-.082* (.041)</td>
<td></td>
</tr>
<tr>
<td>Degree</td>
<td>.082*** (.008)</td>
<td>.084*** (.009)</td>
<td>.081*** (.008)</td>
<td></td>
</tr>
<tr>
<td>Household Income</td>
<td>.041*** (.007)</td>
<td>.042*** (.007)</td>
<td>.042*** (.007)</td>
<td></td>
</tr>
<tr>
<td>Employment Status (working = 1)</td>
<td>.121*** (.029)</td>
<td>.121*** (.029)</td>
<td>.123*** (.029)</td>
<td></td>
</tr>
<tr>
<td>No. of Sexual Partners</td>
<td>.036** (.013)</td>
<td>.039 (.013)</td>
<td>.042** (.013)</td>
<td></td>
</tr>
<tr>
<td>General Sexual Attitudes</td>
<td>.034 (.021)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STD Status*General Sexual Attitudes</td>
<td>- .017 (.044)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Sexual Attitudes</td>
<td></td>
<td>.044* (.019)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STD Status*Personal Sexual Attitudes</td>
<td></td>
<td>-.080 (.089)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>3.299</td>
<td>3.140</td>
<td>3.036</td>
<td>3.031</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.000</td>
<td>.104</td>
<td>.104</td>
<td>.105</td>
</tr>
</tbody>
</table>

a Analyses are unweighted. Numbers in parentheses are standard errors.
b Compared with White respondents.
c Other Race Category includes Asian, Native American, Alaskan, Pacific Islander respondents.
d Compared with Never Married respondents.
e Previously Married includes widowed, separated, and divorced.
* p ≤ .05; ** p ≤ .01; *** p ≤ .001
Last, Model 4 includes the interaction between STD status and personal sexual attitudes. The model indicates that respondent personal sexual attitudes do not significantly condition the relationship between STD status and self-rated health. Therefore, Hypothesis 2b, which predicts that the negative relationship between STD status and self-rated health will be greater for those who hold more conservative personal attitudes about sexual behavior, compared to those who hold more permissive personal attitudes about sexual behavior, is not supported. I do not include triple interactions to assess the impact of STD status, sexual attitudes, and gender on self-rated health, as two-way interactions were not significant in either set of analyses.

The Relationship between STD Status and Happiness

The next set of OLS analyses addresses the relationship between STD status, respondents’ general and personal sexual attitudes, and happiness (Table 3). In addition to demographic controls, I also control for respondent self-rated health in all models. Although the relationship between STD status and self-rated health is not significant, I include this measure of well-being to account for any association between subjective health and happiness. Model 1 indicates that STD status is significantly and negatively related to happiness (b = -.202, p = .000). Therefore, I find support for Hypothesis 3, which predicts that individuals with a positive STD diagnosis will report lower levels of happiness than those who have not received a positive STD diagnosis.

Model 2 indicates that older respondents report lower levels of happiness. Consistent with previous research (Coombs 1991; Stack and Eshleman 1998), married respondents report higher levels happiness than those who have never married; however,
Table 3. Unstandardized Regression Coefficients for Happiness (N = 3,012) \(^a\)

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>STD Status (positive status ever = 1)</td>
<td>-.202*** (.048)</td>
<td>-.121** (.047)</td>
<td>.418* (.180)</td>
<td>-.261 (.163)</td>
<td>.422* (.180)</td>
</tr>
<tr>
<td>Gender (female = 1)</td>
<td>-.021 (.035)</td>
<td>-.027 (.035)</td>
<td>-.027 (.035)</td>
<td>-.033 (.035)</td>
<td>-.033 (.038)</td>
</tr>
<tr>
<td>Age</td>
<td>-.006** (.002)</td>
<td>-.007*** (.002)</td>
<td>-.007*** (.002)</td>
<td>-.007*** (.002)</td>
<td>-.007*** (.002)</td>
</tr>
<tr>
<td>Black (yes = 1) (^b)</td>
<td>.037 (.049)</td>
<td>.032 (.049)</td>
<td>.032 (.049)</td>
<td>.033 (.049)</td>
<td>.033 (.049)</td>
</tr>
<tr>
<td>Hispanic (yes = 1) (^b)</td>
<td>.156 (.083)</td>
<td>.151 (.083)</td>
<td>.151 (.083)</td>
<td>.151 (.083)</td>
<td>.151 (.083)</td>
</tr>
<tr>
<td>Other Race (^c) (yes = 1) (^b)</td>
<td>-.069 (.098)</td>
<td>-.086 (.098)</td>
<td>-.086 (.098)</td>
<td>-.086 (.098)</td>
<td>-.086 (.101)</td>
</tr>
<tr>
<td>Sexual Identification (not heterosexual = 1)</td>
<td>-.014 (.102)</td>
<td>-.005 (.102)</td>
<td>-.005 (.102)</td>
<td>-.004 (.102)</td>
<td>-.004 (.102)</td>
</tr>
<tr>
<td>Married (yes = 1) (^d)</td>
<td>.312*** (.047)</td>
<td>.294*** (.048)</td>
<td>.294*** (.048)</td>
<td>.294*** (.048)</td>
<td>.294*** (.048)</td>
</tr>
<tr>
<td>Previously Married (^e) (yes = 1) (^d)</td>
<td>-.139* (.057)</td>
<td>-.147** (.057)</td>
<td>-.147** (.057)</td>
<td>-.146** (.057)</td>
<td>-.146** (.057)</td>
</tr>
<tr>
<td>Degree</td>
<td>-.019 (.012)</td>
<td>-.017 (.012)</td>
<td>-.017 (.012)</td>
<td>-.017 (.012)</td>
<td>-.017 (.012)</td>
</tr>
<tr>
<td>Household Income</td>
<td>.011 (.009)</td>
<td>.014 (.009)</td>
<td>.014 (.009)</td>
<td>.014 (.009)</td>
<td>.014 (.009)</td>
</tr>
<tr>
<td>Employment Status (working = 1)</td>
<td>.021 (.040)</td>
<td>.025 (.040)</td>
<td>.019 (.040)</td>
<td>.024 (.040)</td>
<td>.024 (.040)</td>
</tr>
<tr>
<td>No. of Sexual Partners</td>
<td>-.033 (.018)</td>
<td>-.027 (.018)</td>
<td>-.027 (.018)</td>
<td>-.027 (.018)</td>
<td>-.027 (.018)</td>
</tr>
<tr>
<td>Self-Rated Health</td>
<td>.316*** (.025)</td>
<td>.314*** (.025)</td>
<td>.314*** (.025)</td>
<td>.314*** (.025)</td>
<td>.314*** (.025)</td>
</tr>
<tr>
<td>General Sexual Attitudes</td>
<td>.091*** (.028)</td>
<td>.092*** (.028)</td>
<td>.092*** (.028)</td>
<td>.092*** (.028)</td>
<td>.092*** (.028)</td>
</tr>
<tr>
<td>STD Status*General Sexual Attitudes</td>
<td>-.185** (.061)</td>
<td>-.194** (.061)</td>
<td>-.194** (.061)</td>
<td>-.194** (.061)</td>
<td>-.194** (.061)</td>
</tr>
<tr>
<td>Personal Sexual Attitudes</td>
<td>.075** (.027)</td>
<td>.075** (.027)</td>
<td>.075** (.027)</td>
<td>.075** (.027)</td>
<td>.075** (.027)</td>
</tr>
<tr>
<td>STD Status*Personal Sexual Attitudes</td>
<td>.124 (.122)</td>
<td>.124 (.122)</td>
<td>.124 (.122)</td>
<td>.124 (.122)</td>
<td>.124 (.122)</td>
</tr>
<tr>
<td>STD Status<em>General Sexual Attitudes</em>Gender</td>
<td>.014 (.032)</td>
<td>.014 (.032)</td>
<td>.014 (.032)</td>
<td>.014 (.032)</td>
<td>.014 (.032)</td>
</tr>
<tr>
<td>Intercept</td>
<td>3.614 2.708 2.444 2.527 2.443</td>
<td>3.614 2.708 2.444 2.527 2.443</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R(^2)</td>
<td>.006  .103  .106  .106  .106</td>
<td>.006  .103  .106  .106  .106</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Analyses are unweighted. Numbers in parentheses are standard errors.
\(^b\) Compared with White respondents.
\(^c\) Other Race Category includes Asian, Native American, Alaskan, Pacific Islander respondents.
\(^d\) Compared with Never Married respondents. \(^e\) Previously Married includes widowed, separated, and divorced.

* \(p \leq .05\); ** \(p \leq .01\); *** \(p \leq .001\)
respondents who have experienced marital separation, divorce, or the death of a spouse report lower levels of happiness than those who have never married. Model 2 also indicates that respondents who report higher levels of subjective health report significantly higher levels of happiness.

Model 3 adds the interaction between STD status and general sexual attitudes, and indicates that respondents’ general sexual attitudes moderate the relationship between STD status and happiness (b = -.185, p = .002). Therefore, Hypothesis 4a is supported. Specifically, the negative relationship between STD status and happiness is greater for those who hold more conservative general attitudes about sexual behavior, compared to those who hold more permissive general attitudes about sexual behavior.

Testing a similar relationship for personal sexual attitudes, Model 4 indicates that respondent personal sexual attitudes do not moderate the relationship between STD status and happiness. Therefore, Hypothesis 4b is not supported.

I do not include triple interactions to assess the impact of STD status, personal sexual attitudes, and gender on happiness, as the two-way interaction was not significant in this set of analyses. However, as general sexual attitudes do moderate the relationship between STD status and happiness, I include an additional triple interaction between STD status general sexual attitudes and gender. Model 5 indicates that general sexual attitudes do not condition the relationship of STD status to happiness differently for men and women.
CHAPTER 5

DISCUSSION

Scholars often use social psychological concepts to describe STD stigma and related management processes (Nack 2000, 2008; Roberts 1997; Rohleder and Gibson 2006; Tewksbury 1994); however, the relationship between STD status and well-being remains largely unexplored by social psychologists. Also, research concerned with the experience of having a stigmatized STD status has primarily consisted of qualitative approaches to the study of HIV/AIDS-related stigma experience (Alonzo and Reynolds 1995; Deacon 2006; Tewksbury and McGaughey 1997; Rohleder and Gibson 2006). This study adds to current literature in two key ways: (1) by using quantitative analyses to examine the impact of having an STD status for multiple STD types, and (2) by examining the role of sexual attitudes in the relationship between stigmatized STD health statuses and well-being.

Overall, I find that STD statuses are associated with decreased levels of well-being, with respect to happiness, but are not related to self-rated health. Individuals who have an STD report lower levels of happiness than individuals who do not have such a status. This finding is particularly robust, given that the association is significant after controlling for self-rated health. Thus, it is unlikely that individuals who have an STD
are less happy as a result of STD-related challenges to physical health. I also find that general sexual attitudes condition the relationship between STD status and happiness, such that the negative effect of having an STD on individual happiness is greater for those who hold more conservative attitudes about sexual behavior, compared to those who hold more permissive attitudes about sexual behavior. Although sexual attitudes vary significantly by gender, I do not find that gender is associated with the relationship between attitudes and well-being.

While general attitudes about sexual behavior condition the relationship between STD status and happiness, personal sexual attitudes do not. Interestingly, this finding suggests that general sexual attitudes, which capture broad societal-level ideas about ‘deviant’ sexual behavior, have a stronger moderating effect than more specific, personal attitudes about sexual behavior. Also, contrary to my predictions, I find that STD status is not significantly related to self-rated health. This finding may indicate that the stigma associated with having an STD impacts emotional well-being, rather than personal assessments of physical health. This finding suggests the need to include a broader array of mental health outcomes in future data collection efforts. In this particular study, I examine overall positive well-being. Future work might consider the impact of STDs on more conventional distress measures, such as generalized depression and anxiety.

This study has a number of strengths, however, it is not without limitations. First, while the NHSLS offers strong measures of sexual behaviors, attitudes about such behaviors, and highly reliable measures of STD infection prevalence, it lacks direct measures of stigma processes and stigma experience. Future data collection efforts
should include reliable measures of STD infection in conjunction with direct measures of respondent perceptions of stigma and stigma experience, as well as measures that capture stigma processes, such as status loss and discrimination that results from possessing a stigmatized STD status. An additional advantage to the inclusion of stigma process measures may be the potential to better assess structural differences in stigma experience. As I have noted, scholars have criticized the individualistic focus that is prominent in stigma research, calling for a conceptualization that incorporates how broader social forces shape stigma (Herek 2007; Link and Phelan 2001). Although I do not find that sexual attitudes influence the relationship between having an STD and personal well-being differently for men and women, the inclusion of stigma process measures may elucidate such differences.

Additionally, while the NHLS has a broad array of STD infection measures, ideas about STDs in general, and HIV/AIDS in particular, have likely changed since the collection of these data. It is important to collect current data on the stigma associated with different STD types to capture changes in perceptions over time. Current measures of perceptions associated with different STD statuses may be especially important for research on the role of attitudes, perceptions, and stigma. In this study, I examine the presence or absence of a positive STD status, as the sample size of these data did not allow for subsample analysis of different STD types. Perceptions associated with different STD types surely vary. Therefore, it would be ideal if future data allowed for this type of subsample analysis.
In addition to these issues, it will also become important for studies to examine the potential long-term effects of stigmatized diagnoses. While the intention of this study was to examine the moderating effect of attitudes on the relationship between stress and well-being, it would be interesting to see if an initial diagnosis changes well-being and whether changes in well-being further influence the development and maintenance of attitudes and behaviors. Longitudinal data will be necessary in order to sort out these causal processes.

Conclusions

In this thesis, I examine how the relationship between a stigmatized status and well-being can be better understood by taking into account attitudes about sexual behavior. Stress process researchers have shown that attitudes and beliefs related to a stressor can exacerbate or attenuate the influence of a stressor (Simon and Marcussen 1999). Therefore, I use the stress process model to examine how sexual attitudes condition the relationship between having an STD health status and well-being. Ultimately, I find that sexual attitudes are important to better understanding the relationship of how STDs are related to aspects of well-being like happiness. This study contributes to current knowledge about the role of sexual attitudes in the relationship of stigmatized STD health statuses to well-being for women and men.
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APPENDICES
APPENDIX A

STUDY VARIABLE DESCRIPTIONS, CATEGORIES, AND VALUES
<table>
<thead>
<tr>
<th>Variables</th>
<th>Description, Categories, and Values</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Background Characteristics</strong></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>“Female” (1; not female = 0).</td>
</tr>
<tr>
<td>Age</td>
<td>R’s age in years. Responses range from “18” to “60” years.</td>
</tr>
<tr>
<td>Black</td>
<td>“Black” (1; Not Black = 0).</td>
</tr>
<tr>
<td>Hispanic</td>
<td>“Hispanic” (1; Not Hispanic = 0).</td>
</tr>
<tr>
<td>Alaskan, Native American,</td>
<td>“Alaskan/Native American /Asian/or Pacific Islander” (1; Not Alaskan/Native American /Asian/or Pacific Islander = 0).</td>
</tr>
<tr>
<td>Not heterosexual</td>
<td>Whether the respondent identifies as: “Not Heterosexual” (1; Heterosexual = 0).</td>
</tr>
<tr>
<td>Married</td>
<td>“Married” (1; Has Never Been Married = 0).</td>
</tr>
<tr>
<td>Previously Married</td>
<td>“Previously Married” (1 (Includes “widowed,” “separated,” “divorced.”); Spouse Currently/Never Spouse = 0).</td>
</tr>
<tr>
<td>Degree</td>
<td>R’s highest degree achieved. Responses range from “grade 8 or less” (1) to “graduate/advanced degree” (7).</td>
</tr>
<tr>
<td>Household income</td>
<td>R’s household income from previous year. Values are the sum of any valid responses on income measures, including: R’s wages, other household members’ wages, child support and alimony, investment income, government transfers, gifts and fellowships. Responses range from “$0” (0) to “$75,001 and up” (8).</td>
</tr>
<tr>
<td>Working</td>
<td>R’s employment status based on past week employment. Whether R “worked for pay last week” (1; R did not work (includes: “did not work last week,” “not working,” “retired,” “never works for pay”) = 0).</td>
</tr>
<tr>
<td>Sexual partners</td>
<td>Number of R’s sexual partners in last year</td>
</tr>
<tr>
<td><strong>STD Status</strong></td>
<td></td>
</tr>
<tr>
<td>Positive STD status</td>
<td>Bacterial and/or viral diagnosis ever (1; never bacterial and/or viral diagnosis = 0). (n=496, ever STD status: n=2,516).</td>
</tr>
<tr>
<td><strong>Sexual Attitudes</strong></td>
<td></td>
</tr>
<tr>
<td>General Attitudes</td>
<td>Values are the summed responses of R’s attitudes toward: premarital sex; teen sex; extramarital sex; homosexuality. Responses range from “not wrong at all” (1) to “always wrong” (4).</td>
</tr>
<tr>
<td>Personal Attitudes</td>
<td>Values are the sum of R’s responses to the following items: Would Not Have Sex Unless In Love, Religious Beliefs Guide R’s Sexual Behavior. Responses range from “strongly disagree” (1) to “strongly agree” (4).</td>
</tr>
<tr>
<td><strong>Well-Being</strong></td>
<td></td>
</tr>
<tr>
<td>Happiness</td>
<td>“Generally, how happy have you been with your personal life during the past twelve months? Have you been…” Responses range from “unhappy most of the time” (1) to “extremely happy” (5).</td>
</tr>
<tr>
<td>Health</td>
<td>“In general, would you say your health is…” Responses range from “poor” (1) to “excellent” (4).</td>
</tr>
</tbody>
</table>
APPENDIX B

ATTITUDES SURVEY ITEMS
# ATTITUDES SURVEY ITEMS

<table>
<thead>
<tr>
<th>Attitudes Items</th>
<th>Response Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Sexual Attitudes</strong></td>
<td></td>
</tr>
</tbody>
</table>
| 1) There’s been a lot of discussion about the way morals and attitudes about sex are changing in this country. If a man and a woman have sex relations before marriage, do you think it is always wrong, almost always wrong, wrong only sometimes, or not wrong at all? (R) | Always wrong 1  
Almost always wrong 2  
Wrong only sometime 3  
Not wrong at all 4 |
| 2) What if they are in their teens, say fourteen to sixteen years old? In that case, do you think sex relations before marriage are always wrong, almost always wrong, wrong only sometimes, or not wrong at all? (R) |                                          |
| 3) What is your opinion about a married person have sexual relations with someone other than the marriage partner – is it always wrong, almost always wrong, wrong only sometimes, or not wrong at all? (R) |                                          |
| 4) What is your opinion about sexual relations between two adults of the same sex – do you think it is always wrong, almost always wrong, wrong only sometimes, or not wrong at all? (R) |                                          |
| **Personal Sexual Attitudes**                                                  |                                          |
| 1) I would not have sex with someone unless I was in love with them. (R)       | Strongly agree 1  
Agree 2  
Disagree 3 |
| 2) My religious beliefs have shaped and guided my sexual behavior. (R)          | Strongly Disagree 4                     |