

Engaging in Very Risky Sexual HIV Transmission Behavior: a Qualitative Description of HIV-Infected Men Who Have Sex with Men

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Boston College
Graduate School of Social Work

ENGAGING IN VERY RISKY SEXUAL HIV TRANSMISSION BEHAVIOR:
A QUALITATIVE DESCRIPTION OF HIV-INFECTED MEN WHO HAVE SEX
WITH MEN

A dissertation

By:

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Abstract

Engaging in Risky Sexual HIV Transmission Behavior:

A Qualitative Description of HIV-infected Men Who Have Sex with Men

(Directed by: Kevin H. Mahoney, Ph.D.)

Recent empirical epidemiological and behavioral research has indicated that some secondary intervention preventions (e.g., condom use, HIV-disclosure, serosorting, etc.) might not be suitable for all HIV-infected gay and bisexual men, particularly for those who engage in multiple episodes of unprotected anal intercourse (UAI). The purpose of this dissertation was to answer the primary research question: What are the psychological, behavioral and contextual factors associated with HIV-infected men who have sex with men (MSM) who engage in risky sexual behavior? A qualitative descriptive approach was used to conduct a content analysis of 14 in-depth, semi-structured interviews and to provide a description of the lives of MSM who do not consistently use traditional secondary risk behavior strategies (e.g., safer-sex negotiation, condom use, etc.) to reduce HIV transmission among sexual partners, particularly those partners who are HIV-uninfected or whose HIV status is unknown. Risky sexual behavior was defined by HIV-infected MSM who had engaged in multiple episodes of UAI in the past three months. These interviews gathered preliminary data on the feasibility and acceptability of secondary HIV behavioral prevention strategies for MSM who engage in very risky sexual behavior. In addition, these data have identified descriptive themes that could be used to augment traditional secondary HIV intervention preventions, creating new and specific risk-reduction strategies for this very high-risk group.

Acknowledgements

Dedicated to: Robert H. Lloyd

Little did I know when I began my collegiate career in 1991 that my academic trajectory would eventually take me to Boston College, where I would begin and complete the challenging and celebratory experience of doctoral education. The city of Boston and the town of Truro have become home and places where I can express my personality, sexuality and actuality with continual awareness: Authenticity is unexpectedly contagious.

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Table of Contents

Acknowledgements.....	i
Table of Contents.....	iii
List of Tables.....	v
Chapter One: Introduction.....	1
Study Rationale.....	5
Study Aims.....	9
Definition of Terms.....	10
Assumptions.....	11
Analytic Review of Literature.....	11
HIV Prevalence in US and in MSM.....	12
HIV Prevention Interventions.....	14
HIV Prevention Effectiveness.....	16
Individual-level Risk-reduction Strategies.....	18
Psychosocial Aspects of Risky Sexual Behavior.....	21
Conclusion.....	22
Research Questions.....	23
Chapter Two: Method.....	24
Overview of Parent Study.....	24
Study Setting.....	24
Current Research Design.....	25
Study Population.....	27
Recruitment Procedures.....	29
Study Procedures.....	30
Instrument.....	31
Data Analysis.....	33
Rigor in Qualitative Research.....	36
Protection of Human Subjects.....	39
Chapter Three: Findings.....	40
Demographic and Sexual Characteristics of Participants.....	41
Descriptive Themes that Emerged from Data.....	43
Theme I: Serostatus Attribution.....	45
Theme II: Partner’s Responsibility for Safer-sex Negotiation.....	49
Theme III: Sexual Sensation Seeking.....	54
Theme IV: Presence of Substance Use.....	58
Theme V: Relationship Desire/Dissatisfaction.....	64
Attitudes about Traditional HIV-prevention Interventions.....	68
Suggestions for Novel HIV-prevention Interventions.....	72
Summary of Descriptive Findings.....	76

Chapter Four: Discussion.....	77
A Look at the Descriptive and Sexual Characteristics.....	78
Integrating the Emerging Themes Back into the Literature.....	80
Attitudes about Traditional HIV-prevention Interventions.....	93
Suggestions for Novel HIV-prevention Interventions.....	100
Summary of Discussion.....	102
Chapter Five: Implications, Recommendations and Final Thoughts.....	104
Theoretical Considerations.....	105
Implications for Clinical Practice.....	110
Implications for US HIV/AIDS Policy.....	113
Recommendations for Future Research.....	117
Strengths and Limitations of the Current Study.....	121
Final Remarks.....	123
References.....	125
Appendix A: Oral Explanation of Research for Qualitative Interview.....	151
Appendix B: Semi-structured Qualitative Interview Guide.....	154
Appendix C: Attribution of Serostatus Scale (ASS).....	158

List of Tables

Table 1: Inclusion and Exclusion Criteria for Project Engage	28
Table 2: Tenets and Steps for Analytic Review of Qualitative Data	33
Table 3: Criteria and Procedures to Ensure Trustworthiness of the Study	36
Table 4: Demographic and Sexual Characteristics	42
Table 5: Descriptive Themes Identified through Participants' Interviews	44
Table 6: Attribution of Themes per Participant.....	46

CHAPTER ONE

Introduction

By the end of 2006, the Centers for Disease Control and Prevention (CDC, 2008a) estimated that 1,106,400 persons in the US were living with the human immunodeficiency virus (HIV). Most of these cases were men (including both heterosexual and homosexual men), who represented 75% of the total HIV-infected population. Between 2003 and 2006, there was an 11% increase in new infections (approximately 112,000). With the advancement of antiretroviral therapy (ART), the increase of people living with HIV might be attributed to people living longer because of consistent ART adherence, and as a result there has been a concomitant decrease in the number of deaths from HIV-related complications or acquired immune deficiency syndrome (AIDS). As well, the increase in prevalence also might be due to an increase in the number of HIV tests being conducted and therefore more persons being newly diagnosed with HIV. In 2006, approximately 21% of those living with HIV and who were newly diagnosed were unaware of their positive serostatus (CDC, 2010). With improved HIV/AIDS technological surveillance systems, the CDC (2008a) can provide more accurate national estimates of HIV incidence rates and identify cultural and behavioral trends in HIV transmission.

Of the total persons living with HIV, nearly half (48%) are men who have sex with men (MSM), indicating that HIV infection is disproportionately represented in this high-risk group compared with other risk groups (since not all men self identify as gay, the term MSM is used throughout the dissertation). Though there has been a downward trend in new HIV infections since 2003, the CDC (2010) reported that sexual contact

between MSM resulted in approximately 53% of new HIV infections in the US. About half of these new infections occur in African-American and other minority MSM populations (Fenton, 2007; Millett, Flores, Peterson & Bakeman, 2007). Though new HIV infections are decreasing in all other risk groups, it continues to increase for MSM. For comparison, high-risk heterosexual contact accounted for 31% of new diagnoses (CDC, 2008a) while intravenous drug (IV) use accounted for 12% (Hall, Song, Rhodes, Prejean, & An, 2008). MSM have become the largest single group of newly infected individuals, and by the end of 2007 just over 280,000 MSM had died of AIDS.

Male-to-male sexual contact has been identified as the central pathway for HIV transmission from HIV-infected to HIV-uninfected MSM. According to the CDC (2010), diagnoses of new infections in adult males and adolescents exposed through male-to-male sexual contact have been increasing steadily over the years from 21,156 in 2006 to 24,132 in 2009 (roughly 14%). It is through unprotected anal intercourse (UAI), whether insertive or receptive, that HIV is most often transmitted, and therefore UAI occurring between HIV-infected and HIV-uninfected persons is defined as risky transmission sexual behavior. Since the late 1980s, research scientists have created, tested and improved both primary (before HIV infection) and secondary (after HIV infection) HIV prevention interventions at multiple levels (Pequegnat & Stover, 2009) in order to decrease risky UAI. For secondary interventions at the individual one-on-one level, research scientists and interventionists often introduce traditional risk-reduction strategies to help disrupt sexual risk taking. Condom-use efficiency, safer-sex negotiation, HIV status disclosure and serosorting (determining sexual partners based on HIV status) are considered examples of traditional interventions that have been implemented over the

years. However, researchers are finding that some risk-reduction strategies might not be effective for all MSM populations, as many MSM continue to engage in sexual risk-taking even after becoming aware of their positive serostatus. Moreover, traditional secondary behavioral interventions have been known to produce only modest effects that tend to diminish over time (Herbst, Beeker, Mathew, McNally, Passin, et al., 2007).

According to previous research in secondary HIV prevention with HIV-infected MSM, somewhere between 13 to 51% continue to engage in risky sexual behavior even after knowing their positive serostatus (van Kesteren, Hospers, & Kok, 2007). While Marks, Crepaz, Senterfitt and Janssen (2005) estimated that up to 15% of cases of HIV transmission occur with MSM who are aware of their positive serostatus, Janssen, Holtgrave, Valdiserri, Shepard, Gayle, et al. (2001) identified that up to one third (1/3) of MSM who knew their positive serostatus still engaged in risky sexual behavior. Other researchers have identified that in this sexual risk-taking group of HIV-infected MSM, approximately 20 to 30% continue to engage in risky sexual behavior (Kalichman, 1999; Kalichman, Greenberg, & Abel, 1997a). The percentage of people engaging in risky sexual behavior might be contingent upon the context, situation and place in which MSM find themselves. Moreover, usually these estimated figures include only one UAI and do not account for those who engage in multiple and even excessive risky transmission episodes. In a recent randomized controlled trial of secondary HIV prevention conducted by The Fenway Institute, which is the research division of Fenway Health (Boston, MA), researchers found at baseline that the riskiest 10% of HIV-infected MSM accounted for more than 75 – 80% of the risky sexual transmission behaviors (Conall O’Cleirigh, personal communication, July 30, 2009). Although these estimates of risky sexual

behavior are broadly identified, in all these studies, HIV-infected MSM who are aware of their positive serostatus continue to engage in risky sexual behavior.

Empirically, researchers and interventionists have identified some biopsychosocial variables associated with risky sexual behavior (i.e., unprotected anal intercourse with HIV-uninfected or whose HIV-serostatus is unknown). These variables include the experience of childhood sexual abuse (Mimiaga, Reisner, Reilly, Soroudi, & Safren, 2009; Sikkema, Hanson, Meade, Kochman, & Fox, 2009), increased emotional distress resulting from HIV acquisition (Kelly, Murphy, Bahr, Koop, Morgan, et al., 1993), substance use (Kalichman, Rompa, DiFonzo, Simpson, Kyomugisha, et al., 2001) and the dependence and abuse of alcohol (Woolf & Maisto, 2009), anonymous partners (Semple, Patterson, & Grant, 2004) and compounding biopsychosocial epidemics (Stall, Mills, Williamson, Hart, & Greenwood, et al., 2003). A combination of these variables might decrease the overall health profile of HIV-infected MSM, as well as exacerbate continued sexual risk behaviors that result in new HIV incidences and other sexually transmitted infections (STIs). Other variables could exist particularly within the riskiest group of HIV-infected MSM who continue UAI after becoming aware of their positive serostatus.

Understanding the situations or contexts in which these behaviors occur is also important if one is considering augmenting traditional preventions. Elwood and Greene (2005) suggested “some MSM attend sexual environments including bathhouses to be in situations where they can fulfill desires to escape cognitive awareness of daily stressors including HIV/AIDS and its prevention” (p. 137). These cognitive escapes may indicate also a need to consider identifying psychological and behavioral factors of risky sexual

behavior or teaching how to deal with stress in more healthy ways. Investigating the prevalence of risky behaviors at a sex resort in the southern US, Crosby and Mettey (2004) found that 21% of MSM (N=150) reported never using a condom during their visit. Further analysis indicated that over the few months prior to their visit, these MSM averaged 10 sexual partners and half of them engaged in UAI. More in-depth descriptions of the context in which risky sexual behavior occurs would offer further insight to HIV prevention and for the creation of novel HIV prevention interventions.

Study Rationale

For this high-risk group, it is unclear why traditional risk-reduction strategies are not being utilized with their sexual partners, possibly indicating that these strategies are not effective in reducing risky behaviors. Traditional secondary HIV interventions may need to be revisited and augmented to meet the unique needs of HIV-infected MSM who continue to participate in risky sexual behavior. Augmentation of HIV interventions first requires an in-depth investigation of the lives of high-risk HIV-infected MSM and the context in which sexual risk-taking occurs. Assessing the reasons behind sexual risk-taking as well as the barriers to the uptake of risk-reduction messages is essential, if researchers and clinicians are to develop innovative interventions that will protect the lives of MSM and their sexual partners from STIs.

In order to develop more effective secondary HIV interventions, research scientists and interventionists must have a psychological, behavioral and contextual understanding of how and when sexual risk taking occurs. Parsons (2005) suggests this important exploratory task is challenging and must be approached from a multi-dimensional perspective, as HIV-infected MSM might engage in sexual risk taking

behavior for multiple reasons and in different contexts. For example, Woolf and Maisto (2009) identified that alcohol use is a salient predictor of risky sexual behavior among MSM. Drug use is also associated with high-risk behavior (Latkin, Forman, Knowlton, & Sherman, 2003; Ostrow, 2000; Stall & Purcell, 2000). Other variables include increased numbers of casual partners (Serovich, Craft, McDowell, Gafsky, & Andrist, 2009), emotional distress (Kelly, et al., 1993) and sexual compulsivity (Kalichman, Greenberg, & Abel, 1997a; Kalichman, Kelly, & Rompa, 1997b). Although these psychosocial factors are associated with risky behavior, few studies have investigated the lives of HIV-infected MSM who continue to engage in risky sexual behaviors with serodiscordant partners after knowing their positive serostatus (Kalichman, 1999; Janssen et al., 2001).

From a prevention perspective, the identification of psychological, behavioral and contextual factors could help establish novel risk-reduction strategies for this high-risk group. However, no empirical research has been identified that describes the multi-dimensional phenomena regarding high-risk HIV-infected MSM who engage in very risky behavior. Investigating these important factors, which might include specific attitudes and beliefs about personal sexual choices, would guide clinicians “in their efforts to modify the sexual risk practices of clients who engage in behaviors that place themselves or others at risk for contracting HIV/STDs” (Semple, Patterson, & Grant, 2004, p. 71). Furthermore, this descriptive and formative information could shed light as to why traditional secondary intervention preventions are not suitable for this high-risk group of MSM. Creating new and innovative ways to help decrease risky sexual behavior is critical, particularly since MSM are the largest subgroup with ongoing HIV transmission.

There are also significant public health concerns related to the development of effective prevention intervention applications that will reduce HIV transmission with the highest risk members. Semple, et al. (2004, p. 72) suggest “viral transmission is possible if an anonymous partner is assumed to be HIV-positive, but is actually HIV-negative, and unprotected sex occurs.” This assumption may be associated with cultural norms, perceived responsibility, HIV disclosure, and/or unidentified psychosexual processes pertaining to risk taking. HIV-infected MSM who engage in UAI not only put their partners at risk, but also increase their own risk for super-infection with multiple HIV strains or for contracting other sexually transmitted infections. Combined HIV strains might compromise ART regimen and could allow the emergence of drug resistant strains of HIV.

Intervening in novel ways to reduce sexual transmission behavior is imperative not only to improve sexual health, but mental health as well. Co-infection with other sexually transmitted infections and super-infection with other strains of HIV can increase the odds of co-morbidities and mortalities. Currently, there is a shift in HIV prevention intervention strategies toward considering co-morbid conditions or psychopathologies, particularly how some behaviors could interfere either with the uptake of the prevention message or with the ability of generic interventions to effect significant behavior change. It is possible that specific social or psychological risk profiles are associated with very risky behavior. Identifying these psychosocial and psycho/socio/sexual variables could help create novel risk reduction strategies that meet the needs and sexual health goals of HIV-infected MSM. These findings also may help clinicians and researchers “modify the

sexual risk practices of clients who engage in behaviors that place themselves or others at risk for contracting HIV/STDs” (Semple, et al., 2004, p. 72).

Another major public health concern is the economic burden that results from living with and receiving treatment for HIV. US federal funding has increased from \$19.2 billion in FY 2006 to \$27.2 billion in FY 2011, though only about \$14 billion is allocated for medical care treatment (which includes HIV medications). According to the CDC (2010), the lifetime medical care cost for newly infected individuals in the US is approximately \$20 billion. However, it is unclear if this figure includes both direct and indirect costs. In 2002, according to Hutchinson, Farnham, Dean, Ekwueme, del Rio, et al. (2006), the estimated direct and indirect (i.e., loss of productivity) medical costs for newly HIV-infected individuals were approximately \$6.7 and \$36.4 billion respectively (for 40,000 new cases). While direct medical costs were highest for whites (\$180,900 per case), indirect costs were highest for Hispanics (\$838,000 per case). Only a slight decrease in the number of newly infected persons could potentially decrease both indirect and direct medical care costs in the US.

Creating secondary preventions that have sustaining effects will also have implications as to how the US national policies address HIV/AIDS. In 2006, the Open Society Institute published a series of reports documenting the US response to the epidemic since the country adopted the United Nations General Assembly Special Sessions on HIV/AIDS (UNGASS) in 2001. Collins (2006) identified that the US does not have a comprehensive health care political strategy to carry out the UNGASS goals of not only reducing HIV infections, but also effectively treating HIV patients through adequate health care and prevention. Specifically related to HIV preventions, the report

concludes that the US must create a comprehensive strategy that meets the needs of vulnerable populations (e.g., gay and bisexual men, and especially Black MSM) and address the associated barriers to prevention treatment outcomes and to adequate medical care. Providing formative data with the highest-risk group of MSM could help develop novel interventions that have the potential to help meet the goals outlined by the UNGASS.

Study Aims

This qualitative research initiative builds on a recent study conducted at The Fenway Institute (Boston, MA) called Project Enhance (Knauz, Safren, O’Cleirigh, Capistrant, Driskell, et al., 2007), which implemented tailored interventions from a workbook module specific to the needs of HIV-infected MSM. The goal of the secondary intervention project was to increase condom use by HIV-infected MSM who have sexual partners who are HIV-uninfected or whose serostatus is unknown. At baseline the study revealed that roughly 10% of the sample was engaging in approximately 75% of the risky sexual behaviors (Conall O’Cleirigh, personal communication, July 30, 2009). These HIV-infected MSM had multiple sexual partners and had engaged in several episodes of unprotected anal intercourse (i.e., approximately ten or more) in the past three months with primary and/or casual sexual partners.

The present study investigates psychological, behavioral and contextual factors associated with engaging in multiple episodes of risky sexual behavior, as well as the prevailing attitudes toward the use of HIV interventions at the individual level. These data can then be used to develop alternative sexual risk reduction strategies to be piloted and incorporated into a randomized control trial with this very risky group of MSM. The

primary aim of the current study was to explore the lives of HIV-infected MSM who engage in very risky HIV transmission behavior using in-depth, qualitative interviews.

The three secondary aims were:

- 1.) To describe the psychosocial, behavioral and contextual factors of HIV-positive MSM who engage in very risky sexual behavior;
- 2.) To identify prevailing attitudes toward condoms and safer sex practices along with attitudinal barriers to their use;
- 3.) To gather preliminary data on the acceptability of secondary HIV prevention behavioral intervention strategies for MSM who engage in very high-risk sexual behavior.

Definition of Terms

Definitions of the key terms were used throughout the study:

1. Men who Have Sex with Men (MSM) – The Centers for Disease Control (CDC) use this term throughout their surveillance studies to define a male population who engage in homosexual sexual behaviors. MSM is not used to define sexual identity, sexual orientation or sexual culture.
2. HIV Transmission Sexual Risk Behavior – Risk is defined by “the probability of an individual becoming infected by HIV, either through his or her own actions, knowingly or not, or via another person’s actions” (UNAIDS, 2008, p. 65).
Unprotected anal intercourse with a sexual partner who is HIV-uninfected or whose HIV status is unknown is an example of risky sexual behavior.

3. HIV Risk-Reduction Strategies – Behavioral and educational strategies that are used to reduce the acquisition or transmission of HIV. Examples of risk-reduction strategies consist of condom use, safer-sex negotiation, abstinence, serosorting and strategic positioning.

Assumptions

The following assumptions were identified for this study:

1. HIV-infected MSM are transmitting HIV to sexual partners who are HIV-uninfected or whose HIV status is unknown.
2. Risky sexual behaviors can be accurately identified and changed.
3. HIV-infected MSM will respond openly and honestly to questions about their sexual behavior.
4. Themes about HIV-infected MSM who engage in risky sexual behaviors might emerge from the analysis of qualitative interview data.
5. Some emergent themes may result in the description of potentially generalizable data.

Analytic Review of Literature

A review of existing HIV/AIDS literature provides a conceptual framework for this study, which targets HIV-infected MSM who engage in very risky sexual behavior. Current statistical trends in HIV surveillance and prevalence among MSM are highlighted, and salient behavioral science research on HIV-infected MSM is discussed, providing insight into the psychological, sociological and contextual aspects of risky

sexual behaviors associated with these men. A descriptive structure of an HIV prevention intervention along with a brief theoretical conceptualization is presented. In addition, specific research that describes the efficacy of traditional risk reduction strategies for this high-risk subgroup is included. Lastly, the review focuses on potential factors that could provide a foundation for understanding the psychological, behavioral and contextual variables associated with HIV-infected MSM who engage in risky sexual behavior. This analytical review lays the foundation for the proposed qualitative descriptive study and the content analysis of interview data.

HIV Prevalence in the US and in MSM

HIV transmission continues to be an escalating pandemic affecting the US and the rest of the world. Although new HIV infections have remained relatively stable since the late 1990s, the latest figures from the Centers for Disease Control and Prevention (CDC, 2008a) indicated that in 2006 there were just over 56,000 new HIV infections in the US. Seventy percent (70%) of all HIV infections occurred in people between the ages of 25 and 49, while 25% were 50 and older (CDC, 2008a). In the US, MSM are the largest single group of newly infected individuals, accounting for approximately 57% of new reported cases (CDC, 2010). Furthermore, 48% (or 532,000 total persons) of individuals in the US living with HIV are MSM. New infections have begun to decline for heterosexual persons and intravenous (IV) drug users, but infections in MSM continue to rise. Also, racial disparities continue to exist in HIV diagnoses, as African-American and other minority MSM represent a little more than half of these new infections (Fenton, 2007).

In a surveillance study conducted in five large US cities (N=1,767), the CDC (2005) reported that HIV prevalence in black MSM (46%) was more than twice that in white MSM (21%). Of the 217 MSM who were unaware of their infections, 64% were black MSM, while Hispanic and white MSM represented 18% and 11% respectively. As well, there has been a significant increase in new HIV infections in young black MSM (CDC, 2010). These figures are mirrored in a comprehensive meta-analysis of the HIV prevention literature conducted by Millet et al. (2007). They found that sexually transmitted infections were significantly greater in black MSM than in white MSM, and that black MSM were less likely to take antiretroviral medications to control HIV. These figures suggest that African-American and other minority MSM are disproportionately over-represented among new HIV and sexually transmitted infections, as well as among MSM living with HIV.

Transmission from HIV-infected to uninfected MSM occurs often when one is unaware of their positive serostatus. The CDC (2010) reported that in 2008, 21% (or 232,700 total persons) of all HIV-infected people in the US did not know they were HIV-infected, a slight decrease since 2003. This decrease may be associated with a higher volume of HIV testing. However, data from a 21-multicity study in the US indicate that in 2008 HIV prevalence in 8,153 MSM was approximately 19%, and 44% of these men were unaware of their infection (CDC, 2010). These figures underscore the need for HIV testing in HIV-uninfected MSM on a regular basis. For those MSM who engage in sexual risk taking, behavioral modification techniques (e.g., cognitive behavioral therapy) could be employed to help reduce risky sexual behavior and subsequent new HIV infections. Although some research suggests transmission risk behaviors decrease with knowledge of

being HIV infected (Weinhardt, Carey, Johnson, & Bickham, 1999), other research indicates that somewhere between 20 – 30% of MSM continue to participate in risk taking (Kalichman, 1999). HIV preventions at all levels could target these high-risk MSM in order to identify factors associated with continued sexual risk taking.

HIV Prevention Interventions

HIV prevention interventions are usually conceptualized as three different but interrelated components: (1) primary prevention, focusing on people who are HIV-negative; (2) secondary prevention, providing health and behavioral interventions for people who are acutely infected or chronically infected with HIV; and (3) tertiary prevention, intervening during chronic HIV infection in order to prolong life through antiretroviral therapy and immune reconstitution (Sahasrabuddhe & Vermund, 2009). Within all three components, interventions often focus on both cognitive and behavioral sexual risk reduction strategies with goals of decreasing the odds of contracting HIV, spreading HIV to sexual partners or dying from co-morbid infections. One intervention does not necessarily work for all populations, and some prevention techniques might need to be tailored to specific cohorts (Knauz, et al., 2007).

According to Pequegnat and Stover (2009), these preventions are conducted at multiple levels: individual, couple, family, institutional, community and societal, while targeted outcomes include “self report of safer sexual behavior and lower incidence of STDs and HIV” (p. 170). At the individual level, researchers and clinicians often follow a three-stage model (Onken, Blaine, & Battjes, 1997). During the first stage, behavioral research is incorporated into empirical investigations in order to create new interventions or alter already developed techniques. Activities during this stage include “establishing a

firm conceptual base behind the intervention, conducting necessary formative research with the target population, and using these data to generate materials needed for a pilot trial” (Mimiaga, et al., 2009, p. 204). A formative qualitative investigation, much like the present study on the lives of HIV-infected MSM, provides a conceptual framework for developing pilot interventions, which then may be tested for effectiveness and quality assurance.

After pilot testing, the second stage consists of implementing randomized control trials (RCT) so that treatment modalities can be evaluated and potentially disseminated to the general population. The third stage calls for testing the efficacy of new interventions, addressing “issues with generalizability (i.e., treatment effectiveness across health-care professionals carrying out the intervention, patients, varied populations and settings); implementation (i.e., identifying the qualities of trainers, trainees, and the training necessary to carry out the treatment); acceptability outside of research in real-world settings; and cost effectiveness (i.e., does the treatment compare with existing ones on the costs versus savings incurred?)” (Mimiaga, et al., 2009, p. 204). For formative in-depth studies, as in the current study, qualitative researchers should begin to investigate new and complex phenomena in order to establish that conceptual foundation.

To understand the breadth of HIV behavioral risk reduction intervention, Herbst et al. (2007, p. S41) provided an analytic framework through which researchers and clinicians may conceptualize HIV risk-reduction interventions among MSM. Although the immediate outcome in the model consisted of sex-behavior improvement (i.e., decrease in UAI acts, increase condom use, and decrease number of sex partners), there is a major health (biological) outcome (i.e., reduce HIV and other STI incidences) and a

potential long-term outcome (i.e., quality of life improvement and reduction of AIDS morbidity and mortality). In addition to these outcomes, Herbst et al. provide the following six mediators that may influence HIV behavioral risk reduction interventions (at all individual, group and community levels): HIV knowledge, cognition, emotional states, social influence & support, skills building, and service utilization. All six mediators are considered mechanisms of change that could be analyzed and measured to determine best practices to reduce HIV acquisition in primary prevention and HIV transmission in secondary prevention. Both inductive and deductive empirical research could consider these mediators and outcomes when gathering formative information that help augment risk reduction strategies.

HIV Prevention Effectiveness

A systematic review of US-based HIV behavioral intervention research literature published between 2000 and 2004, and conducted by the CDC's HIV/AIDS Prevention Research Synthesis Team, revealed 18 interventions that met best evidence according to CDC criteria (Lyles, Kay, Crepaz, Herbst, Passin, et al., 2007). These interventions and their accompanied research design met the following best efficacy criteria: "quality of study design, quality of implementation and analysis, and strength of evidence" (p. 134). However, of those 18 reviewed articles, only four targeted HIV-infected individuals and only two targeted MSM. The lack of best evidence interventions in the literature underscores the salient need to create effective interventions with MSM, and specifically with high-risk HIV-infected MSM.

Beginning in 1999, the Center on AIDS & Community Health (COACH) at the Academy of Educational Development (AED), in collaboration with the CDC, created

the Diffusion of Effective Behavioral Interventions (DEBI) project. This project helped to create a database called the Compendium of HIV Prevention Interventions With Evidence of Effectiveness, which contains evaluated best research and practices of new, scientifically based strategies for innovative HIV prevention interventions at the individual, group and community levels. Through June 2009, the Prevention Research Synthesis Team has identified 41 best-evidence interventions, seven of which were effective with people living with HIV: CLEAR (for young positive MSM); Healthy Living Project; Healthy Relationships; LIFT (living in the face of childhood sexual trauma); Positive CHOICE (interactive video doctor); SUMIT (Seropositive Urban Men's Intervention Trial) Enhanced Peer-led; and WILLOW (for HIV-positive women). Although most of these interventions were created to reduce HIV risky transmission behaviors, none has been developed specifically to reach HIV-infected MSM who engage in the riskiest sexual transmission behaviors and who do not consistently use traditional risk-reduction strategies.

Under the auspices of the Task Force on Community Prevention Services, Herbst et al. (2007) conducted a systematic review of effective primary HIV behavioral interventions with MSM, which also included economic effectiveness. Based on the analysis, there was an intervention effect of 27% and 43% odds reduction in UAI at all individual- (4 studies), group- (13 studies) and community-level (3 studies) interventions. No individual-level interventions, however, were identified as cost-effective in preventing HIV infection or cost per quality adjusted life year saved. Reviewers did not include behavioral interventions intended to affect sex-behavior and biological outcomes in HIV-infected MSM, noting that there are enough differences between these subgroups

to warrant a separate review. These findings led to the necessity to test the cost effectiveness of HIV interventions in reducing the number of risky episodes and achieving long-term sexual health goals. As noted earlier, this review focused only on primary HIV interventions for HIV-uninfected MSM.

Crepaz, Passin, Herbst, Rama, Malow et al. (2008) conducted a comprehensive meta-analysis of cognitive-behavioral interventions (those that included appraisal or cognitive restructuring) that were conducted to improve mental health among HIV-infected individuals. Fifteen controlled trials published between 1988 and 2005 showed significant treatment effects for improving mental health, and aggregated effect sizes for depression and anxiety were significant for interventions that incorporated stress management and included more than 10 intervention sessions. Mental health and immune function were the primary outcomes measured, and therefore, intervention effects as a result of individual-level risk reduction strategies to decrease risky sexual behaviors were not analyzed. Crepaz et al. (2008) suggest that new research focus closely on “the relationship among interventions, psychological states, medication adherence, and immune functioning – particularly long term,” as well as identify other moderators not previously considered. The psychological, behavioral and contextual factors associated with risky sexual behaviors could potentially be those “other relevant moderators of the intervention effects” (p. 12).

Individual-level HIV Risk-reduction Strategies

At the individual level, secondary HIV prevention interventions for HIV-infected MSM most often have focused on changing risky sexual behaviors by introducing risk-reduction strategies. Couched within a cognitive behavioral paradigm, these strategies

focus on changing knowledge through cognitive restructuring, increasing positive self-efficacy, discussing peer-group norms and safe-sex negotiation and condom use skills (Stall, Herrick, Guadamuz, & Friedman, 2009). Intention to change is often guided through the harm reduction model and motivational interviewing techniques (Callahan, Flynn, Kuenneth, & Enders, 2007; Golin, Patel, Tiller, Quinlivan, Grodensky, et al., 2007). These individual-based strategies include consistent HIV testing and condom use, serosorting, safer sex negotiation, disclosing HIV status, decreasing numbers of sexual partners, and intervention modules that combine and tailor these strategies specifically for the needs of individuals (Knauz et al., 2007). However, studies have indicated that treatment effects pertaining to behavior modification have a decay of intervention effects over time (Koblin, Chesney, & Coates, 2004; Stall, Ekstrand, Pollack, McKusick, & Coates, 1990).

Some researchers are introducing innovative strategies to reduce risky sexual behaviors. For example, Ventuneac, Carballo-Diequez, Leu, Levin, Bauermeister et al. (2009) found that serosorting with the use of a rapid HIV home test prior to sexual engagement may decrease HIV transmission, particularly among those MSM who use condoms inconsistently. As part of standard-of-care in comprehensive HIV care settings, Grimely, Bachmann, Jenckes, and Erbelding (2007) developed and implemented an audio-computer-assisted, self-interviewing system that creates an individualized HIV risk behavior profile. This novel intervention identifies behavioral stage within the Transtheoretical Model (Prochaska & DiClemente, 1984) and the concomitant counseling techniques to help change those behaviors. This computerized intervention helps medical

providers collaborate with their patients and develop tailored strategies to reduce high-risk sexual behaviors.

A number of potential barriers, however, are being identified that affect the effective use of HIV risk-reduction strategies, particularly with those targeting HIV-infected MSM. For example, one major barrier consists of the multiple mediators affecting HIV disclosure skills. Through nine qualitative interviews, Driskell, Salomon, Mayer, Capistrant, and Safren (2008) identified the following factors that potentially disrupt HIV serostatus disclosure with sexual partners: Rejection/missed sexual opportunity; confidentiality; assumptions about partner's HIV status; deferred responsibility; sexual partner type (primary or secondary); and public sex environments. These disclosure concerns could be incorporated into the HIV intervention model created by Herbst et al. (2007) and investigated for further barriers or even augmentation. In a multi-site intervention trial (N=675), Simon Rosser, Horvath, Hatfield, Peterson, Jacoby et al. (2008) determined that HIV "disclosure to all secondary partners was associated with lower serodiscordant unprotected anal intercourse" (p. 925), possibly indicating that there is an association between non-disclosure of HIV status with casual partners and HIV sexual behavior transmission acts. They recommend that "future intervention programs should encourage consistent serodisclosure to secondary sexual partners and promote outness and comfort with sexual orientation within a community-appropriate approach" (p. 928).

As noted earlier, data also suggest that when HIV status is known there is often a decrease in risky sexual behavior (Weinhardt et al., 1999). However, Kalichman (1999) reported that approximately 20-30% of HIV-infected MSM continue to participate in

risky sexual behaviors after they are aware of their serostatus, while Janssen et al. (2001) reported this figure to be higher at approximately 33%. It is unclear what factors are associated with sexual risk or what is disrupting the uptake of secondary HIV prevention messages. Some researchers report complacency regarding sexual risk, indicating there might be psychological and behavioral assumptions that include the success of antiretroviral therapy (CDC, 2007), optimism about HIV treatment (Crepaz, Hart, & Marks, 2004; Dilley, Woods, & MacFarland, 1997; Kelly, Hoffman, Rompa, & Gray, 1998), lack of accurate HIV knowledge and transmission risk while on antiretroviral medications (Suarez & Miller, 2001), and long-term exposure to HIV preventions and safer-sex negotiation practice fatigue (Ostrow & Fox, 2002). Suffice it to say, unknown psychosocial aspects of risky sexual behavior also might affect the uptake of HIV risk reduction strategies.

Psychosocial Aspects of Risky Sexual Behavior

The last two decades have ushered in an increased interest in research on the psychological factors associated with risky sexual behavior, particularly how individuals practice safer sex or choose to engage in HIV transmission behaviors. Miner, Peterson, Welles, Jacoby and Rosser (2009) noted the relative lack of research that examined predictors of unprotected anal sex among HIV-infected MSM. Reisner, Mimiaga, Skeer and Mayer (2009) suggest that “unprotected anal intercourse (UAI) remains the riskiest sexual transmission behavior for HIV acquisition and/or transmission among MSM” (p. 545). Parsons, Halkitis, Wolistki, & Gomez (2003) assessed sexual risk behaviors of 367 men living in two large metropolitan areas (i.e., New York City and San Francisco). They found that men who engage in UAI felt little responsibility to keep their anal receptive

partners safe from HIV. Furthermore, and in contrast, those men who did report protected anal intercourse were less likely to use amyl nitrate inhalants (i.e., poppers), less tempted to engage in unsafe sex, and less likely to have HIV-negative or unknown-status partners.

Engaging in unprotected sex is a very complex phenomenon, which often includes multiple aspects and complicated reasons (van Kesteren, Hospers, Kok, & van Empelen, 2005). Studies have identified a number of variables that are associated with risky sexual behavior, which include the following: emotional distress (Kelly et al., 1993); alcohol dependence (Woolf & Maisto, 2009) and substance abuse (Drumright, Little, Strathdee, Slymen, Aranea, et al., 2006; Kalichman, Rompa, DiFonzo, Simpson, Kyomugisha, et al., 2001); perceived risk and personal responsibility (van Kesteren, et al., 2005; Wolitski, et al., 2003); sex with anonymous partners (Semple, et al., 2004); setting or place (Elwood & Greene, 2005); sexual sensation seeking (Kalichman, Weinhart, DiFonzo, Austin, & Luke, 2002). In addition, Parsons et al. (2003) suggested negative affective status (e.g., depression and loneliness) also may be associated with UAI, specifically among MSM who self identify as a bottom (i.e., engage consistently in receptive anal intercourse). However, most studies have focused on a specific set of psychological aspects of risky sexual behavior. Little research has been conducted on capturing a comprehensive and descriptive assessment of risk factors associated with HIV transmission sexual behavior, specifically with HIV-infected MSM who practice very high-risk sexual behavior.

Conclusion

With the advances of antiretroviral therapy HIV-infected men are now living longer, and prevention interventions must change to meet individual and societal needs (del Rio, 2003; Gasiorowicz, Llanas, DiFranceisco, Benotsch, Brondino, et al., 2005).

Limited research has been conducted on HIV-infected MSM who are engaging in risky sexual encounters, which are often with multiple partners. Furthermore, little to no research investigates the psychosocial aspects of high-risk men who do not use traditional risk reduction strategies to decrease HIV transmission. For this group of MSM, novel risk-reduction strategies are needed to keep them safe from super infections with additional strains of HIV and from co-infections with other sexually transmitted infections, and also to decrease the transmission of HIV to men who are HIV-uninfected or whose serostatus is unknown. Providing a description of the psychological, sociological and contextual factors that surround risky sexual behavior could help create new HIV intervention preventions.

Research Questions

For this qualitative investigation, these three research questions were used to guide the current study and to develop the semi-structured interview questionnaire (See Appendix):

- 1.) What are the psychological, behavioral and contextual factors associated with HIV-infected MSM who engage in very risky sexual behavior?
- 2.) What are the attitudes of this high-risk group regarding secondary HIV prevention interventions (e.g., condom use, HIV disclosure, serosorting, etc.)?
- 3.) What secondary HIV prevention strategies would be most effective as perceived by the participants?

CHAPTER TWO

Method

Overview of Parent Study

With the supervision of Conall O’Cleirigh, Ph.D., as the principal investigator, the researcher implemented a study at The Fenway Institute called Project Engage. The study was so named because it was assumed that the riskiest HIV-infected MSM would be difficult to engage for the investigation. Funded by the Center for AIDS Research (CFAR) at Harvard University, the goal of the project was to investigate the lives of HIV-infected MSM who engage in risky sexual behavior and to identify comprehensive personality assessments for this high-risk group. Project Engage was a cross-sectional empirical study targeting HIV-infected MSM who reported having multiple episodes of unprotected insertive or receptive anal intercourse with sexual partners who were HIV-uninfected or whose HIV-status was unknown. The collection of behavioral data occurred through two data sources consisting of (1) a comprehensive, specifically tailored, quantitative assessment battery (n=60) and (2) in-depth, semi-structured qualitative interviews (n=15). The combination of these data points will be used to create novel risk reduction strategies based on high-risk personality profiles and to test the efficacy of the strategies first in a pilot study and then in a randomized control trial.

Study Setting

The Fenway Institute is the research division of Fenway Health, which is a community health facility founded in 1971 that provides comprehensive physical and mental health services to its surrounding community, including Lesbian, Gay, Bisexual, and Transgender (LGBT) patients. It is the largest primary care center for LGBT patients

in the Northeast. Fenway Health services include medical care, behavioral health, dental and eye care, complementary therapies, substance abuse services, violence recovery programs, and financial assistance and counseling. Fenway Health is an ideal setting to conduct emerging studies in LGBT health and particularly with HIV-infected MSM. In 2009, just over 1,300 HIV-infected patients received care at Fenway Health, and 95% of these patients were MSM. Fenway Health is one of the leading health institutions in the world that addresses LGBT health care in general, with particular emphasis on MSM living with HIV/AIDS.

Current Research Design

For the qualitative data points, and for the current dissertation project, the researcher employed a qualitative descriptive approach (Sullivan-Bolyai, Bova, & Harper, 2005) to answer the research questions and achieve the research aims. The researcher conducted 15 in-depth, semi-structured interviews, which lasted between 50 to 60 minutes and explored the sexual practices of HIV-infected MSM who participated in multiple episodes of UAI with HIV-uninfected or with sexual partners whose serostatus was unknown. One interview was unable to be transcribed because of poor audio quality, and therefore the researcher conducted an in-depth, content analysis of the 14 qualitative interviews (Miles and Huberman, 1994).

A qualitative descriptive design (Sandelowski, 2010; Sandelowski, 2000; Sandelowski & Corson Jones, 1996; Sullivan-Bolyai, et al., 2005) and in-depth content analyses (Miles & Huberman, 1994) provided a contextual framework to explore and describe new or formative qualitative data based on the lives of HIV-infected high-risk MSM. Additionally, this design incorporated within-case and across-case approaches

(Ayres, Kavanaugh, & Knafl, 2003) to discern patterns and commonalities among the data pertaining to the research aims. This study is embedded within a constructivist paradigm, which considers multiple realities as its ontological premise, an epistemology that is subjective and a methodology that is naturalistic (Denzin & Lincoln, 2005).

Participants who shared their stories or described their experiences presented multiple perspectives regarding psychosocial, behavioral and contextual factors when they engaged in very risky sexual activity. Therefore, the analysis also was guided by the perspectives of naturalistic inquiry (Lincoln & Guba, 1995), which focuses on describing unique or complex situations as represented in their natural and contextual forms, and which requires the researcher to engage in low-level inference when synthesizing and disseminating data. This turn to a descriptive design and content analysis provided a context “for studying risk behaviors among socially marginalized populations who do not always respond to mainstream prevention messages” (Tomso, 2009, p. 61).

All qualitative methodologies have some element of description, interpretation and explanation. Specifically, a qualitative descriptive approach is differentiated from phenomenology, grounded theory, and ethnography (Sandelowski, 2000). These latter methods have specific goals aimed at interpreting and explaining phenomena under qualitative investigation. Qualitative description seeks to adhere strictly to the description of a phenomenon, or the experience of the participant, and “entails a kind of interpretation that is low-inference” (Sandelowski, 2000, p. 335). A low-inference approach to interpreting data helped the researcher describe a more natural and contextual depiction of the phenomena being investigated. A qualitative descriptive approach also provided “rich subject information regarding health-related concerns and issues,” as well

as a means for identifying “critical information for crafting new or refining existing interventions, and for furthering program development” (Sullivan-Bolyai et al., 2005, p. 129).

Study Population

MSM represent the largest single group of newly infected individuals with HIV. Furthermore, male-to-male sexual contact is the central pathway for HIV transmission from HIV-infected to HIV-uninfected MSM. To help implement this research study, MSM who are HIV-infected and who engage in risky sexual behavior with serodiscordant or unknown HIV-serostatus partners were recruited for in-depth, semi-structured interviews. These semi-structured interviews were conducted utilizing an interview guide (See Appendix B), which was created based on predominant sexual risk factors and their associated contexts identified in the literature (e.g., condom use efficiency, perceived sexual risk, use of drugs and alcohol, casual sex and anonymous partners, effective use of traditional HIV prevention interventions, etc.). Risky transmission sexual behavior was defined as engaging in multiple episodes of unprotected insertive or unprotected receptive anal intercourse with serodiscordant and/or with whose serostatus was unknown in the past three months. To obtain information-rich cases and to explore the diverse experiences of HIV-infected MSM who engage in risky HIV transmission sexual behavior, a maximum variation sampling technique combining three specific non-probability sampling methods was used.

Purposive sampling was employed as the initial method to recruit HIV-infected MSM. For most studies at The Fenway Institute, participants indicate whether they would like to be contacted for other studies for which they might qualify. Participants who

Table 1

Inclusion and Exclusion Criteria for Project Engage

Inclusion Criteria	Exclusion Criteria
1. Age 18 or older.	1. Unable or unwilling to provide informed consent.
2. Self-reports as a man who has sex with men (MSM).	
3. Self-reports HIV-infected status.	
4. Reports engaging in multiple episodes of unprotected anal intercourse (reception or insertive) in the previous three months.	
5. Reports having HIV-uninfected or unknown serostatus male partners in the previous three months.	
6. Is capable of completing and fully understanding the informed consent process and the study procedures in English.	

volunteered for a previous study called Project Enhance (a Randomized Control Trial with a four-session behavioral intervention to reduce risky sexual behavior) were contacted if they reported engaging in five or more episodes of unprotected anal intercourse (insertive or receptive) at baseline assessment. In addition, participants met the inclusion criteria for Project Engage and indicated they would like to be contacted for other studies at The Fenway Institute. These participants were recruited with an invitation letter sent either by email or post.

Second, on completion of the Project Engage in-depth interview, the researcher asked interviewees to nominate others who they think might be interested in participating in the study. This method represented nominated sampling within a low-accessed community. Lastly, the researcher relied on volunteers who receive their care from Fenway Health or from others in the large community. Specific flyers and palm cards

with study information were available in lobbies, hallways and clinical treatment rooms within Fenway Health. These three sampling techniques resulted in 15 HIV-infected MSM interviewees who met criteria for the study and provided information-rich examples of the phenomena under investigation. Overall, this method of maximum variation sampling provided the in-depth descriptive data needed to address the research questions and to meet the specific aims of the project.

Recruitment Procedures

Participants were recruited from patients who were currently receiving primary care or mental health services at Fenway Health and more broadly in the community through recruitment initiatives, advertising, and other referrals. The Fenway Institute recruitment efforts focus on ensuring that research studies include representative samples. HIV infection is relatively more frequent among African-American and Latino MSM than among Caucasian MSM. Recruitment efforts utilized included posting information and speaking with staff at the Multicultural AIDS Coalition and the Latino Hispanic AIDS Action Network. In addition to Project Enhance, previous participants in other research studies at The Fenway Institute were recruited if they indicated they wished to be contacted for future studies.

All potential participants who contacted the researcher were provided information about the goals and aims of the specified study. If they remained interested in screening for qualification, study staff members asked the caller if he would be interested in a brief, initial telephone screen. Potential participants who indicated that they were interested in screening for the study were assigned a screening identification number. The screening identification number is a unique number not linked to any identifying information. All

hard copies of telephone screens were stored in a locked cabinet located next to the researcher's desk. After eligibility criteria were determined, participants were invited to participate in the qualitative interview. For convenience purposes, the first 15 men who volunteered for the interviews and who met the criteria to be in the study were invited to participate.

In order to provide interested subjects with additional information about the study and to schedule study visits and issue study payment, participants' full names were collected on a contact and scheduling list. Additionally, participants were asked if they would like a reminder call, and if so, they provided a phone number to staff for that purpose. Providing a phone number was optional. No other identifying information was collected, and the names and phone numbers of participants were entered in the secure, restricted-access and password protected Appointment Pro software located on a restricted server that is utilized for scheduling participant visits. Given the nature of the study and the risk of stigmatization, the participant's name was not linked to a particular study; rather, they were linked to the name of the researcher with whom they had the scheduled visit. Once the study visit was complete and the participant had been issued study payment, the researcher deleted the participant's name and any provided phone number from the Appointment Pro software.

Study Procedures

At their study visit, prospective participants met with the researcher and discussed the study procedures and requirements, including risks, benefits and compensation, as well as noting that participation was voluntary. Participants were informed that they could refuse to answer any question and/or withdraw at any time (See Appendix A for

Oral Explanation of Research). Participants had the opportunity to have all their questions answered prior to obtaining informed consent and the initiation of any study procedures. If the individual remained interested, the researcher obtained oral informed consent, and then signed the Oral Explanation of Research consent form so that participants could take it with them if they have follow-up questions or concerns. All participants were compensated \$50 for participation in each interview.

All participants were instructed not to identify themselves or any other people by name during the interview in order to preserve their anonymity. Participants were given a pseudonym by the researcher when he analyzed the data. Digital recordings were stored without any subject identifiers on a restricted server in a password-protected folder. This folder was restricted to only the researcher and the primary investigator. The digital recordings will be kept for five years following the conclusion of the study at which time the recordings will be electronically destroyed. The interview transcriptions will be stored electronically without any participant identifiers on a protected server and in a password protected file accessible only by the researchers on this study. Interview transcriptions will also be stored for five years following the conclusion of the study at which time they will be electronically deleted.

Instrument

Because this study investigated risky sexual behavior with a high-risk HIV-infected group, limited demographic information was collected during the interview. This study was highly confidential with only participants' voices being recorded and no names transcribed. Only age and ethnicity were identified. The researcher used a semi-structured questionnaire consisting of 11 primary questions with additional probing questions to

elicit in-depth descriptions (See Appendix B). A review of literature describing what research scientists already know about psychological, behavioral and contextual factors associated with MSM who engage in risky sexual behavior was used to create the instrument questions. After the informed consent process, the researcher began each interview with the open-ended question, “Could you share about your last sexual encounter?” This first question helped participants begin to discuss a sensitive and personal topic involving sexuality. The researcher encouraged them to provide as much or as little detail as they felt comfortable doing. Other questions included the following topics: (1) psychosocial characteristics of sexual partners, (2) sex with multiple partners, (3) public sexual encounters, (4) transactional sex, (5) and interest in participating in secondary HIV prevention. Though not every topic was relevant for each participant, each of the 11 questions was asked during the interview.

The researcher also used clarifying questions and asked for specific examples to elicit more in-depth descriptions. To indicate that the participant was being heard, the researcher provided reflective questions like, “What I’m hearing you say is...” “Is that correct?” Probing questions also were used such as, “Could you describe that a little more?” or “Could you give me an example of what you mean?” Toward the end of the interview, the researcher asked the participants, “What are some other important things that I should know about your sexual behavior to help me understand you better?” This question provided participants with an opportunity to share any additional information that was not discussed during the interview; it also helped to conclude the interview.

Data Analysis

The analysis plan for the qualitative data merged analytic strategies outlined by Miles and Huberman (1994) with strategies for conducting within-case and across-case approaches to qualitative data analysis (Ayres, Kavanaugh, & Knafl, 2003). These strategies helped the researcher stay close to the data by encouraging a low level of interpretation. These analytic tenets are described in Table 2 along with specific analytic steps to implement these tenets.

Table 2:

Tenets and Steps for Analytic Review of Qualitative Data

Tenets of Qualitative Description Analysis	Analytic Steps Associated with Each Tenet
1. Record insights and reflections on the data	<ul style="list-style-type: none"> • Create contact summary sheets to identify major insights and potential assumptions of interviewer
2. Analytic immersion in all interviews	<ul style="list-style-type: none"> • Read each interview separately to get the “gestalt” of each response • Review and identify potential themes
3. Immersion in each interview	<ul style="list-style-type: none"> • Conduct within-case analyses to discover significant statements, patterns, or phrases • Code transcripts line-by-line
4. Comparison of significant statements	<ul style="list-style-type: none"> • Conduct across-case analyses by looking for commonalities and differences across cases • Organize across-case findings into preliminary themes related to the research questions
5. Free Writing	<ul style="list-style-type: none"> • Ask “What would HIV-infected MSM who engage in risky sexual behavior want the world to know about them?”
6. Gradually decide on a small group of generalizations that hold true for the data	<ul style="list-style-type: none"> • Develop definitions for each category,

	subcategory and code <ul style="list-style-type: none"> • Organize categories of significant statements by themes
7. Examine generalizations in light of what is known	<ul style="list-style-type: none"> • A final report will synthesize and reintegrate findings into existing literature

A total of fifteen interviews were completed, including nine Caucasians and six African-Americans, however, only 14 were transcribed and analyzed. The audio recording of one interview was poor and could not be transcribed. Prior to any comparison across interviews (or cases), the researcher read each transcribed interview multiple times in order to ascertain the “gestalt” of each response. This initial approach to the data helped the qualitative researcher “apprehend its essential features, without feeling pressured to move forward analytically” (Sandelowski, 1995, p. 373). Insights and reflections on the data for each interview were recorded on *Contact Summary Sheets* (Miles and Huberman, 1994), identifying the main issues of the interview, what was not asked or what could have been discussed further, and anything else that was salient or interesting about the interview.

Next, the researcher immersed himself in each interview by conducting a within-case analysis (Ayres et al., 2003). During this time, transcripts were coded line-by-line, which helped to identify main issues or themes and salient concerns of the contact, as well as errors and omissions that could have occurred. A thematic codebook was created and Atlas.Ti software was used to organize transcripts according to each code. After within-case analysis, the researcher then conducted an across-case review of the data, looking for commonalities and differences across interviews (Ayres et al., 2003). These

findings were organized into preliminary themes related to the proposed research questions that began to capture a description of sexual behavior reflected in the lives of high-risk HIV-infected MSM. The researcher and the principal investigator individually reviewed coded transcripts to determine emerging themes and together agree upon final themes. Data were reexamined, and ongoing discussion between the researcher and the primary investigator provided opportunities to identify interconnections among research questions, coding categories, and raw data. Next, the researcher engaged in a process called *Free Writing* (Ayres et al., 2003) where he answered the question, “What would HIV-infected MSM who engage in risky sexual behavior want the world to know about them?” As a result, brief abstracts were written for each interview, providing a “summary impression of the distinctive elements” of each description (Sandelowski, 1995, p. 373). Narrating how each participant describes his sexual beliefs and practices, as well as the context and situation in which he experiences them, helped identify unique concepts about the psychosocial, behavioral and contextual factors for each case. Furthermore, this exercise helped the researcher consider the potential generalizability of the analyzed data and its importance and application to other populations.

On completion of *Free Writing*, the researcher gradually decided on a description of potentially generalizable data. This output consisted of developed definitions of each theme and potential sub-theme category, as well as significant statements that arose from the analysis. Lastly, a descriptive final report accompanied by a descriptive table of the participants interviewed, a figure with emerged themes and a table identifying those themes corresponded with which participants. These data were folded back into HIV prevention literature, and future steps for augmenting secondary HIV prevention

interventions in light of salient findings (e.g., psychosocial and contextual characteristics of risky sexual behavior) were highlighted.

Rigor in Qualitative Research

Using a paradigm of naturalistic inquiry to guide the study also required the researcher to establish trustworthiness by meeting the criteria of credibility, transferability, dependability and confirmability (Lincoln & Guba, 1985). According to Lincoln and Guba (1985), meeting the first three criteria results in confirmability, determining the trustworthiness and rigor of qualitative research. Below, Table 3 outlines both the rigor points and the specific procedures to ensure trustworthiness of the study.

Table 3

Criteria and Procedures to Ensure Trustworthiness of the Study

Rigor points	Procedures to ensure trustworthiness
1. Credibility	<ul style="list-style-type: none"> ● Prolonged engagement ● Persistent observation ● Peer debriefing
2. Transferability	<ul style="list-style-type: none"> ● Producing thick descriptions of data collected through purposeful sampling
3. Dependability	<ul style="list-style-type: none"> ● Auditing study procedures and analyzing data and recommendations
4. Confirmability	<ul style="list-style-type: none"> ● Establishing credibility, transferability, and dependability, as well as completing an audit trail

In the naturalistic paradigm, credibility refers to the validity of findings within the data – in this case, the in-depth interviews – and requires the employment of multiple procedures to ensure a formable outcome. To ensure credibility, the researcher continued to participate in prolonged engagement, persistent observation and peer debriefing. For prolonged engagement, the researcher invested in learning about HIV-infected MSM who were receiving primary care at Fenway Health and about the culture in which risky sexual

behavior occurs. The researcher debriefed ongoing findings with research staff members at weekly research team meetings. These research staff members were behavioral scientists who have extensive experience with this high-risk group and have expertise in investigating high-risk sexual behavior in MSM populations. In addition, the researcher implemented the quantitative phase of Project Engage, which consisted of a comprehensive assessment of the psychosocial and psychosexual factors, including a neuropsychiatric interview, associated with high-risk HIV-infected MSM (these 66 participants did not complete the qualitative interview and are not included in this analysis). These steps helped to ensure credibility of data analyses of the multi-dimensional phenomena of risky sexual behavior.

For persistent observation, the researcher focused on the psychological and sociological characteristics relevant to risky sexual behavior. Observing other studies at The Fenway Institute and reading literature on high-risk MSM, as well as consulting with an experienced behavioral science research team helped to construct the semi-structured questionnaire that guided the one-on-one qualitative interview. Lastly, peer debriefing, particularly with the principal investigator and other researchers on the behavioral science team, as well as with members on the dissertation committee, served to generate questions that “pertain to substantive, methodological, legal, ethical, or any other relevant matters” (Lincoln & Guba, 1985, p. 308). This debriefing also allowed the researcher to share any concerns or issues as a means of catharsis, helped to identify biases that arose during the analysis of the qualitative interviews.

A qualitative descriptive approach encourages reporting a thick description of empirical data, so that other researchers and clinicians may use that description in

pragmatic ways. Through purposive sampling, the researcher provided an in-depth description of the experiences of HIV-infected MSM who engage in risky sexual behavior. Researchers and clinicians may apply these findings, whether to investigate risky sexual behaviors or to create and implement specific and contextual HIV prevention interventions. This procedure helped to ensure the transferability of the qualitative data, perhaps leading to the implementation of other qualitative studies or the creation of more improved secondary HIV prevention interventions. Furthermore, these data may have the transferability to allow the design and implementation of randomized control trials that could reach a larger sample of HIV-infected MSM who engage in risky sexual behaviors.

Dependability refers to the reliability and accuracy of the quality of the data collected over time. This stability was encouraged through establishment of an audit trail of the procedure for data collection and analysis. On a bi-weekly basis, the researcher shared procedures for study implementation and data collection, coding schemes, emerging themes, findings and conclusions with the primary investigator and the entire behavioral science research team at The Fenway Institute. The use of contact summary sheets (Miles & Huberman, 1994) also provided a trail of dependability. These audits helped certify that findings from the study will be reliable and accurate over time.

When credibility, transferability and dependability were met, and a thorough audit trail was completed, the researcher then had confidence that trustworthiness had been achieved. The researcher may now disseminate the research findings and implications with confirmability.

Protection of Human Subjects

This research protocol was reviewed and approved by the Institutional Review Board (IRB) at both Boston College and The Fenway Institute. Implementing a research study is an iterative process, and therefore, any contextual changes within the research protocol were submitted to review boards for further approval. The researcher worked closely with the Manager of Research Compliance at The Fenway Institute to ensure that the protection of human subjects was carried out successfully. It is unlikely that participants were at any risk for physical harm as a result of participating in the in-depth interview. Due to the nature of topics discussed, participants could have experienced some discomfort or distress during the interview. The researcher was trained by the study principal investigator, Dr. O’Cleirigh, a licensed Clinical Psychologist, to identify and manage potential distress if it was needed. Dr. O’Cleirigh was also available in person or by phone to assist with the management of participants’ distress levels if they had occurred. Standard operating procedures and study specific procedures have been created to ensure quality control of study implementation and the data collected.

CHAPTER THREE

Findings

This chapter provides findings from the content analysis of qualitative interview data with 14 participants. The following information will be discussed: (1) characterization of the sample, (2) the qualitative descriptive themes that emerged from the in-depth content analysis, and (3) recommendations as described by participants for alternative approaches to HIV prevention. The presentation of these findings is consistent with a descriptive approach (Sandelowski, 2010; Sandelowski, 2000; Sandelowski & Corson Jones, 1996; Sullivan-Bolyai et al., 2005) and a content analysis (Miles & Huberman, 1994) of qualitative data. That is, data were approached and analyzed using a low-level of inference in order to stay close to first-person descriptions of the phenomena being investigated. The researcher engaged in the iterative process of descriptive reflection while preparing for and conducting the interviews, as well as when analyzing data within and across cases (Ayres et al., 2003).

Before each interview, the researcher reflected on the semi-structured interview instrument that consists of 11 primary questions generated from a review of the literature. After each interview, the researcher immediately composed *Contact Summary Sheets* (Miles & Huberman, 1994) that identified major insights resulting from the contact experience. This reflection and composition pointed toward potential assumptions noted earlier and carried by the researcher; in addition, this helped to prepare for the sequential interviews with other potential participants by generating additional probing questions where necessary. When all interviews were completed and transcribed, the researcher read each interview and conducted a within-case analysis to discover significant

statements related to the research questions. Coding each transcript line-by-line not only required the researcher to stay close to the data, but also resulted in patterns and phrases that highlighted emerging themes.

Once a within-case analysis of each transcript had been conducted, the researcher began the process of across-case analyses in order to compare significant statements, patterns and phrases within all interview data. These commonalities also were organized into preliminary themes related to the research questions, and the researcher gradually decided on a small group of potential generalizations that hold true for the data. The entire iteration process was continually discussed with the principal investigator, also the researcher's supervisor for the parent investigation called Project Engage. Emerged themes are presented below along with significant statements that support each theme. These findings also provide a foundation for the next chapter, which will integrate those findings in the published HIV prevention literature.

Demographic and Sexual Characteristics of Participants

Prior to volunteering for the qualitative interview, all participants were screened with a telephone interview to determine if they met criteria for the study. Thus, each participant reported being a HIV-infected man who has sex with men (MSM), having had multiple episodes of unprotected anal intercourse in the past three months and having sexual partners who were HIV-uninfected or whose HIV status was unknown. During the subsequent 60 minute interviews, all participants described in depth at least one of their sexual encounters in the past three months. As participation in the study was anonymous collection of background data was limited to age and race/ethnicity.

As seen in Table three, nine of the participants self-identified as Caucasian while the other five participants self-identified as African-American. Their ages ranged from 28 to 58 years, with a mean age of 45.2. Four of the participants reported having a primary partner with whom they lived or had sex on a regular basis. The other 10 did not have primary partners. All 14 participants reported that they engaged in oral or anal intercourse with casual partners in the past three months. Casual sexual partners (i.e., secondary partners) might be defined as those with whom participants have had sex in the past, or who were repeat sexual partners, but were not committed or roommate partners. Ten participants reported having anonymous sexual partners in the past three months with whom they met only once and did not know their name. Three reported not having anonymous sexual partners, while one participant did not mention anonymous sex at all. Nine reported having engaged in sex with multiple partners simultaneously in the past three months. Ten participants reported having sexual encounters in public (e.g., oral or anal sex in public bathrooms, parks, alleys, etc.), while five men described transactional sex acts for money, drugs or alcohol. All but one participant discussed oral sex as a sexual activity, while 12 and 13 participants reported having engaged in anal receptive and/or anal insertive sex, respectively.

Table 4

<i>Demographic and Sexual Characteristics</i>	(n=14)	M
Age	28 – 50 yrs.	45.2 yrs.
Ethnicity		
White/Caucasian	9 (64.3%)	
Black/African-American	5 (35.7%)	
Sexual Partners		
Primary Partner*	4 (28.6%)	

Casual Partners**	14 (100%)
Anonymous Partners+	10 (71.4%)
Multiple Partners++	9 (64.3%)
Sexual Activity	
Oral Sex	13 (92.8%)
Anal Receptive	12 (85.7%)
Anal Insertive	13 (92.8%)

*Primary refers to a committed partner, boyfriend with whom you have sex on a regular basis.

**Casual refers to a non-committed partner, friend with whom you have had sex more than once.

+Anonymous refers to sex partners you only met once and you might not know his name.

++Multiple refers to more than one sex partner at the same time.

Descriptive Themes that Emerged from the Data

The seven tenets of qualitative descriptive analysis and the analytic steps associated with each tenet provided a formative guide for reviewing and deciding on a small group of generalizations that might hold true for all the data. Consistent with within-case and across-case approaches to qualitative data analyses (Ayres et al., 2003), the researcher compared significant participant statements related to the three overarching research questions: (1) What are the psychological, behavioral and contextual factors associated with HIV-infected MSM who engage in risky sexual behavior, (2) What are the attitudes of this high-risk group regarding secondary HIV-prevention interventions, and (3) What secondary HIV-prevention strategies would be most effective as perceived by the participants? These questions guided the researcher through the iterative exercise of interacting with the data with low levels of interpretation.

After the content analysis, five descriptive themes emerged from the qualitative interviews that provided insight to question one above: (1) serostatus attribution, (2) partner responsibility for safer sex negotiation, (3) sexual sensation seeking, (4) presence of substance use, and (5) relationship desire and/or dissatisfaction. These themes capture the first two questions outlined above, specifically addressing the psychological,

behavioral and contextual factors of risky sexual episodes, as well as attitudes regarding HIV prevention interventions (e.g., HIV-disclosure and condom use efficacy).

Pseudonyms are used for each participant in order to highlight their responses. Figure 1 provides the description of the emerged themes and subthemes as a result of the content analysis of the qualitative data.

Table 5

Descriptive Themes and Subthemes

<p>Theme I: <u>Serostatus Attribution</u> – Attributing sexual partners’ HIV-seronegative or seropositive status based on past and present experiences, risk behaviors and possible cognitive errors</p>
<p>Theme II: <u>Partner Responsibility</u> – Engaging in sexual risk, which could lead to HIV acquisition or other sexually transmitted infections, is the responsibility of the other person</p> <p>Sub-themes:</p> <ul style="list-style-type: none"> A. <u>HIV-disclosure</u> B. <u>Condom-use Efficacy</u>
<p>Theme III: <u>Sexual Sensation Seeking</u> – Pursuing excitement through internal and external sexual stimuli</p> <p>Sub-themes:</p> <ul style="list-style-type: none"> A. <u>Sexual Gratification</u> (internal stimulus) B. <u>Public Sexual Expression</u> (external stimulus)
<p>Theme IV: <u>Presence of Substance Use</u> – Using drugs and alcohol before and during unprotected anal intercourse (insertive or receptive)</p> <p>Sub-themes:</p> <ul style="list-style-type: none"> A. <u>Substances and Sex</u> B. <u>Transactional Sex</u> (Sex for money, drugs, alcohol, etc.)

Theme V: Relationship Desire/Dissatisfaction – Desiring a relationship with a partner or reporting a lack of satisfaction with the current partner – this relationship might be monogamous or a one-on-one, primary sexual partner

Theme I: Serostatus attribution. Participants shared how they often used conversations with their sexual partners, past sexual experiences and observations before and during sex to determine if their sexual partners were HIV-infected or HIV-uninfected. This concept may be described as *serostatus attribution*. For many of these men, attributing a positive serostatus to their sexual partners was an important aspect of their sexual encounters. At times, it was unclear whether these sexual partners were accurately assessed as seropositive. For example, Jon explained his experience regarding the difference between someone saying they are HIV-negative and someone saying they do not know their serostatus:

People who say that they are HIV unknown to me is a flag for ‘I haven’t been tested in a really long time and I’ve been promiscuous,’ which means that I am not the first person that they’re doing this with and I am not going to be presenting the high amount of risk to them... So unknown to me just means – like look at Manhunt, for example, unknown typically means positive, in my experience. If somebody says HIV negative, then it’s because they are recently tested and they know that they’re HIV negative, or that they don’t know and that they’re – it’s not the same as saying ‘Don’t know,’ you know.

Table 6

Attribution of Themes per Participant

Pseudonym	Age	Ethnicity	Serostatus Attribution	Partner Responsibility	Sexual Sensation Seeking	Substance Use	Relationship Desire/Dissatisfaction
Jon	38	C	X	--	X	X	X
Clarence	45	AA	X	X	--	--	X
Wayne	38	AA	X	X	X	X	--
Adam	28	C	X	X	X	X	X
Carl	43	AA	X	X	X	X	X
Roger	53	C	--	X	X	X	X
Leo	54	AA	X	--	X	X	--
Robert	46	AA	X	X	X	--	X
Jack	43	C	--	X	X	X	X
Brian	58	C	--	X	X	X	X
Justin	38	C	X	X	X	X	--
Mark	45	C	--	--	--	X	X
Mike	52	C	X	--	X	X	--
Frank	51	C	X	X	X	X	--

X = Identified theme associated with participant

Another participant, Adam, sometimes uses an online social networking profile to meet men for sexual encounters. According to Adam, some men do not post their serostatus, and when they tell him they are HIV-uninfected, he believes they are infected:

A lot of guys I know on Manhunt actually don't disclose their status. I've met a few who will contact me because I have it posted that I'm positive... It's the negative people who don't really talk about it, it's more like the positive people...most of the negative guys I have probably little to no conversations about it... I'll get some messages from guys who say they're negative, but they are actually positive.

Similar to Adam, Frank questions how honest his sexual partners are regarding their HIV-status. He shared, "You gotta make sure if you have sex with other people that – what their statuses are. I mean, some people lie. They can say they're negative, but they're not."

Other participants provided examples of how their sexual partners engage in unprotected sex, which to them is an indication that they also might be seropositive. Carl noted that when condoms are not used or HIV is not discussed, then he believes they are HIV-infected:

It's not a question about you being tested. I mean, they just want to screw and have sex. They don't want to make love. My personal opinion is if somebody was to approach me and pull down my pants and stick my dick in their mouth without putting a condom out, without asking about a condom, then they must be

positive...and if I don't object to it, then I must not be worried about catching it, and they must not be worried about catching it, so what's the sense in asking about it? The question has been answered...and you're telling me to fuck you without a condom, so you're not worried about anything I can give, that you must not already have.

Another participant feels that his sexual partners are educated about HIV, and therefore, it is OK to have unprotected sex if his partners choose to do so. Wayne stated:

I just strongly feel like that the person I'm with they're educated, they know about it (HIV), so in my mind, I'm thinking well, if you're willing to have unprotected sex with me, even though I don't look like I have HIV, then you must have HIV too, so it's OK.

Also using unprotected sex as a way to attribute serostatus, Robert, who shared his positive serostatus with one of his sexual partners, described this example:

This particular person knows that I'm positive and he denies being positive, although I have my doubts. Why would anybody want to get fucked without protection by someone who is proclaiming to be positive?

Mike rarely discusses his positive serostatus with his sexual partners, and he believes they "jump to the conclusion" that he is HIV-uninfected because of his consistent insertive intercourse acts:

...people have said that to me. It's like, 'Oh, you know, you're topping.' I think a lot of people just think that you can't be – you can't be positive because I never bottomed...and I'm like, 'No,' and I think they just jump to the conclusion.

Theme II: Partner’s responsibility for safer-sex negotiation. As a second descriptive theme that emerged from the data, participants described their *partner’s responsibility for safer-sex negotiation* as a result for continued risky sexual behavior. This psychological determinant could be defined as: engaging in sexual risk, which could lead to HIV acquisition or other sexually transmitted infections, is the responsibility of their sexual partners. Partner’s responsibility tended to overlap with social norms of *HIV disclosure* and *condom use efficacy*, which concomitantly emerged as sub-themes.

When asked why he thought HIV-status or condom use were not discussed with his sexual partners, Wayne shared the following:

Because people don't really ask that of me (HIV status) – they don't ask me, well, “it's nice meeting you, do you have HIV?” It just never comes up. So, if it's not brought up, I'm not going to bring it up. The same thing with the condom use – if you don't bring up then I won't mention it...I think that it doesn't come up knowing that I feel that you should know what's going on out there, you should know the risk of getting, I feel that you already have HIV or you have AIDS, that's why you don't care, because what sane person, knowing what's out there would continue to have unprotected sex and risk getting HIV or AIDS.

Later during the interview, Wayne revisited the use of condoms and insisted it was his partners’ responsibility to protect themselves, stating, “HIV and AIDS have been around for years and people should know the risk that they're getting into. So, if you choose not to use condoms, I just think that's on you, shame on you.”

Brian also suggested that his sexual partners do not really care about HIV or condom use because they never bring it up: “I never expose my status to these people that I’m having sex with because they never care. They didn’t broach the subject, why should I?” Justin shared a similar experience when asked specifically about condom use during his sexual episodes, but also noted that he would use a condom if his partners initiated it:

I won’t put on a condom unless they ask me to or unless they hand it to me, in which case I’ll put it on, but if they didn’t, I figure they know...they know the risks...they know what they are opening themselves up to.

Justin then goes on to share how he often does not disclose his HIV-status because his sexual partners do not broach the subject:

Kind of like out of sight out of mind type thing (discussing HIV status) – if they don’t mention it, you know, I forget about the whole thing. I mean I can’t forget the positive, but I forget about the whole disclosure thing, and I seem to have a problem with disclosure. I don’t know if it’s fear of rejection or being labeled, so if they see me again, “Oh yeah, that guy’s got it.” I don’t want that.

HIV-stigma is a reason why Carl does not discuss his positive serostatus, and he stated that he would wear a condom if his sexual partner broached the topic. He shares:

For the most part, no – basically, in my society, it’s a “don’t ask, don’t tell” policy. That’s kind of like taboo. Not going to ask, not gonna tell...nobody wants to disclose their status and they wouldn’t because they don’t know if somebody’s gonna go back and tell people...there’s a big stigma to that anyway...you just agree to just take chances with each other... If somebody wants to ask about my status,

my status quo answer would be “I haven't been tested in awhile. I don't know. I haven't been tested.” I mean, right then and there, that should give them all the information they need... They never ask (to use a condom). They just, Bing, Bang Boom, just went at it. It's like my policy, if you want to do it like that, we'll do it like that. I mean, if someone were to ask about a condom, I would put a condom on.

Clarence reported that no one besides his medical staff knows he is HIV-infected, including his family:

Well no, we never really talk about it because first of all, I haven't disclosed myself to many, if any... But if you are curious enough...if you are bold enough, brave enough to bring it to my attention...if you want to know the truth, ask me, because I'm only going to tell you the truth but that's only if I want you to know it. Now outside of my medical staff, nobody knows nothing about my -- my family still don't know. Whether they know or not, it's never been something that 's been discussed, so it's my business. If I wanted you to know, I would tell you. If you wanted to know the truth then you ask me.

For Frank, it is sometimes difficult to discuss his HIV status, and he hopes his sexual partners will protect themselves:

No, it's not easy (to talk about HIV). But then you need to protect yourself. Like if I go out there and have sex with somebody, hopefully I'm gonna be honest, but if I'm not, then hopefully that person is gonna try his best to be detective. I could be

in one of those moods that I don't want to protect myself from it. I mean damned if he doesn't protect himself...it's up to him 100% to protect himself.

Although Jack noted how he often gets intoxicated before anal intercourse with men, he noted that safer-sex negotiation does come up; but he ultimately feels that unsafe sex is up to the two people having sex:

It does (HIV comes up even if drinking). The same way when I'm sober. And again, if I'm not topping at all, orally or anally, it's their call. I should practice safe sex, but I don't sometimes...and if somebody wants to have sex without a condom, that's their business. Like, when I have sex without a condom, that's my business. So that's how I feel about prevention, trying to get people to do the right thing. I think you can talk and talk and talk and give and give and give, and if someone wants to do it, they're still going to do it.

Robert also described his experience with using condoms as a mutual agreement between him and his partners:

Because it's a mutual agreement between me and the people that I'm with...we've both agreed that we don't want to use a condom. I don't hide the fact (that I'm HIV-infected)...anybody that I engage sex with I do disclose my status. There's nobody that I fool around with that doesn't know.

Adam, who often meets his sexual partners online, gives his partners the choice whether they want to have sex or use condoms is important:

I have it posted on my profile. I don't hide my status. On all my profiles, it does say positive, and I do check in with them to see if they've read that, before we

hook up, and then I ask the bare-backing question, and if they're still willing to, then yeah...I've never not told anyone my status, unless I was at a bathhouse or in the (park) where nobody told me that they were gonna fuck me and they're HIV positive. In situations like that you just go with what feels right, and if you like it. I do believe in prevention: I give people the choice...it's completely their choice whether or not they want to bareback or not. And most guys that I have that are negative that bareback with me know -- they all know my status and they are willing to participate in sex... I can't remember the last time I used a condom. The last person I used a condom with was this kid I met around the same time last year. Other than that, I haven't used any condoms. The kid that I used a condom with, it was his choice, he was really kind of sort of paranoid about the whole thing, he was the one who really wanted to use the condom.

Roger shared that he usually tells his sexual partners that he has the virus unless he is intoxicated with alcohol. However, he stated that his partners still want to have sex, noting, "I usually say I have the virus and they want to – a lot of people just want to. They ask me no questions, and they just say let's do it anyway." When asked if Roger used condoms during multiple partner sex, he reported:

As a matter of fact there was not even a discussion about condoms. It was just rampant sex, rowdy or rampant sex. I didn't think about it. They didn't take mention. No one mentioned it. Everybody knew about the virus, and they know...

A low-inference of these significant statements could reveal that participants believe knowledge of HIV and prevention is the responsibility of their sexual partners.

Theme III: Sexual sensation seeking. Sexual sensation seeking may be defined as the pursuit of sexual excitement through external stimuli or the achievement of psychological meaning. This proactive desire also has been described as sensation seeking. The desire to experience excitement also may trump rational thought, as individuals could engage in risky behavior without an awareness of positive or negative consequences. Participants identified *sexual gratification* (internal stimulus) and *public sexual expression* (external stimulus) as two sub-themes in which excitement seeking was experienced.

Sexual gratification could be seen when Mike watches men have sex, describing, “it’s hot to watch.” He continued, sharing about when he has sex simultaneously with multiple men: “It’s like I could watch people have sex. I mean, I think I’m somewhat of a voyeur myself – but, it was nice to be able to watch them right there and to be able to participate.” Frank finds that chatting with other men online is exciting and prepares him for sex: “It’s exciting. Yeah, it’s kind of a turn-on sometimes. It’s a turn-on, heat of the moment, if you want to say.” Whereas, Jon finds unexpected sex exciting:

It was not really expected, actually. No, it was completely unexpected...I wasn't expecting sex, I was expecting a massage, and he was really hot...and the unexpected situation happened...the element of surprise, the element of novelty, the element of, 'Hey, this is cool.

As another example of sexual gratification, Adam described going through an anal receptive stage, noting how he thinks about his partners ejaculating inside of him:

I think the thought of having someone come inside me turns me on. Like, when I know a guy's about to ejaculate, or like, the peak sexual time for myself, like when I get off, if I do get off while getting fucked, that peak sexual time is either when they're hitting the right zone, or when they're about to come... I can actually get off -- that's what I'm really into it enough to actually get off as well. So I think the thought of having somebody come inside me is much more of a turn-on, and it makes sex better for me. Because I know with a condom, there's actually no cum inside.

Excitement seeking also occurs when Adam pursues public sex, a space where he believes he became HIV-infected:

I've been to the (park) before, and I believe that that's where I was -- that's where I became positive. Of course, there was a lot of drinking. I mean, it's exciting -- public sex is fun, it's kind of exciting, it's kind of like you're getting away with something.

Before Wayne visits public bathrooms for his sexual encounters, he thinks about what type of partner he will meet that day:

Just the whole who am I going to meet today and how is he going to do it, is he going to be willing to do it, that whole thing is what draws me. Just standing at the stall next to them and then me unzipping my pants and once I pull out my penis, just -- just their eyes, that's what gets me, just the way they look... Some I meet once because one thing about going to the bathroom you meet a different person every time you go. And then, you're subject to meet people that you've

been with before or that you've seen in the same spot a few times, but it's been my experience that I meet different guys every time, and I have like five or six different cruising spots to go to so if I'm not comfortable in one spot, or if I'm going in one spot, I'll just pick up and just go to the next one, until I find something that's appealing to me.

When asked what makes Wayne so excited about this public arena, he shared, "just the different people coming in and out and the different people that are sitting in the next stall masturbating..." Wayne also enjoys sex at public parks:

It is different because you're out in the public, you're outside, and just being outdoorsy is a turn on too. You're doing it outside where people are walking back and forth and turning their head in place. It's just like a little rush, you know, something to get away with and you shouldn't be doing it but you're doing it anyway.

Carl also finds public sex stimulating and described a time when he has anal insertive sex without a condom in the backseat of a vehicle:

I went down to the (sporting arena) with a friend of mine and they had their significant other with them, and they had another date with them who had a Jeep, and they've got the blacked-out windows. While they were gone to get tickets...and we just started getting it on. It's kind of exciting because people were walking by. The question of being observed, somebody catching you or seeing you, security banging on the windows or something. It's like of exciting. Get it off before they come back, so that they don't know.

In addition, Carl finds sexual gratification in the challenge of trying to engage sexual partners who seem to play “hard to get.” Carl shared, “I take that (playing hard to get) as a challenge, I want to know what you got that makes you so popular to these other people, and I bet I can pull you in. It becomes more of a competitive type sport thing, you know, I'll get you.”

Roger finds sexual excitement and particularly sexual gratification by being submissive to his sexual partners. He shared two examples of how he receives internal, psychological importance by letting his sexual partners not only be in control, but also willing to “top” him in order to make him feel being loved:

It (multiple sexual partners) was agreed upon. It wasn't against my will, obviously...I wanted to be submissive, and therefore I allowed that situation to be the aggressor. So, it turned out that way -- exactly what I wanted it to turn out in a way, more of a manipulative plot -- ploy -- on my part than anything on theirs I guess...so, reverse psychology on them if you want to say it like that.

And again, Roger, who has sex with both men and women, shared how he enjoys being loved by men in the anal receptive position:

It depends on what I want to feel like I'm being made love to or do I want to feel like I'm making love to someone else...that's basically it. If I want to make love to someone else, I usually choose a woman. If I want to feel like I'm being made love to, I choose a man... With a man I feel more -- I can feel weak. With a woman I can feel strong. I can allow myself to feel weak, in other words with a

man I can be the feminine...I tend to want to feel what they feel. I want to feel sort of protected...but it usually doesn't work out that way... But, that's what I want.

Roger also engages in unprotected anal sex in public environments. He described the following exciting encounter when he was exercising at a local park area and condoms were not available:

I was walking, working out down at the (deleted) river. I work out occasionally down there, and someone approached me and we basically just went behind the (building)...and we gave some mutual sex, anal sex...foreplay, anal sex. We did everything. It was brief. It was non-committed and it was just a spur of the moment thing... He was walking one way, and he looked at me. I was walking the other way, we looked at each other and it was pretty obvious that was what we both wanted. So we got it.

Brian reported the excitement of public sex as, "the thought of getting caught. That's something the danger, in a sense...nobody knew what we were doing...it is kind of fun. The excitement of the whole scenario." From a psychological perspective, all but two participants identified excitement seeking through sexual encounters.

Theme IV: Presence of substance use. Twelve of the 14 participants identified that substance use occurred often before or during their sexual encounters. These 12 participants provided narrative examples of when substances were used before, during or in transaction for sex. This theme was defined within two potential sub-themes. *Substance and sex* consisted of the presence of drugs and alcohol before and during unprotected anal intercourse (insertive or receptive), while *transactional sex* consisted of

offering sexual activities for money, drugs, alcohol, etc. Interviewees shared personal examples of both of these sub-themes.

Roger described that when he uses alcohol before sex he is not sure if he talks about his positive serostatus or condom use:

Always before, I tell them (HIV-infected) before just as a precaution, like most of the people I have a relationship with now, I know, unless I'm drunk out of my mind. I don't know if I tell them. I'd like to believe I did, but I'm not sure sometimes...It's more like I said, it's more punishment so I don't really care. I'm sure that they don't care really care because they're not exactly friendly or caring or anything else at that point... I'm not up front (about using condoms) when I'm drunk out of my mind, when I'm really not aware where I am or what I'm doing, and the sex is...I can't say it's good. I can't say it's bad.

When asked why he does not use other substances (e.g., cocaine, crystal meth, etc.) he stated the following, which highlights his possible alcohol dependence:

Alcohol was more socially acceptable I guess...we have a couple drinks to take the edge off. Make everything a little bit more relaxed... And I'm usually drinking more often because I'm trying to get over something else that happened in the same situation before I started drinking.

Mike uses marijuana before sex in order to “intensify some feelings” and make the sexual contact more personal:

We both kind of like that (smoking pot) -- kind of getting a little bit -- not like crazy stoned, you know, so that you can't even stand up. Just like in a good

place...it intensifies some of the feelings and all, so it's kind of nice. It really is. It makes the sexual contact part of it more intense...I guess that it's something I would do to prepare... It (having a drink/joint) makes it not just a hook-up...it just doesn't seem so impersonal, I guess. We catch up, talk about work, talk about life, talk about movies that we've seen. It could be anything.

Leo noted that he rarely thinks about safer-sex activities when he engages in sexual contacts. He stated, "I would say 80 – 90% of the time (with multiple partners) there's very seldom using any condoms...and when I smoke crack I don't think it (using condoms) even crosses my mind."

Brian shared that he has sexual partners who are addicted to heroin, and when he gives them their "fix" they do not care if he is HIV-infected: "They don't care if I was HIV positive or not. I even told one kid. He didn't really care if I fucked him. He was addicted to heroin. He just wanted to have a quick fix." Other participants also reported using substances explicitly to get sex or giving sex in order to get substances (transactional sex). Leo went on to share about how he and his former partner used to use sex for drugs:

It's been about a month ago or so, and the person I was living with and me got a phone call from someone that doesn't live that far from us and wanted to know if my mate could come over, and if they come over they would give us some money, and I would be with two other people, but they would go in the back with this other guy, so there was going to be, in all there was going to be like five of us, so three of us in the front room and my girl, who was transgender, would be in

the back with this other man, you know -- he had the drugs and the money -- 'cause they wanted my mate, and they'd want to be involved with us. So the other person wanted me and her man wanted me...so they was going to have drugs, alcohol, and money there if we'd come over. So we went over. She goes in the back room with this other guy, which leaves us drugs out in the front room and alcohol... There's no condoms being used at all here. No one uses condoms. I know there's a lot of lube here but there's no condoms being used at all. After a while I think our drugs run out, so I basically tell my, my partner that I'm getting ready to go home, which they had talked the guy in the back room to coming back to our house, to my house.

When Justin is in a public park, he uses marijuana to attract potential sex partners. He shared, "I may have smoked marijuana out in the open at the park, hoping to lure this young man who's down there by himself who I find attractive, and he may smell this and come over and say 'Hey, can I have some?' and that's usually an in." Wayne reported a similar proactive approach:

I will go out seeking someone that does drugs and knowing that I'm the one with the drugs and they're going to want more of the drug, they're more apt to do what I want them to do for the sake of the drug...that's another power play, being in control, using the drug as a control factor. So I would seek out someone that loves to get high, but doesn't have the money or the drugs to get high, and I have it, so they're going to usually do what I want them to do...I'll smoke some more while I know they're over there dying for another one, so I can look at them and tell

they're dying for another one. So I say to them, well what are you willing to do for this other one...and just to see in their face their eyes, I'll do whatever you want...they're going to do a better job at it because they want more drugs.

Leo also had a story about how in the past two months he had purchased drugs or alcohol, knowing that if he gives those substances to a couple of casual partners he will often have a sexual encounter:

Someone that I know, if I have drugs and alcohol -- if I've had some crack or some alcohol they will have sex. They won't have sex without drugs or alcohol, but if I go over to their house and I've got some drugs on me and some alcohol, I know I'm going to have sex with them...I also know someone else that I have -- they get turned on with marijuana, so if I buy a dime bag (laughter) of marijuana, let them smoke up a blunt, I know I can have sex with them also. I know that. So we'll say in the last couple of months, yes, I, I've -- if that's the question you asked me -- yes, I've... I have purchased drugs and alcohol maybe about two to three times in the last 40, 50 days to have, to do that.

Carl reported taking the opposite approach and uses sex to get mostly alcohol and even food. He described himself as being "broke" and in poverty, noting that he also has "no shame in my game." Carl shared a recent experience when this happened:

I use it (sex) for monetary gain...if I'm broke...I have no shame in my game, I'm like, well put your money where your mouth is... There was a time about a month and a half ago that I was completely and totally broke. I had just paid a bill, an unexpected bill. And I didn't have any money. And I happened to know somebody

who had money...straight-off propositioned them, like, "Look, I need a couple hundred bucks, I'll make it worth your while." And when I did do it, on that note, when I hadn't got with him before, I just knew they had money, they had propositioned me before, and I called him back when I needed it.

When asked if Roger has sex when he does not want to, he responded about feeling used by a wealthy man who helps him financially from time to time:

Usually, it's a time when I feel someone's taking advantage of me. I'm being used, in one-way or another. It's someone that, I don't know how to put this, all right it's happened more with this one person than anybody else in my life with men. He's a very, you know, he's a very wealthy person, he's got everything a person could want and he controls -- I know he controls me with his wealth. You know, in other words he'll never give me enough to do, make my own way, always enough to keep me on a string. You know what I mean. He never trusts anybody, not just me, but anybody because he is so wealthy and that inhibits the relationship also. So, it's like when I have sex with him at times I say to myself I don't want to do it, you know what I mean, but, you know what I mean, he's helping my family out -- I mean he buried my mother -- you know things that I couldn't afford to do. So, I went along for the ride, and he's a user... It's like sometimes, it's like I look at him -- I beat myself up for having sex with him because I can't stand it.

Though Jon stated he did not believe he engaged in transactional sex, it is worth noting that he hired a personal masseuse and unexpectedly this encounter led to their having unprotected anal intercourse:

He was a licensed masseuse, massage therapist, whatever, and it ended up in sex because he was really attractive...I was traveling for business...he topped me...he got very distracted by me actually somehow. You know, I made a comment, I said, "Oh, you're very cute," and he got all up, all over me. He massaged me for a period of time and then it led to making out and then sex... In that particular situation we didn't discuss HIV and we didn't use a condom, and the only thing that I have had on my side of my conscience was that, A, I was in the receptive position, which is significantly less risky than the insertive. For him, it was less risky if he were negative, which I don't know...I'm also treated and undetectable which put even less risk for him as insertive, the only way I rationalized it saying as there was probably not a significant risk to him.

Theme V: Relationship desire or dissatisfaction. From a psychological viewpoint that overlapped a contextual perspective, nine of the 14 participants identified that they either desire a long-term sexual partner or a monogamous relationship, while others discussed their dissatisfaction with their current relationships. Mark and his partner, who is HIV-uninfected, have been together for 12 years. He shared how he has been having sex with other men because he feels that his long-term relationship is lacking intimacy:

We have been together for 12 years, and have had difficulty in our sexual relationship over the course of a long period of time and have made modifications to our relationship, opened our relationship up...so, we're finding basically from our relationship that he's feeling like he's lacking sex and I'm lacking intimacy...I think in turn for my own psyche, I decided that, "Well, if he can have sex outside the relationship, then I can have sex outside the relationship. And then, that will put things back into balance for me." And it didn't work that way. I did it, and I just wasn't happy about it. I feel like there's been a breach in our relationship, and I don't know what to do to repair that.

Robert also has a long-term partner; he was dissatisfied with not being able to perform anal insertive sex with his partner:

I love my partner, but one time he just wants to top, like last night, I didn't really want it...he did his thing, and I went to the bathroom to wash off, and he didn't even ask me if I wanted to get off...he could have at least asked...but my partner does not want to bottom...

In addition, Robert revealed that being with someone who is HIV-infected is easier than being with someone who is serodiscordant:

I would prefer to be with somebody that is positive. If I don't know if somebody's positive, it's just, that whole discussion is, you don't know if whether they're gonna even want to be with you after if you tell them you're positive.

Carl seemed to be torn between not wanting to become emotionally attached to anyone and also wanting to share his life with someone:

I don't want to become emotionally attached to anyone, as far as that is concerned, on a regular basis. It's just a bad scene, where, at the end of the day, after the sex is over, I'm still in my place, all by myself.

This “bad scene” was exemplified in the following animated response shared by Carl:

I am pretty much the guy inside pissed off that I can't have a permanent relationship with somebody that I feel about that can be mine 100%. See 90% of these people who are messing around are already in what they would call committed relationships. They come to see me when they've got the time to come and see me. So I make them pay. And personally I haven't ever ran into somebody that I think could be a person that I could trust to be in a committed relationship...There's a part of that that makes them say, 'Well, where's the intimacy? Where's my walk through the doggone park, or my trip to the theater, or where's my birthday gift or something of that nature? Where's my relationship?

Jon evaluates what he is looking for when he is with a sexual partner, but in the end he stated that he would like to be in a long-term relationship:

I have to evaluate what I am looking for, you know? Do I want a quick fuck? Usually the answer in my mind to that is no – usually the answer is I would rather not have a quick fuck. I'd rather have something more, whether it's five longer fucks over a period of time while a relationship lasts, or something significant. Ideally I'm looking for a long-term relationship...I guess I'm in a stage of life

where because I'm not partnered I am more sexually variant than I would be. You know, I would like to be with one partner. You know, the whole HIV conversation sort of limits the number of people either to HIV positive ones or HIV tolerant ones.

A one-on-one monogamous relationship is something that Clarence believes everyone desires. After sharing his past sexual encounters, he provided the following thoughts about what he wants:

It went from (being) with men to where you wanted to start focusing on a man...started focusing on something long-term, something meaningful, something that had some sort of purpose because this is your lifestyle now; this is not just a fun and games grab-bag-type situation; this is who you are -- everybody wants that pursuit of happiness. Everybody wants that one-on-one monogamous situation; at least that's what I, I want to share my life with somebody.

Both Brian and Jack discussed how they would enjoy relationships with other men and how that desire is related to their experience of sex. Brian shared:

I would like to get into a relationship, and it seemed like this guy would too. So that's the jumping off part about it, us, for getting into a relationship together... If I want a relationship with somebody, I'd rather hold it (sex) off for a while.

Jack noted the importance of chemistry when enjoying sex and also shared not being forthright in knowing what he desires:

It's about chemistry – there's either chemistry, or there isn't. And there needs to be some sort of chemistry to have sex with somebody, I think. I can't just have sex

with anybody...I haven't always been so forward in seeking what I need or what I want through sex, but that's from having so many disappointing situations, not saying what I want has a lot to do with it...when I'm the bottom, when I'm less in control, it's more satisfying for me, personally.

However, not all participants were looking for a long-term relationship. Wayne, who enjoys sexual encounters in public bathrooms, stated how he does not see himself in a relationship:

I think that's why I like the bathrooms, cruising in the bathrooms a lot because it's not like I'm trying to go there and meet somebody and have a long-term relationship, I'm really not a relationship type of person. I'm spontaneous.

Attitudes about Traditional HIV-prevention Interventions

At the end of the qualitative interview, participants described their thoughts and concerns about traditional HIV-prevention interventions (e.g., condom use and HIV-disclosure). These views were shared after the researcher asked the major question: *Can you tell me some reasons why you are interested or not interested in participating in HIV prevention interventions?* These responses helped the researcher gather preliminary data on the acceptability of secondary HIV prevention behavioral intervention strategies for this high-risk group.

When Robert was asked about his attitudes regarding secondary HIV prevention, he shared this about protecting both himself and his sexual partners:

Because, like, if they -- transmit a different strain of the virus, too. Someone else and they can transmit to you, or. It's (inaudible) or, you know the fact that -- if

that person is in fact not positive that I'm having sex with, who I believe is, if, if I infected him, you know, I'd feel terrible, you know.

Jon expressed the desire not to spread HIV, but also noted that not disclosing his serostatus might be associated with stigma. He describes the cognitive process by he makes decisions about HIV prevention through disclosure:

I don't want to be part of the problem...I don't want to be responsible for another person getting HIV. Then again, I also don't want to be responsible for killing my sex life, so sometimes, you know, if disclosing is a very difficult subject -- it's more of an art than a science, it's a very difficult time when to tell a person because if you say something then they're going to walk away or not talk to you or they're going to freak out, but mitigation risk as best I can, and understanding the science behind it certainly helps me...

Noting how condom use is not one of the more effective risk-reduction strategies Jon shared:

I think HIV prevention through the use of condoms is, sadly, not one of the very best methods because bottom line, people don't like using condoms. Does it mechanically work? Reasonably well, yes. As a 38-year-old male adult, I have a hard time using a condom as a top...

Carl emphasized how HIV stigma might mediate whether or not he engages in HIV prevention, particularly when he thinks about disclosing his serostatus:

It would be extremely difficult to tell one person that I am positive to the point that they may just reject me immediately. Say, "Oh, it doesn't matter, let me

know,” and then reject me, and then run around and spread it all over the place that I am, you know, and that would be, you know, it’s kind of like a weird situation

A couple interviewees focused more on their partner’s initiation. For example, when Wayne was asked about why he chose not to participate in HIV-prevention, he stated:

Because people don't really ask that of me – they don't ask me well, it's nice meeting you, do you have HIV? It just never comes up. So, if it's not brought up, I'm not going to bring it up. The same thing with the condom use – if you don't bring up the issue of condoms – and I even carry condoms in my wallet, so if – but they stay there until you ask, could you put – could you use a condom, then I'll pull it out and I'll use a condom. But, if it's not mentioned, then I won't mention it and the condom will stay in my wallet.

Adam also relies on his partners to make the decision whether to practice HIV prevention. He reported enjoying sex without condoms, the idea of “bare-backing,” and suggests all his sexual partners know about his positive serostatus prior to their sexual engagement:

In a situation where I’m hooking up one-on-one, and it’s from online, my status is disclosed and I do confirm that they understand that my status is positive, and it’s completely their choice whether or not they want to bareback or not. And most guys that I have that are negative that bareback with me do know – they all know my status, and they all willingly participate in the sex...I don’t lie about my

status, and I don't not disclose, only in situations where like, I'm in a bath – like I said, in a public environment, or a sex club, or whatever.

Roger reported that he believes engaging in sexual activity is personal business, either his own or his partner's. Not wanting to share his serostatus, Roger reported:

Well, it's more or less like I said it's my business. I don't feel like sharing it with everybody else. I don't feel like anybody put me in a category. I'm in my own category, so it's not up to ... that's it, that's it in a nutshell. It's my life. It's my business, and it's no one else's and I don't want to share it with anybody else, but my partner or someone at the time or whoever's aware at the time.

Similarly, Jack shared Roger's response of prevention being personal business:

And if somebody wants to have sex without a condom, that's their business.

Like, when I have sex without a condom, that's my business. So that's how I feel about the whole, you know, preventative, trying to get people to do the right thing. I think you can talk and talk and talk and give and give and give, and if someone wants to do it, they're still going to do it.

When Brian was asked about his interest in HIV-prevention, he focused on his own experience with a friend who had died from HIV, and then suggested HIV-prevention becomes even more important if one witnesses HIV leading to death:

I watched a friend die of HIV and he died miserably. I watched a healthy, smart, intelligent, talented kid waste away to nothing and he died in my arms when he died. He took his last breath in my arms... There's not much that I don't like about it. Some people say it they foist it on you, but you have to foist it. It's the

only way people get it, you know? Casually mentioning it and saying it just doesn't work. You have to be hard-driven. I don't know. Somebody has to watch somebody die and then they'll get it. Then they'll understand what it's all about. Losing somebody close to it. Watching them get sores on their body. Watching their brain tumors go flying. Watch them never get out of bed in six months. Watch that.

Suggestions for Novel HIV-prevention Interventions

The researcher was interested also in suggestions on what participants might consider alternative secondary HIV risk-reduction strategies. Therefore, interviewees were asked the following questions: *What secondary HIV-prevention strategies would be most effective? What would work? What would make sex more enjoyable for you?*

Generating a discussion with this high-risk group is important if researchers are to create specific and novel approaches to secondary HIV-prevention.

A few participants suggested that prevention education might be the best intervention. Wayne was interested in not only disseminating prevention information to the public, as well as getting individuals like him to participate in this dissemination. He shared:

If it's put out there a little more than it is. I mean, if it's more education out there, you know, and people in the streets passing out more fliers about HIV and AIDS and you know, it's more talked about in groups, but you can't make people take the literature. You can't make people go to the seminars... Getting people like myself to go out and discuss -- talk more about it, about HIV intervention and

prevention, you know, I mean, getting honest individuals to tell their story about going out cruising and how certain topics that should be discussed are not discussed, you know, so I think that would be a helpful tool to use for intervention, you know, getting people out there who are willing to talk about it to young kids, to people in school...

Roger also focused on education. Although he reflected that no one told him about HIV, he would educate people about the risk of HIV if one does not use condoms:

I would definitely sit down and educate someone – tell them what the risk of HIV... You know, condoms, it's better to be safe. "No glove, no love" sort of thing, you know, saying like that. I'll tell them that's just the way it is, but now that I have the virus it's like no one told me.

Brian reported that he has talked to students about HIV: "...talked to those kids in school...they're all having sex. I said, "I didn't get it until I was a freshman in college, Jesus. How many of you people are using condoms?" No hands go up. I said, "What are you, crazy?"

Agreeing with Brian, Frank believes especially that young kids should be taught more about HIV, including both gay and straight students:

Especially with young kids, they need to be taught more about HIV – a lot of young kids don't realize. I mean, the older you are (inaudible) but needs to be out there...even the straight boys, they think you can get HIV from sitting on their toilet or drinking from their cup...so people, lot of people are not educated to, you know, what causes or what doesn't cause.

While Robert suggested that people could “watch a porno video with a friend” and “jerk off...fantasize” rather than using condoms, Justin would like to create a support group with other people who have HIV. According to Justin, this group could provide alternative ways for HIV-prevention:

Well, a group setting might be nice, like a group, a support group for people who have HIV and don't use condoms very little or, you know, whatever. You know, that might be something that would work, you know. It would be all the same type of people together, you know, and you can get ideas, you know, just from talking to other people, you know, ideas for intervention that might, you know, make, you know, help you have better sex, or just talking to, you know, these other people.

Carl also suggested that group role-play with other HIV-infected people might create a space where HIV-disclosure is not as stigmatizing or where unprotected sex might not lead to sero-conversion:

...what I would do would maybe get some real live situations going on, maybe you should have some role play going on...More of a confidential-type positive connections type dating service. So to like, where, everyone shows up all positive. And then it takes away all of the, I don't have to worry about this, we're all on the same level, okay, so now we can get over that. We're all positive, okay, so now we can mix and mingle and date or do whatever. You know what my status is, I know what your status is, we're not hurting nobody, we ain't hurting nobody. We know we have to practice safe sex, for the cross-contamination or

whatever, cross re-re-reintegration, but it would be more understanding to the fact that I don't have to hide something or hold something back, that I can be myself, be free, and speak about issues that I deal with in my regular life and issues that may come up on my positive, you know, as far as my positive status is concerned, without feeling like I'm being stigmatized or something like that.

Adam also suggested a support group intervene to change risky sexual behavior. He shared that "an intervention is usually a group of people who are trying to get you to change one behavior, or they know that you're going down a path for some sort of self-destruction, and they try to stop it before it gets too bad." In addition, Adam suggested that a vaccine might be the best solution to secondary HIV-prevention: "I don't know, maybe like, a vaccine, or a pill, like I know that they're trying to do that whole pill thing where someone that's taking something that may prevent it..."

According to Jon, HIV testing should be a routine procedure for all people as part of their routine medical care:

I think that the best means of prevention would be treatment...with all the HIV positive men who are undetectable, I think the number of new cases would fall to almost zero...I think that absolutely if everybody who knew their HIV status was treated and...if there wasn't a stigma about HIV everybody would get tested as part of their annual physical as a routine...it should just be a part of the thing, it shouldn't be a big deal.

Summary of Descriptive Findings

Taking a descriptive qualitative view of the data, the researcher conducted a content analysis of the interview transcripts. During the 60-minute interview process, interviewees from the Northeast shared personal stories and descriptive accounts of their personalities, desires and sexual encounters. Over the course of a year, five salient descriptive themes were identified through data saturation and may be considered a small group of generalizations that hold true for the data. They consist of (1) *serostatus attribution*, (2) *partner responsibility for safer sex negotiation*, (3) *excitement seeking*, (4) *presence of substance use*, and (5) *relationship desire and/or dissatisfaction*. Lastly, the researcher presented findings related to the attitudes of traditional HIV prevention interventions, as well as feedback and suggestions about how to incorporate novel strategies to reduce HIV transmission risk with this high-risk group. These data were defined and presented with low levels of inference or interpretation, which helped to stay close to a description of the psychological, behavioral and contextual factors associated with risky sexual behavior.

CHAPTER FOUR

Discussion

This empirical study provides qualitative data that illuminate the lives of 14 HIV-infected MSM who engage in high levels of HIV transmission behavior through unprotected anal intercourse with HIV-uninfected or unknown serostatus partners. The research questions that guided this investigation were: (1) What are the psychological, behavioral and contextual factors associated with HIV-infected MSM who engage in very risky sexual behavior?; (2) What are the attitudes of this high-risk group regarding secondary HIV prevention interventions (e.g., condom use, HIV disclosure, serosorting, etc.)?; and (3) What secondary HIV prevention strategies would be most effective as perceived by the participants? The perspectives of these 14 participants were approached, synthesized and interpreted using qualitative description and the analytic tenets described in Chapter II.

To answer the first two questions, the researcher conducted a content analysis of the interview data. Demographic and sexual characteristics of the participants are presented in light of what is already known in the literature. In addition, the researcher uncovered five salient themes that might help explain their cognitions and behaviors: (1) serostatus attribution, (2) partner responsibility for safer sex negotiation, (3) sexual sensation seeking, (4) presence of substance use, and (5) relationship desire and/or dissatisfaction. The themes are examined in relation to published HIV prevention literature. The third question was answered by close examination of the data without considering thematic relationships among significant statements. These data that relate to

the third question provide strict qualitative descriptions of potential novel approaches to secondary HIV prevention strategies.

A Look at the Descriptive and Sexual Characteristics in Light of the Literature

This investigation gathered sensitive, explicit and personal information about the sexual lives of HIV-infected MSM who engage in risky sexual behavior. It was important that participants felt comfortable sharing their sexual experiences in-depth and providing examples about their risky episodes. As a result, a limited number of descriptive and sexual characteristics were gathered during the qualitative interview, and the researcher believes this approach helped elicit honest and complete responses. A more comprehensive assessment would gather much more background information on a larger sample size.

For this high-risk group of HIV-infected MSM the mean age was 42.5 years with a range from 28 to 50 years. In other HIV prevention studies conducted on adult MSM, the mean age of participants ranged from 32 (32, Horvath, Nygaard, & Simon Rosser, 2010; 38.6, Parsons et al., 2003; 38.7, Prestage, Van de Ven, Grulich, Kippax, McInnes, et al., 2001) to 44 years (44, van Kesteren et al., 2005). The current study's mean age is at the higher end of this spectrum, and some researchers suggest that as subjects continue to age, HIV-prevention interventions also need to be augmented to reflect the changing need of the cohorts. For example, Jacobs, Isabel Fernandez, Ownby, Bowen, Hardigan, et al. (2010) found that risky sexual behavior (i.e., unprotected insertive or receptive anal intercourse) increased in MSM who were 40 and older. Their logistic regression analysis identified that for those participants between 40 and 59 years old, HIV-positive

serostatus, drug use, a larger number of sexual partners, and lower scores on the internalized homonegativity scale were associated with unprotected receptive anal intercourse; while participants who were younger, HIV-positive status, drug use, Viagra use, larger number of sexual partners, and high optimism about the future were associated with higher risk of unprotected insertive anal intercourse. As the MSM population ages, and especially for those aging with HIV, both primary and secondary HIV prevention initiatives should incorporate specifically tailored risk-reduction strategies.

Almost all of the participants interviewed for the current study reported high levels of sexual activity in the past three months, with 13 (92.8%) having oral sex, 12 (85.7%) having anal receptive sex and 13 (92.8%) having anal insertive sex. Condoms were not used during almost all of this activity. Also, ten of 14 (71.4%) reported having anonymous sex partners, while all 14 (100%) reported having casual sex partners. “Anonymous” refers to sex partners met only once and whose names might not be known, and “casual” refers to sex partners who could be a non-committed partner or a friend with whom sex occurs more than once. In a study investigating HIV-infected gay and bisexual men (N=156) who have anonymous sex partners, Semple et al. (2004) found that these men also had high rates of unprotected oral and anal sex. Most significantly, “men with anonymous partners had five times as many HIV-negative or unknown serostatus partners as compared to men with no anonymous partners” (p. 71).

There is a dearth of information in the literature on HIV-infected MSM who have multiple-partner sexual episodes. Multiple partner sex refers to more than one sex partner at the same time (i.e., group sex). In this investigation, nine of the 14 (64.3%) reported

having multiple-partner sex in the past three months. The context and situation for multiple-partner sex might have to be planned, such as organizing a sex party or visiting a milieu where it is known that multiple-partner sex might occur (e.g., park or bathhouse). In addition, multiple-partner sex might take place in an environment where acquisition or transmission of HIV might occur frequently.

In a descriptive analysis of HIV risk behavior within a large sex resort, Crosby and Mettey (2004) found that attending MSM (N=150) averaged 10 sex partners, 62% of whom reported having group sex during their stay. While only one-sixth reported being HIV-infected, about half of the total participants shared that they engaged in unprotected anal intercourse. Grov, Golub, & Parson, (2010a) reported not only that a sample of HIV-infected MSM had more unprotected anal intercourse than HIV-uninfected MSM, but also that those HIV-infected MSM had more sex with serodiscordant sex or unknown serostatus partners and more frequently met their sex partners through sexual networks (e.g., sex parties) where sex with multiple partners occurs. Although the participants in the current study did not elaborate in depth on the sites where multiple-partner sex occurs for them, it is likely that sexual networking features prominently in processes that establish relationships with other MSM.

Integrating the Emerging Themes Back into the Literature

Theme I: Serostatus attribution. Participants reported attributing their partners' serostatus (i.e., assumptions as to whether their partners were HIV-infected or HIV-uninfected) by describing behaviors that occurred before or during their sexual encounters. This attribution might be a cognitive and behavioral process associated with

serosorting, which is the functionality of determining seroconcordant partners before engaging in unprotected anal intercourse. However, some of this attribution could be guided by assumptions rather than accurate attributions, which then may lead to higher levels of sexual transmission risk taking (Golden, Brewer, Kurth, Holmes & Handsfield, 2004; Van de Ven, Kippax, Crawford, Rawstorne, Prestige, et al., 2002; Wolitski, Parsons, & Gomez, 2004). If HIV-infected MSM assume their sexual partners are HIV-infected, then it is likely that unprotected anal intercourse might occur with the belief or thought that they could not infect their partners with something they do not already have.

In a qualitative research study with HIV-infected gay men (N=250) conducted by Feldstein, Parsons, Bimbi, Nanin, & Gomez (2006), one emerging theme was age-driven assumptions of their partner's serostatus. For example, one interviewee in the study shared that when his younger sexual partners asked to use a condom he assumed those partners were HIV-uninfected: "He was young, 25. I mean, he asked me to use a condom, and because of that and his age, I just assumed he was negative" (p. 51). In the current study, some of the men assumed their sexual partners were positive because those partners did not want to use a condom during anal intercourse. These findings are also consistent with Semple, et al. (2004, p. 72) who suggested "viral transmission is possible if an anonymous partner is assumed to be HIV-positive, but is actually HIV-negative, and unprotected sex occurs."

When drugs or alcohol are used before or during sex it is possible that assumptions are present and serostatus attribution might be inaccurate. In a group of HIV-infected MSM, Parsons, Severino, Nanin, Punzalan, von Sternberg, et al. (2006)

identified that serostatus assumptions occurred when sexual partners did not discuss or disclose their positive serostatus, and nondisclosure often was associated with substance use and alcohol consumption. All but two participants in the current study reported using substances before or during most of their sexual encounters. This substance-use behavior also might alter cognitive functioning and contribute to misattributions of serostatus. In addition, rarely did participants disclose their positive serostatus.

Data from the current study suggest that both serostatus attribution and ascertaining partner HIV status are complex and at times ambiguous. In a study on serostatus assumption among HIV-infected and HIV-uninfected MSM (N=188), Gold, Skinner and Hinchy (1999) found that MSM often assumed their sexual partners were HIV-uninfected if they met at bars or gay clubs, if they preferred insertive rather than receptive anal sex, or if they self-identify as gay or worked in the medical profession. Self-efficacy of traditional prevention strategies (e.g., HIV disclosure) seems to be complicated by multiple assumptions and diverse perspectives, cognitive processes and behavioral activations. For participants in the current study, high rates of risky sexual behavior seem to occur within these multifaceted contexts.

Theme II: Partner responsibility for safer sex negotiation. Another theme that emerged from interview data was that for many of this high-risk group, safer sex negotiation is or should be the responsibility of their sexual partners, particularly when it comes to disclosing HIV status or condom-use efficiency. According to Wolitski, Bailey, O'Leary, Gomez, & Parsons (2003), HIV prevention messages have not consistently focused on the responsibility of MSM, regardless of serostatus, to “adopt reduced risk

practices for the benefit of others” (p. 363), and most messages have “stressed the need for individuals to protect themselves” (p. 364). Other researchers also have stated that most early prevention messages focused on protecting oneself rather than the sexual partner (Bayer, 1989; Flowers, Duncan, & Frankis, 2000).

However, Wolitski and colleagues (2003) examined qualitatively the beliefs of HIV-infected MSM (N=250) about their concerns regarding transmitting HIV to their sexual partners. Three themes arose: (1) their own personal responsibility, (2) their partners’ responsibility to protect themselves, and (3) a mutual responsibility to protect each other. Although 10 of the participants in the current study believed it was their partners’ responsibility to protect themselves, some shared the first theme (i.e., their own personal responsibility to protect their sexual partners from HIV) reported by Wolitski et al. (2003).

Perhaps personal responsibility is closely tied to social norms associated with unprotected or protected sexual encounters, as is the type of sex in which one engages (e.g., anal insertive or anal receptive). Parsons et al. (2003) examined correlates of sexual risk practices of urban HIV-infected MSM. Using a multivariate logistic regression, they found that “men reporting unprotected anal insertive sex perceived less responsibility to protect their partners from HIV” (p. 383). An “insertive” sexual profile might present complex social norms that affect perception of personal responsibility as compared to a “receptive” sexual profile. However, little is known about personal responsibility in relation to specific sexual profiles.

Those MSM who engage more frequently in unprotected anal intercourse might suggest that the responsibility to protect oneself lies with the other sexual partner.

According to Stall et al. (2009), neither HIV-infected or HIV-uninfected MSM tend to bear the responsibility for HIV prevention:

At present, many HIV-negative gay men feel that HIV-positives should always ensure that their sex partners cannot be infected, as HIV transmission must by definition involve an HIV-positive person. On the other hand, many HIV-positive men feel that HIV-negatives should always be vigilant to ensure that they cannot be infected, as they are the men who will bear the burden of new infection... This means, in practice, that substantial proportions of gay men believe that someone else should bear the responsibility for HIV prevention. (p. 271)

In addition, this lack of responsibility could be related to serostatus misattribution. For the HIV-infected MSM in the current study, some participants suggested that their sexual partners also must be HIV-infected (although HIV was not discussed) since they did not insist on using a condom or engaging in safer-sex negotiation. Unfortunately, these assumptions and possible serostatus misattributions also occur with HIV-uninfected MSM; they believe that if their sexual partners do not insist on using a condom or engage in safer-sex negotiation, then they also must be HIV-uninfected (Conall O’Cleirigh, personal communication, July 30, 2009).

Theme III: Sexual sensation seeking. A third theme that emerged from the data was sexual sensation seeking, which was defined as the pursuit of sensory excitement through internal and external stimuli. Sexual sensation seeking also may be defined as

sexual excitement seeking and for this high-risk group one could include both sexual sensation or sexual excitement seeking. Zuckerman (1994) created the reliable and valid Sensation Seeking Scale and defines sensation seeking as “the need for varied, novel, and complex sensations and experiences and the willingness to take physical and social risks for the sake of such experience” (p. 27). Risk is a voluntary and subjective activity where individuals decide for themselves that the benefit outweighs the cost. The two sub-themes in which this phenomenon was captured consisted of public sexual expression – an external stimulus and sexual gratification – an internal stimulus.

Sensation seeking has been found to be associated with risky sexual behavior (Ostrow, Silverberg, Cook, Chmiel, Johnson, et al., 2008; Preston, D’Augelli, Kassab, & Starks, 2007), multiple partner sex (Mimiaga, Reisner, Bland, Driscoll, Canston, et al., 2011), internet-use and sexual decision-making (Berg, 2008; Horvath, Blair, & Bowen, 2006), substance use (Trocki, Drabble, & Midanik, 2009), and cognitive escape from HIV-related thought (Nemeroff, Hoyt, Huebner, & Proescholdbell, 2008). McCoul and Haslam (2001) found that as personality correlates, sensation seeking and impulsivity were associated with risky sexual behavior. They also found that sexual sensation seeking “mediated the association between use of drugs other than alcohol and number of sex partners” (p. 1303). Substance use often was a part of excitement seeking for participants in the current study. In addition, according to Zuckerman (2007) “high sensation seekers among MSM are generally more willing to take the risks for the sake of the added sensations” (p. 167). The benefit of added sensations outweighs the cost of risks.

A literature review of qualitative investigations on public sexual cultures highlights the complex phenomena of sex in public spaces. Frankis and Flowers (2009) identified that public sex is often associated with the concept of “cruising,” which is the act of looking for or seeking partners with whom one might have sex. Cruising could be an excitement seeking behavior that enhances senses and potentially could become an addiction or a mental health burden. In a research study investigating erotic public spaces, Tewksbury (2009) found the most common public spaces that serve as erotic oases were public parks, adult bookstores, health clubs, and college campuses. These spaces are often highly enforced by surveillance (e.g., cameras, police officers, other MSM), and the thought of getting caught might fuel the need to seek sexual excitement. A few participants in the current study expressed that public sex was exciting because there is the thought that one might get caught or that one is getting away with something one should not be doing in a public space.

There is a dearth of information on the sexual gratification one receives through sexual sensation seeking, especially with HIV-infected MSM. The participants in the current study seemed to be personally and internally gratified when they felt that they pleased their sexual partners. However, this sexual desire might be similar to sexual compulsivity behaviors that result in potential distortions of cognitive and social functioning. Sexual compulsivity also is known as sexual addiction or compulsive sexual behavior (Coleman, 1992; Goodman, 1992). In a community-based survey of gay and bisexual men (N=1214), Grov, Parsons and Bimbi (2010b) identified that sexual compulsivity was associated with having sex while high on club drugs, having

unprotected anal intercourse with both seroconcordant and discordant partners, and with numerous other sexual behaviors (e.g., group sex, exhibitionism, bondage and domination, etc.).

Theme IV: Presence of substance use. All but two participants reported the presence of substance use during their sexual encounters. This usually occurred before or during sex, and some participants shared that they gave drugs or alcohol for sex or provided sex for drugs, alcohol and even food. This latter example might be considered a transactional sexual encounter. There is a plethora of literature that discusses substance use in relation to risky sexual behavior (Drumright, et al., 2006; Kalichman et al., 2001; Purcell, Parsons, Halkitis, Mizuno, & Woods, 2001). Woolf and Maisto (2009) reviewed empirical evidence on the use of alcohol in association with risky sex among MSM. A review of 54 articles published between 1992 and 2007 revealed that unprotected anal intercourse “was significantly associated with frequent alcohol use as well as heavy alcohol use and risk for an alcohol use disorder” (p. 773). The presence of alcohol use in association with risky sexual behavior in the current study is consistent with the literature.

In addition to alcohol use, illicit drug use has been associated with risky sexual behavior (Purcell, Moss, Remien, Woods, & Parsons, 2005; Semple, et al., 2004). In a study investigating substance use and its association with risky sexual behavior, Hatfield, Horvath, Jacoby, & Simon Rosser (2009) identified at baseline that illicit substance use was common in their sample of urban HIV-infected MSM (N=675). They found that white MSM reported using stimulants (30%), methamphetamine (27%) and “poppers”

(i.e., amyl nitrite) (46%), while black MSM used crack/cocaine (38%) most often, and “drug variables significantly associated with SDUAI (serodiscordant unprotected anal intercourse) were alcohol frequency, alcohol quantity, count of drugs used, marijuana, cocaine, stimulants, club drugs, poppers with sex, and methamphetamines with sex” (p. 212). Most participants in the current study reported using alcohol before or during UAI, while only some participants reported using illicit drugs (i.e., marijuana, heroin or crack/cocaine), and use of “harder” substances were usually in relation to transactional sex (i.e., exchanging or receiving sex for money, drugs or alcohol).

Although there is less literature on substance use in association with transactional sex numerous articles have been published on HIV prevention among sex workers. Newman, Rhodes, and Weiss (2004) define “sex trading” as “engaging in sex in exchange for money, drugs, shelter, or food” (p. 1998). They found through an audio computer-assisted questionnaire that sex trading was associated with crack use, injection drug use, childhood maltreatment, nongay self-identification and homelessness, and conclude that there are multiple risk factors are associated with sex trading among MSM. Other psychosocial factors associated with “sex trading” include childhood sexual and physical abuse (Braitstein, Asselin, Schilder, Miller, Laliberte, et al., 2006; Paul, Catania, Pollack, & Stall, 2001), higher numbers of sexual partners (Rietmeijer, Wolitski, Fishbein, Corby, & Cohn, 1998) and HIV prevalence (Vuylsteke, Das, Dallabetta, & Laga, 2009). In a qualitative study examining drug use and commercial sex, Braine, Van Sluytman, Acker, Freidman, & Desjarlais (2010) interviewed 26 gay men who exchanged in sex for money or drugs in New York City. They identified that “a complex

set of interactions between motivation, communication, medium of exchange, and access to capital – financial, drug, or sexual – shapes risk” (p. 463). For example, men who used crack or crystal-meth rather than marijuana during sex exchange were also more likely to engage in unprotected anal intercourse. These findings suggest that risk reduction strategies for this high-risk group needs to be broad and relate to multiple variables associated with risk (Braine, et al.).

Parsons and Halkitis (2002) investigated sexual and drug-using practices of urban HIV-infected men (N=456) who frequent public and commercial sex environments. Men who visited public sex environments (PSEs) were compared to men who visited commercial sex environments (CSEs). They found that those men who visited PSEs reported higher levels of sexual compulsivity, while those men who visited CSEs reported higher levels of depression and sexual sensation seeking. Men who visited CSEs also had lower levels of perceived responsibility to protect their sex partners from possible HIV infection. Furthermore, men who visited CSEs were more likely to use amphetamines, Ecstasy, hallucinogens and inhalants nitrates. Participants in the current study who visited PSEs reported having high sex drives and having a need to engage in sexual activity on a regular basis. It is possible that these participants experience higher levels of sexual compulsivity or sexual sensation seeking, and future research with this high-risk group should include assessments that measure these two phenomena.

Theme V: Relationship desire/dissatisfaction. In the current study four of the 14 participants (28.6%) reported being in a committed relationship with a partner, boyfriend or someone with whom they have sex on a regular basis. These four

participants shared that their decision to have sex outside of that primary relationship was related to their dissatisfaction with a lack of intimacy or other sexual opportunities within the relationship (i.e., wanting more diversity in sex). Five other participants who were not in a primary relationship shared that they desired a one-on-one, committed relationship. This dissatisfaction or desire was a theme that emerged and resulted in sexual risk taking.

There is little research that describes relationship desire or dissatisfaction specifically in HIV-infected MSM relationships and/or their partnerships. However, there is some recent research that describes sexual agreements among gay couples (Hoff & Beougher, 2010) and the characteristics and motivations behind these agreements (Hoff, Beougher, Chakravarty, Darbes, & Neilands, 2010). In addition, some researchers have investigated the psychological distress associated with legal recognition of same-sex couple relationships (Riggle & Rostosky, 2010) and how stigma and intimacy are related, which potentially helps to make same-sex relationships more meaningful.

Although some early research during the 1970s and 1980s found that many gay men in relationships often engaged in non-monogamous relationships (Bell & Weinburg, 1978; Blumstein & Schwartz, 1983), studies rarely considered the process of how gay men co-create relationships within heteronormative society. In a qualitative study with 39 gay couples, Hoff and Beougher (2010) explored relationship dynamics that affect sexual agreements within these relationships. They found that most couples who had open relationships placed rules as to how involved each one should get with their secondary sexual partners (i.e., casual or anonymous partners). These rules consisted of when and where they could have sex, as well as how often and with whom they could participate in

sex outside the primary relationship. Although most couples had congruent agreements, some couples reported incongruent ideas about what they expect from their sexual agreements. Hoff and Beougher (2010) suggest that discrepancies within the couple's agreements could lead to HIV transmission risk or risk taking with other sexual partners. The authors suggest that HIV prevention consider teaching safety messages to couples or individuals who engage in sex with multiple partners.

Moreover, in another study (N = 566) Hoff et al. (2010) noted that much HIV prevention often overlooks gay men and their significant partners. They found that "couples with monogamous agreements had higher scores on most relationship characteristics, although there was no difference in relationship satisfaction between couples with monogamous and open agreements" (p. 827). In addition, they found that relationship satisfaction scores were lower in seropositive couples compared to seronegative couples. For the current study, participants who were in a positive concordant relationship and the one participant who had a seronegative long-term partner all described relationship dissatisfaction regarding intimacy or sexual exploration. These consistent findings underscore the importance of including couple relationships and negotiation when creating safer-sex messages in both primary and secondary HIV-prevention strategies.

Psychological stress (i.e., internalized homonegativity, mental health burden, etc.) associated with stigma and legal recognition of relationships also affects same-sex couples. After surveying a sample of lesbian, gay and bisexual individuals, Riggle and Rostosky (2010) identified that those individuals who were in committed relationships

experienced less psychological stress than those who were not. Moreover, those couples whose relationships were legally recognized compared to those that were not, reported lower levels of internal homonegativity, fewer depressive symptoms and a more meaningful relationship (i.e., well-being). More recognition might bring more acceptance, and this could then help to decrease societal sexism and increase well-being and meaning in same-sex relationships.

Researchers have reported how stigma has been known to affect same-sex relationships (Frost & Meyer, 2009; Peplau & Fingerhut, 2007), although some research suggests that it can affect same-sex relationships positively. In a qualitative narrative analysis of participants (N=99) who wrote about their same-sex relationships, Frost (2010) identified that while some participants reported how stigma negatively affected their same-sex relationships, some noted how it created more intimacy and contributed to negotiated meaning development, while also helping to redefine commitment options and notions. In addition, participants revealed that experiences of stigma brought them closer to their partners and strengthened their relationship bond.

Attitudes about Traditional HIV Prevention Interventions

Participants in the current study shared their attitudes about what they know, understand and experience regarding traditional HIV prevention. The five descriptive categories discussed were: (1) protecting partners from HIV (personal responsibility), (2) the other sexual partner's responsibility, (3) role of HIV-stigma, (4) personal privacy, and (5) condom attitudes. Some of these attitudes are extensions of the themes that emerged from the interview data, and there is some literature that helps to understand them in

context. The first two categories seem to overlap, and literature also suggests this to be a phenomenon of responsibility for safer sex negotiation.

In the current study, both Robert and Jon expressed that they did not want to transmit HIV to their sexual partners, while Wayne and Adam focused more on making this responsibility belong to their sexual partners. In an analysis of 30 semi-structured interviews, van Kesteren et al. (2005) found that sexual behavior seemed to be related to feelings of personal responsibility for safer sex within their sample of HIV-infected MSM. These attitudes might suggest that there is more than one perspective for understanding responsibility for safer-sex. For example, while Rosengarten, Race & Kippax (2000) identified that responsibility consists of both sole and shared elements, the van Kesteren et al. (2005) analysis suggested another category: no responsibility. These three attitudinal categories of “responsibility” seem to fit the data from the current study; however, all but four of the participants described in-depth their feelings that the responsibility for safer-sex behavior lies strictly with their sexual partners.

Personal responsibility, or lack thereof, might be related to age-driven protective behavior. Feldstein et al. (2006) noted that older men in their study raised concerns about transmitting HIV and other STIs to their younger sexual partners. Their qualitative data revealed “when older men have the opportunity to become involved with a younger partner, they will risk rejection by insisting on safer sex behaviors” (p. 53). Some of their participants reported altruistic behavior, noting that they felt a need to protect their younger cohort from having to experience living with HIV.

HIV-prevention altruism also would be consistent with findings of O'Dell, Simon Rosser, Miner, and Jacoby (2008), who note that lack of altruism is related to sexual risk behavior in HIV-infected MSM, as well as with findings of Wolitski et al. (2003), which suggest that altruism is a motivational factor in self-perceived responsibility. This phenomenon would be consistent with Palmer (2004), who writes that “the gay community has historically relied on altruistic tendencies to take care of each other, certainly the sick and dying, but also in terms of promoting the sexual health of their partners and friends” (p. 275).

Wolitski and colleagues (2003) suggested, “self-perceived responsibility may be an important factor that affects HIV-seropositive MSM’s sexual decision makings” (p. 363). Regardless of which category of responsibility for safer sex behavior, these attitudes would be salient to explore when augmenting traditional HIV-preventions or creating novel safer sex technologies. They suggested that over the years, prevention programs have missed the mark when discussing responsibility for safer-sex behaviors:

Few prevention programs for men who have sex with men (MSM) have incorporated messages regarding responsibility for protecting others from HIV...The lack of messages encouraging HIV-seropositive men to protect others was motivated in part by a desire to avoid further stigmatizing persons living with HIV (Schiltz & Sadfort, 2000). Although this strategy may have been appropriate for reducing risk among HIV-seronegative men, it probably did little to promote behavior change among HIV-seropositive MSM. (p. 364)

Another descriptive category regarding attitudes about traditional HIV-prevention interventions is the concern of HIV stigma. In the current study, participants expressed that practicing safer-sex behaviors might suggest to their sexual partners that they have HIV and therefore fear the response both from their sexual partners and society once this information is disseminated to their community. HIV stigma may contribute negatively to perceived stress and to symptoms of depression (Riggs et al., 2007), both which can affect HIV medication adherence (Rintamaki, Davis, Skripkauskas, Bennett, & Wolf, 2006), challenge familial relationships and coping strategies (Bogart, Cowgill, Kennedy, Ryan, Murphy, et al. 2007), and decrease condom-use efficacy (Illa, Brickman, Saint-Jean, Echenique, & Metsch, et al., 2009).

Along with these concerns, there are other demographic correlates of stigma that negatively impact the lives of HIV-infected people. Logie and Gadalla (2009) provide a meta-analysis of 24 US articles that examined relationships between HIV-related stigma with demographic, social, physical and health characteristics. They found that regardless of the variability of measures used, HIV-related stigma level was associated with low social support, poor physical and mental health, age and income. In the current study, participants might experience stigma first from being gay or bisexual, and then from HIV-related stigma because they have a positive serostatus. HIV-prevention might increase perceived HIV stigma and therefore affect their lives in these characteristics as outlined by Logie and Gadall (2009).

In a systematic review of global scientific literature highlighting the complexity of HIV stigma in association with the AIDS epidemic, Mahajan, Sayles, Patel, Remien, &

Sawires, et al. (2008) reviewed 390 published articles and provided a conceptual framework for understanding HIV/AIDS-related stigma. They note that “inequalities in social, political, and economic power are the foundation on which stigmatization is promulgated” (p. S71). Added to that foundation is structural violence and pre-existing stigma, labeling based on HIV status, cultural stereotyping, separating into binary categories (“us” from “them”), status loss, and discrimination, which consists of structural and individual components. Mahajan and colleagues also found that there were few studies that investigated the association between stigma and HIV risk behavior, although they noted that HIV stigma is often a barrier to effective treatment in both primary and secondary interventions.

Drawing on Goffman’s theoretical concepts of stigma (1963), Bird and Voisin (2010) also provide a conceptual framework that deals with HIV stigma, but they focused more on stigma as related to HIV disclosure efficacy, a traditional risk reduction strategy. Their review of the literature revealed that HIV stigma has both contextual and cognitive factors, particularly as it affects HIV disclosure:

HIV disclosure is a complex phenomenon that engages both cognitive (i.e., beliefs about the risks of disclosure and beliefs about personal responsibility and privacy) and contextual factors (i.e., assumptions about a partner’s HIV status, the sexual setting, and what sexual risk is occurring). An individual’s decision to disclose is likely influenced by multiple factors and it is essential that the interconnectedness between these two domains be fully considered when exploring the phenomenon of HIV disclosure. (Bird & Voisin, p. 371)

The conceptual frameworks outlined by Mahajan et al. (2008) and Bird and Voisin (2010) suggest that HIV-stigma might affect the self-efficacy associated with embracing and actualizing traditional HIV prevention interventions. Moreover, there seems to be an overlapping interconnectedness emerging from the themes of the current study, and the prevailing attitudes about HIV risk-reduction strategies. Bird and Voisin also identify that personal privacy is a cognitive factor that might explain why HIV-infected gay and bisexual people might not disclose their serostatus. For some it is a matter of medical information that is private and should be shared only on a need-to-know basis (Gorbach, Galea, Amani, Shin, & Celum, et al. 2004). Unfortunately, little or no research has been conducted on the association of the Health Insurance Portability and Accountability Act (HIPAA) with risky sexual behavior in HIV-infected persons or MSM. In the current study, many of the participants shared that they were interested only in their medical staff or a few friends knowing about their HIV diagnosis. They considered their positive serostatus to be personal information. It is possible that HIV-privacy perspectives and HIPAA regulations affect when and how an HIV-infected person discloses their positive serostatus or feels responsible to protect their sexual partners by using condoms.

Attitudes about condom use and efficacy played a major role in whether or not participants reported practicing safe sex. Most participants in the current study expressed discomfort in using condoms and expressed concern about how condoms increase the possibility of becoming impotent during anal intercourse. The thought of not being able to perform sexually with a condom ultimately might equate condom use with the lack of

experienced intimacy or with decreased sexual performance. Moreover, attitudes about condoms could be tied not only to cognitive dissonance, but also to other psychosocial characteristics that increase negative beliefs. For example, in a study exploring sexual practices of HIV-infected persons, within a multivariable model Schackman et al. (2008) found that symptoms of depression and self-reported antiretroviral medication non-adherence were significantly associated with never using a condom with both primary and casual partners. This sample consisted of 198 English and Spanish-speaking patients (Latino/a: 73.6%; African-American: 19.4%; Caucasian/other: 7%). Depression as a mental health burden affects medication adherence (Safren, Hendrickson, Mayer, Mimiaga, & Pickard, et al., 2004; Safren, Reisner, Herrick, Mimiaga, & Stall, 2010), and together these might combined negative attitudes and lower the overall self-efficacy of condom use.

Another phenomenon to consider is the motivation for condomless anal intercourse, otherwise known as “barebacking.” For some MSM, barebacking is a sensual way to express intimacy without the cognitive concern of acquiring or transmitting HIV. The sexual expression of “barebacking” has gained a lot of attention in the last 10 years (Dean, 2009; Schernoff, 2006; Suarez & Miller, 2001). In a review of 42 empirical articles, Berg (2008) found that “macro-, meso-, interpersonal-, and intrapersonal level factors, such as homonegativity, community norms, partner intimacy, and drug use, converge to influence the likelihood that an individual will bareback” (p. 754). This convergence might be consistent with co-morbid conditions that increase risk of transmission of HIV. These findings are consistent with those of Bauermeister, Carballo-

Dieguez, Ventuneac, & Dolezal (2009) who suggest that there are multiple psychosocial burdens or vulnerabilities that increase the likelihood that MSM will engage in intentional unprotected intercourse in order to experience intimacy with other MSM.

Perceptions of condom use also could be affected by cultural backgrounds arising within different ethnicities. Through qualitative, semi-structured interviews, Peterson, Bakeman, Blackshear, and Stokes (2003) identified that half of the African-American MSM in their sample felt that friends in their social network did not have favorable attitudes toward condoms use. Carlos, Bingham, Stueve, Lauby, Ayala, et al. (2010) examined socio-demographic and behavioral factors associated with low peer support of condom use. In three urban areas, they found that “perceived low peer support of condom use is associated with increased odds of recent unprotected anal intercourse (UAI) among Black and Latino MSM, regardless of partner type” (p. 430). The authors suggest HIV intervention work should include peers and social networks, particularly when embracing condoms to reduce HIV-risk behaviors. Including social networks and creating a larger presence of gay men within a community have been associated with higher levels of consistent condom use during anal intercourse for these gay men (Frye, Koblin, Chin, Beard, Blaney, et al., 2010). Participants in the current study who self-identified as African-American or Black reported being less “out” in their communities and having more stigma associated with condom use.

Suggestions for Novel HIV Prevention Interventions

Social networks and support systems within communities affected by HIV could play a salient role in HIV prevention interventions. Participants in the current study

believe that engaging in prevention with other HIV-infected MSM would be beneficial to them and their health. These interventions for MSM could be housed within social service agencies educated to meet the psychosocial needs of HIV-infected persons. According to Brennan and Husbands (2010) social services “generally provided to people living with HIV include counseling, case management, practical assistance, support groups, housing services, and referrals to medical providers who are experienced with HIV” (p. 218). Of those participants in the current study who were interested in prevention, most would like to consider support groups and group-level secondary interventions as novel HIV prevention approaches.

Some participants never have engaged in traditional HIV prevention and they might need immediate support within their communities, particularly if they have to “come out” as HIV-infected to their communities. Prevention case management (PCM) could provide some immediate support for MSM who do not have a community or social network to help them deal with the psychosocial factors associated with being HIV-infected. Gasiorowicz et al. (2005) conducted a community-demonstration project that combined risk reduction counseling at the individual level with case management for HIV-infected MSM who were engaging in risky transmission behaviors. After completing baseline assessment, risky transmission behaviors (i.e., unprotected vaginal intercourse, insertive anal intercourse, and needle sharing) with seronegative or unknown status partners decreased from 41.3% to 29.4%. Although only a modest change, this provides evidence that social support might contribute to lowering risk behaviors.

Participants in the current study also stressed that education was essential for young MSM who have not experienced the psychological and physical effects of HIV infection, including being with or watching someone dying from AIDS. They believe this education should begin in primary and secondary schools. Perhaps this also could begin with updating health education material and policies while passing new academic standards at the same time. Ogusky and Adam (2010) conducted a case study on public schools in Washington DC and identified that sexuality education curricula and policies had not been updated for more than 12 years. In addition, they found that a created coalition of social service agencies made sustaining and systematic change through three strategies: “mobilizing grassroots community support, involving parents in the discussion, and educating city leaders” (p. 34S). As a result new education standards were passed and policies amended to reflect the need to focus on HIV education and prevention.

Participants in the current study also suggested that they proactively participate in HIV education, support groups and prevention creation and implementation. Although few studies have investigated the efficacy of peer-led or group-supported approaches (Johnson, Holtgrave, McClellan, Flanders, Hill , et al., 2005), McKirnan, Tolou-Shams and Courtney-Quirk et al. (2010) tested the efficacy of the Treatment Advocacy Program (TAP) in a randomized control trial that was led by HIV-infected peer advocates. They found that at study completion TAP participants reported a significant reduction in transmission risk behaviors compared with those who only received standard care. This finding is consistent with a review of literature conducted by Herbst et al. (2007) on the

effectiveness of group-level HIV behavior risk-reduction interventions for adult MSM. They concluded that there is strong evidence that group-level interventions, particularly those with skill-building techniques, were “effective in reducing the odds of having unprotected anal sex and increasing the odds of condom use during anal sex” (p. S52).

Summary of Discussion

Since the current study was explicitly sensitive, limited demographic and sexual characteristics were collected on this group of HIV-infected MSM who report high levels of transmission risk behaviors. These characteristics (i.e., age, ethnicity, sexual partners and sexual activity) were discussed in light of prominent studies in the published literature that focused on HIV-infected MSM. The emerging themes that were integrated with the literature included (1) serostatus attribution, (2) partner responsibility for safer-sex negotiation, (3), sexual sensation seeking, (4) presence of substance use, and (5) relationship desire and/or dissatisfaction. There was much literature that suggested sexual sensation seeking and the presence of substance use were associated with risky sexual behavior among MSM. For HIV-infected MSM who engage in very high levels of sexual risky behavior, this association seems also apparent. However, there were not many studies that focused on the process of serostatus attribution and partner responsibility for safer-sex negotiation. Alarming, there was even less published literature that describes relationship desire and/or dissatisfaction in HIV-uninfected or HIV-infected MSM.

The analysis of both the interview data and the integration of themes into the literature has led to the observation among these high-risk MSM, that sexual risk taking seems to be confounded by multiple comorbid conditions and mental health burdens. To

create and implement novel risk-reduction strategies, researchers and clinicians should consider operationalizing a theoretical framework that addresses these conditions and burdens in dynamic ways. In the next chapter the researcher proposes an approach that might help this high-risk group of HIV-infected MSM focus on their personal and sexual health.

CHAPTER FIVE

Implications, Recommendations and Final Thoughts

This qualitative descriptive study was conducted to understand better the psychological, behavioral and contextual factors associated with risky sexual behavior in a high-risk group of HIV-infected MSM. Results from the semi-structured interviews helped the researcher identify a theoretical perspective for further research and practice in HIV prevention. This perspective consists of a “transdiagnostic” syndemics approach that has the potential to address the multi-faceted biopsychosocial health issues affecting this high-risk group. In this chapter, the researcher also proposes implications for clinical practice, and policy for social work researchers, educators and practitioners. After the study strengths and limitations are discussed and recommendations for future research are highlighted, final thoughts are provided.

To reiterate the results of study, the emerging themes from the interview data consisted of: serostatus attribution, partner responsibility for safer sex negotiation, excitement seeking, presence of substance use, and relationship desire and/or dissatisfaction. In addition, participants reported having multiple sexual partners and risky sexual episodes in the preceding three months. It is clear that these high-risk MSM are experiencing multiple comorbid conditions and mental health burdens that combine to create the phenomenon known as risk taking. Addressing all the psychological, behavioral and contextual factors associated with transmission risk within a theoretical framework is critical for the helping professions to focus on personal and sexual health, positive decision-making and goal-directed behaviors.

Theoretical Considerations

The emergence of the HIV epidemic ushered in several theories on best practices for both primary and secondary prevention. Most notably, the harm reduction philosophy has been used with substance abusers and other high-risk behaviors as a way to understand changes in these behaviors. This perspective suggests that abstinence from risky behaviors is not always possible, and the best evidence to reduce those behaviors might be the incorporation of self-efficacy skills that decrease behaviors over time. This approach to behavioral change falls within the social-cognitive paradigm and suggests that negative behaviors are learned through interactions with the biopsychosocial environment. In the current formative study, it was assumed that risky sexual behaviors with the potential to transmit HIV could be changed, particularly if persons learn and practice transmission risk reduction strategies that target unhealthy risky transmission behaviors.

In the category of harm reduction, the Information-Motivation-Behavioral Skills approach (Fisher & Fisher, 1993), Motivational Interviewing (Miller & Rollnick, 2002) and the Transtheoretical Model for Behavior Change (Prochaska, DiClemente, & Norcross, 1984) are well-studied examples of social-cognitive behavioral frameworks that approach changing behaviors over time. Most often, only single cognitions or behaviors of comorbid and multiple health burdens are addressed and this might limit flexibility in treating the entire biopsychosocial and sexual person. It is in these behavioral change models that interventionists tend to focus on single issues instead of addressing multiple health behavior targets. Sexual risk-reduction strategies (risk

reduction as a single outcome) for both primary and secondary HIV prevention are often aligned with a harm reduction approach.

Among HIV-infected MSM who participate in high levels of transmission risk episodes, secondary prevention strategies have had only modest effects on HIV transmission behavior, and these effects tend to diminish over time (Crepaz, et al., 2008). In a review of literature on sexual risk behavior among HIV-infected MSM, van Kersteren, Hospers, van Empelen, van Breukelen and Kok (2007) found that seven of eight extant longitudinal studies indicated rates of UAI had increased over time. In addition, these modest effects were complicated with comorbidity and mental health burdens that often were overlooked and which interrupt the uptake of traditional HIV prevention messages. The development and use of a theoretical foundation that combines multiple health behavior targets and also addresses comorbid conditions might be most effective in treating the “whole” person in his or her environment.

Increasing rates of UAI could be associated with multiple variables that interact with each other to perpetuate cyclical risky transmission behavior. The results of the current study suggest that HIV-infected MSM operate within multiple co-occurring epidemics that affect overall health and influence their self-efficacy to make healthy decisions. In his formative work, Merrill Singer (1994) reported that multiple epidemics within the Northeast US coalesced to lower the overall health profile of Puerto Ricans. The interconnections of epidemics of substance use, poverty, racism and violence created a syndemic that perpetuated lower health in this at-risk group. Some behavioral scientists and epidemiologists have extended Singer’s work and proposed a new and innovative

perspective for conceptualizing the HIV epidemic, particularly for urban gay and bisexual men, or for MSM (Halkitis, 2010; Stall, et al., 2008; Stall, et al., 2003). They argue that HIV is one epidemic that co-exists with other epidemics, and the combination of these epidemics forms a syndemic for HIV infection. Therefore, it might be plausible that a syndemics framework, which takes into account the totality of human cognition and behavior in addition to environmental factors, could help conceptualize HIV prevention in dynamic ways.

According to the CDC (2008b), a syndemic consists of “two or more afflictions, interacting synergistically, contributing to excess burden of disease in a population.” In addition, Stall et al. (2008, p. 251) suggests syndemics are “a set of mutually reinforcing epidemics that together lower the overall health profile of a population more than each epidemic by itself.” Stall et al. (2008) also proposed that urban gay men experience a similar syndemic that is culturally produced and sets the stage for increase chances of HIV infection. In his theory, urban gay men experience epidemics that include childhood sexual abuse, substance abuse, depression and partner violence. Halkitis (2010) notes a syndemics perspective for HIV-infected gay men “encompasses the idea that the epidemics of HIV, drug abuse, and mental health burden (i.e. the confluence of several mental health symptoms) coexist and are mutually reinforcing among gay men” (p. 754). Syndemics capture the entire psychosocial and ecological well being of at-risk groups, which also includes the highest risk-group for HIV infection or co-infection with other sexually transmitted infections. Some researchers suggest that these syndemic conditions

increase both the likelihood of risky sexual behavior and HIV incidence rates and contribute to the HIV epidemic among MSM (Safren, et al., 2010).

The current study leads researchers, educators and practitioners to consider a syndemics theoretical framework in their work with this high-risk group. The data suggest that HIV-infected MSM operate within multiple epidemics that reinforce each other, and promote risky sexual transmission behavior with HIV-uninfected or status-unknown partners. As exemplified in the current study, HIV transmission risk behavior seems to coexist with possible cognitive distortions, other co-morbid conditions, presence of substance use, dissatisfaction with relationships, among others that taken together present a need to consider the person-in-environment as well as a holistic health perspective when developing novel HIV risk-reduction strategies. A “transdiagnostic” and syndemics approach to treating high-risk MSM, which might address the comorbid conditions in which they find themselves, could have a significant impact on sexual and public health initiatives.

Halkitis (2010) proposes that we move away from the social-cognitive paradigm in which HIV prevention has been situated in favor of a paradigm that gives voices to gay men to consider their diversity and the totality of their lives. HIV prevention that embraces “transdiagnostic” treatment protocol plans could help interventionists, researchers and theorists reframe HIV prevention for MSM in the US. Used most often in cognitive-behavioral treatments, a “transdiagnostic” approach has been effective in treating patients and clients with mental health burdens, such as depression and anxiety (McLaughlin & Nolen-Hoeksema, 2011; Shafren, McManus, & Lee, 2008; Norton &

Philipp, 2008). These are specifically tailored to the needs of the individual and their co-existing conditions that intersect on micro, mezzo and macro levels within society. This might be more clinically and socially relevant for HIV prevention, particularly among gay and bisexual men who experience multiple epidemics within their communities.

This holistic approach is consistent with the systems and person-in-environment perspectives found within social work theory and practice, and also with the values and ethics of the social work profession. The current descriptive analysis of the psychological, behavioral and contextual factors associated with the highest-risk group of HIV-infected MSM provides insight into the intersecting epidemics that not only led to their HIV acquisition, but also might perpetuate co-morbidities and mental health burdens that could interrupt the uptake of traditional HIV risk-reduction strategies. Moreover, these descriptive accounts may point to those reinforcing epidemics that decrease the overall health profiles of gay and bisexual men who form the highest HIV-infected risk group and are in need of comprehensive health care initiatives.

Some social work educators, theorists and practitioners have started to approach helping LGBT clients through a syndemics perspective. Brennan and Husbands (2010) provide an overview on HIV prevention and services for social workers and educators who work with LGBT persons on multiple levels. They report on health disparities of gay men who reside in urban areas while citing Stall et al. (2008) and their syndemics hypothesis; that is, “health disparities represent a piece of a web of mutually reinforcing pandemics that, when interconnected, negatively affect the health of the community” (Brennan & Husbands, 2010, p. 213). Other social workers note that black MSM also are

affected disproportionately with multiple coinciding epidemics (Wheeler, Hadden, Lewis, Sluytman, & Parchment, 2010). For example, HIV-infection, HIV stigma, unemployment and condom norms could lower their overall health profiles, potentially causing a syndemic within the gay African-American community. In addition, rural gay men might have similar or other multiple forces (e.g., lack of community support, HIV-infection and physicians untrained in LGBT care) that interact and create a syndemic. Moreover, the investigation and understanding of experiences of black and rural MSM using a transdiagnostic, syndemics perspective might lead to the creation of novel interventions for these at-risk groups.

Implications for Clinical Practice

Clinical interventions with HIV-infected MSM who engage in high levels of transmission risk must come from research on best practices and should address the multiple levels in which these men find themselves. Social workers who practice as case or care managers within HIV service delivery systems might find it helpful to utilize the transdiagnostic perspective when working with this high-risk population. Brooks (2010) identifies that *prevention case management* (PCM) “presents a blend of HIV risk-avoidance counseling and traditional case management” (p. 78). This social work role could be salient in the lives of HIV-infected MSM who engage in high levels of transmission risk.

For example, the men in the current study could benefit greatly from PCM that incorporated comprehensive physical, psychosocial and sexual assessments that could identify sexually transmitted infections, screen for comorbid conditions, individualize

treatment plans and coordinate HIV-related health and social services within health systems and communities. In addition, since these MSM are hard-to-reach individuals, social workers could play an important role not only to develop a therapeutic counseling relationship but also to create and implementing HIV outreach programs (Melendez, 2010). Those social workers who practice at a more advanced level might consider augmenting cognitive-behavioral strategies that target potential cognitive distortions or unhealthy behaviors that negatively affect how their clients meet their sexual and health goals. Crepaz et al. (2008) reported a meta-analysis review of the effect of cognitive-behavioral interventions with HIV-infected persons. She and her colleagues found that of the 15 controlled trials reviewed there were significant intervention effects that improved symptoms of depression, anxiety, anger and stress. They concluded that cognitive-behavioral strategies are efficacious in improving the lives of people living with HIV and suggested that future research should focus on “the relationship among interventions, psychological states, medication adherence, and immune functions, and identify other relevant factors associated with intervention effects” (p. 4). This research trajectory could be captured within a transdiagnostic approach and syndemics perspective.

New cognitive-behavioral technologies are essential if clinical practitioners can better address cognitive and behavioral functioning associated with risky sexual behavior. We are learning that depending on context and environment, gay men often make assumptions about their sexual partners serostatus. Participants in the current study made assumptions about whether or not their sexual partners were HIV-infected based on where they met those men and what type of sex they had. As well, the many men in the

current study assumed that their sexual partners are seroconcordant if they do not insist on using a condom or do not broach safer-sex negotiation. This assumption also might ring true for HIV-uninfected MSM; they could believe that sexual partners are seroconcordant if their partners do not want to use a condom or do not discuss HIV status.

As identified within the current study, participants engaged in serostatus attribution based on their partners' sexual behaviors. The researcher suggests that these assumptions are serostatus misattributions that result from cognitive distortions. These distortions also may be seen in social norms of responsibility; that is, most of this group of high-risk MSM believed that their sexual partners "should" know about the risks of unprotected anal intercourse regardless of serostatus. In a review of literature, Anand, Springer, Copenhaver and Altice (2010) found that "cognitive impairment is intertwined in a close, reciprocal relationship with both risk behaviors and medication adherence" and "...cognitive impairment also reduces the effectiveness of interventions aimed at optimizing medication adherence and reducing risk" (p. 1213). Using a transdiagnostic and syndemics perspective, a treatment plan that restructures these multiple cognitions and addresses other mental health burdens or comorbidities could help clients or patients understand how their thoughts and feelings affect their behaviors and risky sexual activity.

The new proposed psychiatric disorder called *Hypersexual Disorder* (HD: Kafka, 2010) for the upcoming DSM-V also might have clinical implications for this high-risk group who experience high levels of sexual excitement-seeking or sexual addiction. After

a thorough review of empirical literature, Kafka conceptualized HD as “primarily a nonparaphilic sexual desire disorder with an impulsivity component” and is specified by “polythetic diagnostic criteria...intended to integrate empirically based contributions from various putative pathophysiological perspectives” (2010, p. 377). These pathophysiological perspectives include sexual impulsivity and compulsivity, as well as sexual addiction and unregulated urges in sexual desire and mental or physical arousal.

Sexual sensation seeking as a primary concern and distress resulting from relationship dissatisfaction emerged in the current study as themes that could be considered part of the proposed diagnostic criteria. This added condition, if diagnosed, might allow clinicians to address specific treatment plans with HIV-infected MSM who want skills to decrease their sexual urges or compulsivity and subsequently decrease their transmission risk-taking behavior.

Implications for US HIV/AIDS Policy

Since the beginning of this dissertation project, President Barack Obama, in July 2010, announced a National HIV/AIDS Strategy for the US, which proposed to reduce the number of HIV infections, increase access to care and reduce HIV-related health disparities. By 2015, the strategy calls for a reduction in new HIV infections by 25% by increasing HIV prevention efforts in communities where HIV rates are concentrated at high levels. Specifically, the HIV/AIDS Strategy recommends “intensifying HIV prevention efforts in communities where HIV is most heavily concentrated; expand targeted efforts to prevent HIV infection using a combination of effective, evidence-based approaches; and, educate all Americans about the threat of HIV and how to prevent

it” (p. viii). With over half (53%) of all new HIV infections in the US occurring in gay and bisexual men, or in other MSM, it is critical that policies reflect the syndemic exigencies for this most affected high-risk group.

Millet, Crowley, Koh, Valdiserri, Frieden, et al. (2010) also agree that in order to decrease HIV infections by 25%, prevention strategists must focus their efforts on groups and communities at greatest risk. They outline key programmatic and research issues to be addressed, suggesting that effective prevention should include multiple interventions. Moreover, Millet and colleagues note that for those HIV-infected individuals who know their positive serostatus and continue to engage in risky transmission behavior, it is important to create tailor-made risk-reduction strategies that “promote(s) physical, emotional, and sexual health” (p. S143). These salient strategies could provide this high-risk group with self-efficacy skills that help meet the goals of social work within a Human Rights framework; that is, to help clients achieve dignity and respect, partnership and participation in the community, education about their rights as citizens and empowerment to continue positive health outcomes (Cannon Poindexter, 2010).

The social worker as change agent has the potential to make significant changes in both the legislative process and political outcome at state and federal levels. The preamble of the National Association of Social Workers’ Code of Ethics states, “Social workers promote social justice and social change with and on behalf of clients.” Bailey (2010) reports that there are four major policy areas in which social workers could advocate in HIV prevention and services, and thereby promote social justice and social change. These include prevention and education, disparities in health care, privacy and

confidentiality, and funding. Participants in the current study would benefit greatly if social workers could advocate on behalf of this at-risk group of MSM and address disparities they might feel when trying to engage in positive health initiatives.

From a policy perspective, privacy and confidentiality and disparities in health care might be most cogent for this high-risk group, specifically as they relate to relationship recognition and HIV-stigma. Although a handful of states legally recognize same-sex marriages or partnerships (e.g., Massachusetts, Vermont, Iowa, Connecticut and New Hampshire – and Washington DC – grant same-sex marriages while New York, Maryland and Rhode Island recognize same-sex marriages granted from other states), the Defense of Marriage Act (DOMA) continues to increase the personal and political inequality of love and compassion in the US. This inequality surely can be seen in access to health care, financial transactions and parenting concerns (Killian, 2010).

Killian (2010) purports that relationship recognition is one of many areas where social policy can affect positively the lives of gay and lesbian clients. Although some states accept the challenge to integrate sexual orientation and expression politically, ideologically and pragmatically, at the federal level same-sex couples are denied equal opportunities to express themselves as citizens of the US. Killian goes on to say how social workers could impact legislation:

Social service providers, responding to ethics codes that call for service and justice, can work with their clients on the micro level by being well informed, sensitive, and keenly aware of the specific ways that these issues hinder their clients' abilities to create the lives they wish to create. Providers can work

alongside or on behalf of clients in the mezzo and macro arenas by choosing from several simple but powerful advocacy options that challenge systems of care to be more open, accommodating, and inclusive of gay and lesbian couples and parents. (p. 20)

It is possible that as same-sex relationships become more equally recognized in the US such recognition might decrease HIV-stigma related attitudes and homo-negative behaviors. For the participants in the current study, HIV-stigma seemed to impact how they understood and embraced their sexual relationships, and for some it could be argued that if their community and society accepted their sexuality then they also might have more opportunities to enrich their desire to have on-going and fulfilling companionships.

Social workers also can help educate HIV-infected MSM about their rights in response to HIV-stigma generated from individual biases (Goffman, 1963) that permeate higher levels of society (Parker & Aggleton, 2003). In a survey of 38 HIV-infected adults, Fair and Ginsburg (2010) identified that those participants who had more knowledge about their legal rights regarding HIV-stigma and discrimination “scored significantly lower on the disclosure concerns subscale of the stigma scale and total number of acts of discrimination” (p. 77). Although none of the current participants reported active discrimination, knowing more about the legal policies in relation to HIV-stigma and discrimination could help HIV-infected MSM express their desire for relationships or their dissatisfaction with a current relationship. As a potential result, there might be more opportunities to practice HIV-disclosure skills and less need to engage in risky sexual behavior.

Recommendations for Future Research

The results of this qualitative descriptive study may direct researchers toward new research endeavors, especially if researchers and clinicians hope to meet the goals and recommendations of the US National/AIDS Strategy. It might be unrealistic or inefficient to think that researchers can create entirely new approaches to HIV prevention (Millet et al., 2010). Therefore, the best approach might be to augment existing strategies and research models that are the best evidence-based approaches. One of the goals of this qualitative study was to identify formative data that could help researchers determine what measurements should be included in a comprehensive quantitative psychosocial and sexual risk assessment battery.

An analysis of the emerging themes from this study revealed that the following measures should be included into a comprehensive assessment: (1) Sensation Seeking Scale (Zuckerman, 1994), (2) HIV-stigma Scale, (3) a substance-use assessment, (4) social support items, and (5) a risk assessment that includes perceived risk, numbers of HIV-uninfected and status-unknown partners and number of condomless episodes of anal intercourse. In addition to these five assessments, demographic questions, the NEO Personality Inventory and a clinician-administered neuropsychiatric interview (i.e., DSM diagnostic tool) were completed by 66 participants in addition to the 14 who completed the qualitative interviews. These data will be combined with the qualitative findings, so that the research team can specify novel risk-reduction strategies and incorporate them into an intervention using cognitive-behavioral therapy (CBT). This individualized

treatment program for HIV-infected MSM who engage in high levels of risky transmission sex will be piloted with 10 participants over the course of the next year.

Based on the emerging theme labeled *Serostatus Attribution*, the researcher hypothesizes that cognitive distortions might interrupt the accurate assessment of sexual transmission risk. It would be imperative to investigate the components associated with attribution and the context in which it occurs if researchers want to change risky sexual behaviors. However, nowhere in the literature was there a scale that measures these constructs. Stimulated by the apparent vacuum, the researcher and the PI used the qualitative interview data from the current study and constructed the Attribution of Serostatus Scale (ASS: See Appendix C) that may be piloted in future secondary HIV prevention studies also the scale could also be modified for HIV-uninfected MSM and piloted in primary HIV prevention studies. In subsequent studies at The Fenway Institute (Fenway Health) that address accurate transmission-risk appraisal in HIV-infected MSM, this ASS will be utilized to determine perceived risk and to re-examine risk-appraisal after specifically-tailored risk-reduction counseling.

Responsibility for protecting sexual partners is a concept that has not been investigated readily. Wolitski et al. (2003) suggested that safer-sex messages regarding personal responsibility for protecting sexual partners from HIV have not been incorporated consistently into prevention programs for MSM. Also, Mahajan et al. (2008) suggest HIV prevention should incorporate strategies to reduce HIV stigma at the following levels: intrapersonal, interpersonal, community, institutional and governmental/structural levels. These components might be implemented best within

social support and a group work therapeutic milieu. Group-level interventions that incorporate small group discussions facilitated by a counselor use skill-building techniques (e.g., using condoms correctly), rely on social support, introduce cognitive-behavioral strategies (e.g., restructuring cognitive distortions about risk) and encourage peer-monitoring progress (Herbst et al., 2007) might be particularly helpful.

Social workers are educated and trained well to design group interventions and measure their effects on sexual risk and overall sexual health improvement. Stewart and Dixon-Anderson (2010) remind us that social work with groups was introduced officially to the profession at the National Conference for Social Workers in 1935. Social workers could investigate the processes and results of group-level interventions that offer this high-risk group an opportunity to discuss sexual responsibility and protective health with others. Participants may then provide accountability and support to their peers, which could help to dissipate HIV-stigma, internal homo-negativity and fear of rejection. In addition, participants might also develop meaningful relationships that have the potential to become long lasting and satisfying.

Because it is becoming clear that HIV-infected MSM experience multiple co-occurring psychosocial health problems, new research must consider “transdiagnostic” approaches to understanding the additive effects of these epidemics. Researchers might begin with findings of Stall et al. (2003) and investigate how the psychosocial health problems of prevalence of substance use, childhood sexual abuse, partner violence and depression could impact cognitive functioning and behaviors of high-risk MSM. Other variables might co-exist with this syndemic to lower the overall health profiles of this

group. This approach also could help social workers triage patients and participants to the health care they might need (e.g., individual/group HIV counseling, substance-use and abuse treatment, mental and physical health counseling, etc.), as well as connect them with HIV medication and adherence education.

Finally, results from the randomized-control trial known as the Pre-exposure Prophylaxis Initiative (iPreX) that involved 2499 participants around the world have the potential to change HIV prevention for years to come. In the most promising HIV prevention study in the last 30 years, Grant, Lama, Anderson, McMahan, & Liu, A. Y., et al. (2010) demonstrated that an oral antiretroviral chemoprophylaxis regimen, along with HIV testing, risk-reduction counseling, condoms, and management of sexually transmitted infections (traditional HIV prevention services) provided protection from HIV acquisition compared to the control group who did not receive the oral HIV medication. That is, of the 100 who did become infected with HIV during follow-up (36 in the experimental group and 64 in the placebo group) there was a 44% reduction in HIV incidence. In addition, if the HIV medication was used for 90% or more of the days during the trial, then the efficacy was 73%, indicating the importance of HIV medication adherence in protecting those who engage in risky sex from possibly acquiring HIV. Moreover, the results of this study really emphasized the critical role of HIV medication has on decreasing the chances of becoming HIV infected or transmitting HIV to sexual partners. New research also must incorporate these significant findings in the creation of novel primary and secondary risk-reduction strategies that increase HIV medication

adherence and introduce behaviors that keep both HIV-infected and uninfected MSM healthy.

Strengths and Limitations of the Current Study

Readers should be aware of the strengths and limitations of this qualitative investigation of high-risk sexual behavior of HIV-infected MSM. Because of the sensitivity of the phenomena being studied, it was important for the researcher to establish quick rapport with the participants and allow them to speak openly about their sexuality and the context in which sexual transmission risk occurs. As a trained social worker, the interviewer was able to utilize the therapeutic skills necessary to encourage and generate open dialogue that resulted in in-depth examples of the sexual lives of these high-risk MSM.

Another strength of the study was the development and utilization of the seven theoretical tenets and rigorous steps to accomplish these tenets. This structure incorporated content analyses within a qualitative descriptive approach and helped the researcher engage in low interpretation of the data. Furthermore, there is no known paradigm in the published literature that provides a model of qualitative description as its platform, and these analytic tenets and steps might be exemplary for researchers who conduct inductive studies at this level.

The helping professions and specifically social work educators, researchers and practitioners could benefit from the results of the current study. This is most evident in the potential augmentation and creation of novel risk-reduction strategies that are specific for this high-risk group of HIV-infected MSM. These data provide a foundation for

piloting an intervention that could reduce the number of risky sexual episodes and subsequently decrease new HIV infections in the US. Findings from an open pilot could be used to implement a randomized control trial to identify evidence-based interventions.

These results also support the need to transform the way researchers approach HIV prevention research; reframing this trajectory might require a “transdiagnostic” approach while addressing syndemics as an overall health outcome. This approach is supported by recent HIV prevention research that focuses on how comorbidities and mental health burdens decrease the health profiles of gay and bisexual men. Treating multiple factors that are associated with risk taking might be imperative in order to effect lasting change and improve overall health in these individuals and within societies.

When interpreting and synthesizing these results it is important to note that the researcher touched only the surface of the lives of these 14 participants. Although much HIV prevention research has identified psychosocial characteristics associated with risky sexual transmission behavior, there is little information about those gay and bisexual men who engage in the highest risk. This formative work investigates a group of men who are difficult to reach in the community and who fear the stigma and homo-negativity associated with their positive serostatus.

Therefore, an important weakness is that these data include only the experiences, cognitions and behaviors of 14 participants who might have been reluctant to share more in-depth experiences and information. A cross-sectional, one-time interaction with these participants provides a limited amount of data, and in order to test an intervention, researchers will need to engage with participants for longer periods of time. This could be

done in the aforementioned open pilot trial that will provide consecutive weekly visits in a therapeutic format.

Another weakness that should be highlighted is a condition of all qualitative research studies. That is, there is a chance that personal biases and assumptions found their way not only into the collection of data (i.e., via the interview process), but also into the identification of the “gestalt” of each interview, the data analysis and the completion of results. It was important for the researcher to create and use criteria and procedures to ensure trustworthiness of the study. These included the rigor points outlined in Chapter Two and included of credibility transferability, dependability and confirmability (Lincoln & Guba, 1985). These points and procedures were followed in the attempt to limit the interference of subjective interpretations. Unfortunately, the researcher was unable to represent these data to the participants to clarify particular findings and/or implications. This procedure might be necessary in future research studies with this population.

Final Remarks

This June marks 30 years of HIV prevention research and development. Although HIV incidence rates have decreased since 2003, approximately 53% of new HIV infections occur in MSM. What this qualitative study highlights is that high rates of sexual transmission risk behaviors in HIV-infected MSM might coexist with mental health burdens, substance use, perceived risk and assumptions about serostatus. As well, traditional risk-reduction strategies have had only modest effects and tend to diminish over time; also comorbidities and/or syndemics may block the uptake of traditional HIV prevention messages. If we are to embrace and implement the National HIV/AIDS

Strategy for the US, HIV prevention should address the highest-risk group of HIV-infected MSM. Creating novel risk-reduction strategies within a syndemics framework and augmenting traditional prevention interventions could effect reductions in HIV transmission among HIV-infected MSM who engage in high-risk sexual behavior. This could reduce new HIV infections by 25% by 2015 by “intensifying HIV prevention efforts in communities where HIV is most heavily concentrated; expand targeted efforts to prevent HIV infection using a combination of effective, evidence-based approaches; and, educate all Americans about the threat of HIV and how to prevent it” (p. viii).

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Appendix A: Oral Explanation of Research for Qualitative Interview

Project ENGAGE

Principal Investigator: Conall O’Cleirigh, Ph.D.

Research Associate: S. Wade Taylor

You are being asked to participate in a research study. Before you decide whether to participate, the study staff will explain the purpose of this study, how it may help you or others, any risks you may face, and what is expected of you.

It is important that you know your participation is entirely voluntary. In addition, you may decide not to take part or to withdraw from the study at any time without penalty or loss of any benefit to which you might otherwise be entitled.

This is a research study being conducted at Fenway Health, funded by the Harvard Center for AIDS Research. You are invited to take part in this study because you are gay, bisexual, or otherwise have sex with men, and are HIV-positive. We seek to gather better information about HIV-positive men who have sex with men in order to guide our development of future behavioral prevention interventions in high-risk men who have sex with men.

You are one of 15 participants who will spend approximately one hour today meeting with S. Wade Taylor, a Research Associate who will interview you in a semi-structure manner. Topics included will be related to sexual behavior and activities, substance and alcohol use, disclosure of your HIV status to partners, and your beliefs related to safer sex. Your session will be audio-recorded; however, you may ask that the recording be discontinued at any time.

You will be compensated \$50 in the form of a check for completing the interview. There is no cost to you to participate in this study, and your participation in this study is completely voluntary. If you receive your health care at Fenway Health, it will not be altered if you choose not to participate or choose to stop your participation in the study at any time.

If you choose not to participate in any fashion, you will still receive the usual standard of care that is offered through Fenway Health, which may include referrals to both services within or outside of Fenway Health.

One focus of the study is sexual risk-taking, which may be a difficult or uncomfortable topic at times. There may be other questions during the interview that you find

emotionally upsetting. You may decline to answer any question that you do not feel comfortable answering.

As a participant of this research study, you will be asked questions about your sexual behavior, health, mental health, social support, and substance use. By completing the interview, you will be actively tracking your sexual behavior and mental health needs. Furthermore, completing the interview will further HIV prevention research and guide development of new interventions. You will also receive condoms and lubrication if you like.

We do not expect that you will be harmed by taking place in this research study. We will provide you with immediate necessary treatment for study-related problems. The study staff will direct you where to go if you need additional medical care. The cost for such treatment will be charged to your insurance company or to you.

Fenway Health cannot provide free continuing care. Fenway Health cannot compensate you for other things, like lost work, childcare expenses, or pain and suffering. Some insurance companies will not pay for medical expenses resulting from research. There is no program for monetary compensation or other forms of compensation for such harm.

If you indicate that you are in imminent danger or hurting yourself or others, the research associate will need to reveal this information in order to protect you or that person. In addition, the investigators will report cases of child or elder abuse or neglect to the authorities.

The research associate will take steps to ensure that your voice recording will remain confidential and when transcribed it will be identified by a coded number, **NOT** your name. There will be **NO** link between your audio recording and your name or medical records at Fenway Health if you receive care there. As soon as the interview is downloaded to a password protected file folder at Fenway Health, it will be deleted off the audio-recording device. When it is transcribed, all names that may have been stated during the interview will be deleted. In addition, only the research associate and the principal investigator will have access to the data.

The research associate will use paper copies of the transcribed interviews for data analysis. When not analyzing the interviews, all paper copies of the transcribed interviews will be locked in a cabinet located at the research associate's desk. Only the research associate will have a key to this cabinet. There will be no identifying information on the paper copies and no one will be able to link your interview to your file at Fenway Health if you have one there.

As noted during the telephone screen, we used your full name to schedule your appointment and to provide you with a compensation check for your participation. Upon

completion of the interview, any record or you visit to Fenway for this research project will be deleted.

If you have any questions about the study or concerns about a possible research-related injury, you may contact the project manager, the research associate, or the principal investigator:

Project Manager
Phone: (617) 927-6037

S. Wade Taylor, Research Associate
Phone: (617) 927-6182

Dr. Conall O’Cleirigh, Principle Investigator
Phone: (617) 927-6440.

If you have any questions at any time regarding your rights as a participant in a research study and want to talk with someone not involved in the conduct of the study, then you may contact the Manager of Research Compliance, at (617) 927-6400, who will get you in contact with the Institutional Review Board (IRB) chairperson.

An IRB is a committee of volunteers who are responsible for protecting the rights and welfare of research participants. The investigators and Manager of Research Compliance may also be contacted at the following address:

Fenway Health, The Fenway Institute,
1340 Boylston Street, Boston, MA, 02215.

I have covered the study procedures and obtained oral informed consent from this participant as outlined in this script.

Staff Signature

Staff Name

Date

Appendix B: Semi-structured Qualitative Interview Guide

Thank you for coming in today. For this in-depth interview, I am interested in talking with you in more detail about your sexual encounters, particularly ones you've had in the past three months.

We recognize that some HIV intervention practices may not be suitable for all men. So, I am interested in discussing specifically a time in the last three months when you had unprotected anal intercourse with another man who may have been HIV negative, or perhaps his HIV status was unknown. I want you to feel comfortable sharing with me whatever you think would help me better understand you, your sexual choices and activities.

Let me remind you again that what you share today will not be recorded in your medical file at Fenway (if you receive care here), nor will your care at Fenway be affected. In addition, your name and any others that you mention will be deleted when I transcribe the interview. Feel free to give as little or as much detail for each question asked.

1. Can you talk to me about your last sexual encounter?

Example Probe Questions:

- Was this a primary sexual partner?
- What was that like for you?
- What kind of sex was it (e.g., oral, anal, etc.)?
- How did you decide to have sex?
- How did you or he initiate the sexual encounter?
- What took place for this encounter to occur?
- How did you or he select each other as a sexual partner?
- How/when did you decide what kind of sex you would have?
- Did you both talk about your HIV status, and if so, how did that happen?
- If not, what are some reasons do you think why it didn't come up?

2. What are some characteristics (e.g., physical, emotional, HIV status, role, top/bottom, age, etc.) you might look for in a sexual encounter?

Example Probe Questions

- How important are these characteristics when you look for sexual encounters?
- When having sex, how do these characteristics affect your experience?
- How do you think these characteristics (or lack of) affect your decision to use a condom?

How do these sexual encounters with these characteristics satisfy you? How do they not?
How well do these characteristics prepare you for sex?

3. What are some characteristics about you that you think other men consider as they pursue you for sexual encounters?

Example Probe Questions

How important do you think these characteristics are for these men?
When having sex, how do you think these characteristics affect their experience?
How do you think these characteristics (or lack of) affect their decision to use a condom?
How do these sexual encounters with these characteristics satisfy them? How do they not?
How well do these characteristics prepare you for sex?

4. What are some reasons that determine you will have or not have sex on any given day?

Example Probe Questions

What was different about these days?
Are there times when you do not want to have sex, but you do anyway? What are those times like?
Are there times when you do want to have sex, but you do not? What are those times like?
Were there times when condoms were used and times when they were not?
What were different about those times?

5. Other than with a primary sex partner, could you share with me your last casual sexual encounter in a public environment?

Example Probe Questions

What was involved in your decision to have sex in a public environment?
How was the sexual encounter initiated?
How was the partner selected?
How/when did you decide what kind of sex you would have?
What led to your decision to use or not to use condoms?

6. Can you talk to me about your last sexual encounter during which you had sex with multiple partners?

Example Probe Questions

How did this encounter happen (e.g., sex parties, internet hook-up, etc.)?
 What were the motivating factors for your participation?
 How did this sexual encounter affect you?
 How/when did you decide what kind of sex you would have?
 How did this affect your decision to use or not to use condoms?

7. In the past three months, have you had a sexual encounter during which you were using or had used drugs or alcohol?

Example Probe Questions:

If so, how were drugs and alcohol used and to what quantity?
 What was involved in your decision to use drugs and have sex?
 How are these sexual encounters different from those without drugs and alcohol?
 How/when did you decide what kind of sex you would have?
 How did this affect your decision to use or not to use condoms?

8. In the past three months, have you had a sexual encounter during which you traded sex for money, drugs or alcohol?

Example Probe Questions:

If so, what was involved in your decision?
 How were drugs and alcohol used and to what quantity?
 What was involved in your decision to use drugs and have sex?
 How are these sexual encounters different from those without drugs and alcohol?
 How/when did you decide what kind of sex you would have?
 How did this affect your decision to use or not to use condoms?

9. Can you tell me some reasons why you are not interested in participating in HIV prevention interventions?

Example Probe Questions

If we were to create alternative HIV prevention interventions, what would you suggest they look like?
 What would you change?
 What would you keep the same?
 How would you approach education about HIV intervention?

10. Can you tell me some reasons why you are interested in participating in HIV prevention interventions?

Example Probe Questions

How do you think HIV prevention interventions might be more effective?
What interventions might work better for you on a more consistent basis?
What would help you more easily disclose your HIV-positive status to your partners?
How would participating in HIV prevention interventions help you to enjoy sex more?

11. What are some other important things that I should know about your sexual behavior to help me understand you better?

Example Probe Questions

Is there anything else I should have asked you?
Am I missing anything?
What haven't I got to yet?

Appendix C: Attribution of Serostatus Scale (ASS)

	I generally assume that my sex partner is HIV-positive if...	Almost Never	Occasionally	About half of the Time	Most of the Time	Almost Always
Surface/ Appearance	1. He looks like he is HIV-positive.	0	1	2	3	4
Context	2. He's okay having sex in a public sex setting (park, bathhouse, video store)	0	1	2	3	4
Network Type	3. We hook up on the internet.	0	1	2	3	4
Sex Behavior	4. He doesn't want to "top" me.	0	1	2	3	4
Surface/ Appearance	5. He is older than I am.	0	1	2	3	4
Network Type	6. I've had sex with him before.	0	1	2	3	4
Other Behavior	7. He doesn't talk to me about HIV.	0	1	2	3	4
Sex Behavior	8. He's okay "topping" me without a condom.	0	1	2	3	4
Context	9. He's okay having sex in groups or at parties.	0	1	2	3	4
Other Behavior	10. We use drugs before or during sex.	0	1	2	3	4
Sex Behavior	11. He's okay with me "topping" him without a condom	0	1	2	3	4
Network Type	12. He has HIV-positive friends.	0	1	2	3	4
Surface/ Appearance	13. On his internet profile for HIV Status it says "Ask me".	0	1	2	3	4
Network Type	14. He knows I'm HIV-positive.	0	1	2	3	4