

THE ROLE OF MASCULINE GENDER NORMS IN HIV VULNERABILITY AMONG  
DOMINICAN MEN ENROLLED IN A CIRCUMCISION FEASIBILITY TRIAL

Paul Joseph Fleming

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Approved by:

Clare Barrington

Maximo O. Brito

Suzanne Maman

Lisa D. Pearce

Wizdom Powell

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## ABSTRACT

Paul Joseph Fleming: The Role of Masculine Gender Norms in HIV Vulnerability Among Dominican Men Enrolled in a Circumcision Feasibility Trial  
(Under the direction of Clare Barrington)

**Background:** Masculine norms influence men's sexual behaviors. Though this relationship has been extensively theorized, empirical evidence explaining this relationship is limited. This dissertation aims to understand how masculine norms and concern about demonstrating masculinity contribute to men's HIV vulnerability in the Dominican Republic.

**Methods:** I conducted three studies using qualitative and quantitative data from a feasibility trial of voluntary medical male circumcision for HIV prevention in two Dominican cities. In the first study, I analyzed survey data collected from men 6-12 months post-circumcision (n=293) to examine the association between Gender Role Conflict/Stress (i.e. concern about demonstrating masculine characteristics) and HIV-related sexual behaviors. In the second study, I analyzed data from in-depth interviews with a sub-sample of men in the trial (n=30) to explore how masculine norms shape men's sexual and violent behaviors. Finally, in study three, I used both data sources to explore the relationships between norms of masculinity, male sexuality, and circumcision.

**Results:** Men's Gender Role Conflict/Stress was significantly associated with having two or more partners in the past 30 days, inconsistent condom use with non-steady partners, and drinking alcohol at last sex, after controlling for socio-demographic characteristics. In the qualitative interviews, men helped to explain this relationship by showing that masculine norms encouraged them to compete with one another for social status and that demonstrating masculine characteristics within their social networks – such as successful sexual performance or being a provider – was a key way to gain social status. Men were especially concerned about being humiliated because of the

implications for losing status, which led to engaging in violence and sexual risk behaviors. Finally, nearly half of men reported feeling more masculine after receiving a circumcision. Their main reason for feeling more masculine was improved sexual performance which allowed them to avoid the humiliation associated with an inability to satisfy sexual partners.

**Conclusion:** Men demonstrate their masculinity through their sexual behaviors and their concern about demonstrating masculine norms to their social network drives men's HIV-related risk behaviors. HIV prevention efforts should ameliorate the negative effects of competition between men and address men's concern about demonstrating masculine characteristics.

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## **LIST OF ABBREVIATIONS**

<b>AIDS</b>	Acquired Immune Deficiency Syndrome
<b>AOR</b>	Adjusted odds ratio
<b>CI</b>	Confidence interval
<b>CONAVIHSIDA</b>	Consejo Nacional para el VIH y el SIDA [National Counsel for HIV and AIDS]
<b>COPRESIDA</b>	Consejo Presidencial del SIDA de República Dominicana [Dominican Republic Presidential Council on AIDS]
<b>CESDEM</b>	El Centro de Estudios Sociales y Demográficos [Center for Social and Demographic Studies]
<b>DHS</b>	Demographic and Health Surveys
<b>DOP</b>	Dominican Peso
<b>DR</b>	Dominican Republic
<b>GEM</b>	Gender Equitable Men
<b>GRC/S</b>	Gender role conflict/stress
<b>HIV</b>	Human immunodeficiency virus
<b>MC</b>	Male circumcision
<b>MGRS</b>	Masculine gender role strain
<b>MSM</b>	Men who have sex with men
<b>OR</b>	Odds ratio
<b>PI</b>	Principal Investigator
<b>RCT</b>	Randomized controlled trial
<b>STI</b>	Sexually transmitted infection
<b>TMSC</b>	Transactional Model of Stress and Coping
<b>VCT</b>	Voluntary counseling and testing (for HIV)
<b>VMMC</b>	Voluntary medical male circumcision
<b>UIC</b>	University of Illinois Chicago
<b>UNAIDS</b>	Joint United Nations Programme on HIV/AIDS
<b>USD</b>	United States Dollar

**WHO**

World Health Organization

## **CHAPTER 1: INTRODUCTION AND SPECIFIC AIMS**

Globally, the majority of HIV transmission occurs through heterosexual sex and men who have sex with women represent an important population to engage in HIV prevention interventions to reduce transmission of HIV (UNAIDS, 2013). Two recent reviews demonstrate that heterosexual men continue to be underrepresented in HIV prevention interventions (Dworkin et al., 2009; Townsend et al., 2013) and they have been called the “forgotten group” in HIV prevention (Bowleg, 2013; Exner et al., 1999). Due to gender norms in most societies, men tend to have greater decision-making power within heterosexual relationships (Connell, 1987; Wingood & DiClemente, 2000) and are encouraged to engage in sexual risk behaviors (Cohan, 2009; Courtenay, 2000; Crook et al., 2009; Flood, 2008; Stern et al., 2003). Despite the importance of men and gender norms for preventing HIV, most HIV prevention strategies for heterosexual men (i.e. condom promotion, HIV testing and treatment, and medical male circumcision) have failed to incorporate a rich theoretical understanding of how norms of masculinity influence men’s sexual health behaviors and decision-making.

A man’s position in the social hierarchy depends in part on his ability to portray a masculine identity (Connell, 1995). Men use their behaviors, including sexual behaviors, to demonstrate their masculinity (Courtenay, 2000). There is ample evidence that men with attitudes supportive of a traditional masculine role are more likely to engage in sexual risk behaviors including inconsistent condom use and having multiple partners (Nyanzi, 2009; Pulerwitz & Barker, 2008; Santana et al., 2006). In comparison to the more indirect construct of attitudes towards a traditional masculine role, masculine gender role strain is a concept that more directly captures men’s own experiences and feelings in relation to those masculine norms. Masculine gender role strain describes men’s concern

about demonstrating masculine characteristics, including sexual prowess, and stresses the importance of men's interactions with their social networks (Pleck, 1995). Masculine gender role strain has been operationalized in the Gender Role Conflict Scale (O'Neil et al., 1986) and Gender Role Conflict/Stress scale (Gottfert, 2014) and has been associated with perpetration of violence and other health outcomes (Copenhaver et al., 2000; Jakupcak et al., 2002; O'Neil, 2008); however, its relationship with heterosexual men's HIV vulnerability has rarely been examined. Since the concern a man feels about demonstrating masculine characteristics is a modifiable factor (Dworkin et al., 2013), examining this relationship – including its mechanisms and its role in shaping men's experience of HIV prevention interventions – helps to identify new strategies to improve upon existing HIV prevention strategies for men.

In response to this research gap, I designed a mixed-methods study of the overarching research question: How do masculine norms and concern about demonstrating masculine characteristics contribute to HIV vulnerability among men enrolled in a circumcision feasibility trial in the Dominican Republic? My specific study aims are:

**Aim 1:** Examine the association between the Gender Role Conflict/Stress scale and HIV risk behaviors including: (1a) multiple partners in the last 30 days, (1b) inconsistent condom use with non-steady partners, and (1c) drinking alcohol at last sex. (Chapter 5)

**Aim 2:** Explore how masculine norms influence men's interactions with members of their social networks and how those interactions drive men's sexual behaviors and use of violence (Chapter 6)

**Aim 3:** Assess the relationships between norms of masculinity, male sexuality, and medical male circumcision for HIV prevention. (Chapter 7)

To address Aim 1, I analyzed survey data from the baseline and follow-up surveys from a circumcision feasibility trial of men (n=293). To address Aim 2, I analyzed qualitative in-depth



interviews with a sub-sample of study participants (n=30). Finally, to address Aim 3, I used both the survey and in-depth interview data.

This study fills important gaps in HIV-prevention research. First, the relationship between Gender Role Conflict and HIV risk behaviors among heterosexual men has rarely been studied and never been examined in a Latin American context. Second, while there is a general understanding that masculine norms influence men's behaviors, there is limited evidence for the specific social dynamics that help explain this relationship. Third, while previous research has examined the role of masculinity in men's sexual behaviors, there has been no exploration of the role of masculinity in how men respond to and experience an HIV prevention intervention. As HIV prevention interventions target men, including circumcision for HIV prevention, it is critical for these interventions to understand the influence that masculine norms and concern about demonstrating masculine characteristics can have on behaviors to create effective and compelling interventions for this 'forgotten group.'

## CHAPTER 2: BACKGROUND

### 2.1 HIV in the Dominican Republic

In 1983, the Dominican Republic (DR) was one of the first countries in the western hemisphere to report an AIDS case (Rojas et al., 2011) and has continued to have a higher HIV prevalence – estimated to be 0.8% in 2014 – than most other countries in the hemisphere (CESDEM & Macro International Inc., 2014). The most recent Joint United Nations Program on HIV/AIDS (UNAIDS) estimates showed that the DR had the 9<sup>th</sup> highest prevalence of the 29 countries in the hemisphere (UNAIDS, 2013). Of the 17 countries in the hemisphere with over 5 million inhabitants, Haiti had the highest adult HIV prevalence (2.1% of adults 15-49) and the DR was tied for second highest prevalence with Guatemala (UNAIDS, 2013). The estimated adult HIV prevalence in the DR peaked at 2.5% in 2001 and has been in decline since then (CESDEM & Macro International Inc., 2014; UNAIDS, 2013). According to 2010 modeling estimates, HIV in the DR is almost exclusively transmitted sexually: 65.9% of cases are transmitted due to heterosexual sex, 33.3% due to homosexual sex (UNAIDS et al., 2010). Less than 1% of cases are transmitted by injection drug use or other modes of transmission (UNAIDS et al., 2010).

The HIV epidemic in the DR is characterized as concentrated since there is low general prevalence (<1%) and HIV transmission occurs primarily among key populations including female sex workers and their sexual partners, men who have sex with men, residents of *bateyes*<sup>1</sup>, and individuals who use drugs (CONAVIHSIDA, 2014; UNAIDS, 2013). Compared to 0.8% national HIV prevalence among 15-49 year olds, HIV prevalence across cities ranges between 1.7% to 6.3%

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<sup>1</sup> *Bateyes* are poor communities situated near sugar plantations, often with mostly Haitian descendent populations

among female sex workers, 3.9% to 6.9% among men who have sex with men, and 1.3% to 6.2% among individuals who use drugs (CONAVIHSIDA, 2014). Based on data from the 2013 Encuesta Demográfica y de Salud (the Dominican Demographic and Health Survey), the most recent population-level data available, HIV prevalence is 1.9% among men who had paid for sex in the past 12 months (CESDEM & Macro International Inc., 2014).<sup>2</sup> According to the same data, residents of *bateyes* have an HIV prevalence of 2.5%, 2.4% for adult females and 2.6% for adult males (CESDEM & Macro International Inc., 2015). These most recent prevalence estimates for each of these populations are slightly lower than the previous estimates (CESDEM & Macro International Inc., 2008; COPRESIDA, 2008).<sup>3</sup>

Like many places in the world, HIV in the DR is associated with socioeconomic status (Fortson, 2008; Wojcicki, 2005). In the DR, HIV prevalence increases as education decreases. For example, those with no education have a prevalence of 4.3% compared to 0.1% prevalence for those with a university education (CESDEM & Macro International Inc., 2014). There is a similar trend when looking at wealth quintiles; the lowest wealth quintile has a prevalence of 1.8% and the highest quintile 0.2% (CESDEM & Macro International Inc., 2014).

According to the 2013 Demographic and Health Survey, men ages 15-49 in the DR have an HIV prevalence of 0.9% compared to 0.7% among women and 2.8% report having had symptoms of a sexually transmitted infection (STI) in the past 12 months compared to 11.0% of women report

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<sup>2</sup> This may underestimate the HIV prevalence among male sexual partners of female sex workers since the main partners of female sex workers are least likely to use condoms and often do not pay for sex

<sup>3</sup> In 2008, COPRESIDA estimated that HIV prevalence 3.3-8.4% for female sex workers, 5.1%-7.6% for men who have sex with men, and 3.3%-8.4% for drug users. The 2007 Demographic and Health Survey showed that HIV prevalence was 2.2% for men who had paid for sex in the past 12 months, and 3.2% for residents of *bateyes* (3.1% for females and 3.3% for males) (CESDEM & Macro International Inc., 2008).

having a symptom) (CESDEM & Macro International Inc., 2014). Across age groups, men aged 25-49 have the highest HIV prevalence at 1.4% (CESDEM & Macro International Inc., 2014).

## **2.2 Men's HIV Vulnerability**

### *Sexual Behaviors*

A large proportion of men aged 15-49 in the DR report sexual behaviors that put them at risk for HIV or STIs. Nationally, the mean number of lifetime sexual partners for men 15 to 49 years old is 14.9 (CESDEM & Macro International Inc., 2014). An estimated 28.7% of men report having two or more sexual partners in the past year and of those men with 2 or more partners, 45.8% used a condom at last sex (CESDEM & Macro International Inc., 2014). These data suggest that a significant proportion of men have opportunities to contract HIV or other STI.

While this dissertation does not focus on men who have sex with men, it is important to acknowledge that sex with men may still be a factor in heterosexual men's overall risk for HIV (UNAIDS et al., 2010). Same-sex attraction and sexual behaviors are highly stigmatized in the DR, and thus reliable data on the proportion of Dominican men who have sex with other men are hard to find since some men may not disclose their same-sex sexual behaviors (Halperin et al., 2009). One survey of men who have sex with men (MSM) in Santo Domingo reported that over half of the men self-identified as heterosexual (Tabet et al., 1996). Additionally, ethnographic research has shown that some heterosexual-identifying men engage in sex with men for income (Padilla et al., 2008). MSM are at substantial risk for HIV and STI infection (national HIV prevalence is estimated to be between 3.9% and 6.9% for MSM (CONAVIHSIDA, 2014)). A recent five site surveillance survey found that between 24.9% and 45.0% of MSM used a condom the last time they had anal sex, suggesting the need to improve HIV primary prevention efforts (CONAVIHSIDA, 2014).

Men who have sex with women involved in the commercial sex industry are also at higher risk for HIV. Commercial sex is not illegal in the DR and operates both formally and informally at

venues throughout the country, as well as women who find clients in the street or via telephone (Barrington et al., 2009; Kerrigan et al., 2006). HIV prevalence among female sex workers is approximately eight times higher than Dominican women who are not sex workers (5.3% vs. 0.7%) (CONAVIHSIDA, 2014) and thus unprotected sex between men and female sex workers have increased risk for HIV transmission. In the 2013 Demographic and Health Survey, 20.8% of men have ever paid for sex and 5.1% of men report having paid for sex within the past twelve months (CESDEM & Macro International Inc., 2014). Men with low levels of education and in the lowest wealth quintiles were more likely to report paying for sex in the past 12 months. Among men with no education, 11.0% had paid for sex, and among the lowest wealth quintile 10.5% had paid for sex (CESDEM & Macro International Inc., 2014). It is important to note that these data represent self-report of paying for sex, and not the percentage of men who had sex with a woman who is involved in sex work. Ample research in the DR demonstrates that men often do not pay per sex act with sex workers with whom they have trusted and/or intimate relationships and some men are financially dependent on their sex worker partners (Barrington et al., 2012; Fleming et al., 2014a; Murray et al., 2007).<sup>4</sup> Additionally, husbands and boyfriends of sex workers would likely not report paying for sex. Thus, the DHS likely underestimates the number of men having sex with sex workers.

Reported condom use when paying for sex was relatively high in the 2013 Dominican Demographic and Health Survey: 79.8% of men reported using a condom every time they paid for sex (CESDEM & Macro International Inc., 2014). These behaviors also have an education gradient: 67.4% of men with no education used a condom last time they paid for sex compared to 81.3% of men with secondary school education<sup>5</sup> (CESDEM & Macro International Inc., 2014). Men who

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<sup>4</sup> Often, in these cases, men provide regular economic support for the woman, but do not pay per sex act. Sometimes these are repeated clients of sex workers, or boyfriends or spouses.

<sup>5</sup> Too few men with university education reported paying for sex (n=32) to report condom use at last paid sex

report paying for sex had a HIV prevalence of 1.9%, representing a substantial difference from the prevalence among men who did not pay for sex (0.9%) (CESDEM & Macro International Inc., 2014). Thus, paying for sex represents a risk factor for HIV, even when using this indicator that may underestimate this behavior.

Researchers in the DR have also demonstrated an association between relationship characteristics and condom use for female sex workers and their male sexual partners. Murray et al. (2007) showed that men who report higher levels of intimacy with a female sex worker (e.g. more trust, more future orientation with partner) are less likely to use condoms with that partner (AOR: 0.51, 95% CI 0.31-0.85). These authors also showed that relationship intimacy corresponds with a more 'steady' or 'regular' ongoing relationship between a man and a sex worker (e.g. regular client, boyfriend, husband). Kerrigan et al. (2006) conducted an environmental-structural intervention to promote consistent condom use among female sex workers and their partners in the DR and the baseline data showed that 75.3% of sex workers used consistent condom use with new clients but only 14.6% reported consistent condom use with regular partners.<sup>6</sup> To further explore condom use by 'regular partners' of female sex workers, Barrington et al. (2009) conducted a study with male regular partners (n=380) in La Romana, DR recruited from thirty-six commercial sex establishments. Over half (64.5%) of the participants reported consistent condom use with their sex worker partners, but men who had been with their partner for over 3 months had lower odds of using a condom compared to men who had been with their partner less than three months (AOR: 0.45, 95% CI 0.25-0.81). Additionally, these men reported having multiple sexual partners; almost half had had four or more sex partners in the last 3 months which, in the absence of condom use, could facilitate the spread of HIV and STI through these sexual networks (Mah & Halperin, 2010).

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<sup>6</sup> A male regular partner of a female sex worker is defined as having had penetrative sex with the woman at least three times in the last three months

Men's sexual behaviors, including condom use and having multiple partners, are influenced by the norms within their social networks. Barrington et al. (2007) showed that visiting venues where sex workers were present was a common social activity for male regular partners of sex workers in La Romana. Of men participating in that study, 61.4% reported that *all* of their network contacts had female sex worker partners and 24.3% reported that *some* did. A majority (70.4%) of these men reported pro-condom injunctive norms (measured as whether or not their friends encouraged condom use), but only 41.5% perceived pro-condom descriptive norms (perception that all of their friends always used condoms with sex workers). Those men who thought 'some' or 'all' of their friends always used condoms with sex workers had 3 times the odds of using condoms compared to men who thought that 'none' of their friends always used condoms with sex workers (AOR for 'Some': 3.10, 95% CI 1.52-6.32; AOR for 'All': 3.43, 95% CI 1.80-6.51). In analysis of qualitative in-depth interviews with regular partners in the same city, these authors found that men perceived pro-condom injunctive norms (e.g. they *should* use condoms with sex workers), but these injunctive norms did not necessarily connect to men's actual behaviors (Barrington & Kerrigan, 2014).

Alcohol use also represents a risk factor for unprotected sex and increased HIV risk (S. C. Kalichman et al., 2007b; Madhivanan et al., 2005). Typically, visits to these venues involve alcohol consumption: 78.6% of male regular partners reported consuming alcohol at least a few times each week (Barrington et al., 2009). Men who reported alcohol consumption a few times a week were significantly more likely to have unprotected sex with their regular sex worker partner (AOR: 2.77, 95% CI 1.27-6.02). Similarly, a qualitative study of male partners of female sex workers in Santo Domingo found that many men felt pressured by their peers to drink alcohol or have sex and men did not have tools to cope with this pressure other than avoiding social situations with peers (Fleming et al., 2014a). Taken together, these data reflect how men's social networks can be both a source of protection as well as risk.

### *Biological vulnerabilities: Circumcision and STIs*

There are some biological factors that increase men's risk for HIV infection. Being uncircumcised or having an active STI have both been shown to increase vulnerability for HIV infection (Auvert et al., 2005; Bailey et al., 2007; R. Gray et al., 2007; Sobngwi-Tambekou et al., 2009). In the case of uncircumcised penises, the inner mucosal surface of the foreskin is exposed during sexual intercourse when a man has an erection. The inner mucosal surface of the foreskin has been shown to have a higher proportion of HIV target cells (i.e. CD4+ T cells, macrophages, and Langerhans' cells) than cervical mucosal tissue (Patterson et al., 2002). Since HIV cannot infiltrate the outer surface of the penis, the inner mucosal surface in uncircumcised men represents a relatively large additional area of exposed surface area that increases vulnerability for HIV infection. Uncircumcised men are also more vulnerable to STI, including syphilis, chancroid, and herpes simplex virus type 2 (HSV-2) (Weiss et al., 2006). Previous history of infection with a STI has also been shown to increase the proportion of HIV target cells in the foreskin's inner mucosal surface when compared to foreskin of men without history of STI (Donoval et al., 2006; Patterson et al., 2002).

Circumcision is fairly uncommon in the DR with only 12.7% of men 15-49 reporting being circumcised (CESDEM & Macro International Inc., 2014). Younger men are less likely to be circumcised than older men (10.9% of men 15-19 are circumcised compared to 14.8% of males 40-49). It is important to note that these percentages may be biased towards over-reporting; previous studies elsewhere have shown that self-reported circumcision status is frequently biased upwards as uncircumcised men mistakenly report that they are circumcised because they are unaware what circumcision is (Hewett et al., 2012; Risser et al., 2004). As stated previously, 2.8% of men 15-49 in the DR report having had STI symptoms in the past 12 months (CESDEM & Macro International

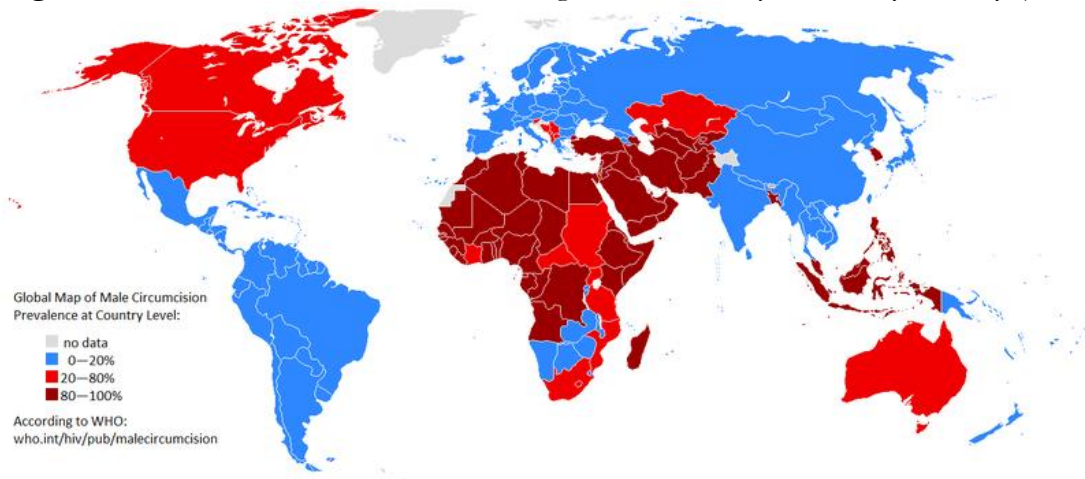


Inc., 2014). This measure likely underestimates actual STI prevalence since men can have a STI without symptoms.

### **2.3 Male Circumcision and Men's Sexual Behaviors**

Male circumcision is practiced across the globe, often as a religious or cultural rite of passage. The WHO estimates that about 30% of the world's male population over 15 is circumcised (WHO, 2007). Circumcision, apart from its new role as an HIV prevention tool, is commonly practiced on infant boys in the U.S., among Jewish and Muslim populations, and as a rite of passage for African males from certain cultural groups (WHO, 2007). Figure 2.1 demonstrates the wide variation globally in prevalence of circumcised men/boys. In nearly all of Latin America, Europe, and most of Asia, circumcision prevalence is less than 20%. The proportion is highly variable in Africa with Northern and Western Africa having a high prevalence of circumcision and Eastern Africa having a lower prevalence (WHO, 2007). About 75% of males in the U.S. are circumcised, 30% in Canada, and 59% in Australia (WHO, 2007). The WHO estimates that of all circumcised men in the world, 69% are Muslims, 1% are Jewish, and 13% are non-Muslim/non-Jewish men living in the U.S. In many African settings, and some Muslim societies, circumcision is seen as a rite of passage for boys as they become men. The American Academy of Pediatrics recently concluded that the benefits outweigh the costs for infant male circumcision ("Male circumcision," 2012), but the WHO currently only recommends circumcision in areas of high HIV prevalence (WHO, 2014).

**Figure 2.1** Prevalence of circumcision among males over 15 years old by country (WHO, 2007)



### *Voluntary Medical Male Circumcision and HIV protection*

As mentioned previously, uncircumcised men are biologically more vulnerable to HIV infection than circumcised men during vaginal sex with an infected partner and tend to have higher prevalence of HIV infection (Baeten et al., 2005; Cameron et al., 1989; R. H. Gray et al., 2000; Lavreys et al., 1999; Moses et al., 1990; Reynolds et al., 2004; Weiss et al., 2000). Based on this strong evidence, it was hypothesized that circumcising adult men in areas with high HIV prevalence and low circumcision prevalence could reduce HIV incidence. To test this hypothesis, HIV incidence was compared between men who received a voluntary medical male circumcision (VMMC) and a control group of uncircumcised men in three major randomized controlled trials (RCT) (Auvert et al., 2005; Bailey et al., 2007; R. Gray et al., 2007). Each trial was terminated early because of significant protective effects of VMMC; findings from each trial are summarized in Table 2.1 below.

**Table 2.1** Review of three RCTs on VMMC in sub-Saharan Africa

<b>Location</b>	<b>Orange Farm, South Africa</b>	<b>Kisumu, Kenya</b>	<b>Rakai, Uganda</b>
<i>Principle Investigator/ Lead author</i>	B. Auvert	R. C. Bailey	R. H. Gray
<i>Year published</i>	2005 ( <i>PLOS Medicine</i> )	2007 ( <i>Lancet</i> )	2007 ( <i>Lancet</i> )
<i>Years research conducted</i>	2002-2005	2002-2006	2003-2006
<i>Total n</i>	3274	2784	4996
<i>Age range of men</i>	18-24	18-24	15-49
<i>Reduction in risk of acquiring HIV</i>	60% (95% CI: 32%-76%)	53% (95% CI: 22%-72%)	51% (95% CI: 16%-72%)
<i>Length of follow-up</i>	21-month	24-month	24-month

Not only were there significant differences between intervention and control groups at the initial 2-year follow-up, these protective effects were sustained in follow-up studies at each site in 2010 (Auvert et al., 2013; R. Gray et al., 2012; Mehta et al., 2013). Based on these convincing results that medical male circumcision protects against HIV acquisition, governments and non-governmental organizations in Africa started to organize circumcision campaigns for adult men (WHO, 2011). It is estimated that if 14 African ‘priority’ countries can achieve 80% circumcision coverage for men 15 to 49, 3.36 million HIV infections could be prevented for a long-term cost-savings of over US\$16 billion (Njeuhmeli et al., 2011). By the end of 2011, 1.4 million circumcisions had been performed in these priority countries (WHO, 2011). To date, formal medical male circumcision programs for HIV prevention have only been adopted in African countries with generalized HIV epidemics. The circumcision feasibility trial in the DR represents the first time circumcision for HIV prevention has been implemented outside of Africa.

#### *Changes in sexual behaviors post-circumcision*

While male circumcision protects men from HIV infection, there are concerns about ‘risk compensation’ (also referred to as ‘behavioral disinhibition’) (Cassell et al., 2006; S. Kalichman et al.,

2007a). Risk compensation, as defined by Pinkerton (2001), refers to “any behavioral change that acts to offset a reduction in risk resulting from other changes” (p. 727). Since the intervention in the RCT paired circumcision with voluntary HIV counseling and testing, it is not surprising that there was an general decrease in reported sexual risk behaviors in both intervention and control groups (Auvert et al., 2005; Bailey et al., 2007; R. Gray et al., 2007). The researchers from the Orange Farm study found no differences between the intervention and control group for having unprotected sex or number of non-spousal sex partners at 12-month and 21-month follow-up. However, they did find that men who were circumcised reported a higher mean number of sexual contacts in the previous nine months at 12-month follow-up (5.9 vs. 5.0) and at 21-month follow-up (7.5 vs. 6.4). The Kenya study team did the most comprehensive reporting of risk compensation (Bailey et al., 2007; Mattson et al., 2008; Riess et al., 2010; Westercamp et al., 2014). Bailey et al. (2007) found some evidence that compared to men in the control group, men who were circumcised were more likely to report having two or more sex partners in the previous 6 months, less likely to report consistent condom use in the previous 6 months, and more likely to report unprotected sex in the previous 6 months.<sup>7</sup> However, in a more detailed analysis from a subsample of participants from the Kenya study, Mattson et al. (2008) found no evidence for differences in 18 sexual risk behaviors between the men who received a circumcision and those who did not. Additionally, Westercamp et al. (2014) conducted an analysis of the 24-month follow-up data and found no evidence of risk compensation. In the study in Rakai, Uganda, Gray et al. (2007) found no differences between number of sexual partners, number of non-marital partners, and reported consistent condom use

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<sup>7</sup> Since this focus of Aim 3 of this dissertation is to look at men’s sexual experiences 6-12 months after circumcision, it is useful to look at follow-up data from a similar time period. In the Kenya study, the following behaviors were measured at baseline and 6-month follow-up: unprotected sex in the previous 6 months (63% at baseline vs. 51% at 6-months), last sex was with casual partner (20% at baseline vs. 19% at 6-months), abstinence in previous 6-months (14% at baseline vs. 16% at 6-months), consistent condom use in previous 6 months (22% at baseline vs. 36% at 6-month), two or more partners in previous 6-months (42% at baseline vs. 33% at 6-month). Unfortunately, the authors do not report significance tests for these differences.

between men who received a circumcision and men who did not at 6-month, 12-month and 24-month follow-up. One prospective cohort study in the Siaya and Bondo regions of Kenya found that men who were circumcised in a hospital (not as part of a RCT) demonstrated no significant differences in sexual behaviors from men in a comparison group over the course of a 12 month follow-up period (Agot et al., 2007).<sup>8</sup>

Despite no evidence for overall risk compensation, there is some evidence that men may go through an ‘experimental’ phase after their circumcision heals. One prospective cohort study in the Siaya and Bondo regions of Kenya found that men who were circumcised in a hospital (not as part of a RCT) demonstrated no significant differences in sexual behaviors from men in a comparison group over the course of a 12 month follow-up period (Agot et al., 2007).<sup>9</sup> Interestingly, in the 4-6 month follow-up period, there was a small spike in the rate of unprotected sex acts with a non-marital partner among the circumcised men but not among the uncircumcised men. While the spike was not significantly different than uncircumcised men (OR 2.28, 95% CI 0.69-7.53), it may be indicative that some men ‘experiment’ post-circumcision (Agot et al., 2007). A recent qualitative study of post-circumcision risk compensation in Swaziland also found that a few men reported a period of experimentation where their sexual risk behaviors were increased (Grund & Hennink, 2012). For example, one participant said:

*“I wanted to try out my new tool and that lasted for about a month. If I try and count them [sexual partners], I think it’s six, but then all that stopped before March when I decided to stick to one partner.”* (p. 249)

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<sup>8</sup> In the one-month post-circumcision follow-up, circumcised men were significantly less likely to engage in sexual behavior, but the results were non-significant in follow-up periods. The one-month results were likely due to the fact that men are told to abstain for at least a month after the circumcision.

<sup>9</sup> In the one-month post-circumcision follow-up, circumcised men were significantly less likely to engage in sexual behavior, but the results were non-significant in follow-up periods. The one-month results were likely due to the fact that men are told to abstain for at least a month after the circumcision.

This temporary increased risk-taking resulted from curiosity about potential changes in his sexual experience after being circumcised. Though a few men in this study experimented, most men maintained the same behaviors, or adopted new protective sexual behaviors such as condom use. Some men reported that condoms were easier to use after circumcision<sup>10</sup> and, similar to findings from men in Kenya (Riess et al., 2010), most Swazi men attributed their adoption of more protective behaviors to the HIV counseling they received (Grund & Hennink, 2012).<sup>11</sup> In the study of Kenyan men, among the five participants that engaged in new sexual risk practices after VMMC, one wanted to ‘test’ out unprotected sex with his wife and the others reported being more desirable to potential sexual partners after circumcision (Riess et al., 2010). Another five participants reported reducing the number of sex partners they had and six reported increasing their condom use (Riess et al., 2010). They attributed their adoption of more protective behaviors to the HIV counseling and testing they received. For example, one Kenyan participant said: “When I received these teachings, some skills and knowledge, which I didn’t have. I realized that I was messing up. I could lose my life. So that is why I decided to change” (p. e12366). The rest of the participants reported maintaining the same behaviors before and after circumcision.

Since major life events or changes in lifestyle, such as becoming circumcised, can serve as a ‘cue to action’ for behavior change (Champion & Skinner, 2008), some changes in behavior after circumcision should be expected. While this dissertation does not specifically focus on risk compensation, Aim 3 examines men’s perceptions of their sexuality after being circumcised and experimentation or changes in men’s sexual behaviors are important factors to men’s sexuality.

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<sup>10</sup> One man said: “When you are trying to put it [the condom] on, you may fumble, but then the head is smaller than the foreskin so when you put it on, it just goes. It just goes and the thing is the foreskin, especially if your foreskin doesn’t roll all the way back. If it doesn’t roll back, then you are in trouble, but I’ve heard my friends say that having a foreskin that doesn’t roll back is really trouble . . . So it’s hard to put it on if you are not circumcised.” (p. 248)

<sup>11</sup> “I’m more cautious and responsible in terms of scrutinizing things and using condoms, and this is because I have the information [about HIV].” (p. 248)

### *Sexual function and satisfaction for circumcised and uncircumcised*

Since men's sexual function and satisfaction are components of masculinity (see section 3 for more detail), understanding how circumcision may cause these factors to change is important background information for this study. Changes in men's perceptions of sexual function and satisfaction after being circumcised varies and provides little consistent evidence. There is some biological basis for decreased sensitivity for circumcised men. Typically, it is understood that when the foreskin is removed, the skin of the glans of the penis becomes more keratinized (thickens) and becomes less sensitive (Halata & Munger, 1986; Sorrells et al., 2007; Taylor et al., 1996). But, there is no evidence for how long this process of keratinization occurs for men who are circumcised in adulthood. Overall, there have been over 35 studies published in peer-reviewed literature examining differences in sexual experiences between circumcised and uncircumcised men with conflicting results. However, the controversial nature of the topic requires careful consideration of each study to verify the quality of the research methods.

Circumcision is politicized globally, especially in the U.S., Europe and Australia, which may contribute to multiple studies with different results (Aggleton, 2007; Carpenter, 2009; Frisch et al., 2013). Anti-circumcision activists use decreased sexual function and pleasure as a key reason for males (infants, boys, and adult men) to not be circumcised (Carpenter, 2009). Some peer-reviewed evidence may reflect biases of certain researchers. For example, some studies examining this question in reputable journals use value-laden terms like 'normal' to refer to uncircumcised men (O'hara & O'hara, 1999). Additionally, a recent systematic review found that some studies published in reputable peer-review journals (including the *International Journal of Men's Health* (Bollinger & Howe, 2011) and the *British Journal of Urology International* (Hammond, 1999)) recruited men through websites or organizations (including the National Organization to Halt the Abuse and Routine Mutilation of Males, aka NOHARMM) that were explicitly anti-circumcision (Morris & Krieger,

2013). In studies that are less explicitly biased, it can be challenging to decipher any biases of the researcher that may influence how data are collected and presented. In the studies reviewed below, I aim to present data that appears to be rigorously collected and analyzed, but there is still potential for bias and conclusions should be drawn cautiously.

Changes in sexual performance due to circumcision could be viewed positively or negatively depending on the culture and the individual. Though greater duration between penetration and ejaculation – also referred to colloquially as ‘lasting longer’ – is viewed positively in most societies due to its association with sexual prowess and masculinity (Castro-Vázquez, 2013c; Connell, 1995; Gilmore, 1990; Herold et al., 2001; Khan et al., 2008; Mlewa, 2013; Senkul et al., 2004), lasting longer may imply reduced penile sensitivity due to circumcision, a primary drawback of circumcision given by anti-circumcision activists (Denniston, 2004). Due to these factors, perceptions of changes in sexual function is likely to vary between individuals and between societies depending on their ideology and preferences regarding sexual experiences.

Two recent systematic reviews assess whether circumcision affects sensitivity, sexual function, and satisfaction (Morris & Krieger, 2013; Tian et al., 2013). Tian et al (2013) conducted a meta-analysis from 10 published studies that either used a RCT, case-control, or self-controlled study design. In their analysis of pooled data, these authors found no significant relationships between circumcision status and a) premature ejaculation, b) difficulty keeping an erection, c) low sexual desire, d) pain during or after sex, and e) orgasm difficulties. Regarding ejaculation latency time, Tian et al. (Tian et al., 2013) report no significant differences in the text but the results in the tables suggest that circumcised men can last significantly longer than uncircumcised men. See footnote for more details.<sup>12</sup>

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<sup>12</sup> In the text, they report: “The IELT [intravaginal ejaculation latency time] between the circumcised and control groups demonstrated no significant difference (OR: 1.33; 95% CI: 0.69–1.97) (Figure 3).” However, in ‘Figure 3’, they report mean IELT times and ‘mean differences’, including a total mean difference of 1.33 and 95% confidence interval of (0.69,



Morris and Krieger (2013) examined a greater number of papers than Tian et al. (2013) and compared the rigor of studies by utilizing the Scottish Intercollegiate Guidelines Network grading system (Harbour & Miller, 2001). They highlighted the findings from two RCTs they deemed high quality (Krieger et al. (2008) and Kigozi et al.(2008)) and the eleven case-control or cohort studies also deemed high quality (Bleustein et al., 2005; Hoschke et al., 2013; Hosseini et al., 2008; Laumann et al., 1997; Mao et al., 2008; Masters & Johnson, 1966; Payne et al., 2007; Senel et al., 2012; Senol et al., 2008; Waldinger et al., 2009; Waldinger et al., 2005). The review of these non-RCT studies found almost no differences based on circumcision status for penile sensitivity, sexual arousal, sexual sensation, erectile function, premature ejaculation, ejaculatory latency time, orgasm difficulties, sexual satisfaction, pleasure, or pain during penetration (Morris & Krieger, 2013). The only exceptions are that Mao et al. (2008) found that circumcised men had fewer problems with premature ejaculation, and Senol et al. (2008) found that adult men who were circumcised had longer ejaculation latency time after they were circumcised compared to before they were circumcised.

The two RCTs included in each of the systematic reviews were the Kenya and Uganda medical male circumcision studies. The Kenya study team found that 50.1% of men reported at 6-month follow-up that their penis is ‘much more sensitive’ than before the circumcision and 37.1% reported that reaching orgasm is ‘much easier’ (Krieger et al., 2008). Unfortunately, it is unclear whether ‘much more sensitive’ and ‘much easier’ are perceived as positive or negative. The proportion reporting increased sensitivity and ease in reaching orgasm increased in every subsequent

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1.97). They report in the figure that the ‘test for overall effect:  $Z=4.10$  ( $p<0.0001$ )’. This suggests that they misinterpreted the mean differences as an odds ratio. Since the null hypothesis for an odds ratio is that the OR does not include 1, they reported non-significance. However, the null hypothesis for a mean difference is that the mean is different than 0, in which case their results would reject the null hypothesis and conclude that there is a significant difference between circumcised and uncircumcised men where circumcised men have a longer IELT. The authors have been queried about this discrepancy but have not replied.

follow-up period.<sup>13</sup> This increased sensitivity over time reported by Kenyan men is counter to the idea that circumcised penises keratinize over time and become somewhat less sensitive (Halata & Munger, 1986; Sorrells et al., 2007; Taylor et al., 1996). Additionally, over 46.7% of men also reported at 6-month follow-up that condom use is easier after circumcision. While the Krieger et al. (2008) did not address whether this change is due to circumcision or due to HIV counseling about condom use, in-depth interviews by Riess et al. (2010) with this population found that men reported greater ease in using condoms because of the new form of their penis:

*“When you’re not circumcised wearing a condom takes a lot of time. And then you know, normally you find that maybe that when you’re wearing that condom and you take a lot of time, you find you’re losing some erection. As compared to when you’re circumcised, it’s very easy to wear a condom.” (p. 7)*

This increased ease in condom use due to not having a foreskin is similar to the Grund & Hennink findings (2012). Riess et al. (2010) also found that men reported decreased pain during sex due to no longer having cuts/raw-skin on the foreskin during sex, and increased ability to engage in more rounds of sex with a sex partner. Regarding their female partner’s satisfaction, 46.9% report at 6-month follow-up that their partner is ‘very pleased’ or ‘somewhat pleased’ by their circumcision (31.3% were neutral and only 0.7% report that their partner was ‘somewhat’ or ‘very displeased’) (Krieger et al., 2008).

The Uganda study team measured sexual function and satisfaction at baseline and each of the follow-up visits. They found that that there were no changes in function or satisfaction experienced by men who received a circumcision that were not also experienced by men in the control group (Kigozi et al., 2008). In general, both groups reported minor increased sexual function and satisfaction over the duration of the study (over 95% reported satisfaction and function in both

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<sup>13</sup> By 24-month follow-up, the proportion responding “much more” to the question, “Compared to before you were circumcised, how sensitive is your penis?” was 64.0%. The proportion responding “much easier” to the question, “Compared to before you were circumcised, how easy is it for you to reach orgasm?” was 54.5%.

arms at each time point) (Kigozi et al., 2008). Notably, they also asked women about their satisfaction after their male partner was circumcised and found that 39.8% of women reported improved sexual satisfaction after their partner was circumcised (Kigozi et al., 2009). Of those who reported increased satisfaction (n=177), 28.8% said it improved because of better hygiene, 25.4% said it improved because it took the male partner longer to achieve orgasm, and 24.9% said it improved because the male partner wanted sex more often (Kigozi et al., 2009). Those women also reported that the partner had less difficulty maintaining an erection (14.7%) and that the female achieved orgasm more often (11.3%) (Kigozi et al., 2009).

Taken together, these results suggest that there are few clear differences between circumcised and uncircumcised men regarding sexual satisfaction and performance. There is limited but mostly unconvincing evidence that circumcised men might have longer ejaculation latency time and fewer problems with premature ejaculation, possibly indicating decreased sensitivity. But, since circumcised men from the Kenya RCT reported that they had increased sensitivity and greater ease reaching orgasm, it is difficult to make any population level conclusions from these results. There is evidence that condom use may be easier for some men after being circumcised, but whether the increased ease is due to the new form of the penis or due to counseling not fully explored. Aim 3 helps explore the role that masculine norms play in perceptions of changes post-circumcision.

#### *Uncircumcised men's perceptions of circumcision's impact on male sexuality*

The connection between circumcision and male sexuality is evident in studies of acceptability of VMMC in African countries (Westercamp & Bailey, 2007). For example, in a random sample of men in townships 50 kilometers outside Johannesburg, South Africa, 22.4% were circumcised and men who were uncircumcised expressed positive attitudes about circumcised men. Nearly half of uncircumcised men said that most women prefer circumcised men and 29.4% said that circumcision

increases sexual performance (only 13.6% said circumcision decreases pleasure) (Lagarde et al., 2003).

In several studies in sub-Saharan Africa and elsewhere, the strongest predictor of men's willingness to be circumcised was positive opinions about future sexual performance post-circumcision (e.g. circumcision increases sexual pleasure for women) (Brito et al., 2009; Mattson et al., 2005; Montano et al., 2014; Price et al., 2014; Skolnik et al., 2014). Another study in South Africa showed that the odds of a man wanting a circumcision were 8 times higher if they thought circumcised men enjoyed sex more and 6 times higher if they thought women enjoyed sex with circumcised men more (Scott et al., 2005). In a study conducted in Kenya, 43% of men thought circumcised men enjoy sex more, 55% thought women enjoy sex more with circumcised men, and 40% thought that circumcised men have more sensation during sex (Mattson et al., 2005). These feelings related to sexuality were some of the strongest predictors of whether uncircumcised men would want to receive a circumcision (Mattson et al., 2005). A focus group study by Obure et al. (2009) with the traditionally non-circumcising Luo tribe in Kenya found that men and women perceived that getting circumcised allows for prolonged sex and therefore greater pleasure to a woman. Similar findings related to prolonged sex and women's pleasure were reported in focus groups with men and women in Malawi (Ngalande et al., 2006) and among young men in Zambia (Mlewa, 2013).

Norms of masculinity and perceptions of future sexual performance have also been shown to be barriers to men's willingness to be circumcised. For example, Adams and Moyer (2015) find that some Swazi men perceived circumcision as a threat to their masculinity due to the potential negative affects it could have on their sex lives (e.g. loss of sensitivity, inability to pleasure female partners). Moyo et al. (2015) and Khumalo et al. (2013) found similar masculinity-related barriers to men's circumcision in their studies in Zimbabwe and South Africa. Finally, to demonstrate the

complexity of these issues, the Obure et al. (2009) also found that some men felt that circumcision would reduce penis size and inhibit their ability to please their female partners (Obure et al., 2009).

Outside the context of medical male circumcision for HIV prevention, studies show that circumcision has been marketed in certain settings as a strategy to increase masculinity and sexual prowess. For example, in a series of qualitative studies in Japan, Castro-Vasquez demonstrates that the uncommon practice of circumcision in Japan is being promoted by plastic surgeons in advertisements claiming that it boosts sexual performance and prowess (Castro-Vázquez, 2013a, b, c). Additionally, Hull and Budiharsana (2001) describe how Southeast Asian men's decision to be circumcised or undergo other penis modifications is due to desires to increase their sexual prowess. Anthropological studies from societies across the world have also documented the central role of circumcision in conferring masculinity to boys or young men and preparing them for adult male sexuality (Gilmore, 1990; Silverman, 2004).

Adams and Moyer (2015) concluded their acceptability study in Swaziland emphasizing a “need for more research in to the relationship between sexuality, masculinity, and health interventions seeking to involve men.” Aim 3 examines changes in sexual experiences before and after circumcision; understanding how men's perceptions of their own sexual prowess have changed may provide clues to how masculinity shapes men's experiences of circumcision.

#### *Dominican men's perceptions of circumcision and sexual behaviors*

As reported earlier, only 12.7% of Dominican men are circumcised. There is no data on whether these Dominican men were circumcised in infancy, as a boy, or as an adult. In the two field sites for the proposed research, the proportion of men circumcised in Santo Domingo is 14.0% and 18.8% in the La Romana region (i.e. region V) (CESDEM & Macro International Inc., 2014). A similar proportion of circumcised men and uncircumcised men report being diagnosed with an STI in the past 12 months (2.6% for circumcised vs. 2.8% for uncircumcised) and tested positive for

HIV (0.9% of circumcised vs. 0.9% for uncircumcised) (CESDEM & Macro International Inc., 2008).

In 2007 and 2008, formative research was conducted in the Altagracia province of the DR (which includes La Romana) to inform the feasibility study of VMMC for HIV prevention, the parent study for this dissertation research. The purpose of the formative research was to assess the feasibility and acceptability of adult male circumcision in the DR and consisted of surveying medical providers (i.e. physicians and nurses) and men and conducting focus groups with men, women, and physicians (Brito et al., 2009; Brito et al., 2010).

Of the surveyed medical providers (n=43), 100% felt that circumcision improved hygiene, 58% thought circumcision increased sexual pleasure, and 35% thought circumcised men were more promiscuous (Brito et al., 2010). In the focus groups with community members, both men and women mentioned that discomfort and pain related to the foreskin was a problem for some men in their community. The majority of women thought that circumcised men experience more pleasure during sex. They also thought that a circumcised penis was cleaner and more appealing. For example, one woman said: “When a man is peeled [circumcised], it’s easier for the woman to go down on him [perform fellatio]. When the penis is all covered, it’s hard to do that” (p. 1533) (Brito et al., 2010). Interestingly, the majority of men thought that woman preferred *uncircumcised* men for the same reasons: “Women like the skin (foreskin) during oral sex. They like to play with it.” (p. 1533). Almost all men and women acknowledged the potential for increased hygiene associated with getting circumcised (Brito et al., 2010).

In the survey with a convenience sample of 368 men, 31% said circumcision would reduce risk for STIs, 21% said it would reduce risk for HIV, and 33% said it would reduce risk for penile cancer (Brito et al., 2009). Forty-six percent thought that being circumcised would reduce sexual pleasure. Each of those perceptions were significant predictors (in the expected direction) of

whether or not a man would be willing to be circumcised in the bivariate analysis. In the multivariate analysis, the two most significant correlates of men's willingness to be circumcised was thinking that circumcision improves hygiene (OR = 2.78, 95% CI 1.29–6.0) and *not* thinking that circumcision decreases sexual pleasure (OR = 2.18, 95% CI 1.20–3.94). There was no significant association between willingness to be circumcised and believing circumcision reduces risk for HIV and/or STIs (Brito et al., 2009). Recently, focus groups have been conducted in the DR with the female partners of men receiving a circumcision as part of the parent study of my proposed research. Preliminary findings from these groups indicate that the women reported being very satisfied with the new appearance and hygiene of their partner's penis, and some even reported enjoying sex more and being more willing to perform oral sex on their partner (Martha Perez, personal communication, October 11, 2013).

## CHAPTER 3: THEORETICAL FRAMEWORK

### 3.1 Gender and Masculinities Theory

The social constructivist view of gender posits that gender is not a trait of an individual, but rather is constructed through social interactions, (Connell, 1995; West & Zimmerman, 1987). West and Zimmerman's (1987) seminal paper, 'Doing Gender', solidified gender theorists transition from understanding gender as something that an individual *was*, to something that individuals *do*. The distinction moves away from gender as a trait, and instead puts the focus on the actions of individuals, and importantly, the institutions and social environment that ascribe meaning to those actions.

*"We contend that the 'doing' of gender is undertaken by women and men whose competence as members of society is hostage to its production. Doing gender involves a complex of socially guided perceptual, interactional, and micropolitical activities that cast particular pursuits as expressions of masculine and feminine 'natures'."* (p. 126) (West & Zimmerman, 1987)

Men and women are obliged to act a certain way, and if they do not they may be unable to be 'competent' men or women in society. This is fundamentally interactional since it relies on both the individual doing the behavior and those who are evaluating that behavior for competence.

Additionally, this view sees power inequalities as central to understanding gender and associated dynamics (Connell, 1987; Kimmel & Messner, 2001). Theoretical understandings of masculinity in the past two decades have focused on these power inequalities, including those between society's constructed "hegemonic masculinity" and the other types of masculinities (Connell, 1995; Hyde et al., 2009; Lusher & Robins, 2010).



Hegemonic masculinity, as defined by Connell (1995) in his book *Masculinities*, is the form of masculinity that is recognized as the most dominant in a society's pattern of gender relations.

Connell describes that this position is not static, and different forms of masculinity or femininity can challenge and potentially supplant the dominant form over time. This view places different types of masculinities within other power structures such as income, race and class. Thus, a man's ability to achieve the hegemonic masculinity is constrained by his position within other power structures.

Most important to understanding masculinity are the relationships between this hegemonic masculinity and the 'complicit' and 'subordinate' forms of masculinity. As Connell states in *Masculinities*:

*"The number of men rigorously practicing the hegemonic pattern in its entirety may be quite small. Yet the majority of men gain from its hegemony, since they benefit from the patriarchal dividend, the advantage men in general gain from the overall subordination of women."* (p. 79)

Men complicit in the practice of hegemonic masculinity do not necessarily actively support the subordination of women; however, the entire patriarchal social and power structure gives men power and status over women, so most men are incentivized to not fight against it (Connell, 1995).

Hegemonic masculinity, therefore, permeates throughout most males in the society even though individual males may not be performing the masculine ideal. The influence this system of power has on almost all males in a society is extremely important to the resulting behaviors of men (Butler, 1993; Courtenay, 2000; West & Zimmerman, 1987). As men weigh their decisions, their position in this power structure, and their desire to maintain position or advance, will typically play a role in how they behave in social situations.

Partially because of this social hierarchy and the greater power associated with the higher rungs, masculinity or manhood has been described as more 'precarious' than womanhood. The

concept of Precarious Manhood was formalized through the research of Vandello and colleagues (Bosson & Vandello, 2011; Bosson et al., 2009; Vandello & Bosson, 2012; Vandello et al., 2008), but has been mentioned by other masculinities theorists over the decades. Prominent masculinities theorist Joseph Pleck wrote in his seminal 1981 book, *The Myth of Masculinity*, that manhood is a “risky, failure-prone process” (p. 20) (Pleck, 1981). Anthropologist David Gilmore (1990) conducted an in-depth examination of gender and manhood in seven cultures across the globe. He writes in *Manhood in the Making*: “Real manhood . . . is not a natural condition that comes about spontaneously through biological maturation but rather is a precarious or artificial state that boys must win against powerful odds” (p. 11-12). In contrast, he writes, “an authentic femininity rarely involves tests or proofs of action, or confrontations with dangerous foes” (p. 12). Sociologists Michael Kimmel and Michael Messner (2001) have also weighed in on the topic in the introduction of their prominent anthology of masculinities research, *Men’s Lives*. They write: “men are not born; they are made. And men make themselves, actively constructing their masculinities within a social and historical context.” (p. xv). Thus, how men behave is crucial to their ability to achieve masculine status.

The theoretical concept of ‘performativity’ helps explain the mechanism by which men construct their masculinity through their behaviors. Performativity of one’s gender is a concept developed by Judith Butler that builds on West and Zimmerman’s ideas from their paper, ‘Doing Gender’ (1987). Butler posits that every individual constructs their gender through their repeated actions, behaviors, and interactions (Butler, 1990, 1993, 1997). Butler also writes about the ‘audience,’ or social environment that is the witness to one’s ‘performance’. Thus, a man’s masculinity depends on (a) his collection of public behaviors and interactions, and (b) how his audience, or social network, judges them. The audience is seeking a coherent set of behaviors in order to easily characterize an individual. Therefore, though an individual may not *always* perform masculine behaviors, if he repeatedly performs certain masculine behaviors, he can more readily be

characterized as masculine (Butler, 1993; Reeser, 2010). To learn how to perform, an individual draws on the performances of other individuals (both real and fictional) who were in a similar situation. And thus, gender norms are established through the repeated performances of individuals and the social meaning attached to those behaviors. These norms, in turn, become powerful parameters on the appropriate behaviors for men.

Men are often obligated to adhere to masculine gender norms and project a masculine image since the consequences of not projecting a masculine image can be great. Non-adherence can result in lower social status and sometimes incur social opprobrium, social ostracism (Cohan, 2009), or violence (Dorais & Lajeunesse, 2004; Kimmel & Mahler, 2003). One of the most common gender norms for men across cultures is to be the provider and protector of their families (Connell, 1995; Gilmore, 1990). Men who are able to support their families are performing an important masculine characteristic and projecting their masculinity for their community. Characteristics of virility and strength are also commonly established as normative for masculine status (e.g. the *tigere* in the DR). Thus, men sometimes use their sexual activity, capacity for drinking, or shows of force, to demonstrate their masculine characteristics for their peers (Courtenay, 2000). In this way, men's behaviors, including HIV-related behaviors, help them construct an outward image aligned with the hegemonic ideal masculinity.

In Courtenay's (2000) foundational paper on the Theory of Gender and Health, he discusses how constructs of masculinity represent themselves in everyday decision-making, which includes health decision-making. Courtenay draws heavily on the concepts in the West and Zimmerman paper (1987) and applies them to health behaviors. Power is central to Courtenay's analysis since he makes the argument that men use their health behaviors to gain more power and status. Since risk-taking and a rejection of the feminine (not being a "wimp" or a "sissy", p. 1389) are central to men constructing their masculine identity, health behaviors can help a man demonstrate that he is a risk-

taker and distance himself from femininity. Courtenay also contends that men use their health behaviors as a way of posturing among their peers to gain masculine status. As men weigh their decisions for how to behave (consciously or subconsciously), their position in this power structure, and their desire to maintain position or advance, will typically play a role in how they behave in social situations. Courtenay concludes his paper:

*“If men want to demonstrate dominant ideals of manhood as defined in North American society, they must adhere to cultural definitions of masculine beliefs and behaviours and actively reject what is feminine. The resources available in the United States for constructing masculinities - and the signifiers of ‘true’ masculinity - are largely unhealthy...By successfully using unhealthy beliefs and behaviours to demonstrate idealised forms of masculinity, men are able to assume positions of power - relative to women and less powerful men - in a patriarchal society that rewards this accomplishment. By dismissing their health needs and taking risks, men legitimize themselves as the ‘stronger’ sex. In this way, men’s use of unhealthy beliefs and behaviours helps to sustain and reproduce social inequality and the social structures that, in turn, reinforce and reward men’s poor health habits.” (p. 1397)*

While Courtenay focuses this paper on the North American context, most of the masculine characteristics and power dynamics are the same across the world, including in the DR. The key concept here is that men’s health behaviors, including sexual behaviors, cannot be fully understood unless we take into account how men’s desire to be perceived as masculine shapes their behaviors.

The pressures to project a masculine identity affect all men, but using an intersectional perspective can help better understand how poor, minority and otherwise marginalized men may disproportionately pay the costs of masculinity in terms of the impact on their health (Bowleg, 2012). An intersectional perspective recognizes the multiple identities that individuals have and how each one intersects to shape the experiences of an individual (Berger & Guidroz, 2009; Crenshaw, 1991; McCall, 2005). For men, their other identities (e.g. class, ethnicity, race, sexual orientation)

shape the way that they experience gender norms (Griffith et al., 2013). Specifically, the opportunity structures available to men are determined by race/class/sexual orientation and poor, minority, and gay men are afforded fewer means to achieve hegemonic success (Barker, 2005; Courtenay, 2000). The performance of behaviors that put men at-risk for diseases, injury, or bodily harm can sometimes be the only option for men with low or marginalized social status to demonstrate their masculine characteristics. Notably, poor men and minority men are often marginalized and denied access to institutions and power that are available to other males (Courtenay, 2000; Williams, 2003), thus preventing them from portraying more positive aspects of masculinity like providing for their family. They may generally have more power or authority than the women of their lives, but their power in society is limited. For example, some men have insufficient power and freedom to access opportunities and advocate for structural changes that could improve their lives and the lives of their family (Munoz Boudet et al., 2012). Without access to these power structures, these men have few simple options for fulfilling societies' expectations for men. And yet, the masculine gender norms still apply and they still need to project a masculine image to access the limited power available to them (i.e. the patriarchal dividend). Men can sometimes find this perceived lack of power frustrating and may adopt certain behaviors (e.g. violence, sexual behaviors) that give them a sense of power over others (Barker, 2005; Courtenay, 2000).

### **3.2 Latin American and Dominican masculinities**

Many researchers examine Latino men under the frame of *machismo* (Cianelli et al., 2008; Fragoso & Kashubeck, 2000; Quevedo-Gómez et al., 2012). *Machismo* is presumed to be the predominant gender norms that influence Latino men's lives. Popularly, *machismo* is understood as:

*“Exaggerated pride in masculinity, perceived as power, often coupled with a minimal sense of responsibility and disregard of consequences. In machismo there is supreme valuation of characteristics culturally associated*

*with the masculine and a denigration of characteristics associated with the feminine.”* (Merriam-Webster, 2014)

While *machismo* is popularly defined by negative characteristics like violence and female domination, Arciniega and colleagues (2008) suggest that *machismo* is a composite of negative and positive characteristics. They describe that negative characteristics include subordination of women and restrictive emotionality and the positive characteristics include putting the family before the man and treating others fairly (Arciniega et al., 2008). Finding an agreed upon academic definition of *machismo* is challenging. As Gutmann writes in his chapter on the etymology of *machismo*:

*“The terms macho and machismo have been used in contradictory ways. . . many anthropologists and psychologists writing about machismo utilize characterizations like ‘manly,’ ‘unmanly,’ and ‘manliness’ without defining them.”* (p. 223) (Gutmann, 2006)

This ambiguity alone calls into question the utility of using the concept of *machismo* as a useful lens for studying Latino men’s masculinity. But, using *machismo* as a frame for studying Latino men has also been criticized for limiting our understanding of how Latino men are understood. First, the characteristics of *machismo* are not unique to Latino men and unfairly stereotype Latino men as aggressors (Gilmore, 1990). Additionally, Gutmann, a prominent Latino masculinities theorist, has described Mexican men’s masculinities as more complex than the simplistic definition of *machismo* (2006). *Machismo* may be a masculine cultural identity present in men’s lives, but there are various other masculinities that are not represented by the *machismo* frame. For example, Gutmann (2006) conducted a multi-year ethnography in Mexico and found that working-class Mexican men constructed their masculinity in part through their role as a caring father, not the authoritarian father like *machismo* assumes. While cultural concepts of *machismo* do exist in many Latino societies, by using a more open-minded masculinities perspective, as well as utilizing perspectives on masculinities derived from the Caribbean, I aim to obtain a richer understanding of Dominican masculinities.

Peter Wilson, a Caribbean gender scholar, developed a model of gender relations based on anthropological studies in the region (Wilson, 1969, 1973). Wilson's (1969) framework posited that men are subject to two interconnected value systems which he calls 'respectability' and 'reputation.' A man's reputation is judged by his male peers and depends on his 'masculine activities.' The activities include sexual prowess, athletic competition, strength, seducing women, and fathering children. A man's 'respectability,' on the other hand, is judged by the entire society and tends to be based on European middle-class values (stemming from norms during colonization). To be respectable, a Caribbean man needs to conform to the rules set by the church and government, as well as work hard, provide for one's family, and participate positively in the society. Wilson notes the contradictory nature of these two social pressures on men:

*"Between reputation and respectability there is a constant struggle in which authority is validated only through reputation, and power granted only through respectability. For example, no official can hope to have his orders or requests properly carried out unless he has some positive reputation among those he is commanding. He does, of course, have the power to enforce his orders, but though respectable, he has no respect.... [T]he main point to notice here is that reputation and respectability are in a sense dependent on each other: both together make up a single system. The nature of this system is that it is dual and contradictory."* (Wilson, 1974) (p. 118)

Men are rewarded for being both respectable and reputable and thus must fulfill the norms of each types. To achieve this, the man must behave differently in different social situations. This perspective was also applied by Whitehead in his ethnography of men in Jamaica (Whitehead, 1984).

This idea of competing gender norms is similar to the *casa/calle* (house/street) separation of gender norms that has been written about in the DR (Kerrigan et al., 2001). The *casa* refers to the home life and the gender norm expectations are similar to Wilson's 'respectability' concept, whereas the gender norms associated with the *calle* are more closely aligned with the 'reputation' concept.

Thus, there are different behaviors expected of men depending on which social space they are in. Hirsch's ethnography in rural Mexico has also identified multiple social spaces that she describes as 'homosocial' and 'heterosocial' with different norms in each. Hirsch defines homosocial spaces as places where men spend their free time together; sometimes in the presence of women but characterized by the way these spaces serve to reinforce males' relationships with each other. Accordingly, she also defines heterosocial spaces as places that are organized around the mixing of sexes; where men and women form and strengthen their socially accepted relationships. Importantly for HIV vulnerability, both Kerrigan et al. and Hirsch note that the *calle*/homosocial spaces is where drinking and sexual risk behaviors often occur.<sup>14</sup>

While there are risks associated with the respectability norms and *casa*/heterosocial spaces (namely, low perceived risk for HIV infection and therefore low condom use) (Hirsch, 2009; Kerrigan et al., 2001), the reputation and *calle*/homosocial spaces are where we see male peer groups dynamics that facilitate sexual risk behaviors and other potentially harmful behaviors such as alcohol abuse and risk-taking. Mark Padilla, an anthropologist who examined masculinity among Dominican male sex workers who have sex with men, connects Wilson's concept of 'reputation' with the Dominican concept of *tigueros* (Padilla, 2008). The *tiguero* masculine identity is a common cultural reference for Dominican men and Padilla notes that, "the complex notion of *tigueraje* [the practice of being a *tiguero*] is central to the construction of Dominican masculinity" (p. 133) (2008). Padilla describes: "the term *tiguero* is often used to describe a man who regularly engages in a range of street behaviors, including drinking in all-male groups, carousing, womanizing, infidelity, aggression, and various kinds of delinquency" (p. 134) (2008). He goes on to note that *tiguero* in common Dominican parlance is a catch-all for various types of men, but often refers to a 'smooth-operator' or 'trickster.'

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<sup>14</sup> Kerrigan also notes the risk inherent in *casa* relationships since most do not perceive risk and therefore do not use condoms.



E. Antonio de Moya, the most prominent Dominican masculinities scholar, described *tigueraje* as: “a life style and an attitude that combines the extreme traits of masculinity according to the street culture: slyness, courage, aggressiveness, indiscriminate sexual relations, etc.” (personal communication, March 21, 2013).

While the *tiguere* is especially salient, there are also other styles of masculinity in the DR. De Moya has framed his exploration of Dominican masculinities within the hierarchy developed by Connell: hegemonic, subordinate, and marginalized masculinities (Connell, 1995; de Moya, 2003, 2004). The hegemonic masculinity is the dominant form, and subordinated and marginalized masculinities are lower status (Connell’s framework to be discussed in further detail in Chapter 4) (Connell, 1995). De Moya has identified typologies of the hegemonic masculinity in the DR: the *hombre serio* (a serious man), *hombre con pelo en pecho* (man with hair on his chest, both literally and figuratively), and *hombre de palabra* (a man of his word). De Moya also makes a distinction between the newer types of upper class hegemonic masculinity (e.g. *empresario* [businessman], *ejecutivo* [executive]) and hegemonic masculinity within the *cultura de la calle* (culture of the street, typically understood as the culture of poor urban Dominicans). The hegemonic masculinities within the street culture includes *el tiguere*, *el macho proba’o* (the man who has proved himself), and *el machazo* (the super-macho man). Notably, these ‘street’ masculinities, including the *tiguere*, are mostly defined by their sexuality whereas the upper-class masculinities are defined by work. Like Kerrigan et al. (2001), he makes a distinction between the *casa* (home) masculinity and the *calle* (street) masculinities. The predominant *calle* masculinity is the *tiguere* with an emphasis on virility and sexual conquest, whereas the *casa* masculinity is defined by providing and solving problems for one’s family (de Moya, 2004).

Characteristics described by de Moya that subject men to subordinate status include: being single or without children, being a victim of infidelity, being delicate, dependent on your mother or

wife, being passive, or being small in stature (de Moya, 2003). And finally, de Moya describes marginalized masculinities such as gay or bisexual men.

De Moya also has written about the socialization of Dominican males into the prevailing standards of masculine behavior (de Moya, 2004). He posits that masculinity is a ‘totalitarian’ regime that controls the lives of Dominican boys and young men. In previous work, he describes the central role that women play in the “cultural transmission of gender anxiety and homophobia” to their sons (p. 72). They do so in an effort to protect their husband’s masculine status which is tied to the perceived masculinity of their sons (de Moya, 2004; de Moya & Garcia, 1996). De Moya used participant observation and interviews with mothers, men, and women to identify the ‘rules’ associated with being a ‘normal’ boy in the DR. Below are a list of rules for Dominican boys or young men which would result in punishment or shaming if they were transgressed:

- *He should not rest his hands on his waist, let his hands hang loosely, intertwine the fingers of both hands, look at his own nails with the hand open (palm facing down), cross his arms, or cross his legs at the ankles (rather than above knee).*
- *He should not gesticulate much or show “feminine gestures,” such as soft hand movements.*
- *He cannot maintain eye contact with a male for more than a fraction of a second, hail him more than two or three times in the same day, or stare at him with ojos deseosos (a longing look).*
- *He should not touch his own face or let anybody else touch it.*
- *He has to fight if he is insulted or slapped in the face.*
- *He cannot publicly show fear of anything.*
- *He should not sob nor cry, even when hurt.*
- *He must speak forcefully and loudly.*
- *He must learn to spit and urinate as far as possible, to whistle loudly through his fingers, and to play rough in sports.*
- *And by age 12 or 13, at puberty, he should show a vivid and visible erotic interest in all females who come close to him (mostly girls his age and their mothers) when he is with his peers.*

-Quoted from (de Moya, 2004) (p. 73-74)

These behavioral ideals are instilled in young Dominican boys and enforced by other Dominican men throughout their youth and adulthood. As de Moya (2004) states: “Dominican males are socialized in a strongly restrictive and prohibitive environment, which surely cripples their spontaneity, authenticity, and joy, and produces hypocrisy and neurosis.” (p. 73). Thus, these rules

not only stifle men, but may also cause a considerable amount of stress as they attempt to meet the rigorous standards of manhood. Of course, as noted above, not all men are able to demonstrate all of these masculine characteristics. Those who do fit may feel stress to maintain that status, and those who do not fit may feel the same stress but also discrimination and shame related to being a subordinate status. Findings from this dissertation help better understand how these dynamics influence the sexual behaviors of Dominican men.

### **3.3 Masculinity and HIV Vulnerability**

As discussed in previous sections, men's HIV vulnerability is associated with both behaviors (i.e. condom use, number of partners). I demonstrate in this section that men's sexual behaviors are influenced by norms of masculinity.

It is important to note that gender norms, as well as norms of sexual behaviors, are not static factors but rather dynamic and evolving constructs. Norms are derived from patterns of behaviors and slow shifts in behaviors can produce new gender norms. The movement for women's rights and equality has been ongoing for over a century, during which standards and norms for women have changed drastically in many parts of the world (Seguino, 2007). While a similar radical transformation of gender norms has not yet occurred for men, there is evidence to show that men's attitudes and practices appear to have changed from previous generations. For example, data from a multi-country study has shown that across settings younger men tend to be more supportive of gender equality and more likely to engage in household tasks than older men (Barker et al., 2011). Similarly to the dynamic nature of gender norms, norms of sexual behaviors also change over time. In response to the increased condom promotional activities that have emerged in response to the HIV epidemic, there has been increased condom use across settings (Adair, 2008; Murray et al., 2007; Sweat et al., 2012). Additionally, in the DR, there is some evidence that pro-condom norms among male partners of sex workers are so strong that men who do not use condoms with sex

workers lie to their friends to avoid criticism (Barrington & Kerrigan, 2014; Fleming et al., 2014a). And yet, despite these shifting norms, there are some characteristics of manhood that seem slow to change. For example, being strong-willed, virile, and a provider are still characteristics expected of men across settings (Connell, 1995; Gilmore, 1990). Thus, despite constantly shifting norms, it is important to consider the ways in which the more durable components of masculinity are shaping men's sexual behaviors.

In this section, I identify the characteristics of masculinity that influence men's sexual behaviors. I start by reviewing strategies that have been used to measure masculinity in sexual health research. Then, I review the evidence linking masculinity to the behavior, and consider theoretical and empirical data to identify the specific aspects of masculinity that are critical to the behavior.

*A note on measurement of 'masculinity'*

Many social science and public health researchers are interested in the study of masculinity, but there is little consensus on the best way to measure this construct in survey research. The most common strategies to measure the construct of 'masculinity' is to use (a) the trait approach, (b) the normative/ideology approach, or (c) gender role conflict/stress approach (for a more thorough review, see Smiler & Epstein (2010)). A trait approach such as the Bem Sex Role Inventory measures whether a man's personality is consistent with stereotypical male traits (e.g. Aggressive, Competitive, Analytical) (Bem, 1974). Normative/ideology approaches (such as The Gender Equitable Men Scale (Pulerwitz & Barker, 2008) or the Male Role Norms Inventory (Levant et al., 1992)) assess an individual's attitudes about the appropriate roles and behaviors for men and women. The gender role conflict/stress approach (such as the Gender Role Conflict Scale (O'Neil et al., 1986) or the Masculine Gender Role Stress Scale (Eisler & Skidmore, 1987))<sup>15</sup> measures the degree to which an

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<sup>15</sup> These constructs are discussed in further detail in section 3.4

individual is concerned about his ability to adhere to gender norms or how he feels when acting contrary to prevailing male gender norms.

For survey research on masculinity and sexual behaviors, the normative/ideology approach is the most commonly used measure. While these measures are useful, there are limitations. Analyses conducted with normative/ideology measures make the assumption that men are motivated to adhere to the attitudes they express supporting (Thompson et al., 1992). For example, a man may express support for the idea that men *should* have multiple concurrent sexual partners, but he does not feel the need to have multiple partners. This potential disconnect between attitude and motivation to comply renders normative/ideology measures potentially insufficient at capturing the internalization of masculine gender norms. While this is a somewhat logical leap, gender role conflict/stress scales measure this motivation and the stress associated with it more directly by asking men how they would feel not adhering the norm. Since one of the hypothesized mechanism through which norms of masculinity influence men's sexual behaviors is related to men feeling social pressure to comply with masculine norms (Courtenay, 2000), gender role conflict/stress scales can be considered a more appropriate measure to assess these relationships. To date, only two previous studies have explored the correlation between gender role conflict/stress scales and sexual behaviors among heterosexual men (Gottert, 2014; Reidy et al., 2015); Aim 1 of this dissertation assesses this relationship with a sample of men in the DR (Chapter 5).

#### *Quantitative evidence for association between masculine norms and sexual behaviors*

Researchers use a range of approaches to measure masculine norms due to their complexity and multi-faceted nature (for a thorough review see Smiler and Epstein (2010)). Despite the range of measurement possibilities, HIV researchers conducting quantitative studies of masculine norms and men's sexual behaviors have primarily asked individuals about their gender ideology (i.e. individual attitudes towards masculine and feminine norms).

Pleck and colleagues (1993) conducted one of the first studies to demonstrate the relationship between gender ideology and sexual behaviors with data from the National Survey of Adolescent Males in the U.S. They used an 8-item Male Role Attitudes Scale that included items about status, toughness, and anti-femininity and demonstrated that a traditional masculine ideology (e.g. support for norms of toughness, virility, and anti-femininity) was associated with having a greater number of sexual partners within the past year and with less consistent condom use with their current partner. Since this initial study, other research with males in North America also documented associations between traditional gender ideology and with less condom use (Knipper et al., 2007; Marin et al., 1997; Nelson et al., 2014; Noar & Morokoff, 2002; Santana et al., 2006) and a higher number of female sexual partners (O'Sullivan et al., 2006). Gender ideology has also been assessed using the 'Hypermasculinity Index' (Mosher & Sirkin, 1984) and three studies in the United States have found that men who score higher on the Hypermasculinity Index have more sex partners (Bogaert & Fisher, 1995; Gage, 2008; Schoeneberger et al., 1999).

Similar research conducted outside of North America has demonstrated a relationship between gender ideology and sexual behaviors. For example, studies in Brazil, Ghana, and Tanzania all demonstrate that a more traditional gender ideology (measured using Pulerwitz and Barker's Gender Equitable Men Scale (2008)) is associated with less condom use (Pulerwitz & Barker, 2008; Shattuck et al., 2013). The Shattuck et al. (2013) study in Ghana and Tanzania additionally measured number of female sexual partners and found a significant association with measures of traditional gender ideology. A separate study in Botswana and Swaziland used a 6-item measure of gender ideology derived from previous formative research and found that a traditional gender ideology was significantly associated with having unprotected sex with non-primary partners in the last 12 months and with having more than one partner in the last 12 months (Shannon et al., 2012).

To my knowledge, only two previous studies have explored the correlation between the concept of gender role conflict/stress and sexual behaviors among heterosexual men (Gottert, 2014; Reidy et al., 2015). One study found that, among men in rural South Africa, greater gender role conflict/stress was associated with an increased odds of having multiple concurrent sexual partners as well as intimate partner violence perpetration and alcohol abuse (Gottert, 2014). Reidy et al. (2015) created a 16-item measure of ‘gender role discrepancy stress’ that included questions pertaining to the experience of perceived gender role discrepancy and distress stemming from the discrepancy. This measure was associated with age at first intercourse, unprotected sex, and number of partners among a convenience sample of American men interviewed on the internet (Reidy et al., 2015). Finally, the only other study to use gender role conflict/stress to study men’s sexual behaviors was conducted with men who have sex with men in the U.S. The authors found that greater gender role conflict was associated with unprotected vaginal or anal sex with women among the behaviorally bisexual men (gender role conflict was not a significant predictor of unprotected anal sex with men) (Malebranche et al., 2012).

The available quantitative evidence – all cross-sectional studies primarily using measures of gender ideology – suggests that there is an association between having a more traditional gender ideology and men’s less frequent condom use and a greater number of women sexual partners. Additionally, the limited evidence on gender role conflict suggests that greater conflict is associated with less frequent condom use and having multiple partners.

#### *Dimensions of masculine norms that motivate men’s sexual behaviors*

Upon review of the empirical evidence and theoretical understandings of masculine norms, we identified three major dimensions of masculine norms that shape men’s sexual behaviors: 1) the uncontrollable male sex drive, 2) capacity to perform sexually, and 3) power over others. Each of these three dimensions is a key normative characteristic of masculinity in most societies (Connell,

1995; Courtenay, 2000; Gilmore, 1990). Below, we describe the theoretical basis of these dimensions and the research findings that link these to condom use and having multiple partners.

*Uncontrollable male sex drive:* The uncontrollable male sex drive refers to the dimension of masculinity that values men who have a voracious sexual appetite (Connell, 1995; Reeser, 2010). As hegemonic masculinity is constructed through discourse and interactions, the discourse surrounding the ‘male sexual drive’ propagates the idea that men are biologically programmed to constantly and relentlessly desire sex (Holloway, 1984, 1996). The ‘male sexual drive’ has its roots in historical notions that men need to ‘spread their seed’ and are hardwired to have unprotected sex with multiple women partners to reproduce many offspring (Gilmore, 1990; Hagen, 1979; Thornhill & Palmer, 2001). While these biological explanations have largely been discredited (Fine, 2010; Hunter, 2005), the concept of men’s sexuality being biologically hardwired remains pervasive in popular culture and discourse (Coyne, 2000).

Because of this perceived limitless sex drive, men sometimes describe themselves as not having sufficient self-control to abstain or to use condoms during sexual intercourse. In a study of men in Curacao, Stutterheim et al. (2013) describe their research participants’ perceptions of male sexuality:

*“They likened themselves or other men to wild animals (i.e., dogs and lions) who are compelled to ‘hunt’ or ‘conquer’ women and who are not rational but, rather, impulsive. Because of this, participants frequently claimed that, in ‘the heat of the moment’, they do not think of using a condom: ‘At that moment, you have other priorities. Sensibility disappears and you don’t think about the consequences of your actions.’”* (p. 422-423)

This discourse connects maleness with insatiable sexual desire for women and, thus, a *real man* is impulsive and irrational.

Various qualitative studies have found that men believe that having multiple women sexual



partners is ‘natural’ (Carey et al., 2010; Guerriero et al., 2002; Silva, 2002) and sometimes forgo condoms in situations when they do not think they are physically capable of stopping (Bowleg, 2004; Bowleg et al., 2011; Hyde et al., 2009; Measor, 2006). This perception that the male sex drive is uncontrollable creates a powerful frame for men’s sexual behaviors that inhibits their ability or interest to adopt protective behaviors (i.e. condom use).

*Capacity to perform sexually:* Connell (1995) describes hegemonic masculinity as heterosexual and sexually active. In one analysis of gender in Southern Africa, McFadden (1992) writes: “Heterosexual sex is essential in the realization of maleness, in the social mobility of the male from boy to man, to father, to head of household, to decision-maker, to man” (p. 183). Thus, being able to perform sexually (e.g. maintaining an erection, being skilful) is essential for men to achieve masculine status. Being unable or unwilling to perform sexually with a woman could make a man suspect of belonging to the ‘other’ type of sexualities (e.g. homosexual, asexual) that would preclude him from achieving the hegemonic ideal (Reeser, 2010). This may encourage men to have a higher number of female sexual partners since research has shown that men who abstain from sex or refuse sex with a particular women are subject to teasing that challenges their masculine status (Fleming et al., 2013; Hyde et al., 2009; Richardson, 2010).

Condoms represent a potential disruption to a man’s ability to perform sexually and thus are a potential barrier for some men to demonstrate sexual capacity and achieve the masculine norm. Quantitative studies by Pleck et al. (1993) and Noar & Morokoff (2002) found that the relationship between masculine ideology and condom use was mediated by a belief that condoms interfere with the pleasure of sex. In a qualitative study in Australia (2006), men’s fear of not being able to perform sexually with a condom is evident in one woman’s description of a sexual episode with a partner:

*“I put a condom on him and he just lost it [erection] and then insisted we try without a condom ’cos that was the trouble but we tried again and he lost it [erection] and he blamed the condom and told me not to tell*

*anyone about it.”* (p. 396)

In this case, the man blamed his inability to maintain an erection on the use of a condom. Additionally, the male partner clearly was worried about the potential negative social consequences of not being able to achieve an erection. Other qualitative studies echo these findings that some men avoid using condoms because they are concerned about the social consequence of their inability to sustain an erection (Castro-Vázquez, 2000; Levinson et al., 2004; Marston & King, 2006; McKernon, 1996). Condom use may be impeded by men’s desire to demonstrate their competence during sexual intercourse

*Power over others:* The dimension of power refers to men’s efforts to assert their power over other men and over women through their sexual behaviors, especially their number of women partners. As Flood (2008) writes: “Sexual activity is a key path to masculine status, and other men are the audience, always imagined and sometimes real, for one’s sexual activities.” (p. 339). Though sexual activities typically occur in private, men are often happy to have their peers hear about their experiences to build their sexual reputation among male peers (Eyre et al., 1998). Importantly, because sexual relationships are often constructed as a man’s conquest of a woman, having *multiple women* partners implies a level of sexual prowess and control over women. Both of these are signifiers of masculinity and therefore can also increase a man’s status and power over other men.

Diverse research across the globe speaks to men’s use of sexual partners as a strategy to gain status among other men. Two separate qualitative studies of Ugandan men found that men’s status among peers depended on having multiple women sexual partners (Nyanzi, 2009; Siu et al., 2013). Other studies echo this idea that more women sexual partners usually signifies greater social standing (Brown et al., 2005; Senn et al., 2011; Stutterheim et al., 2013). Ethnographic research with both Australian military men and working-class British youth found that men shared with peers only masculine-promoting details of their sexual experiences with women (or lied about them) to

maximize status gains (Flood, 2008; Richardson, 2010). Similarly, in a study of young men in Paraguay, men lied to peers about their abstinence with girlfriends to avoid ridicule or teasing that challenged their masculinity (Fleming et al., 2013). These studies demonstrate that men are both socially rewarded for engagement in sexual relationships with multiple women partners and they fear social punishment for not having sexual relationships. Thus, engaging in sexual relationships with multiple women partners is a strategy that men can deploy to establish oneself in the social hierarchy and gain power status and power over other men.

Evidence shows that men also use their sexual relationships to gain power over women. Subordination of women is a prominent construct in conceptualizations of masculinity (Connell, 1987; Eisler & Skidmore, 1987). There is a double standard in most societies for sexual behaviors where men's (hetero) sexuality is celebrated and women's is restricted (Carey et al., 2010; Devries & Free, 2010; Eyre et al., 1998; Ragnarsson et al., 2010). As a result, heterosexual sex outside the context of marriage tends to increase a man's status and decrease a woman's status. Men who are complicit to this power dynamic, and who participate in rewarding men and criticizing women, are helping to establish men's power over women. Each heterosexual sex act a man engages in outside the context of marriage has the potential to increase his status and decrease a woman's status, thus propagating men's increased status over women.

While some men may simply be complicit, other men use sex explicitly as a strategy to have power over women. Feminist scholars have posited that men use sexual aggression and rape as a tactic to dominate and control women (Card, 1996; Muehlenhard et al., 1996). Additionally, the Confluence Model of Sexual Aggression, developed by Malamuth et al., (1995) has demonstrated that men who are sexually aggressive derive gratification from controlling or dominating women. Work by Jewkes and colleagues has shown that men use rape as a form of social control over women (R. Jewkes & Abrahams, 2002; R. Jewkes et al., 2006; R. Jewkes et al., 2011). In a

population-based sample of men in the Eastern Cape and KwaZulu-Natal, Jewkes et al. (2011) found that control and punishment of women was one of the most common reasons given for rape. In another study of South African men, one young man said, “My friend was not in love with her anymore, because of her promiscuity. He called us during the day and told us at night we must streamline [gang rape] her” (p. 2955) (R. Jewkes et al., 2006). Additionally, in a multi-country study of men in Asian countries, 38% of men who had perpetrated rape said they did it because they were angry with the woman or wanted to punish her (R. Jewkes et al., 2013). These highlight more explicit examples of men who are using sex to demonstrate their control and power over women.

While rape and sexual aggression are the most extreme examples of men using their sexual behaviors to gain power over women, other studies have shown that men use their everyday sexual relations to establish power over women. The Brown et al. (2005) study in Namibia provides an example: “Men and boys strongly believe we are superior to women and girls and that we can show it in the sexual act.” (p. 591). This idea that men can demonstrate their superiority during sex may reflect the globally pervasive social construction of sex as men assertively penetrating the passive female (Butler, 1993; Fair, 2011) or sex as men conquering women (Byers, 1996; Seal & Ehrhardt, 2003). A study by Ragnarrson et al. (2010) in South Africa found that men had an extreme version of this assertive/passive conceptualization of sex: “It is because of our different sexual orientation where guys deposit and ladies receive. Because this, [the vagina] looks like a rubbish can where we throw everything in it” (p. 4). These men felt that women had too much agency in relationships and reacted by having multiple partners to prevent women from having too much power (Ragnarrson et al., 2010). By taking on multiple partners and degrading them, these men were able to assert their power over women.

*Can condom use, monogamy or abstinence be masculine?*

There is potential that domains of masculinity could also encourage increased condom use and reduced number of women sexual partners. The empirical evidence describing the protective pathway between masculinity and sexual behaviors is still quite limited but provides potentially important insights for future research and practice.

In some cases, norms of masculinity may discourage having multiple women sexual partners. In Grund and Hennink's (2012) study of men who had been circumcised in Swaziland, one man refers to the respectability of men who do not have extramarital affairs:

*"Getting married changed me because I have a wife. My wife wouldn't like it when I go around having sex with all the women because they are also people's wives. It's not a good thing in the community as a husband you sleep with other men's wives. That is not good manhood."* (P. 248)

For this man, 'good manhood' requires a man to respect his own wife and other men's wives. This suggests that for married men to be in good social standing, they should avoid extramarital sex.

Another study conducted with South African military men found that officers sometimes avoided sexual relationships to demonstrate responsibility and self-control to their military subordinates (Mankayi & Vernon Naidoo, 2011). Responsibility and self-control are both characteristics of masculinity and serve as a strategy to exert his power over subordinates to demonstrate their superiority to the lower military classes. These two examples suggest that some men may perform their masculinity by *avoiding* taking on new sex partners. Age and/or life stage may be a factor for both of these examples since they reflect the opinions of a married man and a senior official. It is possible that different dimensions of masculinity may be developmentally congruent and more salient at different life stages (e.g. virility is most important in youth and being a provider is more important in later adulthood).

Despite the plausibility, we found no empirical evidence for men to use condoms to demonstrate their masculine role as ‘protector.’ However, considering that pro-condom norms have increased over time (Adair, 2008; Sweat et al., 2012), male gender norms may be evolving as well to incorporate condom use as a demonstration of masculinity. For example, men in the DR told friends that they used condoms with sex workers when they actually had not as a strategy to avoid criticism from their male peers who considered condom use the expected norm (Barrington & Kerrigan, 2014). Evidence also suggests that condom use may be considered masculine because it is a signifier of having multiple women sexual partners. Mankayi et al. (2009) found that South African military men brag about having condoms. One man comments: “You know, the more condoms I’ve got in my drawer, the more manly I am.” (p. 36), portraying the idea that condoms represent sexual activity, an important characteristic of masculinity. A study in Australia found that in response to viewing an image of a man having a condom in his wallet, young men had positive perceptions of the man because the image suggested the man had casual sex (Tulloch & Lupton, 1997). In contrast, female peers in the same study had negative perceptions of the man because they perceived him as degrading women by having casual sex. In this case, condoms were a sign of having casual partners which conveyed the man’s sexual prowess.

Finally, demonstrating the complexity of this issue, in a survey of college students in the U.S., men rated both ‘using a condom’ and ‘avoiding using a condom’ as ‘masculine’ (De Bro et al., 1994). Notably, these researchers found that *how* a man either used or avoided condoms was most important to whether it was masculine. For example, if a man used ‘seduction’ or ‘deception’ to either use *or* avoid condoms, it was considered masculine (De Bro et al., 1994). Based on these studies, it seems that the social meaning of condoms and condom use is complex and depends on factors that vary by context.

### 3.4 Theoretical Approach of Dissertation Research

Overall, few men can actually achieve the hegemonic ideal. Joseph Pleck (1995) refers to the difference between the masculinity that a man practices and the ideal form in his Masculine Gender Role Strain paradigm. He calls this specific concept as ‘gender-discrepancy’ and posits that men suffer negative psychological consequences as a result. Pleck highlights that for gender-role discrepancy to result in negative outcomes, masculine gender norms must be salient to the individual: “If the individual is deeply psychologically enmeshed in traditional gender concepts, gender role discrepancy should have strong correlates, but if the individual is not, discrepancy should not.” (p. 14).

In order to create a useful measure of gender-discrepancy that captures these aspects, O’Neil et al. (1986) created the Gender-role Conflict Scale and Eisler and Skidmore (1987) created the Masculine Gender Role Stress scale to examine men’s stress in hypothetical situations of gender-role discrepancy. For example, on the Masculine Gender Role Stress scale, a man is asked how comfortable he would feel “Knowing you cannot hold your liquor as well as others.” The assumption is that responses to these hypothetical situations gives an idea of how stressed or concerned a man would feel in real-life situations of gender-role discrepancy. Men would theoretically only report high gender role stress if they were ‘deeply psychologically enmeshed in traditional gender concepts’ and were concerned about others perceptions of their masculinity. Thus, these measures are not measuring gender-discrepancy per se, but rather how comfortable or uncomfortable an individual would feel with situations of gender-discrepancy.

The O’Neil et al. and Eisler and Skidmore measures provide an opportunity to empirically assess the extent to which a man is concerned or stressed with demonstrating masculine characteristics. Since the measures examine potential threats to manhood and the resulting stress, the Transactional Model of Stress and Coping (TMSC) can provide insights for how men might respond

to feelings of stress. The TMSC posits that when faced with a stressor an individual first evaluates potential threats (primarily appraisal) and then their ability to manage the threat (secondary appraisal) (Glanz & Schwartz, 2008). The O'Neil et al. and Eisler & Skidmore measures are assessing the primary appraisal since it is looking at the extent to which an individual sees a certain gender-discrepant situation as a stressor or threat. In this case, the stress is assumed to be due to others as perceiving the individual as non-masculine. Their secondary appraisal will interact with the primary appraisal to determine how an individual would potentially respond to, or cope with, the stressor.

There are two main types of responses to stressors: problem management and emotional regulation. Problem management is when an individual attempts to change the stressful situations and emotional regulation is when the individual tries to change the way they think or feel about the stressor (Glanz & Schwartz, 2008). In the case of problem management, if a man believes that a gender-discrepant situation is stressful, then he may respond by trying to 'solve' the problem (Glanz & Schwartz, 2008). Since the 'problem' is being perceived as non-masculine, a man may solve the problem by performing behaviors that emphasize his masculinity. Additionally, if a man perceives gender-discrepant situations as stressful, he may try to avoid gender-discrepant behaviors and have a low tolerance for being perceived as non-masculine. Alternatively, men who cope using emotional regulation could reduce stress by changing their attitude about the gender-discrepant situation. By doing so, they may be changing their gender ideology (e.g. belief that it is acceptable for a man to break gender norms).

The measure of Gender Role Conflict/Stress used in this dissertation assesses the extent to which men are concerned about demonstrating masculine characteristics. The theory presented above suggests that situations that would challenge men's masculinity could cause men to respond by using behaviors that emphasize their masculinity to attain a masculine status. For example, research has shown that men who have greater gender role conflict are more likely to use violent



behaviors (Copenhaver et al., 2000; Franchina et al., 2001; Jakupcak et al., 2002). However, it is still to be determined whether men who especially concerned about demonstrating masculine characteristics are more likely to engage in sexual risk behaviors.

I previously demonstrated in section 3.3 reviewing the literature on masculinity and HIV vulnerability that men demonstrate their masculinity through their sexual behaviors. Additionally, virility and heterosexuality are major components of hegemonic masculinities in the DR. Gender-discrepant situations related to virility and heterosexuality have the potential to cause particular stress for Dominican men, especially men who are part of the culture of the *calle*. Choosing protective behaviors such as not having extramarital sex or interrupting the sex act to use a condom may be akin to gender-discrepant situations since those behaviors do not emphasize virility or heterosexuality. Thus, if a man is concerned about demonstrating masculine characteristics, those protective behaviors may be less attractive to him.

In this dissertation, I test the hypothesis that men who were more concerned about demonstrating masculine characteristics (e.g. greater Gender Role Conflict/Stress) were more likely to perform certain HIV-related sexual behaviors (Chapter 5). Then, I explore these dynamics qualitatively in Chapter 6 by looking at how men's interactions with the social network shaped their sexual and violent behaviors. Finally, I explore in Chapter 7 how these masculine norms and concern about demonstrating masculine characteristics influenced men's sexual experiences after being circumcised.

## CHAPTER 4: STUDY DESIGN AND METHODS

My overarching research question is: how do masculine norms and concern about demonstrating masculine characteristics influence HIV vulnerability among Dominican men enrolled in a circumcision feasibility trial? To answer this question, I used a convergent parallel mixed-methods approach to respond to three study aims. The convergent parallel design allows me to give equal emphasis and relative independence to both quantitative and qualitative components in an effort to gain multiple perspectives on my research question (Creswell & Plano Clark, 2011; Guest & Fleming, 2014).

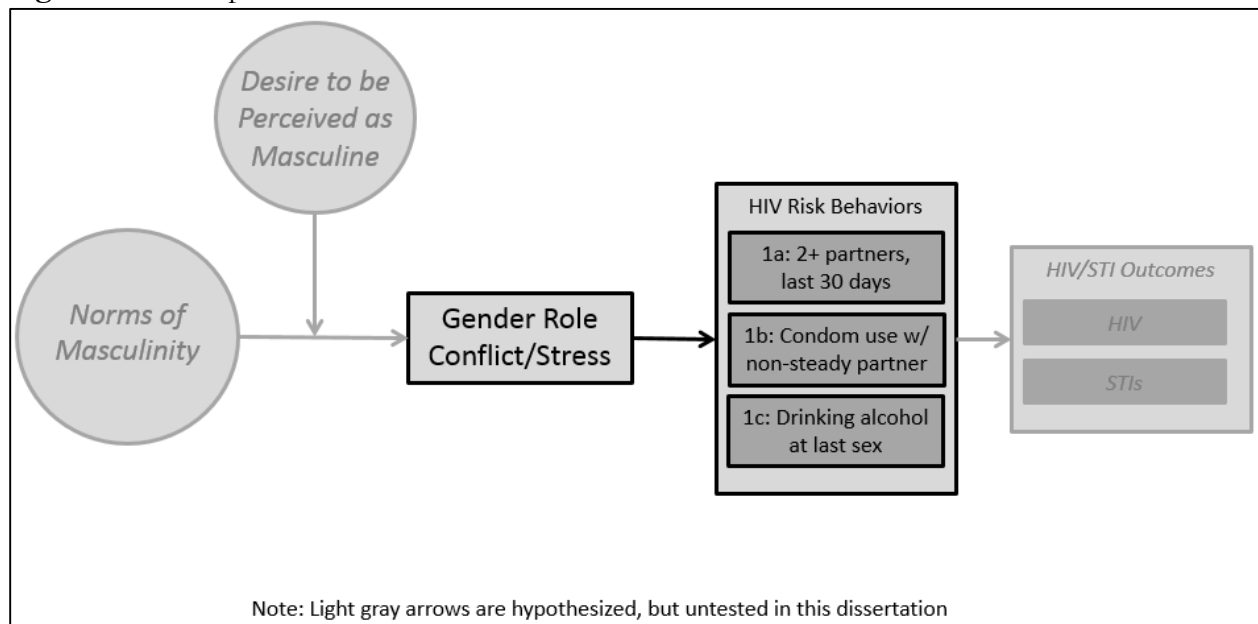
### 4.1 Study Aims and hypotheses

**Aim 1:** Examine the association between Gender Role Conflict/Stress and HIV risk behaviors including: (1a) multiple partners in the last 30 days, (1b) inconsistent condom use with non-steady partners, and (1c) drinking alcohol at last sex. (Chapter 5)

*Hypotheses for Aim 1:*

- (a) Men who had two or more sex partners in the past 30 days will have a higher average score on the GRC/S scale, compared to men with 1 or 0 partners.
- (b) Men who inconsistently use condoms with non-steady partners will have a higher average score on the GRC/S scale, compared to men who always use condoms.
- (c) Men who were drinking alcohol at last sex will have a higher average score on the GRC/S scale, compared to men who were not drinking alcohol at last sex.

**Figure 4.1** Conceptual model for Aim 1



**Aim 2:** Explore how masculine norms influence men’s interactions with members of their social networks and how those interactions drive men’s sexual behaviors and use of violence (Chapter 6)

*Hypotheses for Aim 2:* There are not hypotheses for this exploratory aim.

**Aim 3:** Assess the relationships between norms of masculinity, male sexuality, and medical male circumcision for HIV prevention. (Chapter 7)

*Hypotheses for Aim 3:* There are no hypotheses for this exploratory aim.

## 4.2 Parent Study

To address the study aims described above, I conducted a mixed-methods study including analysis of survey data from the parent study titled, “A pilot study to introduce male circumcision (MC) services to prevent HIV infection in two high prevalence areas of the DR (DR)” (PI: Dr. Maximo Brito, University of Illinois at Chicago [UIC]). I also conducted 30 in-depth interviews with

men participating in the parent study. The parent study was funded as part of a pilot grant program from the UIC Center for Clinical and Translational Sciences.

The purpose of the parent study is to develop, implement, and evaluate a pilot an adult male circumcision for HIV prevention program in Santo Domingo and La Romana, DR. To the knowledge of the investigators, it is the first location outside of sub-Saharan Africa to implement and assess a VMMC program for HIV prevention. Specific aims of the parent study are below:

1. To develop culturally appropriate education materials about the benefits of VMMC for clients attending pilot healthcare centers.
2. To train a core group of providers on proper surgical and counseling techniques to provide comprehensive VMMC services.
3. To determine the acceptability, uptake and demand for MC services in key areas of high HIV prevalence.
4. To assess the safety and adverse events of performing circumcision in resource constrained settings.
5. To assess sexual risk behaviors, perceptions of sexual function and sexual pleasure in men before and after VMMC.
6. Estimate point prevalence of most common STI in a subset of circumcised men and preserve a small sample of blood to test future scientific hypothesis and/or newer testing techniques as they become available.
7. To build collaborations with the DR Ministry of Health and other partners in the DR and at the University of Illinois at Chicago to develop a proposal to NIMH for operational research in the context of larger scale MC service provision.

Aims 1 through 3 of the parent study have already occurred and have been published (Brito et al., 2009; Brito et al., 2010). This dissertation research occurred within the context of research activities for aims 4-6 which is currently being analyzed and prepared for publication (Brito et al., Under review).

### *Parent study locations*

The parent study was carried out at two sites: the STI clinic at the Instituto Dermatológico and Cirugía de Piel (IDCP) in Santo Domingo, DR and the Clínica de Familia in La Romana, DR (see Figure 2). These sites were selected on the basis of: 1) high numbers of male clients at risk for HIV and STI infection in communities served by the clinics; 2) high level of acceptability of male circumcision in the formative research among men in the communities served by the clinics; 3) the availability of service providers willing to be trained; and 4) the availability of equipment and infrastructure, including a minor surgical theater, sterilization facilities and HIV voluntary counseling and testing (VCT) and STI management.

**Figure 4.2** Map of the Dominican Republic, study sites starred in red (original map source: CIA World Factbook)



The Dominican healthcare system is administratively divided in 9 regions, which include the country's 31 provinces. According to the 2013 DHS survey, Region V, which includes the city of La Romana, has an HIV prevalence of 1.0% compared to the 0.8% national prevalence (CESDEM & Macro International Inc., 2014). La Romana is the third largest city in the DR with a population of approximately 250,000 (Consejo Nacional de Poblacion y Familia, 2010). It is located on the southeastern coast and the surrounding areas are home to a large Haitian-descendent community

who live in *bateyes*<sup>16</sup> and work on the area's sugar cane farms. The tourism industry is a large employer in the region. Prevalence in the *bateyes* is 2.5%, substantially higher than the national average (CESDEM & Macro International Inc., 2015). Prevalence of circumcision is 18.8% among 15-49 year old men in Region V, compared to 12.7% national prevalence (CESDEM & Macro International Inc., 2014).

Region 0 of health includes the National District and the provinces of Santo Domingo and Monte Plata. The city of Santo Domingo is the capital and financial center of the DR. It has an estimated population of 2.2 million people (Consejo Nacional de Poblacion y Familia, 2010). The overall prevalence of HIV is 0.5% in the entire region but is higher in vulnerable groups such as female sex workers (1.7%), men who have sex with men (6.5%) and drug users (6.2%) (CONAVIHSIDA, 2014). In 2007, an estimated 14.0% of men age 15-49 from Region 0 reported being circumcised (CESDEM & Macro International Inc., 2014).

#### *Parent study methodology and participant recruitment*

The parent study used a one-group, pre-test post-test, quasi-experimental design to evaluate the feasibility of implementing medical male circumcision. All men enrolled in the study received a circumcision; there was no control group. The primary components of the parent study were a baseline enrollment visit, circumcision procedure, check-up visit 8 days post-circumcision, and follow-up visit 6-12 months post-circumcision.

The study team enrolled a convenience sample of heterosexual-identifying men who were willing to undergo the circumcision. To do so, the study teams used referrals and community outreach to find men, provide them with information about the study, and invite them to participate. In Santo Domingo, there were three primary ways that men were recruited: (1) a group

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<sup>16</sup> *Bateyes* are poor communities situated near sugar plantations, often with mostly Haitian descendent populations

of female sex workers working as peer educators referred their male clients to study investigators, (2) men seeking care/treatment for STIs at the Instituto Dermatológico y Cirugía de Piel were invited to participate, and (3) referrals from other participants. In La Romana, participants were recruited through: (1) invitations to men attending the Clínica de Familia, (2) invitations by a group of community outreach workers to men in the *bateyes* and in bars/clubs, (3) referrals from other participants.

The inclusion criteria for the parent study was:

- 1) Men who were uncircumcised
- 2) Age 18-40 years

The only exclusion criteria included penile or foreskin abnormalities or other conditions that would prevent a man from undergoing the circumcision procedure. Less than 10% of men who came for a circumcision were excluded. Though the study sought to recruit men who were high-risk for HIV, there were no inclusion/exclusion criteria related to ‘high-risk’ and thus the entire sample is not at high-risk for HIV.

Once a man expressed interest in being circumcised, the study staff invited him to the research office for an information session. During the information session, the man was further explained what circumcision was, potential benefits, and potential harms. Men were asked after the education session if they want to receive a circumcision or wanted to go home and think about it. If men agreed to participate, the counselor obtained the man’s informed consent to participate in the study. A counselor reviewed the informed consent form with each participant and questioned the participant to verify that he understood each component.

The parent study began recruiting men in January 2013 and closed study enrollment in March 2014 with a total of 454 men circumcised. The study team in La Romana had enrolled and circumcised 254 men the study team in Santo Domingo had enrolled and circumcised 200 men.

Follow-up interviews occurred 6-12 months after men's circumcision visit (conducted between August 2013 and March 2015). A total of 362 were followed-up (80% retention), 170 in Santo Domingo (85% retention) and 192 in La Romana (76% retention).

#### *Parent study procedures*

Once the participants signed the informed consent, they participated in the three major components of the parent study. The details on each component are described below:

#### Circumcision procedure

- Informed consent
- Baseline demographic and behavioral survey
- Counselor advises participant on HIV risk-reduction strategies
- Blood draw for HIV rapid testing with all men
- Physician records medical history
- Participant undergoes circumcision procedure
- Participant is instructed on wound care and instructed to refrain from sex for 6 weeks

#### 8-day post-circumcision visit

- Wound check-up and recording of any adverse events
- Urine sample drawn for STI testing with a subset of men (n=100)

#### Post-circumcision visit (6-12 months after)

- Follow-up behavioral and satisfaction survey post-circumcision
- Blood draw for rapid HIV-test
- In-depth interviews with 30 men



Depending on the decision of the participant, circumcisions were either performed the same day of the educational visit, or scheduled at a later time (usually within a few days). Prior to the circumcision, an HIV counselor conducted a rapid HIV-test and conducted a counseling session to identify potential areas of risk reduction for the man. The man was then interviewed for the baseline survey. All surgeries were done under local anesthesia in a clinic by trained local clinicians, using the standardized forceps-guided method from the WHO MC manual (WHO et al., 2009). Circumcised men were counseled to refrain from sex for six weeks post-surgery and counseled about risk of HIV infection through open wounds during the healing process.

Participants returned eight days later for a check-up and were checked for complications. Urine and blood were also drawn from 100 participants at this visit to test for sexually transmitted infections. Men who presented with complications were seen as needed by medical professionals.

Men returned between 6 and 12 months after surgery for a behavioral and satisfaction survey and HIV testing and counseling. The survey at baseline and follow-up was administered by trained interviewers in each research site. The main topics covered in both surveys were: a) demographic information, b) sexual behaviors, c) other HIV risk behaviors, d) sexual health, e) beliefs about circumcision, and d) problems with the functioning of their penis. At the final follow-up visit, they were also asked about a) gender role conflict/stress (see Appendix A), b) acceptability of circumcision, c) friends and social support, and d) experiences with the clinical environment.

Thirty men additionally participated in an in-depth interview at the final follow-up visit 6-12 months after circumcision. I conducted these interviews using an interview guide (see Appendix B). The guide focuses on (a) asking about the man's circumcision experience, (b) characteristics of masculinity in the DR, (c) concerns men have about achieving those characteristics, (d) how the social environment influences adherence, or not, to those characteristics, (e) how being circumcised

may or may not help them achieve those characteristics, and (f) whether they would recommend circumcision to others.

### **4.3 Methods for Study Aim 1**

Aim 1 examines the association between Gender Role Conflict/Stress and HIV risk behaviors including: (1a) multiple partners in the last 30 days, (1b) inconsistent condom use with non-steady partners, and (1c) drinking alcohol at last sex. To test my hypotheses, I used self-reported behaviors from the 6-12month follow-up survey data. Using this data, sexual risk variables were constructed to use in various logistic regression models. To determine the results of each hypothesis test, I examined the unadjusted and adjusted odds ratios and their corresponding confidence intervals. Below, I describe how each variable was measured, my analytic strategy, and power calculations.

#### *Measures for Aim 1*

All data were collected by trained Dominican interviewers at each of the field sites by administering a survey with a face-to-face interview. I traveled to each field site in March 2014, May-June 2014, and again in October 2014 to ensure quality of data collection.

*Outcome Variables:* All outcome measures for Aim 1 come from the follow-up survey and all outcomes are dichotomous. The outcomes for Aim 1 are: (1a) multiple partners in the last 30 days, (1b) inconsistent condom use with non-steady partners, and (1c) drinking alcohol at last sex. For 1b, this variable is only for men who report having non-steady partners. These items are detailed in Table 4.1.

**Table 4.1.** Outcome measures for Aim 1

Variable Name	Variable name	Measure	Response categories
<b>Outcome 1a: NUMBPART30</b>	Multiple partners last 30 days	Question 7b: With how many women have you had sex in the last 30 days?	Recoded as: 1= 2 or more partners 0= 0 or 1 partner
<b>Outcome 1b: FREQCOND</b>	Inconsistent condom use with non-steady partners	Question 11a: How often do you use a condom with your non-steady partners in the past 6 months?	Recoded as: 0= 'Always' 1= All other response categories
<b>Outcome 1c: ALCOHOLLS</b>	Drinking alcohol at last sex	Question 8: Last time you had sex, were you drinking alcohol?	1=Yes 0=No

*Main independent variables:* The main independent variable for Aim 1 is the Gender Role Conflict/Stress scale (GRC/S). The GRC/S scale I used is a 19-item scale inspired by O'Neil and colleagues' (1986) Gender-role Conflict Scale and Eisler and Skidmore's (1987) Gender Role Stress scale. Initially, those scales were merged and adapted for use in a community randomized control trial in a rural area of South Africa by Ann Gottert (2014). She describes her process for developing the 28-item scale:

“For the adapted scale, two of the four original Gender Role Conflict Scale domains were retained (*Success, power and competition* and *Restrictive emotionality*), and two were deemed less relevant to the local context and were discarded (*Restrictive affectionate behavior between men* and *Conflicts between work and family relations*). A related measure, the Masculine Gender Role Stress scale, provided two new domains to the adapted scale (*Subordination to women* and *Physical inadequacy*), as well as wording for a number of additional items across the scale as a whole. . . A draft of the final MGRS scale was revised with local members of the study team in Mpumalanga [study site in South Africa], who confirmed that overall the scale had good content (i.e., face) validity and that the domains were appropriate. A recommendation was

made to drop seven items, add one item, and to edit the wording of nine other items. This process resulted in a final 28-item scale. Response categories included “do not agree at all,” “somewhat agree,” and “agree a lot,” unlike the original Gender Role Conflict Scale which includes 6 response categories ranging from “strongly disagree” to “strongly agree”. (Ann Gottert, personal communication, March 24, 2014).

After exploratory factor analysis, this final scale had 24 items and was found to have 4 factors, which were named by Gottert based on names from the original scales. The Cronbach’s  $\alpha$  of the final scale with South African men was 0.83 and the  $\alpha$  of each factor was: ‘Success, power, competition’ ( $\alpha=0.76$ ), ‘Subordination to women’ ( $\alpha=0.65$ ), ‘Restrictive emotionality’ ( $\alpha=0.65$ ) and ‘Sexual prowess’ ( $\alpha=0.68$ ) (Gottert, 2014).

I adapted the items from Gottert’s scale for the Dominican context, translated into Spanish, and cut items based on recommendations from local field staff and space constraints. I also created and added three items related to sexual prowess because they were relevant to research questions on sexual behaviors. This resulted in a scale with 19 items.

I hypothesized that the scale would have similar factor structure to that found in the original scales and by Gottert (2014). Upon conducting an exploratory factor analysis using Stata (version 13.1), however, I found that a single factor structure was most suitable to the data. Solutions with two or more factors proved to have low Cronbach’s alpha for sub-scales and items loaded on factors in ways that did not entirely fit with my theoretical understanding of the items. Two items were dropped as part of the factor analysis. As a result, the final unidimensional scale had 17 items, a Cronbach’s alpha of 0.75, and an overall Kaiser-Meyer-Olkin measure of sampling adequacy of 0.79.

To create a GRC/S score for each participant, I summed their item responses. Since there were 17 items and response options were 0=disagree, 1=somewhat agree, and 2=strongly agree, possible scores ranged between 0 and 34. A score of 0 indicates the lowest possible masculine

gender role conflict/stress and a score of 34 being the highest possible conflict/stress. For the analyses, I standardized the GRC/S score with a mean of 0 and standard deviation of 1 to aid in the interpretation of results.

*Control variables:* I used seven control variables for the analyses in Aim 1. These are demographic variables and were only asked of the participant only during the baseline survey. The control variables were: (1) age, (2) national origin, (3) study site, (4) education, (5) marital status, (6) income, and (7) religion. Since inconsistent condom use with casual partners is associated with number of other sexual partners (Matser et al., 2014), I controlled for number of partners in the past 6 months when conducting analyses with the inconsistent condom use dependent variable. The questions and recoding for each of these control variables are described in Table 4.2.

**Table 4.2** Control variables used in analysis for Aim 1

<b>CONTROL VARIABLES</b>			
<b>Variable Name</b>	<b>Variable name</b>	<b>Measure</b>	<b>Response categories</b>
<b>Control: AGE</b>	Age	Measured at baseline, Question 2, Age in years	Number in years (continuous)
<b>Control: NATION</b>	National origin	Measured at baseline, Question 3, National origin	1= Haitian 0='Dominican' or 'Other' (dichotomous)
<b>Control: STDYSITE</b>	Study site	Not asked, noted on survey	1=Santo Domingo 2=La Romana (dichotomous)
<b>Control: EDUC</b>	Education	Measured at baseline, Question 4, Last grade reached in school <i>Response options:</i> 0=none, 1=first, 2=second, 3=third, 4=fourth, 5=fifth, 6=sixth, 7=seventh, 8=eight, 9=1 <sup>st</sup> year of secondary, 10=2 <sup>nd</sup> year of secondary, 11=3 <sup>rd</sup> year of secondary, 12=4 <sup>th</sup> year of secondary, 13=university or beyond	Number, 0-13 (continuous)
<b>Control: MARSTAT</b>	Marital status	Measured at baseline, Question 7, Marital status. 1=single without a partner, 2=single with a partner, 3=Married without a wife, 4=Married with a wife	Recoded as: 0=single 1=married (categorical)
<b>Control: INCOME</b>	Income	Measured at baseline, Question 7, Income in the last month *USD 1.00 = DOP 42.80 (source: xe.com, accessed January 17, 2014)	0=no income 1= Less than DOP* 1000 2= DOP 1000 – DOP 4999 3= DOP 5000 – DOP 9999 4= DOP 10000-DOP 25000 5= More than DOP 25000
<b>Control: RELIG</b>	Religion	Measured at baseline, Question 9, Religion 1=Catholic, 2=Evangelical, 3=Pentecostal, 4=Adventist, 5=Jehova's Witness, 6=Other, 7=None	Recode as: 1=Catholic 2=Non-catholic 3=None (categorical)
<b>Control: NUMBPART</b>	Number of partners	Question 7c: "With how many women have you had sex in the last 6 months?"	Response is numerical (continuous)

### *Quantitative analysis plan for Aim 1*

I conducted all data management and analyses using SAS version 9.3. I first cleaned the data, checked for prevalence of missing data, and ran frequencies of each variable to be used in the analysis. There were no significant issues with missing data on items of interest. I then constructed the variables described above and conducted bivariate analyses between each of the outcome variables and the GRC/S. I then ran each of the models adding control variables. Observations with missing data on any of the included variables were excluded from the analyses (i.e., complete case analysis) (White & Carlin, 2010).

To test the hypotheses for Aim 1, I used logistic regression with pooled data from both research sites. Logistic regression is based on the logit transformation of the outcome variables. The outcome probabilities for each outcome are the basis of the model. I used maximum likelihood methods to estimate the parameters. For each model, I report both adjusted and unadjusted odds ratios and confidence intervals.

### *Power calculation*

There are 293 total men in my analytic sample (Of the 454 men enrolled, 92 men (20%) were lost to follow-up and 69 were not asked about gender role conflict/stress because it was added after the survey already was initiated. I calculated the difference in proportions that can be detected using the following equation<sup>17</sup>:

$$n = \frac{(z_{\alpha/2} + z_{\beta})^2 [P_1(1-P_1) + P_2(1-P_2)]}{(P_1 - P_2)^2}$$

$$z_{\alpha/2} = 1.96$$

$$z_{\beta} = .84$$

$$P_1 = \text{hypothesized group 1 proportion}$$

$$P_2 = \text{hypothesized group 2 proportion}$$

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<sup>17</sup> From Dr. Mike Bowling's 'Sampling Size' Handout

I used the following inputs:  $\alpha=0.05$ ,  $\beta=0.80$ , and for ‘hypothesized group 1 proportion’ I used data from analytic sample for each of the sexual behavior outcomes.

**Table 4.3** Dependent variables for Aim 1

	n	%
2+ partners, 30 days	90	31
Inconsistent condom use with non-steady partner	103	43
Drinking alcohol at last sex	57	21

With an analytic sample of 293, there is sufficient power to detect a 0.11 difference in proportion for two or more partners in the last 30 days, 0.11 difference in proportion with two or more partners in the last 6 months, a 0.09 difference in proportion for having a casual partner at last sex, a 0.11 difference in proportion of inconsistent condom use with non-steady partners, and 0.10 difference in proportion of men who were drinking alcohol at last sex.

### *Limitations*

This sample of men is drawn from a convenience sample of men who are willing to undergo VMMC. This sample may systematically differ from the general population of men, or even from the general population of men at-risk for HIV. Since data was not collected from men who refused to undergo VMMC when offered, I am unable to compare these groups. Additionally, like most behavioral research on sex and sexuality, my analyses rely on self-reported measures of sexual behaviors. Since these men undergo HIV counseling after their first visit, they may have been more likely to report behaviors that protect against HIV to please the study staff.

## **4.4 Methods for Study Aim 2**

The second aim of this dissertation is to explore how masculine norms influence men’s interactions with members of their social networks and how those interactions drive men’s sexual behaviors and use of violence. To do so, I conducted and analyzed in-depth interviews with thirty



men who were enrolled in the circumcision study. Below, I describe the procedures and analysis plan for Aim 2.

#### *Recruitment of participants for qualitative interview*

From May to June 2014, I recruited a convenient sample of 30 men from the study cohort when they completed their follow-up circumcision visit for in-depth interviews. I relied on local study staff to refer men to me who came in for their follow-up survey interviews 6-12 months post-circumcision. The qualitative interviews were considered part of their follow-up visit and men were reimbursed for their travel to the clinic (approximately 10 USD). Because of time constraints, I interviewed every man that came for a follow-up visit during the time I was in the field site.

#### *Data collection procedures*

I conducted interviews in Spanish using a semi-structured interview guide (see Appendix B for original in-depth interview guide). The content of the interviews shifted over the course of the interview to respond to initial findings. Still, the interviews included two main sections: (1) experiences with the circumcision study and (2) experience of being a man in the DR. The portion of the interview specifically related to findings for this aim focused on the following thematic questions: (a) how does the man define manhood in the DR?, (b) to what extent does the man want to be perceived as masculine by important others?, (c) what is the role of competition in men's gender role strain?, and (d) how does he use his behaviors to cope with competition and humiliation? (See Appendix B for in-depth interview guide).

I conducted the interviews in a private location at each clinic using the semi-structured guide. I started the interview by asking their family and friends and shifted to ask about their satisfaction with the circumcision procedure, perceptions about post-operative sexual performance, and partner satisfaction. Then, I asked questions related to the themes described above. I began that section of the interview by asking about men's friendships and interactions with male peers. Then, I

began to hone in on his own opinions on manhood and the concern he has about demonstrating masculine characteristics. Finally, I asked about the concepts of competition and humiliation and how men respond to those situations. I used probing techniques to elicit in-depth and detailed accounts of personal experiences and perceptions following circumcision and to limit socially desirable responses (Britten, 2006). Additionally, I aimed to elicit narratives of men's experiences in an effort to contextualize findings (Gibbs, 2008a). I took detailed field notes to provide additional insight into the context of the interview and any important non-verbal communication (Britten, 2006). Interviews were audio-recorded and transcribed verbatim by Dominican transcriptionists.

### *Qualitative analysis*

Qualitative data analysis was iterative, starting with the completion of the first interviews and continuing throughout the data collection process. After each interview, I typed field notes about the interview and began memoing about notable things the participant said or did. Dominican transcriptionists transcribed the audio recordings and I conducted quality control on the transcripts to ensure that they were transcribed verbatim (McLellan et al., 2003). I analyzed the transcripts of the audio recordings in Spanish. My first step with the quality-checked transcripts was to read through each to identify key themes and stories. For each participant, I wrote a short descriptive summary of key areas of interest (Sandelowski, 1995). I then developed a codebook with deductive codes derived from the interview guides and inductive codes based on themes/ideas from my memos and summaries (Gibbs, 2008b). I then coded the transcripts using the Atlas.ti software (Atlas.ti, 2012). I used code outputs to prepare matrices for the analysis of patterns across the study population and for comparisons between sub-groups (for example, older men vs. younger men, married vs. single, La Romana vs. Santo Domingo) (Miles & Huberman, 1994). I then integrated memo writing throughout the process to facilitate the interpretation of the data and to provide an audit trail of the analysis that can be used to document how the data were interpreted (Saldaña,

2009). After reviewing all memos, descriptive summaries, thematic summaries, and matrices, I identified important factors that helped explain the relationship between masculine norms and men's behaviors.

#### **4.5 Methods for Study Aim 3**

The purpose of Aim 3 is to explore the relationships between sexuality, norms of masculinity, and medical male circumcision. For this aim, I use both qualitative and quantitative data to gain multiple perspectives on the complex dynamics of circumcision, sexual performance, and masculinity (Creswell & Plano Clark, 2011; Guest & Fleming, 2014). To design the study, I considered Guest & Fleming's (2014) three dimensions of the integration for mixed-methods research: timing, weighting, and purpose. For timing, the qualitative and quantitative data were collected simultaneously, data analyses were conducted separately and concurrently, and findings were integrated in the final analytic phase. For weighting, I placed equal emphasis on both qualitative and quantitative data and findings from the beginning of the research. Finally, for purpose, I chose to use both qualitative and quantitative methods to answer my research question in an effort to triangulate findings and have a richer understanding of the topic. Given these characteristics, Creswell and Plano Clark would label this approach a 'convergent parallel' mixed methods design. The two data sources used to respond to Aim 3 are: (1) quantitative surveys conducted with all men receiving VMMC, and (2) data from in-depth interviews conducted with a sub-sample of these men.

##### *Quantitative data collection and analysis*

The surveys were conducted at baseline (prior to being circumcised) and during the men's routine visit 6-12 months after their circumcision. Of the 454 men enrolled, 92 men (20%) were lost to follow-up and 69 were not asked questions about Gender Role Conflict/Stress because the questions were added after the survey was already initiated; as a result, my analytic sample for the

quantitative portion of this aim has 293 men with complete data on key variables of interest. Both baseline and follow-up surveys included sections on demographic information, sexual behaviors, other HIV risk behaviors, problems with sexual performance, and opinions related to circumcision. The follow-up survey additionally included sections on adverse events, sexual satisfaction and performance post-circumcision, and questions related to men's concern about demonstrating masculine characteristics.

My quantitative analyses used the following question as dependent variable: 'Compared to before being circumcised, do you feel (a) much more of a man, (b) a bit more of a man, (c) the same, (d) a bit less of a man, (e) much less of a man.' For bivariate/multivariate analyses, I defined 'feeling more masculine post-circumcision' as answering either 'much more of a man' or 'a bit more of a man.' I conducted bivariate and multivariate logistic regression analyses examining factors associated with feeling more masculine in an effort to complement findings related to masculinity and sexual performance from the in-depth interviews. I used five independent variables in the bivariate and multivariate analyses: (1) experienced problems during sex before circumcision, (2) has more potent erections post-circumcision, (3) has more frequent sex after circumcision, (4) felt much more capable to please partner sexually, and (5) concern about demonstrating masculine characteristics (GRC/S scale). The GRC/S scale is described in the previous section detailing methods for Aim 1 (see section 4.3). A higher score on the GRC/S scale represented greater concern about demonstrating masculine characteristics. For analyses in this aim, I used a standardized score where the mean is 0 and standard deviation is 1. Measurement of the other independent variables are binary yes/no variables. I report odds ratios and adjusted odd ratios controlling for the set of socio-demographic control variables described in section 4.3. All analyses were conducted using SAS version 9.4 (SAS Institute Inc., 2014).

### *In-depth Interview data collection and analysis*

Between May and June 2014, I interviewed 30 men in Spanish using a semi-structured interview guide when they came for follow-up visits (see section 4.4 for more details about data collection). For analyses for this aim, I focused on sections of the interview exploring decision-making process related to circumcision, changes – including changes in sexual performance – experienced post-circumcision, and concerns about demonstrating masculine characteristics.

My analysis process was iterative, starting with the completion of the first interviews and continuing throughout the data collection process (Gibbs, 2007). After each interview, I wrote field notes about the interview and notable things the participant said or did (Emerson et al., 2011). Interview questions and probes were modified during the data collection process in response to prior interviews.

Audio recordings of each interview were transcribed verbatim in Spanish by a trained Dominican transcriptionist (McLellan et al., 2003). After transcription, I read each transcript while listening to audio to identify key themes and stories. For each participant, I wrote descriptive analytic summaries based on the qualitative data, demographic characteristics, and observations of the interviewer (Sandelowski, 1995). This analytic summary included a description of the participant's comments related to reasons for getting circumcised, changes in sexual performance post-circumcision, concerns about sexual performance, and his feelings of masculinity post-circumcision. This process served to contextualize findings within the life of each participant.

Subsequent to writing analytic summaries, I developed a codebook with deductive codes derived from the interview guides and inductive codes based on themes/ideas identified throughout the data collection and preliminary analysis process (Gibbs, 2008b). For example, deductive codes included 'meanings of manhood' and 'sex post-circumcision' and inductive codes included 'lasting longer' and 'pleasing partner.' I then coded the transcripts using the Atlas.ti software (Atlas.ti, 2012).

The code outputs for key themes were used to deepen the understanding of and systematically assess the ideas that emerged in the analytic summaries. I looked at codes by participant to ensure that summaries were accurately portraying the participant, and codes across participants to examine overarching ideas conveyed by the sample population. Using the summaries and code outputs, I prepared matrices for the analysis of patterns across the study population and for comparisons between sub-groups (for example, older men vs. younger men, married vs. single, La Romana vs. Santo Domingo) (Miles & Huberman, 1994). I integrated memo writing throughout the process to facilitate the interpretation of the data and to provide an audit trail of how the data were interpreted (Saldaña, 2009).

#### *Integration of quantitative and qualitative data*

After reviewing all memos, analytic summaries, coding reports, and matrices, I examined how findings from the qualitative interviews compared to quantitative findings. I then considered how qualitative findings could give more depth to the quantitative findings. Additionally, I examined the qualitative findings to determine whether or not there were important unmeasured variables that were not included in my quantitative models. I describe findings from the in-depth interviews using illustrative quotes (with pseudonyms) to highlight certain findings and more fully understand findings from the quantitative analyses.

#### **4.6 Ethical approval for dissertation research**

This dissertation uses both analysis of survey data (Chapter 5 and 7) and in-depth interview data (Chapters 6 and 7) that were collected as part of the parent study. The data collection and analysis was approved by the ethics committees at the University of Illinois at Chicago, The University of North Carolina at Chapel Hill, and local ethics committee in the DR, the Consejo Nacional de Bioética (Bioethics National Council) of the Dominican Republic and the Instituto Dermatológico y Cirugía del Piel Humberto Bogaert.

## **CHAPTER 5: MEN'S CONCERN ABOUT DEMONSTRATING MASCULINE CHARACTERISTICS INFLUENCES THEIR HIV VULNERABILITY (MANUSCRIPT 1)**

### **5.1 Introduction**

Globally, the majority of HIV transmission occurs through heterosexual sex and men who have sex with women represent a key population for reducing transmission of HIV (UNAIDS, 2013). In most societies across the globe, men as a group enjoy social and institutional privileges over and above women and have greater decision-making power within heterosexual relationships (Connell, 1987; Gilmore, 1990; M.A. Messner, 1997; Wingood & DiClemente, 2000). In order to be perceived as masculine and thus achieve the higher social status and power afforded to “real” men, men are pressured and rewarded for adopting certain traits such as being a provider, aggression, virility, and risk-taking, which impact their vulnerability to HIV (Connell, 1995; Courtenay, 2000; Williams, 2003).

Though many HIV researchers are interested in how masculinity influences men's risk behaviors (Bowleg, 2004; Dworkin et al., 2009; Fleming et al., under review), there is little consensus on the best way to conceptualize and measure masculinity in survey research. Approaches to measuring aspects of masculinity include: trait measures (e.g. Bem Sex Role Inventory (Bem, 1974)); norms/ideology (e.g. the Gender Equitable Men [GEM] Scale (Pulerwitz & Barker, 2008)); gender role conflict or stress (e.g. Gender Role Conflict Scale (O'Neil et al., 1986)), and gendered behavior (e.g. Gender Diagnosticity (Lippa & Connelly, 1990)) (for a more thorough review, see Smiler & Epstein (2010)). Survey research on masculinity and men's sexual behaviors has been limited almost exclusively to normative/ideology measures such as the GEM Scale (Pulerwitz & Barker, 2008), the Male Role Norms Scale (Thompson & Pleck, 1986), the Male Role Norms Inventory (Levant et al.,

1992), and the Hypermasculinity Scale (Archer, 2010). These measures all assess an individual's ideology about the appropriate roles and behaviors for men and women. The available evidence comes from cross-sectional studies and demonstrates that there is an association between having a more traditional gender ideology and using condoms less frequently and having a greater number of sexual partners (Bogaert & Fisher, 1995; Gage, 2008; Knipper et al., 2007; Marin et al., 1997; Mosher & Sirkin, 1984; Nelson et al., 2014; Noar & Morokoff, 2002; O'Sullivan et al., 2006; Pleck et al., 1993; Pulerwitz & Barker, 2008; Santana et al., 2006; Schoeneberger et al., 1999; Shannon et al., 2012; Shattuck et al., 2013).

While the norms/ideology approaches are useful for exploring the relationship between masculine norms and sexual behaviors, there are limitations. Norms/ideology measures assume that men are motivated to adhere to the attitudes they express supporting (Thompson et al., 1992). But, these attitudes do not always translate into behaviors. For example, a man may express support for the idea that men *should* have multiple concurrent sexual partners, but he does not feel the need to have multiple partners. This possible disconnect between attitude and motivation to comply renders normative/ideology measures potentially insufficient at capturing the internalization of masculine gender norms (O'Neil, 2008).

Gender role conflict or stress scales measure the degree to which an individual is concerned about his ability to adhere to gender norms or how he feels when acting contrary to prevailing male gender norms. In these scales, men are asked how stressful they feel a situation would be or how they would feel about not adhering to the masculine norm. The most commonly used measures are the Gender Role Conflict Scale (O'Neil et al., 1986) and the Masculine Gender Role Stress Scale (Eisler & Skidmore, 1987). These scales draw from the theoretical concept of masculine gender role strain, which theorizes about men's concern with achieving masculine norms, including norms of sexual prowess and sexual performance (Pleck, 1981, 1995). Pleck postulates that cultural standards



for masculinity exist, socialization encourages men to attempt to live up to these norms, and that pressure to conform to these norms can result in negative psychological and health outcomes for men. O'Neil describes that the Gender Role Conflict Scale is "defined as concrete outcomes of gender role strain that can be understood and measured" (p. 364). Thus, Gender Role Conflict scale operationalizes gender role strain for survey research by asking men how concerned they are about demonstrating specific characteristics of masculinity (O'Neil, 2008). Since one of the hypothesized mechanisms through which norms of masculinity influence men's sexual behaviors is related to men feeling concerned about demonstrating masculine characteristics (Courtenay, 2000), gender role conflict or stress scales can add an important dimension to assessing the relationship between masculine norms and men's HIV risk behaviors.

While greater masculine gender role conflict has been associated with men's perpetration of violence (Copenhaver et al., 2000; Jakupcak et al., 2002) and a range of other adverse mental and physical health outcomes (O'Neil, 2008, 2015), it has rarely been examined in relation to men's sexual behaviors. To our knowledge, only two studies have explored the correlation between the concept of gender role conflict/stress and sexual behaviors among heterosexual men (Gottert, 2014; Reidy et al., 2015). Gottert (2014) found that, among men in rural South Africa, greater gender role conflict/stress was associated with an increased odds of having multiple concurrent sexual partners. Reidy et al. (2015) created a measure of 'gender role discrepancy stress' which was associated with age at first intercourse, unprotected sex, and number of partners among a convenience sample of American men interviewed on the internet. Apart from these two studies with heterosexual men, two studies with behaviorally bisexual African-American men in the U.S. found that greater gender role conflict was associated with unprotected vaginal or anal sex with women (Bingham et al., 2013; Malebranche et al., 2012).

In this paper, we examine the association between Gender Role Conflict/Stress and three different HIV risk behaviors among a sample of men in the Dominican Republic (DR). Since the concern a man feels about demonstrating masculine characteristics is a modifiable factor (Dworkin et al., 2013), examining this relationship has the potential to improve upon HIV prevention strategies for men.

## **5.2 Methods**

### *Study Setting*

We conducted this research as part of a feasibility study of male circumcision for HIV prevention in the DR (Brito et al., 2009; Brito et al., Under review; Brito et al., 2010). The parent study afforded an excellent opportunity to examine masculine gender role conflict/stress and sexual behaviors since we enrolled a relatively large sample of heterosexual men who engaged in HIV risk behaviors. The study was conducted in two cities on the southeastern coast of the DR – Santo Domingo and La Romana – that both have a higher HIV prevalence than the national prevalence (DIGECITSS, 2014). The HIV epidemic in the DR is characterized as ‘concentrated’ since there is a low national-level adult prevalence (0.8%) compared to notably higher prevalence among key populations including female sex workers (1.7%-6.3%), men who have sex with men (3.9%-6.9%), and drug users (1.3%-6.2%) (CESDEM & Macro International Inc., 2014; DIGECITSS, 2014). According to 2010 modeling estimates, HIV in the DR is almost exclusively transmitted sexually: 65.9% of cases are transmitted due to heterosexual sex, 33.3% due to homosexual sex (UNAIDS et al., 2010).

Previous research on men’s HIV risk in the DR has highlighted that men’s sexual behaviors are shaped in part by their male peers (Barrington & Kerrigan, 2014; Barrington et al., 2009; Fleming et al., 2014a). For example, Barrington et al. (2009) found that going out to sex establishments is a highly social activity and that men’s condom use with female sex workers was strongly associated

with their perceptions of their peers' condom use. Fleming et al. (2014a) found that male peer groups encouraged condom use amongst themselves, helped each other find sexual partners, and that seeking sex workers was a key bonding activity for the group. Findings from Chapter 6 indicate that competition with other men and fear of being humiliated in front of others influence men to adapt their sexual behaviors to fit into specific masculine norms for different social contexts. Taken together, these findings provide preliminary evidence that concern about adhering to masculine norms influences Dominican men's sexual behaviors.

#### *Recruitment and Data Collection*

The parent study used referrals and community outreach to find men who were 18-40 and were willing to undergo a circumcision. To reach a sample at heightened risk for HIV, female sex workers in both sites were asked to refer their sexual partners and in La Romana one recruiter was dedicated to recruiting men from nearby *bateyes* (Haitian descendent communities with a high HIV prevalence relative to the national prevalence). A total of 454 men were circumcised between January 2013 and March 2014 and final follow-up occurred between July 2013 and February 2015. We conducted one survey at baseline (prior to being circumcised) and one during the men's routine visit 6-12 months after their circumcision. For the analyses presented in this paper, we use the survey data from the follow-up survey. Of the 454 men enrolled, 92 men were lost to follow-up and 69 were not asked about gender role conflict/stress because the scale was added after follow-up visits were initiated. As a result, our analytic sample has 293 men. Men were reimbursed for their travel to the clinic for the visit (approximately 10 USD).

#### *Measures*

*HIV Risk Behaviors:* For our dependent variables, we use three sexual behaviors that have been shown to be associated with HIV transmission: (a) two or more sexual partners in the last 30 days; (b) inconsistent condom use with non-steady partners in the past 6 months; and (c) drank

alcohol at last sex (Anderson, 2003; Barrington et al., 2009; S. C. Kalichman et al., 2007b; Mah & Halperin, 2010). Each dependent variable was self-reported and dichotomized.

*Gender Role Conflict/Stress:* To measure Gender Role Conflict/Stress we used a 19-item scale adapted from O'Neil and colleagues' (1986) Gender Role Conflict Scale (GRCS) and Eisler and Skidmore's (1987) Gender Role Stress Scale (MGRSS). Those scales were merged and adapted for use in a community randomized control trial in a rural area of South Africa, with the GRCS serving as the basis for the scale format and wording as well as two domains and multiple items, and the MGRSS serving to add new domains deemed relevant to the South African context such as 'Subordination to women' (Gottert, 2014). Gottert (2014) found that the final 24-item Gender Role Conflict/Stress (GRC/S) scale had four factors: 'Success, power, competition' ( $\alpha=0.76$ ), 'Subordination to women' ( $\alpha=0.65$ ), 'Restrictive emotionality' ( $\alpha=0.65$ ) and 'Sexual prowess' ( $\alpha=0.68$ ) (Gottert, 2014). The Cronbach's  $\alpha$  of the 24-item scale with South African data was 0.83.

We adapted the GRC/S items for the Dominican context and translated items into Spanish. Because of space constraints in our survey, we relied on recommendations from local field staff to cut several items that did not resonate with the local context. We also created and added three additional items related to sexual prowess because they were relevant to research questions of this study. This resulted in a scale with 19 items.

We hypothesized that our scale would have similar factor structure to that found in the original scales (Eisler & Skidmore, 1987; O'Neil et al., 1986) and by Gottert (2014), despite having fewer items overall and for each hypothesized sub-dimension. Upon conducting an exploratory factor analysis, however, we found that a single factor structure was most suitable to our data. Solutions with two or more factors proved to have low Cronbach's alpha for sub-scales and items loaded on factors in ways that did not entirely fit with our theoretical understanding of the items. This is likely due to reducing the number of items in the scale and the resulting small number of

possible items for each hypothesized sub-scale. As a result, our final unidimensional scale had 17 items, a Cronbach's alpha of 0.75, and an overall Kaiser-Meyer-Olkin measure of sampling adequacy of 0.79.

To create a GRC/S score for each participant, we summed their item responses. Since there were 17 items and response options were 0=disagree, 1=partially agree, and 2=strongly agree, possible scores ranged between 0 and 34. A score of 0 indicates the lowest possible GRC/S score and a score of 34 being the highest possible GRC/S. For the analyses, we standardized the GRC/S score with a mean of 0 and standard deviation of 1 to aid in the interpretation of results.

*Control variables:* We used a set of socio-demographic variables as control variables that were asked of the participant only during the baseline survey including: age; study site; education; marital status; monthly income; and religion. Since inconsistent condom use with casual partners is associated with number of other sexual partners (Matser et al., 2014), we additionally controlled for number of partners in the past 6 months when conducting analyses with our inconsistent condom use dependent variable.

### *Analyses*

We present frequencies for each of the socio-demographic variables, GRC/S scale, and dependent variables. We used logistic regression to test our hypothesis that men with greater gender role conflict/stress will have greater odds of reporting HIV sexual risk behaviors. For each of the three dependent variables, we conducted a bivariate logistic regression with the standardized GRC/S score as the independent variable. We report unadjusted odds ratios (OR) and 95% confidence intervals for those bivariate analyses. Subsequently, we conducted a multivariate logistic regression for each dependent variable with standardized GRC/S score and the full set of control variables as independent variables in the model. For those analyses, we report adjusted odds ratios (AOR) and

95% confidence intervals (CI). Factor analysis with GRC/S scale was conducted in Stata version 13.1 and all other analyses were conducted in SAS version 9.4.

### *Ethics Statement*

All participants provided informed written consent to participate in each component of this research study. All study procedures and protocols were approved by the Institutional Review Boards at the University of Illinois at Chicago, The University of North Carolina, Chapel Hill, and the Instituto Dermatológico Dominicano y Cirugia de Piel “Dr. Huberto Bogaert Díaz” in Santo Domingo, DR.

## **5.3 Results**

Demographic characteristics of our sample are described in Table 5.1. Most men were under the age of 30 (median: 26; range: 18-41) and a majority had at least a high school education. Seventy-three percent of men were employed (either formal or informal labor market), eleven percent of the sample were unemployed, and 16% were students. Only 8% of men earned more than 25,000 Dominican Pesos (DOP) in the past month, about 625 US Dollars (USD). Nineteen percent earned less than 1000 DOP (25 USD) and the rest of the men (72%) earned between 1000 DOP and 25,000 DOP. Half the men reported being unmarried but had a partner, 14% were married, and 35% were single with no regular partner. About half (51%) of men report being Catholic or Christian and half (49%) report practicing no religion.

**Table 5.1** Sample demographic characteristics and HIV risk behaviors, n=293

DEMOGRAPHICS	Total follow-up sample (n=293)	
	n	%
Study Site		
<i>Santo Domingo</i>	157	54
<i>La Romana</i>	136	46
Age in years		
18-24	127	44
25-29	72	25
30-34	51	17
35-41	42	14
Education		
<i>Primary or less</i>	48	16
<i>Secondary</i>	232	69
<i>University</i>	44	15
Employment status		
<i>Employed</i>	212	73
<i>Unemployed</i>	33	11
<i>Student</i>	47	16
Income in the past month*		
<i>None</i>	53	18
<i>Less than 1000 Dominican Pesos (DOP)</i>	4	1
1000-4999 DOP	45	16
5000-9999 DOP	65	22
10,000-25,000 DOP	100	34
<i>More than 25,000 DOP</i>	23	8
Marital Status		
<i>Married</i>	41	14
<i>Single, with a partner</i>	148	51
<i>Single, without a partner</i>	103	35
Religion		
<i>Catholic</i>	71	24
<i>Christian (Non-Catholic)</i>	79	27
<i>None</i>	143	49
RISK BEHAVIORS at FOLLOW-UP		
2+ partners, 30 days	90	31
Inconsistent condom use with non-steady partner	103	43
Drank alcohol at last sex	57	21

\*During baseline data collection, the value of 1 U.S. Dollar (USD) ranged between 39.92 DOP and 43.33 DOP. Thus, 1000 DOP is approximately 25 USD and 10,000 DOP is approximately 250 USD.

We measured several HIV risk behaviors (See Table 5.1). Thirty-one percent of men reported having two or more partners within the past 30 days. Of men that reported having a non-steady partner within the previous 6 months (n=194), 43% reported inconsistent condom use with non-steady partners in the past 6 months. When men reported on the last time they had sex, 21% said that they were drinking alcohol.

Before standardizing, the GRC/S measure had a mean of 18.2 (range: 3 – 34) and a standard deviation of 5.7. Men expressed the greatest GRC/S for items that were related to sexual function, performance, or prowess. For example, 81% reported that they ‘strongly agreed’ that ‘I’d worry if a sexual partner said that she wasn’t satisfied’ and 77% strongly agreed that ‘Being good in bed is part of being a successful man.’ In contrast, the men expressed relatively less GRC/S related to expressing emotions, powerful women, or being seen as physically weak. Thirty-three percent of men strongly agreed that ‘It would be difficult for me if someone saw my crying,’ 27% strongly agreed that ‘I don’t like to let a woman take control of a situation,’ and 31% strongly agreed that ‘Being physically stronger than other men is important to me.’ See Table 5.2 for all scale items.



**Table 5.2** Gender Role Conflict/Stress (GRC/S) Scale from follow-up survey, n=293

	Mean		Standard Deviation		Range	
Overall Gender Role Conflict/Stress Scale	18.2		5.7		3-34	
	Disagree		Somewhat agree		Strongly Agree	
	n	%	n	%	n	%
1. Being good in bed is part of being a successful man	25	9	43	15	225	77
2. I'd worry if a sexual partner said that she wasn't satisfied	20	7	37	13	236	81
3. I feel like I need to be in control and be responsible for others	34	12	88	30	171	58
4. I worry how others will evaluate my ability to provide for my family	106	36	63	22	124	42
5. I have value as a person depending on whether I can earn money or find work	125	43	48	16	120	41
6. Being able to function sexually is important to me as a man	7	2	23	8	263	90
7. I think that I should always be ready to have sex with my partner, even if I'm tired.	70	24	68	23	155	53
8. I worry about not being able to get aroused sexually when I want to	43	15	53	18	195	67
9. I'd worry if my friends knew that I lived with a woman and I did the housework.	241	82	25	9	27	9
10. I don't like to let a woman take control of a situation	115	39	99	34	79	27
11. I have difficulty finding the words that describe how I'm feeling.	184	63	58	20	51	17
12. I don't like to show my emotions and my feelings to others.	128	44	68	23	97	33
13. It would be difficult for me if someone saw my crying	140	48	55	19	98	33
14. Showing affection or love to other men makes me feel uncomfortable.	171	58	43	15	79	27
15. Being physically stronger than other men is important to me.	148	51	55	19	90	31
16. It's important for me to know that I can drink as much or more alcohol than others	263	90	21	7	9	3
17. Having a girlfriend or wife is part of my idea of a successful man	53	18	44	15	196	67

When testing the bivariate associations between each HIV risk behavior and men's GRC/S scores we found relationships in the expected direction (Table 5.3). Specifically, men who had a higher GRC/S score had higher odds of reporting each risk behavior. Two of the HIV risk

behaviors – having two or more partners in the past 30 days, and drinking alcohol at last sex – were significantly associated with having a greater GRC/S. The bivariate relationship between inconsistent use of condoms with non-steady partners and GRC/S was non-significant ( $p=0.20$ ).

After controlling for socio-demographic characteristics (Table 5.3), higher GRC/S was significantly associated with increased odds of having two or more partners in the past 30 days (Adjusted odds ratio [AOR]: 1.31, 95% confidence interval [CI]: 1.00-1.72), inconsistent condom use with non-steady partners (AOR: 1.42, 95% CI: 1.02-1.98), and drinking alcohol at last sex (AOR: 1.59, 95% CI: 1.14-2.23). Given that the non-significant relationship between inconsistent use of condoms with non-steady partners and GRC/S became significant at  $p<0.05$  after adding controls, this suggests that there was a suppression effect (MacKinnon et al., 2000).

**Table 5.3** Association between men’s GRC/S score and HIV sexual risk behaviors

<i>Risk behaviors at follow-up</i>	OR	95% CI	<i>p</i>	AOR*	95% CI	<i>p</i>
2+ Partners in past 30 days	1.36	1.06-1.76	0.02	1.31	1.00-1.72	0.05
Inconsistent condom use, non-steady partner <sup>a</sup>	1.20	0.91-1.59	0.20	1.42	1.02-1.98	0.04
Drank alcohol at last sex	1.53	1.14-2.06	0.01	1.59	1.14-2.23	0.01

\*Controlling for age, study site, education, employment status, income, religion, and civil status

<sup>a</sup>also controlled for number of partners in the past 6 months

## 5.4 Discussion

Our study provides strong support for the association between Gender Role Conflict/Stress and men’s sexual risk behaviors, including number of sexual partners, inconsistent condom use with non-steady partners, and drinking alcohol at last sex. Below we discuss these findings and make recommendations for future research and application in HIV prevention interventions for men.

Findings from our analyses, together with the findings from Gottert et al. (2014) and Reidy et al. (Reidy et al., 2015), indicate that men with greater concern about demonstrating masculine characteristics are more likely to engage in HIV risk behaviors. Pleck’s masculine gender role strain paradigm highlights that masculine gender norms can be conflicting and inconsistent which causes

men to worry about their ability to fulfill norms (Pleck, 1995). One interpretation of our findings is that men may be coping with these concerns by adopting sexual risk behaviors (Glanz & Schwartz, 2008). Since masculinity and (hetero)sexuality are closely linked, men can use their sexual behaviors to emphasize their masculinity (Courtenay, 2000). Indeed, sexual prowess (e.g. having multiple women sexual partners) and risk-taking (e.g. inconsistent condom use, alcohol use prior to sex) are key characteristics associated with masculinity (Courtenay, 2000; Fleming et al., under review) and therefore those behaviors represent an opportunity to men to demonstrate their masculinity.

Our team's qualitative study with the same study population (see Chapter 6) highlighted how this relationship plays out in men's lives. We found that men were concerned about how others perceived their masculinity and some men modified their sexual behaviors – including HIV risk behaviors – to avoid humiliation, criticism, or teasing from male peers. Studies in other settings have similarly found that male peer groups are influential in men's HIV-related sexual risk behaviors (Barrington et al., 2009; Fleming et al., 2013; Fleming et al., 2014a; Flood, 2008; MacQueen et al., 1996; Vanlandingham et al., 1998). These findings indicate that social dynamics and interactions with other men is helping to drive the relationship between GRC/S and men's sexual behaviors.

Future research on men's HIV risk behaviors should continue to use gender role conflict/stress measures with other populations of men to verify if this relationship holds across cultural contexts, varying age groups, and high- vs. low-risk groups of men. Additionally, while the qualitative evidence suggests that GRC/S influences HIV risk behaviors, longitudinal research is needed to assess whether changes in GRC/S result in changes in HIV risk behaviors. Longitudinal studies can also help to assess *how* GRC/S influence sexual behaviors by further exploring possible mechanisms found in previous qualitative studies of this relationship. Finally, though psychometric analyses of our scale indicated a unidimensional factor structure – likely due to including fewer items than O'Neil's GRCS scale or Gottert's GRC/S scale – future research should examine which scale

sub-factors most influence men's sexual behaviors. For example, Gottert's (2014) study in South Africa found that the 'Subordination to Women' sub-scale was the key dimension of GRC/S that was most associated with men having multiple concurrent sexual partners. Expanding this type of research could help refine interventions strategies for men's HIV risk reduction.

Given the lack of consensus regarding how to operationalize 'masculinity' for research on men's HIV risk behaviors, research is also needed to critically compare measures of gender role conflict/stress measures to gender ideology measures to assess the relative influence of each on men's sexual behaviors. Gottert (2014) began this work, finding that conflict/stress measures are more closely associated with men having multiple concurrent partners than measures of gender ideology, while suggesting that it is advantageous for studies to include both constructs. Other research has just begun to explore other non-ideological measures of masculinity (e.g. adherence to gender-typical behaviors (Fleming, 2015)) and findings from this emerging research also need to be assessed relative to existing measures. These initial findings – including those from this paper – need to be replicated and evaluated to determine what unique perspective each measure brings to the study of masculinity and HIV. Ultimately, experts in the field need to provide clear and concrete guidance on the best approaches to incorporating GRC/S scales and other measures of masculinity into HIV research and intervention studies.

Our findings also provide further support for the need of gender-transformative interventions (Barker et al., 2010; Dunkle & Jewkes, 2007; Gupta, 2000). Gender-transformative interventions are focused on challenging harmful norms of masculinity and democratizing the relations between men and women (Dworkin et al., 2013; Gupta, 2000). Given that masculine norms have been shown to be influential on HIV risk behaviors, gender-transformative interventions offer a specific strategy to tackle this root cause of men's HIV risk (Dworkin et al., 2015). But, our results also suggest that gender-transformative interventions may need to expand their approach to also

directly tackle men's concern about demonstrating masculine characteristics (i.e. gender role conflict/stress). Currently, gender-transformative interventions have primarily relied on the empirical evidence derived from studies using measures of gender ideology. As a result, gender-transformative interventions have focused on changing men's gender ideology (Dworkin et al., 2013; Van den Berg et al., 2013) and most of these interventions are evaluated using measures of gender ideology (Pulerwitz & Barker, 2008; Pulerwitz et al., 2010; Verma et al., 2006). Considering how to reduce men's gender role conflict/stress could enable interventionists to develop new and innovative ideas to complement existing gender-transformative approaches for HIV prevention. Since men's gender role conflict/stress is related to concern about peers responses to non-masculine behavior, interventions may need to work within male peer groups to devise strategies to respond to and cope with instances where important others challenge their masculinity.

#### *Limitations*

While our research presents some of the first empirical evidence on the association between gender role conflict/stress and men's HIV risk behaviors, these findings should be considered in light of certain limitations. We used a sample of men who were willing to undergo a voluntary medical male circumcision. This sample may systematically differ from the general population of men or from the population of men at-risk for HIV. Additionally, like most behavioral research on sex and sexuality, this analysis relies on self-reported measures of sexual behaviors. Finally, GRC/S is intended to be a multidimensional scale and thus our findings with the unidimensional version may be obscuring important differences in the relationship between HIV risk behaviors and certain sub-types of gender role conflict/stress.

### **5.5 Conclusion**

Masculine norms are gaining attention as an important social determinant of health and the field of HIV has led the way in developing research and interventions to ameliorate the negative

effects of these norms (Bowleg et al., 2011; Dunkle & Jewkes, 2007; Dworkin et al., 2013; Gupta, 2000; R. Jewkes et al., 2011). Despite the progress to date, efforts are being stifled by our limited ability to empirically assess constructs related to masculinity and the effect they have on men's health behaviors. Incorporating new measurement techniques, such as the GRC/S scale, is just one example of how HIV researchers can continue to push the field forward. To improve our prevention efforts with men, we need to continue developing tools and resources that can expand our field's understanding of masculinity's influence on health.

## **CHAPTER 6: STATUS, COMPETITION, AND HUMILIATION: HOW MASCULINE NORMS SHAPE MEN'S SEXUAL AND VIOLENT BEHAVIORS (MANUSCRIPT 2)**

### **6.1 Introduction**

Due to gender norms in most societies, men generally have greater decision-making power than women within heterosexual relationships, are expected to provide economically for their families, and encouraged to engage in risk-taking behaviors (Cohan, 2009; Connell, 1987; Courtenay, 2000; Crook et al., 2009; Flood, 2008; Stern et al., 2003; Wingood & DiClemente, 2000). A man's position in the social hierarchy depends in part on his ability to portray a masculine identity (Connell, 1995) and men use their behaviors, including sexual and violent behaviors, to demonstrate their masculinity to members of their social network (Courtenay, 2000). Despite the recognized importance of masculine norms on the sexual and violent behaviors of men, there has been relatively little exploration of the social dynamics that drive this relationship. In this paper, we use data collected from in-depth interviews with men in the Dominican Republic (DR) to explore how masculine norms influence the way in which men interact with members of their social network and how those interactions drive men's sexual behaviors and use of violence.

#### *Masculinity and Health*

The social constructivist view of gender posits that gender is not an inherent trait of an individual, but rather is constructed through social interactions (Connell, 1995; West & Zimmerman, 1987). This distinction puts the focus on the actions of individuals, and importantly, the institutions and social network members that ascribe meaning to those actions. Additionally, this view sees power inequalities as central to understanding gender and associated dynamics (Connell, 1987;

Kimmel & Messner, 2001). Theories of masculinity in the past two decades have focused on these power inequalities, including those between society's constructed "hegemonic masculinity" (i.e. most dominant form of masculinity in a society's pattern of gender relations) and the other types of masculinities (Connell, 1995; Hyde et al., 2009; Lusher & Robins, 2010). The influence this system of power has on almost all males in a society is extremely important to their behaviors (Butler, 1993; Courtenay, 2000; West & Zimmerman, 1987). As men weigh how to act in a particular situation, their position in this power structure, and their desire to maintain position or advance, will typically play a role in how they behave.

Partially because of this social hierarchy and the greater power associated with the higher rungs, masculinity or manhood has been described as 'precarious.' The concept of Precarious Manhood was formalized through the research of Vandello and colleagues (Vandello et al., 2008), but the idea that men are constantly needing to prove their masculinity has been highlighted by other masculinities scholars (Gilmore, 1990; Kimmel & Messner, 2001; Pleck, 1981). Men's behaviors must project a masculine image in line with masculine norms since the negative consequences of not projecting a masculine image can be great. Men who deviate from these norms can face social isolation, disapproval (Cohan, 2009), and violence (Dorais & Lajeunesse, 2004; Kimmel & Mahler, 2003).

In Courtenay's (2000) foundational paper on the Theory of Gender and Health, he discusses how constructs of masculinity represent themselves in everyday decision-making, which includes health decision-making. Power is central to Courtenay's analysis since he makes the argument that men use their health behaviors to gain more power and status relative to other men. Since risk-taking and a rejection of the feminine (not being a "wimp" or a "sissy", p. 1389) are central to men constructing their masculine identities, health behaviors can help a man demonstrate that he is a risk-taker and distance himself from femininity. Courtenay also contends that men use their health



behaviors as a way of posturing among their peers to gain masculine status. Men's health behaviors, including sexual and violent behaviors, cannot be fully understood unless we take into account how men's desire to be perceived as masculine shapes their behaviors.

Other components of men's identities (e.g. class, ethnicity, race, sexual orientation) also shape the way that they experience gender norms and poor, minority and otherwise marginalized men may disproportionately pay the costs of masculinity in terms of the impact on their health (Bowleg, 2012; Griffith et al., 2013). Specifically, the opportunity structures available to men are determined by various social identities and some social groups of men are typically afforded fewer means to achieve hegemonic success, including limited access to institutions and power that are available to other males (Courtenay, 2000; Williams, 2003). The performance of behaviors that put men at-risk for diseases, injury, or bodily harm can sometimes be the only option for men with low or marginalized social status to demonstrate their masculinity when they are unable to portray more positive aspects of masculinity like providing for their family. Men can find this perceived lack of power frustrating and may, in response, adopt certain health behaviors that give them a sense of power over others (Barker, 2005; Courtenay, 2000). While this rich theorization on the connection between masculine norms and men's behaviors aids in understanding this relationship, there is little empirical evidence on how this plays out in men's interactions with members of their social network.

#### *Caribbean and Dominican Masculinities*

De Moya (2004), a prominent Dominican masculinities scholar, wrote about the socialization of Dominican males into the prevailing standards of masculine behavior. He posited that masculinity is a 'totalitarian' regime that controls the lives of Dominican boys and young men. De Moya used participant observation and interviews with mothers, men, and women to identify the 'rules' associated with being a 'normal' boy in the DR including, "He cannot publicly show fear of anything," "He should not sob nor cry, even when hurt," and "He should show a vivid and visible

erotic interest in all females who come close to him when he is with his peers.” (de Moya, 2004) (p. 73-74). These behavioral ideals are instilled in young Dominican boys and enforced by other Dominican men through punishment and shaming during youth and adulthood. As de Moya (2004) states: “Dominican males are socialized in a strongly restrictive and prohibitive environment, which surely cripples their spontaneity, authenticity, and joy, and produces hypocrisy and neurosis.” (p. 73). Thus, these rules not only stifle men, but may also cause a considerable amount of stress as they attempt to meet the rigorous standards of manhood. This idea is similar to the Masculine Gender Role Strain paradigm (Pleck, 1995), which emphasizes the negative effects of men attempting to fit into masculine ideals. Those men who do fit neatly into the masculine ideals may feel stress to maintain that status, and those who do not fit may feel the same stress as well as discrimination and shame related to being a subordinate status.

While de Moya’s research focuses on a singular dominant ideal masculinity, other scholars within the DR and the region have identified two distinct ideals that are often in conflict with each other. This idea was first proposed in the region by anthropologist Peter Wilson (Wilson, 1969, 1973) and later applied in Jamaica by Whitehead (1984). Wilson’s (1969) framework posits that men are subject to two interconnected value systems that he calls ‘respectability’ and ‘reputation.’ A man’s reputation is judged by his male peers and depends on his ‘masculine activities.’ The ‘masculine activities’ include sexual prowess, athletic competition, strength, seducing women, and fathering children. A man’s ‘respectability,’ on the other hand, is judged by the entire society and tends to be based on European middle-class values (stemming from norms diffused during colonization). To be respectable, a Caribbean man needs to conform to the rules set by the church and government, as well as work hard, provide for one’s family, and participate positively in the society. Wilson notes that “both together make up a single system” and that they are “dual and contradictory” (p. 118) (Wilson, 1974). Other scholars have similarly noted competing gender norms – such as the *casa/calle*

(house/street) norms in the DR (Kerrigan et al., 2001) and homosocial/heterosocial social spaces in Mexico (Hirsch, 2009). Men are socially rewarded for being both respectable and reputable and thus must fulfill both norms, even when they conflict. To achieve this, the man must behave differently in different social situations. In terms of health-related risk behaviors, the reputation (and *calle*/homosocial spaces) are where group dynamics exist that facilitate promote sexual risk behaviors and other potentially harmful behaviors such as violence and alcohol abuse (Hirsch, 2009; Kerrigan et al., 2001).

Our team's previous empirical research with men in the DR has explored several dimensions of the relationship between men's social networks and risk-taking behaviors. A mixed-methods study with male steady partners of female sex workers in La Romana, DR found that men's sexual risk-taking was influenced by their perceptions of their peers' risk-taking and the social influence exerted by those peers through social network interactions (Barrington & Kerrigan, 2014; Barrington et al., 2009). We subsequently conducted a qualitative exploration of men's peer group relationships – focusing on male peer groups and homosocial spaces – and found that most men lacked trusted friendships and many avoided friendships due to perceptions that peers would pressure them to behave in ways they did not want to (Fleming et al., 2014a). We also found that men's willingness to get tested for HIV is, in part, shaped by concerns of projecting a masculine image of strength to their social network (Fleming et al., 2015).

These theoretical perspectives and our previous research indicate the importance of masculine norms and that men's social interactions play a crucial role in influencing men's behaviors. It is less clear how men's social interactions are shaped by masculine norms and specifically how those interactions influence men's sexual and violent behaviors. The current study aims to fill this gap.

## 6.2 Methods

### *Study Setting and Context*

We conducted this research in two cities in the DR: Santo Domingo and La Romana. Santo Domingo is the capital and financial center of the DR and has an estimated population of 2.2 million people (Consejo Nacional de Poblacion y Familia, 2010). La Romana is the third largest city in the DR with a population of approximately 250,000 (Consejo Nacional de Poblacion y Familia, 2010) and is located on the southeastern coast near many popular international tourist destinations. The surrounding areas are also home to a large Haitian-descendent community who live in *bateyes* and work in sugar production. We conducted our research within a larger study aiming to assess if health systems in the DR could successfully offer voluntary adult male circumcision as an HIV prevention strategy (Brito et al., 2009; Brito et al., Under review; Brito et al., 2010).

### *Recruitment and Data Collection*

Our sample (n=30) for the in-depth interviews was drawn from men who attended their follow-up visit for the parent study (n=362). The parent study used referrals and community outreach to find men who were 18-40 and were willing to undergo a circumcision. To reach a sample at heightened risk for HIV, female sex workers in both sites were asked to refer their sexual partners and in La Romana one recruiter was dedicated to recruiting men from nearby *bateyes* (Haitian descendent communities with a high HIV prevalence relative to the national prevalence). Follow-up visits (6 to 12 months after circumcision) for the parent study occurred between July 2013 and March 2015 and we conducted our qualitative interviews with all available men that came to their follow-up visit in May or June 2014. Men were reimbursed for their travel to the clinic (approximately 10 USD).

Interviews were conducted by the first author in Spanish using a semi-structured interview guide. Apart from questions related to men's experience in the parent study, the interviews focused

on three overarching questions: (a) how does the man define manhood in the DR?, (b) to what extent does the man want to be perceived as masculine by important others?, and (c) how do interactions with other men shape his own behaviors? All study procedures and protocols were approved by the Institutional Review Boards at the University of Illinois at Chicago, The University of North Carolina, Chapel Hill, and the Instituto Dermatológico Dominicano y Cirugia de Piel “Dr. Huberto Bogaert Díaz” in Santo Domingo, DR.

### *Data Analysis*

Qualitative data analysis was iterative, starting with the completion of the first interviews and continuing throughout the data collection and writing process (Gibbs, 2007). After each interview, the first author (PJF) wrote field notes about the interview and memoed about notable things the participant said or did (Emerson et al., 2011). Interview questions and probes were modified in response to observations from early interviews.

Audios recordings of interviews were transcribed verbatim in Spanish (McLellan et al., 2003). After transcription, the PJF read through each transcript while listening to audio to identify key themes and stories and discussed preliminary findings with the study team. For each participant, we wrote a brief summary of each participant using available details from their life and then wrote analytic summaries on key areas of interest (e.g. competition, meanings of manhood, interactions with peers) (Sandelowski, 1995). This process served to contextualize these meanings of manhood and other key concepts within the life of individual participants.

Subsequent to writing these summaries, we developed a codebook with deductive codes derived from the interview guides and inductive codes based on themes/ideas identified in our memos and summaries (Gibbs, 2008b). For example, deductive codes included ‘meanings of manhood’ and ‘violence’ and inductive codes included ‘humiliation’ and ‘selling yourself.’ We coded the transcripts using the Atlas.ti software (Atlas.ti, 2012). The code outputs for key themes were

used to systematically assess and deepen our understanding of ideas in the summaries. Using the narratives and code outputs, we prepared matrices for the analysis of patterns across the study population and for comparisons between sub-groups (for example, older men vs. younger men, married vs. single, La Romana vs. Santo Domingo) (Miles & Huberman, 1994). We integrated memo writing throughout this process to facilitate the interpretation of the data and to provide an audit trail of the analysis to document our interpretations (Saldaña, 2009). After reviewing all memos, narratives, analytic summaries, and matrices, we identified prevalent narratives and themes that responded to our research question. Findings are described below using illustrative quotes with pseudonyms.

### **6.3 Results**

We interviewed 30 men, 15 men in each study site, between the ages of 20 and 40. Most men were partnered, employed in either the formal or informal labor market, and had at least secondary education. We first describe how masculine norms emphasizing competition shape men's interactions with their peers. Then, we demonstrate how this competition – and specifically men's fear of being humiliated and social pressure to respond to instances of humiliation – shape men's decision-making around sexual and violent behaviors.

Men described that being perceived as masculine was not simply about meeting certain expectations of manhood, but also that they additionally needed to successfully compete against other men in their social network. This need to compete was because they felt that their masculinity was evaluated in comparison to the behaviors of other men. Hector, a 28-year-old, who works as a baker and lives with his wife and their toddler described this dynamic in his life. While Hector said he was fulfilling the masculine role of providing for his family, he additionally highlighted the importance of success relative to others:

*[You have to] always do things well...try to feel equal to them, if he tried to be more of a man than you, you can't just stay behind him, you have to show him that you are equal to him, make him see, for example, that what he can achieve, you can also achieve."*

In addition to being a provider, Hector felt he had an additional need to keep up with other men. Importantly, this was not just for his own self-esteem, but rather he described a need to 'show' other men that he was equal to gain their respect. Thus, for these men, portraying a masculine identity was both about performing certain behaviors and about performing certain behaviors *better* than other men.

What men competed about depended on their own personal priorities in a given social context, but typically reflected characteristics associated with masculinity. For example, men commonly described that they competed with peers for their capability to earn money, purchase material goods, attract or satisfy sexual partners, or have multiple sexual partners. Competition related to economic provision was generally unspoken, but rather a comparison between what one had or had bought his family compared to other men. Denny described this competition for material goods that he saw between his friends: *"Usually they'll compete for vehicles, cars. If they are in a bar, [they'll compete for] who can spend more and stuff like that."* This competition over material goods was often connected to notions of being able to provide for your family. Competition over women or sexual prowess usually occurred within men's friend groups. Sometimes this involved directly competing with another man for a woman's affections. Miguel, a 26-year-old single man, recalled such competitions among his group of friends:

*"We'd say, 'alright, check out that blondie that's sitting over there, that's the one we're going to pick, which one of us can get her?' It'd be a competition...if I got her, they had to buy me 5 beers and pay for the hotel [for the girl and me]."*

This overt competition for women was a signal of a man's sexual prowess and earned him respect from peers. Competition for sexual prowess was more commonly described as men bragging to their peers about the number of partners they had or their capability to pleasure their female partners.

Daniel, a 21-year-old university student, commented:

*"They feel like more of a man than others because they have two or three [women], but yeah, clearly that is going to make you feel good about yourself as a man, you'd feel good, you know that your friend, your peers have one and you have four [women], you'd feel good, you'd feel better."*

Since many men believed that being able to attract sexual partners was a sign of masculine success, referring to multiple sexual partners was a way that men could demonstrate their masculinity relative to other men.

Daniel also commented that successfully competing required that men could adapt themselves and emphasize different masculine characteristics (e.g. providing financially, aggressive, sexually potent) based on their social context because different social groups placed varying degrees of value on each characteristic. He said their portrayal of masculinity depended on "*which group he's going to sell himself to...there are different ways a man can be perceived, that's what he ends up selling.*" Many men's comments reflected this idea and below we use the story of Erick, a 20-year old street vendor who lives with his wife and young son, as a case example of how men described varying their behaviors depending on the expectations of a particular social group.

Erick lived in a close-knit community on the outskirts of La Romana and, like most men, worried about being able to provide for his young family: *"I'm not going to feel content knowing that I have a son, a woman that aren't eating well, that I can't even buy a pair of shoes or nothin'."* While his concern about the well-being of his family was genuine, he was also worried about the bad impression his neighbors would have of him if he was not providing for his family. He said, *"[I worry that] people are talking, humiliating me, making me feel lesser, Look at him! He had his family, look now how he's fallen, they can't*



*buy anything, they can't eat well, and they're getting too skinny*” He described how this fear of not being able to provide for his family – and fear of others gossiping about him – is a constant worry for him because they are related to his social status (e.g. ‘look now how he’s fallen’). His neighbors valued the provider masculine role and also devalued the *calle* [street] masculinity that emphasized violence and sexuality. When asked how he could demonstrate his masculinity to his neighbors, Erick responded, “*Don’t be causing trouble in the calle so that no one talks [bad] about you.*” He was concerned that if he got into fights or was known to have extramarital relationships he would lose social status among his neighbors. Erick articulated that his neighbors valued men that were responsible fathers and provided for their families and he tried to adapt his behaviors accordingly. While his neighbors were one important social group for Erick, his friends were also extremely important in his life. He described that he and his group of friends grew up together and they were like family to him. Erick said that among his friend group, there were situations where he needed to use violence to demonstrate his masculinity:

*“There are always people that think they are more manly than you, they start getting fresh [confrontational] and stuff, you [perpetrate violence] so that you aren’t standing there with your arms crossed, so that you can demonstrate to him that you, too, are a man... That’s what happens with this type of violence. When you have five or six friends and you want those friends to respect you, you’ve got to prove that in front of everyone you are more than them. [You can do that] through violence.”*

Erick’s friends expected him to use violence for instances where other men were confrontational and challenging his masculinity. For Erick, the social value of perpetrating violence depended on his context: it inhibited his ability to compete for social status among his neighbors but enabled him to gain social status among his friends. This contradiction played out in the lives of many men in our study who each belonged to various social groups (e.g. work colleagues, neighborhood, friends, church members, etc.) with different behavioral expectations.

These conflicting norms and the importance of successfully competing with other men to gain social status caused men to worry about being humiliated. Men used the word ‘humiliation’ to describe instances where their status, value, or respectability was called into question, typically these were direct threats on their manhood. Thus, it was a tool for competition since instances of humiliation severely restricted a man’s ability to successfully compete with peers. These humiliations were, by nature, public affairs that typically resulted in their social network members talking negatively about the man and were related to the normative characteristics of manhood discussed above (e.g. sexual prowess, earning money, competition).

Men referred to examples – often occurring at drinking establishments – where another man would bump into them, shove them, or say something to humiliate them in front of their friends or girlfriend/wife. Female partners could also humiliate men by not showing sufficient deference in public. Benito describes one example of another man being confrontational when he was with his girlfriend:

*“I was with my girlfriend buying some sandwiches and three guys passed by my side and I accidentally ran into one of them. I turned around and said, ‘Excuse me’ and...the guy got aggressive and he poked me like this in the chest [he gestures a forceful poke] in front of my girlfriend. That’s humiliating! He did it precisely to humiliate me so that my girlfriend would see that she was a with a coward.”*

This type of humiliation was considered a challenge to men’s status because it was emasculating to be disrespected.

Men’s sexual relationships with women were another potential source of losing respect and feeling humiliated. Most men said that the biggest humiliation would be if a man’s wife or girlfriend was unsatisfied sexually or was cheating on him with another man. Edwin, a 39-year-old man who has been married for 22 years, described why it is important for him to satisfy his wife:

*“[If] I don’t make my wife satisfied, she’s going to satisfy herself somewhere else, that’s the problem, you know? I have to try and satisfy her so that she doesn’t leave me for someone else.”*

For Edwin, if his wife cheated on him, that would be a signal for him and for others in his community that he was not satisfying her sexually. A cheating partner was considered the ultimate form of humiliation because it indicated a failure to fulfill one of his obligations as a man. Men described that ‘lasting long’ (i.e. length of time between penetration and ejaculation) was a marker of whether or not a man could satisfy his wife. Luis, a 21-year old unemployed man who lives with his parents, described how conversations with friends about ‘lasting long’ can cause men to worry about being humiliated during future sexual encounters:

*“Sometimes you hear so-and-so saying, ‘no, I did this and that and I lasted a half hour [having sex], I lasted 20 minutes.’ [and you think] ‘So-and-so lasted a half hour? But I can’t even last 5.’ So you worry and try to figure out what’s going on, what’s the normal time to last?”*

Luis was worried that women would expect him to last ‘a half hour’ and that he would be humiliated if he ejaculated too quickly without satisfying his partner. Antonio, a 33 year old married man with two kids, spoke about how this could lead to humiliation:

*“Women can start talking, so that worries a man that they’ll say something about him, that he’s a ‘good-for-nothing’ man, and that you don’t make your woman feel good in bed. These things can cause a woman to look for other partners, you know? This [gossip] happens a lot and it worries men...because everyone is going to look at you as a joke.”*

Though sexual behaviors are typically private between two partners, this gossip about sexual performance was common and allowed members of men’s networks and their potential sexual partners to assess the man’s sexual capabilities – an indicator of his masculinity. Antonio’s comments emphasize how central a man’s sexual performance – and specifically capacity to satisfy one’s partner – is to a man’s social status and ability to avoid being humiliated.

Men's behavioral responses to this humiliation shaped their sexual and violent behaviors. While a few men said they were able to ignore instances of humiliation, most said that a man must respond or react when humiliated. Benito described that a man needs to respond in order to ensure that he does not lose status:

*“The man that lets himself be humiliated by another man loses his value in front of everyone else. He loses respect, or at least what they understand is respect, in front of everyone else. So, if a man doesn't respond to a humiliation, he can lose his value as a man.”*

Responding to an instance of humiliation is about saving face, recouping one's masculinity, and ensuring that social status is recovered. How men responded to instances of humiliation were important for their sexual and violent behaviors; below, we describe three common responses – (1) perpetrating physical violence, (2) humiliating the other person, and (3) taking actions to prevent it – and their implications for behaviors.

First, the most frequently described way that men can respond to being humiliated is to use physical violence. Felipe, a 22-year old married man, said:

*It's really common for guys to respond with violence, it's rare that someone humiliates you and you can stay calm. No, you have to do something to get even because you feel bad about yourself because of what the other person did.”*

This physical violence perpetration allowed men to 'get even' and recoup their masculinity. Men also reported that when men perpetrated physical violence against women it was often because the men had been humiliated by their female partners. Jose said, *“A man becomes violent because a woman says, 'you're a good-for-nothing, I don't feel good when I'm with you,' so that causes conflict.”* While only a few men seemed to express tolerance for physical violence against women, perpetration of physical violence against women was described as a common response to instances of humiliation from women.

When physical violence perpetration was used to respond to humiliation, it represented the easiest, quickest, and most obvious way for a man to demonstrate his manhood and superiority to others.

It is important to note that men's decision to use or not use physical violence in response to humiliation depended on the context and the potential consequences. Felipe – the man who described the importance of violence above – described how men had to balance different priorities when considering their use of violence in response to humiliation. He mentioned that he was humiliated by his bosses at work: *“they always look for some way to humiliate me or make me feel smaller than them...they are like, ‘listen, I’m much better than you, you are nothing,’”* Felipe went on to recount his thought process about how to respond:

*“You can humiliate me in my job and I won’t do anything because I’ll lose my job, but, truthfully, I feel humiliated...I have stuff to lose there, I could lose my job. But, if in the calle [street] you humiliate me, I’ll grab you and hit you with something.”*

In this case, Felipe prioritized earning money and providing for his family rather than demonstrating his capacity for violence and aggression. His workplace social environment called for different behavioral norms and expectations for men than the *calle* environment.

The second potential response to humiliation - humiliating the other person - allowed men to avoid the potential negative consequences of perpetrating physical violence. Men who used this strategy criticized and/or perpetrated emotional violence against the person who originally humiliated them which allowed them to recoup social status by calling into question the social status of the other person. For example, if a woman gossiped about a man's sexual performance, the man may spread negative rumors about her. Benito said that if a man chose not to respond with violence to women's insults about his sexual prowess, *“he’ll insult her behind her back to try and humiliate her worse than he was, I mean, he’ll say that she smells bad down there or something like that.”* This retaliatory response

allowed men to respond to the humiliation and recoup their masculine status while avoiding the potential negative consequences of perpetrating physical violence.

The third strategy men utilized – preventing or minimizing instances of humiliation – also had implications for their behaviors. For men who wanted to prevent humiliation related to confrontations with other men use an avoidance strategy: they chose to avoid bars or nightclubs, large groups of friends, or drinking alcohol to prevent these situations. In contrast, men who wanted to prevent humiliation related to their sexual performance used several behavioral strategies to minimize or prevent humiliation. First, many men commented that they might preemptively change their sexual behaviors in order to avoid being teased. Pedro, a 35-year-old man with a steady job in the tourism industry, spoke of his experiences when he was younger:

*“I went out with friends, we paid [to sleep with] women, we were in that environment...It’s psychological, I felt like if I didn’t do what the others were doing, I wasn’t normal...If I were to say ‘no’, I worried what they would think of me.”*

He modified his sexual behaviors as a younger man because he wanted to avoid feeling humiliated in front of his peers. Second, as an alternative to changing actual sexual behaviors, men also commonly exaggerated the truth or deployed lies to safeguard their sexual reputation. Carlos, a 30-year-old divorcee, described lying about his sexual experiences to avoid being teased or humiliated. He said, *“Your friends criticize you, you tell them lies and that’s a way to protect yourself.”* Arturo, a 28-year-old married man, provides an example of this: *“I make something up to make myself look good during that moment of conversation [with friends]...I could say, ‘I was with a woman in a hotel, and Wow! That woman came and came.’ Something like that, a lie.”* These lies allowed men to avoid losing increased social status that was associated with demonstrating sexual prowess. Finally, some other men reported that if they failed to sexually satisfy a partner, they sought new sexual opportunities to prove themselves again. Emilio, a 21-year-old construction worker, said that *“faced with this type of humiliation, a man will try to grab that*

*same chick that started to talk crap [about his sexual capabilities] and do it with her again so that she can see that it was just only that one day...[or] they'll try to find other women to prove themselves."* Attempting to have sex with the same sexual partner or find new partners offers the man an opportunity to satisfy the woman and shift the negative gossip about him. Several men reported using 'performance enhancing' drugs in such instances where they wanted to prove themselves; these drugs were purchased on the street and claimed to enhance men's capacity to satisfy sexual partners. The existence of multiple behavioral strategies to combat humiliation related to sexual prowess emphasizes the salience of this factor in shaping men's sexual behaviors.

#### **6.4 Discussion**

We have shown that masculine norms encourage men to compete with each other and that men selectively use violent or sexual behaviors to compete with other men and avoid humiliation. Below, we discuss how these findings connect with previous theoretical literature on masculinities and how the insights gained in this study can help health promotion efforts with men.

Our findings indicate that the relationship between masculine norms and men's sexual and violent behaviors is explained by male competition and avoiding humiliation. The link between masculinity and social status is key for understanding men's use of violent and sexual behaviors. Men who could successfully navigate how and when to emphasize certain masculine characteristics or behaviors were able to avoid being humiliated and losing social status. However, success was ultimately defined by men's peers (Butler, 1997) who were aiming to improve their own status and may take advantage of opportunities to humiliate another man. These dynamics emphasize the fragile nature of being perceived as masculine. A masculine behavior in one social context (e.g. restraining oneself from violence perpetration) could be deemed as unmasculine in another context and thus a man is rarely free from potential humiliation (Cohan, 2009; Courtenay, 2000; Fleming et al., 2013). This aligns with previous research that has emphasized the fragility of masculinity (i.e.

Precarious Manhood) and that the anxiety it produces is associated with aggression and sexual risk behaviors (Vandello & Bosson, 2012). Men in our study who were humiliated grasped for simple responses such as sex with a new partner or perpetrating violence in order to emphasize their masculinity and recoup their social status. These outcomes can negatively affect the health of these men and that of their communities.

Men did not perform a singular coherent configuration of masculine behaviors, but rather men adapted to each context and varied their performance of masculinity (Butler, 1993; West & Zimmerman, 1987). For example, some contexts required men to restrain themselves from violence and other contexts encouraged violence perpetration. This variation in masculinities is similar to the theoretical concepts of *casa/calle*, homosocial/heterosocial, and reputation/respectability in that it recognizes that there is not a singular masculine norm (Hirsch, 2009; Kerrigan et al., 2006; Wilson, 1969). Connell's theorization of multiple masculinities highlights that different groups of men (e.g. working class men, gay men) each have their own configuration of masculinity (Connell, 1995). While this concept emphasizes the group-level variations in masculinity, our findings – and the ideas of *casa/calle*, homosocial/heterosocial, and reputation/respectability – indicate that multiple context-specific masculinities may also be operating within individual men. For example, the man (Felipe) in our study who chose to back down when being humiliated by his bosses chose to prioritize his ability to provide for his family rather than prioritize his ability to demonstrate his strength and propensity to defend himself. Though his deference to his boss protected his economic livelihood, it also resulted in lower status at work and feelings of frustration and sadness. Situations like these can cause men anxiety, as men are actively concerned about their ability to portray a masculine identity.

This anxiety and concern about being able to demonstrate masculine characteristics is described in Pleck's Masculine Gender Role Strain theory. Pleck postulates that cultural standards for masculinity exist, and that socialization encourages men to attempt to live up to them. He also



highlights that masculine gender norms can be conflicting and inconsistent which causes men to worry about their ability to fulfill norms (Pleck, 1995). Pleck describes several ways that this can result in negative outcomes for men. First, men who are unable to achieve gender role expectations may suffer from low self-esteem and other psychological consequences (i.e. gender role discrepancy). In our findings, humiliation results from men being unable to meet the gender role expectation and we also found that men reported feeling bad about themselves in such instances. Pleck also describes that men who have been able to achieve gender role expectations may result in harmful health behaviors because the gender socialization process has caused them to fear transgressing masculine norms (i.e. gender role trauma) (Pleck, 1995). In our data, we see that men potentially harm themselves (e.g. adopting violent behaviors or risky sexual behaviors) in an effort to adhere to masculine norms in a given context. It should be noted that our data also find support for the fact that men's concern about being perceived as masculine also sometimes encouraged them to avoid violence and adopt other seemingly health-promoting characteristics like working and providing for one's family. Overall, the concepts of competition and humiliation are key factors for understanding how masculine gender role strain works to influence men's health behaviors.

What are the implications of these findings for research and programming on masculinities and health? We have three main considerations for future research and interventions.

First, research on masculinities need to acknowledge that masculinities are specific to social contexts. Most current research on masculinities and health utilizes measures to characterize the type of masculinity that a man endorses or adheres to (Noar & Morokoff, 2002; Santana et al., 2006; Shattuck et al., 2013). For example, research within the field of HIV relies on men's normative beliefs about sexuality (e.g. should men have multiple concurrent partners?) (Archer, 2010; Pulerwitz & Barker, 2008). But, this assessment ignores that masculinity – and its corresponding beliefs and behaviors – is context-dependent and that multiple masculinities can and do coexist within the same

man. Measures of gender ideology may need to employ vignettes or other innovative measurement techniques to assess context-specific attitudes (Finch, 1987). Additionally, measuring constructs like Gender Role Conflict may be more useful than measuring adherence to norms, since it gives a better idea about men's internalization of gender norms and how concerned they are to adhere to those norms (Gotttert, 2014; O'Neil et al., 1986).

Second, given the importance of competition, health interventions that intervene on gender (e.g. gender-transformative (Dworkin et al., 2013)) should not only consider the harmful effects of the hierarchy between men and women, but also the hierarchy and competition between men. Health programming has spent decades attempting to dismantle the hierarchy between men and women due to its detrimental effect on women's health (Grabe, 2010; Kim et al., 2007; Rosenfield, 2000). The same effort needs to be made to reduce status hierarchies between groups of men that can encourage competition and humiliation (Dworkin et al., 2015). Often, interventions targeting masculinities aim to encourage men to adopt child-rearing tasks or reduce their violence against women (Hatcher et al., 2014; Van den Berg et al., 2013). But, interventions can also begin to breakdown hierarchies between men by also asking men to challenge the idea that non-violent or sexually impotent men are failures as men. Such efforts will begin to neutralize the pressure men feel to belong to a specific type of masculinity to avoid being humiliated and losing social status.

Finally, the field of study focusing on masculinities and health has largely ignored the potential positive effects that masculine norms – and the dynamics of male competition – can have on men's health. We showed that men use both violent and non-violent behaviors as strategies to demonstrate their masculinity. Our data, unfortunately, had no information on whether or not men used sexually protective behaviors (e.g. abstinence, condoms) as strategies to demonstrate their masculinity. Future research needs to better understand how competition between men might be health-promoting across a range of behaviors and outcomes. Ultimately, men need to feel

empowered to adopt non-violent behaviors and not fear that non-violence may appear unmasculine or inappropriate to certain peers. Women increasingly have a broader range of acceptable behaviors and life choices due in part to public health interventions that empowered women and modified their structural environment (Grabe, 2010; Kim et al., 2007; Rosenfield, 2000). Similarly, more men need to feel that it is acceptable – even to friends in the *calle* – to respond to humiliation in healthy or non-violent ways. Building on our results and better understanding how men are able to adopt health-promoting behaviors could help intervention efforts with men in the future.

## **6.5 Conclusions**

Health researchers and interventionists have made great strides in acknowledging, considering, and incorporating norms of masculinity into contemporary studies with men. However, current understandings embrace the idea of masculine norms as a singular dimension in men's lives, rather than a dynamic series of interactions between men and their social environment. Ultimately, the focus needs to be less on specific harmful behaviors associated with masculinity and more on these social dynamics that place masculinity as a privileged determinant of men's social status. We found evidence for the importance of social dynamics in men's behaviors: norms of masculinity influenced men to compete with other men for social status and that process – including fear of being humiliated – drove men's sexual and violent behaviors. Making strides in men's health, and the health of their partner and families, requires further examination of these social dynamics and interventions that enable men to adopt a wider range of behaviors.

## **CHAPTER 7: *'I FEEL LIKE MORE OF A MAN':* A MIXED METHODS STUDY OF MASCULINITY, SEXUAL PERFORMANCE, AND CIRCUMCISION FOR HIV PREVENTION (MANUSCRIPT 3)**

### **7.1 Introduction**

In three randomized control trials in sub-Saharan Africa, HIV incidence was lower among adult men who received a voluntarily medical male circumcision (VMMC) compared to a control group of uncircumcised men (Auvert et al., 2005; Bailey et al., 2007; R. Gray et al., 2007). Not only were there significant differences in HIV incidence at the initial 2-year follow-up, these protective effects were sustained in later follow-up studies (Auvert et al., 2013; R. Gray et al., 2012; Mehta et al., 2013).

Based on these convincing results that VMMC protects men against HIV infection, governments and non-governmental organizations in sub-Saharan Africa started to organize circumcision campaigns for adult men (WHO, 2011). By the end of 2011, 1.4 million VMMC had been performed in 14 priority African countries (WHO, 2011). Given the interest in expanding circumcision to new regions with low circumcision prevalence (Brito et al., Under review; Brito et al., 2010; Ning et al., 2013; Tynan et al., 2013), there is a need to better understand men's experiences with this intervention. Numerous ethnographic studies from societies across the world have documented the central role of circumcision in conferring masculinity to boys or young men and preparing them for adult male sexuality (Castro-Vázquez, 2013b; Gilmore, 1990; Silverman, 2004). But, research on men receiving VMMC for HIV prevention has not examined the interrelationship between circumcision, male sexuality, and feelings of masculinity.

While these dynamics have not been explored with men who have undergone VMMC for HIV prevention, some VMMC acceptability studies have noted the link between circumcision, male sexuality, and feelings of masculinity. In several studies in sub-Saharan Africa and elsewhere, the strongest predictor of men's willingness to be circumcised was positive opinions about future sexual performance post-circumcision (e.g. circumcision increases sexual pleasure for women) (Brito et al., 2009; Mattson et al., 2005; Montano et al., 2014; Price et al., 2014; Skolnik et al., 2014). Rennie and colleagues (2015) reported that traditionally circumcising communities in Malawi have adapted their beliefs to consider VMMC for HIV prevention as part of a rite of passage from boyhood to manhood. But, norms of masculinity and perceptions of future sexual performance have also been shown to be barriers to men's willingness to be circumcised. For example, Adams and Moyer (2015) find that some Swazi men perceived circumcision as a threat to their masculinity due to perceived negative affects it could have on their sex lives (e.g. loss of sensitivity, inability to pleasure female partners). Moyo et al. (2015) and Khumalo et al. (2013) found similar masculinity-related barriers to men's circumcision in their studies in Zimbabwe and South Africa, respectively.

The study teams that conducted the VMMC randomized control trials in sub-Saharan Africa did not incorporate perceptions of masculinity into their research but they did publish analyses related to sexual satisfaction and sexual performance. The Kenya study team found that, at follow-up, the majority of circumcised men reported increased penile sensitivity and greater ease reaching an orgasm (Krieger et al., 2008). However, it is unclear whether these changes were viewed positively or negatively by the men. Riess et al. (2010) also found that the Kenyan men reported decreased pain during sex due to no longer having cuts in the foreskin during sex, and increased ability to engage in more rounds of sex with a sex partner. Regarding their female partner's satisfaction, 46.9% report at 6-month follow-up that their partner is 'very pleased' or 'somewhat pleased' by their circumcision (31.3% were neutral and only 0.7% report that their partner was 'somewhat' or 'very

displeased’) (Krieger et al., 2008). The Uganda study team found that that there were no changes in sexual function or satisfaction experienced by men who received a circumcision that were not also experienced by men in the control group (Kigozi et al., 2008). In general, intervention and control groups in Uganda both reported minor increases in sexual function and satisfaction over the duration of the study(over 95% reported satisfaction and function in both arms at each time point) (Kigozi et al., 2008). Unfortunately, without reported data on how men felt about these changes, and how these changes influence their self-perception as a man, it is difficult for interventionists to incorporate these findings into future program design.

Any perceived changes in sexual performance are likely to impact a man’s feelings of masculinity since norms of masculinity emphasize the importance of men’s sexual performance and prowess (Connell, 1995; Courtenay, 2000; Fleming et al., under review; Flood, 2008). Men are often motivated to closely adhere to norms of masculinity in order to avoid teasing or ridicule from peers (Cohan, 2009; Fleming et al., 2013; Flood, 2008) (see also Chapter 5, 6).

Adams and Moyer (2015) concluded their acceptability study in Swaziland emphasizing the “need for more research into the relationship between sexuality, masculinity, and health interventions seeking to involve men.” Since norms of masculinity play a powerful role in men’s behaviors (See Chapter 5 and 6, and also: (Gottert, 2014; Mahalik et al., 2007)), understanding how newly circumcised men perceive their sexual performance and masculinity could help improve recruitment of men into circumcision programs, prevention of risk-compensation (i.e. behavior changes that offset risk-reduction (Pinkerton, 2001)), and – more generally – improve our understanding of how masculine norms shape men’s experience of sexual health interventions.

Our previous research with this population of Dominican men receiving VMMC for HIV prevention (presented in Chapter 5 and 6) is informative for the current paper. Men expressed worry about their ability to sexually satisfy their female partners and that inability to satisfy partners was a

major threat to their masculinity. Men feared damage to their reputation if a female partner revealed to others that she was unsatisfied (e.g. did not achieve an orgasm) due to an inability to last sufficiently long between penetration and ejaculation, the man's penis size, or an inability to sustain a potent erection. Given the importance of sexual performance to these men's lives, we employ a mixed methods approach with data collected from recently circumcised adult men in the Dominican Republic (DR) to explore the link between VMMC for HIV prevention, sexual performance, and feelings of masculinity.

## **7.2 Methods**

### *Study Setting and Context*

We conducted this mixed-methods study as part of a feasibility trial of VMMC for HIV prevention in the DR (Brito et al., 2009; Brito et al., Under review; Brito et al., 2010). Prevalence of circumcision is low among 15-49 year old men in the DR (12.7%) (CESDEM & Macro International Inc., 2014). The parent study aimed to assess whether (a) medical professionals could be adequately trained to offer this service as part of HIV prevention for men, and (b) whether men would seek out and utilize this service. This is the first VMMC for HIV prevention trial within the Latin America and Caribbean region. The parent study was conducted in two cities on the southeastern coast of the DR: Santo Domingo and La Romana. Santo Domingo is the capital and financial center of the DR and has an estimated population of 2.2 million people; La Romana has a population of approximately 250,000 and its surrounding areas are home to resorts for international tourists and Haitian-descendent communities (i.e. *bateyes*) who work on the area's sugar cane farms. (Consejo Nacional de Poblacion y Familia, 2010). These cities were selected due to the capacity of medical personnel and institutions in those cities and because both have higher HIV prevalence than the national prevalence (DIGECITSS, 2014).

The HIV epidemic in the DR is characterized as ‘concentrated’ since there is a low general prevalence (0.8%) and the HIV transmission occurs primarily among certain key populations (CESDEM & Macro International Inc., 2014; UNAIDS, 2013). According to 2010 modeling estimates, HIV in the DR is almost exclusively transmitted sexually: 65.9% of cases are transmitted due to heterosexual sex, 33.3% due to homosexual sex (UNAIDS et al., 2010). The key populations include female sex workers (regional prevalence between 1.7% and 6.3%) , men who have sex with men (3.9%-6.9%), and drug users (1.3%-6.2%) (DIGECITSS, 2014). Other important populations include male sexual partners of female sex workers and residents of *bateyes* (i.e. poor Haitian descendent communities situated near sugar plantations) (Halperin et al., 2009; Rojas et al., 2011). The 2013 Demographic and Health Survey found an HIV prevalence of 1.9% among men who reported ‘paying for sex’ in the past 12 months (CESDEM & Macro International Inc., 2014) but this does not fully capture the actual population of male sexual partners of female sex workers since many male partners of female sex workers do not specifically pay for sex (Murray et al., 2007). The latest prevalence estimates from *batey* communities were conducted in 2013 and indicate that 2.6% of men living in these communities are living with HIV (CESDEM & Macro International Inc., 2014).

Prior to the parent study, a mixed methods acceptability study was conducted within La Romana and the surrounding area (Brito et al., 2009; Brito et al., 2010). In focus groups with community members, both men and women mentioned that discomfort and pain related to the foreskin was a problem for some men in their community. The majority of women thought that circumcised men experienced more pleasure during sex and thought that a circumcised penis was cleaner and more appealing (Brito et al., 2010). Most men thought that women preferred *uncircumcised* men because they enjoyed the foreskin. Almost all men and women acknowledged the potential for increased hygiene associated with getting circumcised (Brito et al., 2010). Nearly



half of men in the survey sample (46%) thought that being circumcised would reduce sexual pleasure (Brito et al., 2009). In multivariate analysis, the two most significant correlates of men's willingness to be circumcised were thinking that circumcision improves hygiene and *not* thinking that circumcision decreases sexual pleasure (Brito et al., 2009).

For the current study, we used both qualitative and quantitative data to gain multiple perspectives on the interrelationship between circumcision, sexual performance, and masculinity (Creswell & Plano Clark, 2011; Guest & Fleming, 2014). To design our study, we considered Guest & Fleming's (2014) three dimensions of the integration for mixed-methods research: timing, weighting, and purpose. For timing, we collected our qualitative and quantitative data simultaneously, conducted separate but concurrent data analyses, and integrated findings in the final analytic phase. For weighting, we placed equal emphasis on both qualitative and quantitative data and finding from the start of our project. Finally, for purpose, we used both qualitative and quantitative methods in an effort to triangulate findings and have a richer understanding of the topic than what could be obtained from one single method.

#### *Recruitment, Data Collection, and Analysis*

We use data from quantitative surveys conducted with all men receiving VMMC and data from in-depth interviews conducted with a sub-sample of these men. The parent study used referrals and community outreach to find men who were 18-40 and were willing to undergo a circumcision. To reach a sample at heightened risk for HIV, female sex workers in both sites were asked to refer their sexual partners and in La Romana one recruiter was dedicated to recruiting men from nearby *bateyes*. Men were given informational materials about circumcision and invited to a short educational talk at the clinic where they learned more about the procedure and its benefits. If men chose to enroll, they came to the clinic three times: (1) the first visit included informed consent, baseline survey, HIV testing and counseling, and the circumcision procedure, (2) the second visit was

conducted seven days after the circumcision to ensure proper healing, and (3) the third visit occurred between 6 and 12 months after the circumcision and included HIV testing and counseling, a follow-up survey, and – for a small proportion of men – an in-depth interview. A total of 454 men were enrolled and circumcised between January 2013 and March 2014. Final follow-up occurred between July 2013 and February 2015. Men were reimbursed for their travel for each clinic visit (approximately 10 USD).

*Survey data collection and analysis:* We conducted one survey at baseline (prior to being circumcised) and one during the men's routine visit 6-12 months after their circumcision. Of the 454 men enrolled, 92 men were lost to follow-up and 69 were not asked masculinity-related survey items because the items were added after follow-up visits were initiated. Since our analysis for this paper relies exclusively on the follow-up survey data, our analytic sample has 293 men with complete data on key variables of interest. Both baseline and follow-up surveys included sections on demographic information, sexual behaviors, other HIV risk behaviors, problems with sexual performance, and opinions related to circumcision. The follow-up survey additionally included sections on adverse events, sexual satisfaction and performance post-circumcision, and questions related to men's concern about demonstrating masculine characteristics.

Our quantitative analyses use the following question as the dependent variable ('Feeling more masculine post-circumcision'): 'Compared to before being circumcised, do you feel (a) much more of a man, (b) a bit more of a man, (c) the same, (d) a bit less of a man, (e) much less of a man.' For bivariate/multivariate analyses, we define 'feeling more masculine post-circumcision' as answering either 'much more of a man' or 'a bit more of a man.' We conduct bivariate and multivariate logistic regression analyses examining factors associated with feeling more masculine in an effort to complement findings related to masculinity and sexual performance from the in-depth interviews. We use five independent variables in the bivariate and multivariate analyses based on

preliminary findings from the qualitative analysis: (1) experienced problems during sex before circumcision, (2) has more potent erections post-circumcision, (3) has more frequent sex after circumcision, (4) felt much more capable to please partner sexually, and (5) concern about demonstrating masculine characteristics. Measurement of the first four independent variables related to sexual performance are binary yes/no variables. To assess men's concern about demonstrating masculine characteristics, we used a modified version of the Gender Role Conflict/Stress (GRC/S) scale (Eisler & Skidmore, 1987; Gottert, 2014; O'Neil et al., 1986). After factor analysis, our GRC/S scale was unidimensional with 17 items and Cronbach's alpha of 0.75. Response options for each item was 0=disagree, 1=somewhat agree, and 2=strongly agree and we used a sum score to assess each man's GRC/S. A higher score on the GRC/S scale represents greater concern demonstrating masculine characteristics. For analyses in this paper, we use a standardized score where the mean is 0 and standard deviation is 1. (More details on this scale are presented in Chapter 5). All quantitative analyses were conducted using SAS version 9.4 (SAS Institute Inc., 2014).

*In-depth Interview data collection and analysis:* Between May and June 2014, 30 men were interviewed by the first author (PJF) in Spanish using a semi-structured interview guide when they came for follow-up visits. The interviews included three sections: (1) decision-making process related to circumcision, (2) changes, including changes in sexual performance, experienced post-circumcision, and (3) perceptions of norms of masculinity in the DR, and (4) concerns about demonstrating masculine characteristic.

Qualitative data analysis was iterative (Gibbs, 2007), starting with the completion of the first interviews and continuing throughout the data collection process. After each interview, the interviewer (PJF) wrote field notes about the interview and notable things the participant said or did (Emerson et al., 2011). Interview questions and probes were modified during the data collection process in response to prior interviews.

Audio recordings of each interview were transcribed verbatim in Spanish by trained Dominican transcriptionists (McLellan et al., 2003). PJF read each transcript while listening to audio to identify key themes and stories. For each participant, PJF wrote descriptive analytic summaries based on the qualitative data, demographic characteristics, and observations of the interviewer (Sandelowski, 1995). This analytic summary included a description of the participant's comments related to reasons for getting circumcised, changes in sexual performance post-circumcision, concerns about sexual performance, and his feelings of masculinity post-circumcision. This process served to contextualize findings within the life of each participant and integrate data sources.

Subsequent to writing analytic summaries, we developed a codebook with deductive codes derived from the interview guides and inductive codes based on themes/ideas identified throughout the data collection and preliminary analysis process (Gibbs, 2008b). For example, deductive codes included 'meanings of manhood' and 'sex post-circumcision' and inductive codes included 'lasting longer' and 'pleasing partner.' We coded the transcripts using the Atlas.ti software (Atlas.ti, 2012). The code outputs for key themes were used to deepen our understanding of and systematically assess the ideas that emerged in the analytic summaries. We looked at codes by participant to ensure our narratives were accurately portraying the participant, and codes across participants to examine overarching ideas conveyed by our sample population. Using the summaries and code outputs, we prepared matrices for the analysis of patterns across the study population and for comparisons between sub-groups (for example, older men vs. younger men, married vs. single, La Romana vs. Santo Domingo) (Miles & Huberman, 1994). We integrated memo writing throughout the process to facilitate the interpretation of the data and to provide an audit trail of how the data were interpreted (Saldaña, 2009). After reviewing all memos, analytic summaries, coding reports, and matrices, we examined how findings from the qualitative data compared to quantitative findings. Results from the in-depth interviews are described below using illustrative quotes (with

pseudonyms) to highlight certain findings and more fully understand findings from the quantitative analyses.

#### *Ethics statement*

All participants provided informed written consent to participate in each component of this research study. All study procedures and protocols were approved by the Institutional Review Boards at the University of Illinois at Chicago, The University of North Carolina in Chapel Hill, and the Instituto Dermatológico Dominicano y Cirugia de Piel “Dr. Huberto Bogaert Díaz” in Santo Domingo, DR.

### **7.3 Results**

Demographic characteristics of our quantitative sample (n=293) and our qualitative subsample (n=30) are presented in Table 7.1. We found that the vast majority of men expressed positive changes in sexual performance and ability to satisfy sexual partners after being circumcised and many men connected these feelings with increased feelings of masculinity. We begin by reporting evidence from the quantitative analyses and then use findings from the qualitative data to better understand these relationships.

**Table 7.1** Men's Socio-Demographic characteristics from analytic sample (n=293) and in-depth interview sub-sample (n=30)

	Total follow-up sample (n=293)		In-depth Interview sub- sample (n=30)	
	n	%	n	%
Study Site				
<i>Santo Domingo</i>	157	54	15	50
<i>La Romana</i>	136	46	15	50
Age in years				
<i>18-24</i>	127	44	12	40
<i>25-29</i>	72	25	8	27
<i>30-34</i>	51	17	4	13
<i>35-41</i>	42	14	6	20
Education				
<i>Primary or less</i>	48	16	5	17
<i>Secondary</i>	232	69	22	73
<i>University</i>	44	15	3	10
Employment status				
<i>Employed</i>	212	73	21	70
<i>Unemployed</i>	33	11	5	17
<i>Student</i>	47	16	4	13
Marital Status				
<i>Married</i>	41	14	5	17
<i>Single, with a partner</i>	148	51	16	53
<i>Single, without a partner</i>	103	35	9	30
Reported problems with penis pre-circumcision	95	32	8	27

Men surveyed at follow-up reported on their concern about fulfilling masculine norms of sexual performance (see Table 7.2). Eighty-one percent of men strongly agreed that '*I'd worry if a sexual partner said that she wasn't satisfied*,' 77% strongly agreed that '*Being good in bed is part of being a successful man*,' and 90% strongly agreed that '*Being able to function sexually is important to me as a man*.' These items come from the GRC/S scale.

**Table 7.2** Men's concerns about sexual performance from follow-up survey, n=293

Items	Disagree		Somewhat agree		Strongly Agree	
	n	%	n	%	n	%
<i>It's important to me to know that I can sexually please my partners</i>	0	0	3	1	290	99
<i>Being good in bed is part of being a successful man</i>	25	9	43	15	225	77
<i>I'd worry if a sexual partner said that she wasn't satisfied</i>	20	7	37	13	236	81
<i>Being able to function sexually is important to me as a man</i>	7	2	23	8	263	90
<i>I think that I should always be ready to have sex with my partner, even if I'm tired.</i>	70	24	68	23	155	53
<i>I worry about not being able to get aroused sexually when I want to</i>	43	15	53	18	195	67
<i>Having a girlfriend or wife is part of my idea of a successful man</i>	53	18	44	15	196	67

Note: These items come from the Gender Role Conflict/Stress scale

Most men perceived an increased ability to fulfill these sexual norms after being circumcised (see Table 7.3). Eighty-nine percent of men surveyed at follow-up reported '*greater ability to pleasure my partner*' compared to before being circumcised. Of those who reported greater ability, 50% said it was because they can now last longer between penetration and ejaculation, 46% said it is because their partner believes the man's penis is more hygienic, and 21% said it is because their female partner feels like their penis is bigger now (note: more than one response was permitted). Fifty-eight percent of men said their erections are more potent now and about half of men (51%) reported that they are having more frequent sex after they were circumcised than before. Forty-one percent of men reported that, compared to before being circumcised, they now felt more masculine post-circumcision.

**Table 7.3** Men's perceptions of sexual performance post-circumcision, follow-up survey (n=293)

	n	%
Penis sensitivity post-circumcision		
<i>More sensitive post-circumcision</i>	159	55
<i>Same as before</i>	53	18
<i>Less sensitive post-circumcision</i>	78	27
Female partner is 'very satisfied' with circumcision	238	88
How do you feel about your abilities to pleasure your partners?		
<i>More capable post-circumcision</i>	248	89
<i>Same as before</i>	29	10
<i>A bit less able post-circumcision</i>	2	1
Reasons for greater ability to pleasure partner		
<i>Reason: Lasts longer*</i>	125	50
<i>Reason: Partner thinks penis is more hygienic*</i>	115	46
<i>Reason: Partner thinks penis feels bigger*</i>	52	21
Enjoys sex more post-circumcision	188	70
Feels that erections are more potent post-circumcision	171	59
Has more frequent sex post-circumcision	141	51
Feelings of masculinity post-circumcision		
<i>A bit more masculine post-circumcision</i>	119	41
<i>Same as before</i>	167	58
<i>Less masculine post-circumcision</i>	1	0

\*This was only asked of the subset of men (n=248) who reported greater ability to pleasure partner

We examined how these feelings of masculinity after circumcision were associated with concerns about being perceived as masculine and self-perceived changes in men's sexual performance (see Table 7.4 for bivariate and multivariate analysis results). In multivariate logistic regression – controlling for demographic variables – feeling more masculine post-circumcision was significantly associated with reporting more potent erections after circumcision (OR=2.25, 95% CI: 1.26-4.03), increased ability to satisfy their partner (OR=2.30, 95% CI: 1.11-4.77), and greater Gender Role Conflict/Stress (OR=1.70, 95% CI: 1.25-2.32). Men who reported pain or other issues prior to being circumcised had greater odds of feeling more masculine post-circumcision, though



this relationship was marginally non-significant in the multivariate analysis (OR=1.95, 95% CI: 0.97-3.89). Having more frequent sex post-circumcision was associated with feeling more masculine in the bivariate analyses, but the relationship was attenuated and non-significant in the multivariate analysis (OR=1.41, 95% CI: 0.80-2.49).

**Table 7.4** Bivariate and multivariate correlations with feeling more masculine post-circumcision, n=293

	<i>BIVARIATE</i>			<i>MULTIVARIATE</i>		
	OR	95% CI	<i>p</i>	AOR*	95% CI	<i>p</i>
<i>Experienced problems during sex before circumcision</i>	1.78	0.99-3.19	0.05	1.95	0.97-3.89	0.06
<i>Erection more potent post-circumcision</i>	2.50	1.54-4.06	<0.01	2.25	1.26-4.03	<0.01
<i>Has more frequent sex now</i>	2.01	1.25-3.25	<0.01	1.41	0.80-2.49	0.24
<i>Much more capable to please partner</i>	3.27	1.77-6.04	<0.01	2.30	1.11-4.77	0.03
<i>Gender Role Conflict/ Stress</i>	1.71	1.33-2.20	<0.01	1.70	1.25-2.32	<0.01

We analyzed our in-depth interview data to further explore the factors associated with feeling more masculine after being circumcised. We found that the concepts represented by our independent variables – having experienced problems during sex before circumcision, reporting an improved erection, having more frequent sex, and feeling more capable to please a partner – were all interrelated and connected to masculine norms of sexual performance and satisfying one’s partner. Comments by Cesar, 32-years-old, exemplify the connections between these concepts for men after being circumcised:

*“I feel more confident now when I’m making love...I mean, I feel like more of a man, I feel better, yeah, because I know that I’m going to be able to do it well, I’m not afraid that I’ll get raw skin [on my penis]...Us Dominican men always want the woman to feel good during sex, there are many guys that don’t last long enough and the girls don’t like that.”*

As noted in Chapter 5 and 6, ability to sexually satisfy sexual partners is a key characteristic of masculinity. Cesar reports that the changes he experienced due to the circumcision increase his capacity to satisfy partners and he feels more masculine as a result. Below, we explore in greater

depth how changes in sexual performance were connected to circumcision and their ability to satisfy partners.

Some men felt improved sexual performance after circumcision because they said it fixed problems they were having prior to being circumcised. Denny, a 22-year-old with a long-term girlfriend, described a common complaint pre-circumcision mentioned by many men in the in-depth interviews:

*"I felt a bit uncomfortable because sometimes that little thing, the piece that connects to the foreskin [frenulum] hurt me sometimes...but now it's good, now it doesn't get raw or anything, it doesn't hurt me."*

This type of pain or discomfort during sex was commonly described and interrupted men's sex lives. Edwin, 39-years-old, said, *"There were times that we couldn't have sex because it was bothering me."* Other men described occasionally abstaining from sex or pausing sex because of this irritation or pain. Men with these problems pre-circumcision felt anxiety about their inability to consistently perform sexually and reported that being circumcised enabled them to overcome these issues and improve their ability to satisfy their sexual partners.

Feeling like erections are more potent was also associated with feeling more masculine post-circumcision and may be related to changes the men and their partners felt related to how the penis felt and looked. Several men mentioned that they and their partners perceived the penis to be larger after the circumcision. Benito described his girlfriend's enthusiasm:

*"She tells me that she loves it and why didn't I do it sooner!...She told me that my penis is much bigger now...And I was like, wow, ok, that's good, but I know that it's just a visual effect."*

Most men, like Benito, recognized that any perceived growth in their penis was just a 'visual effect' related to the new shape of the penis. Nonetheless, the men who perceived that their penis was bigger (or whose partners perceived it was bigger) were thrilled about this change. Other men expressed that their partners felt a different and better sensation during vaginal sex after the

circumcision. Santo, 22-years-old, describes his partner's feelings: *"She tells me that she can feel it deeper, I can penetrate her better."* In both cases, men reported that these factors increased their perceived ability to satisfy their partners and made them feel better about themselves which in turn increased their feelings of masculinity.

In addition to size, throughout in-depth interviews, men indicated that sexually satisfying a female partner required being able to last sufficiently long between penetration and ejaculation. Men were concerned with this metric and many men connected this to circumcision status. Emilio, 21-years-old, described his own experience:

*"That skin [the foreskin], you know, it went back and forth and that made me ejaculate a bit faster. That made me feel bad sometimes...I worried about my partner, and also I felt bad about myself...yeah, because I ejaculated too quickly, I felt like I wasn't giving enough pleasure to my partner."*

Emilio, like others, perceived that the friction due to the movement of the foreskin – in combination with friction from their partner's vagina – contributed a quicker-than-desired ejaculation. About half the men in in-depth interviews reported that they felt they could last longer during sex after being circumcised (the other half noticed no difference). These men were happy with this result because they felt it increased their ability to satisfy their partner by bringing her to orgasm. Jorge, a 36-year-old married man, described the difference for him before and after the circumcision:

*"Before, I would ejaculate quickly, I didn't last very long. But now, no, now I can last a while until I come [ejaculate/ orgasm], and sometimes I'll come with my partner, I mean, together, we'll come together. And sometimes, she'll come before I do and I still haven't come! I mean, in that sense I feel very different from what I used to be."*

Jorge reported with pride his ability to bring his wife to orgasm before he himself had an orgasm.

This same idea was reflected in the comments of other men. Bernardo, 40-years-old, commented on

his new abilities by saying, “*I don’t feel like I’m with that fear anymore that I can’t last as long as I want to.*”

For many of the men interviewed, they described that becoming circumcised lessened their fears of not being able to last long enough during intercourse and increased their perceived ability to satisfy their partners.

While having more potent erections and lasting longer made men feel more masculine because it increased their ability to sexually satisfying partners, reports of having more frequent sex made men feel more masculine because it emphasized the strength of their sex drive. According to the in-depth interviews, men reported more frequent sex because they had more regular sex with main partners. Edwin, 39-year-old, describes why sex has increased in frequency with his wife:

*“[Sex is] more frequent...you know, it’s like there’s a stronger sensation, there’s greater sensation and you feel more turned on. And, according to your desire, that’s when you’ll do it [have sex]. I mean, now I’m feeling more desire after being circumcised.”*

Like Edwin, other men similarly felt this increased sexual desire. Most men explained that this was due to the fact that their penis was no longer covered in foreskin and they were still adjusting to the increased sensation of having their uncovered penis rubbing against their underwear. Hector explains that he has more sex now because “*now my penis is just always ‘up,’ more than before, its more happy* (laughter).” This may have additionally contributed to men’s feelings that their erections are more potent after being circumcised since they were more prone to frequent erections. A few men also enthusiastically reported that their increased frequency of sex was because their female partners were initiating sex more often post-circumcision because of their preference for their partners newly circumcised penis. In many cases, the men described that their increased hygiene (e.g. less odor and discharge from the penis) after circumcision made their partners desire sex with them more.

Finally, men who were more concerned about demonstrating masculine characteristics (i.e. greater Gender Role Conflict/Stress) were also more likely to report feeling more masculine post-

circumcision. As described in Chapter 6, demonstrating masculinity requires successfully competing with male peers and avoiding instances of humiliation. Luis, a 21-year-old unmarried man, described his concerns about sexual performance in terms of competition with male peers:

*“Imagine that you don’t have the sexual potency to satisfy a women, that’s tough! Yeah, that is worrying. Sometimes you hear so-and-so saying, ‘no, I did this and that and I lasted a half hour [having sex], I lasted 20 minutes.’ [and you think] ‘So-and-so lasted a half hour? But I can’t even last 5.’ So you worry and try to figure out what’s going on, what’s the normal time to last? Or, if you don’t measure up, why can’t I last a normal amount of time?”*

By worrying about comparisons with male peers, Luis is expressing a concern about being able to demonstrate masculine characteristics and successfully compete with peers. Hector, 28-years-old, emphasizes that humiliation – a key barrier to successful competition with peers (see Chapter 6) – is associated with poor sexual performance: *“You’ll feel bad, a bit humiliated, because you can’t give her what she needs, the orgasm that she wants.”* Men with greater concern about demonstrating masculine characteristics are particularly concerned about successfully competing and avoiding instances of humiliation. Thus, the in-depth interviews suggest that men with greater concern are more likely to report feeling more masculine post-circumcision due to perceived improved sexual performance which affords them greater confidence to successfully compete and avoid being humiliated.

## **7.4 Discussion**

We found that it was common for men to feel more masculine after receiving VMMC for HIV prevention and that increased feelings of masculinity were related to (a) perceptions of improved sexual performance and (b) men’s concern about demonstrating masculine characteristics. These findings are the first to demonstrate the strong link between being circumcised for HIV prevention, sexual performance, and feelings of masculinity. Below, we discuss interpretations of our findings and implications for future work.

Our study emphasizes that men's experience of circumcision is often shaped through the lens of masculinity. The parent study recruited men by advertising that circumcision can help reduce HIV transmission. However, many men's satisfaction with the circumcision was because of perceptions of improved sexual performance or resolved medical problems they were having that were impacting their sexual relationships. These factors – all relevant to men's ability to adhere to masculine norms of sexual performance – were important to men's willingness to participate and positive impressions of receiving a VMMC. Recruiting men into public health programming is often a challenge for public health researchers and practitioners (Fleming et al., 2015; Villa-Torres et al., 2015). Other public health interventions targeting men may need to take note of how masculine norms shape how men's willingness to participate and satisfaction with an intervention. Masculinity is a powerful influence in men's lives and how an intervention increases men's ability to fulfill masculine norms may be more important to men's participation and satisfaction than an intervention's intended public health goals (i.e. HIV prevention).

Our findings related to men's perceptions of improved sexual performance must be contextualized within previous empirical research on men's sexual performance after being circumcised. There is scant evidence to suggest that men's improved sexual performance post-circumcision (e.g. more potent erections, increased sexual desire, and increased time to ejaculation) is caused by the removal of the man's foreskin. A systematic review of rigorous clinical studies and a separate meta-analysis indicate no significant differences in time to ejaculation, premature ejaculation, or sexual desire between circumcised men and uncircumcised men (Morris & Krieger, 2013; Tian et al., 2013). There is significant social meaning attached to the penis and its performance during sex (Castro-Vázquez, 2013a; Reeser, 2010; Richters, 2006) and thus men's sexual performance following VMMC is more complex than the simple removal of one's foreskin. How men experience VMMC is shaped by social factors such as norms of masculinity that establish the

penis as the embodiment of masculinity and define sexual performance expectations for men (Connell, 1995; Richters, 2006). ‘Lasting longer,’ penetrating deeper, sexual desire, and having potent erections are characteristics of masculinity in most societies due to their association with partner’s sexual satisfaction (Castro-Vázquez, 2013c; Connell, 1995; Gilmore, 1990; Herold et al., 2001; Khan et al., 2008; Mlewa, 2013; Senkul et al., 2004). These norms may cause men to be more likely to notice and embrace subtle changes they experience after VMMC as a strategy to ease their own masculinity-related anxieties. Additionally, men who are especially concerned about demonstrating masculine characteristics – including satisfying sexual partners – may be more likely to identify and look for changes experienced after being circumcised. Reported changes in sexual performance are perceived to be real and dramatic because masculine norms emphasizing sexual performance are shaping the way men perceive, interpret, and experience VMMC.

Men’s experiences of sexual performance after VMMC may also be significantly shaped by existing discourse or beliefs related to circumcision. According to the formative research, men who were willing to become circumcised were less likely to believe that circumcision decreased sexual performance (Brito et al., 2009). Thus, the men we interviewed may have been primed by previous beliefs to expect that their sexual performance would be the same or improved. Some men’s perceptions of increased sexual performance may have been similar to a placebo effects where expectations shaped results (Stewart-Williams & Podd, 2004). Given men’s expressed concerns related to sexual performance, VMMC programs for HIV prevention should take care to understand and manage men’s expectations related to sexual performance (for both potential and actual VMMC clients). Additionally, since improved sexual performance has the potential to lead to increased risk behaviors (e.g. multiple sexual partners), programs need to incorporate potential changes in sexual performance into risk reduction counseling that men routinely receive as part of VMMC programs.

Men in our study overwhelmingly perceive circumcision to be a benefit for their sexual

performance. But, should VMMC recruitment efforts tout improved sexual performance? We believe that VMMC programs should avoid using such an approach. First and foremost, public health campaigns that emphasize norms of masculinity related to sexual prowess and conquest can serve to reinforce the same norms that encourage men to have multiple sexual partners (Fleming et al., 2014b). This could potentially result in risk compensation and increase men's risk for HIV. As our data indicate (and the data presented in Chapter 5 and 6), men already have anxiety about sexual performance and VMMC programs should not reinforce these concerns. Second, as described above, the expressed changes in sexual performance described by the men are subjective. Thus, men who seek a circumcision in an effort to improve sexual performance may be disappointed when their own subjective opinion differs. Third, messaging that emphasizes increased sexual performance for men who are circumcised may serve to stigmatize men who choose not to be circumcised. While the goal may be to increase the number of men seeking a circumcision, this should not be done at the expense of men who exercise their right to choose to not undergo a circumcision.

While VMMC programs should not emphasize increased sexual performance in recruitment efforts, our study does highlight several elements that could help improve recruitment efforts. Men were extremely concerned about their sexual performance and capacity to satisfy their partners. While it is possible that this is specific to the Dominican context, there is evidence that this is true across a variety of settings (Gottert, 2014; O'Neil et al., 1986). VMMC recruitment should attempt to assuage any fears men may have about circumcision *decreasing* sexual performance and function. Additionally, given men's concerns about their partner's perceptions, female partners may be an especially influential voice to convince men to be circumcised. Finally, our previous research has shown that men with a reputation of being able satisfy their partners are sought-after as sexual partners and may have more sexual opportunities (see Chapter 6). Men in our study reported having more frequent sex. In most cases this referred to more frequent sex with their main partner, but



there were cases of men in our study who increased their number of partners (though this is not necessarily increased risk for HIV since men used condoms with these new relationships). Some studies of VMMC have shown that a small number of men go through a process of ‘experimentation’ after VMMC that may increase their risk (Grund & Hennink, 2012; Riess et al., 2010). VMMC programs should consider modifying their standard HIV counseling to incorporate elements that help men challenge masculine norms that emphasize experimentation and multiple partners (e.g. gender-transformative programming (Dworkin et al., 2015; Dworkin et al., 2013)).

### *Limitations*

While our study is the first to conduct an in-depth mixed-methods examination of the links between VMMC, sexual performance, and masculinity, there are several limitations to note. First, these findings are limited to men who receive VMMC in the context of an HIV-prevention intervention and had received their VMMC relatively recently (within 6-12 months prior). Second, our findings depend upon men’s self-reported perceptions and experiences which are subject to social desirability bias. Third, like other VMMC studies (Bailey et al., 2007), men with previous problems during sex constituted an outsized proportion of our sample (32%). Our analyses on the association between feelings of masculinity and improved sexual performance controlled for this characteristic, but this sub-sample of men may vary in other ways that influenced our overall findings. Finally, the masculine norms and experiences post-circumcision described by men in this study are not generalizable to men in other countries; while there are similarities in masculine norms across contexts, research would need to be conducted in other settings to determine if our findings are transferrable.

## **7.5 Conclusion**

Considering the dynamics between VMMC, sexual performance, and norms of masculinity reveals important relationships to consider when conducting VMMC programs for HIV prevention

and other sexual health interventions with men. Future research needs to continue to explore how masculinity shapes men's engagement with and experiences of public health programming. Engaging men within public health programming – an important pursuit for improving population health – requires thorough examination of the interaction between interventions and masculinity to design programs that appeal to a broad spectrum of men.

## **CHAPTER 8: DISCUSSION & CONCLUSIONS**

In this dissertation, I explored how masculine norms and concern about portraying masculine characteristics contribute to HIV vulnerability among men enrolled in a circumcision feasibility trial in the DR. In this section, I first review findings from the dissertation, then acknowledge study limitations, and finally discuss directions for future research and practice.

### **8.1 Summary of Findings**

Overall, I found that men's HIV vulnerability is shaped by masculine norms and their concerns about demonstrating masculine characteristics. Sexual performance (e.g. satisfying sexual partners) was a key way that men could demonstrate their masculinity. Masculine norms encouraged men to compete with one another for social status. Demonstrating masculine characteristics – such as successful sexual performance – was a key way to gain social status. Men were especially concerned about being humiliated in front of others because of the implications for losing social status. Both the qualitative and quantitative evidence showed that the more concerned a man was about demonstrating masculine characteristics the more likely he was to adopt sexual behaviors that put him at risk for HIV. Many men felt that receiving a voluntary medical male circumcision helped them demonstrate masculine characteristics because it allowed them to improve their sexual performance. Taken together, these findings emphasize that men demonstrate their masculinity through their sexual behaviors and their concern about demonstrating masculine characteristics to their social network drives men's HIV-related behaviors.

In Chapter 5, I present evidence that the theoretical concept of masculine gender role strain – and the empirically measurable construct of Gender Role Conflict/Stress – is an important concept to consider when studying men's sexual behaviors. Men expressed the greatest GRC/S for

items from the scale that were related to sexual function, performance, or prowess and relatively little GRC/S related to expressing emotions, powerful women, or being seen as physically weak. Men's GRC/S score was significantly associated with several HIV risk behaviors, including number of sexual partners, inconsistent condom use with non-steady partners, and drinking alcohol at last sex. Findings from my analyses, together with the findings from Gottert et al. (2014) and Reidy et al. (Reidy et al., 2015), indicate that men's concern about demonstrating masculine characteristics is associated with men's sexual behaviors.

In Chapter 6, I showed that men modify their behaviors (e.g. violent, sexual) and interactions with peers to compete with other men and avoid criticism and humiliation. In men's lives, competition for status – and more specifically fear of being humiliated and losing status – was critical to the ways in which men's behaved. Men also highlighted that their performance of masculinities depended on their social context. Men did not perform a singular coherent configuration of masculine behaviors, but rather men adapted to each context and varied their performance of masculinity based on their perceptions of how others would respond. The varied and conflicting norms of masculinity facilitated masculine gender role strain and left men especially vulnerable to instances where other men challenged their social status or aimed to humiliate them. Men developed defensive strategies (e.g. shifting behaviors, lying, violence) to maintain their tenuous claim on their masculinity and avoid losing status or being humiliated. Those men who failed to demonstrate their masculinity – including being humiliated – grasped for simple responses such as sex with a new partner or perpetrating violence in order to emphasize their masculinity.

Chapter 7 explored the link between VMMC for HIV prevention, sexual performance, and feelings of masculinity. Men's concern about demonstrating masculine characteristics through their sexual performance played an important role in their experience of being circumcised. Most men's satisfaction with the circumcision was because of perceptions of improved sexual performance (e.g.

ability to ‘last longer,’ more potent erections) or resolved medical problems they were having that were impacting their sexual relationships. These factors – all relevant to men’s ability to portray masculine characteristics of sexual performance – were important to men’s willingness to participate and positive impressions of receiving a VMMC. It was common for men to feel more masculine after receiving VMMC for HIV prevention. Additionally, increased feelings of masculinity were related to (a) men’s concern about demonstrating masculine characteristics and (b) perceptions of improved sexual performance. Prevailing masculine norms related to sexual performance may cause men to be more likely to notice and embrace subtle changes they experienced after VMMC as a strategy to ease their own masculinity-related anxieties. Men who were concerned about demonstrating masculine characteristics such as satisfying sexual partners – as most men in our study expressed that they were – may have been more willing to exaggerate changes experienced after being circumcision. This does not mean that men were lying about their perceptions of sexual performance, but rather that masculine norms are shaping the way men perceived, interpreted, and experienced VMMC. My findings emphasize that men’s experience of circumcision is shaped through the lens of masculinity and that circumcision programs need to address masculine norms as part of the package of services offered to men who receive a VMMC.

## **8.2 Study Limitations**

While the research has many strengths, these findings should be considered in light of certain limitations. We used a sample of men who were willing to undergo a VMMC. This sample may systematically differ from the general population of men, or even from the general population of men at-risk for HIV. Additionally, men who participated in the qualitative in-depth interviews are also part of the survey sample and so concordant findings between the two methods may be because it is the same population. Like most behavioral research on sex and sexuality, the data I used relies on self-reported sexual behaviors and descriptions of their lives. Men may have been influenced by

social desirability bias and reported behaviors that they felt that the interviewers wanted to hear. Finally, findings are not generalizable to men in other countries; while there are similarities in masculine norms across contexts, research would need to be conducted in other settings to determine if my findings are transferrable.

There are also several limitation related to the GRC/S scale and the findings should be interpreted with the following limitations in mind. The GRC/S was adapted from two previous scales that were not intended to be combined. They were combined for pragmatic reasons within the context of a research study in a low-resources setting. While I found that the scale used in this dissertation had adequate fit statistics (see Chapter 5), the multiple modifications from the original scales is less than ideal because it limits my ability to know precisely what construct is being measured. Additionally, GRC/S is intended to be a multidimensional scale (as are the Gender Role Conflict Scale and the Masculine Gender Role Stress scale) and thus my findings with the unidimensional version may be obscuring important differences in the relationship between HIV risk behaviors and certain sub-types of gender role conflict/stress.

### **8.3 Implications for future research and interventions**

In the discussion sections of Chapters 5, 6, and 7, I have provided specific recommendations based on each of the findings. This section focuses more broadly on how the field of public health can improve its work with men and better incorporate norms of masculinity into research and programming. Given that effective and innovative interventions rely on rigorous research, I begin by discussing gaps in the research on masculinity and health and then discuss future directions for interventions.

#### *Research gaps*

Gender and masculinity have not been fully embraced within the social determinants of

health<sup>18</sup> literature (Blane, 1995; Braveman et al., 2011). While gender is acknowledged as a social determinant of health, much of the work on the social determinants of health have focused on race/ethnicity, education, or income/wealth (Blane, 1995; Braveman et al., 2011; Wilkinson & Marmot, 2003). This dissertation, as well as several other studies (Barker, 2005; Connell, 1995; Flood, 2008), have highlighted the role of masculinity as a determinant of health since it shapes men's social status and access to health resources and opportunities. Thus, future research on the social determinants of health needs to improve understanding of norms of masculinity as a determinant of health outcomes.

One of the challenges of incorporating gender/masculinity more fully into work on the social determinants of health is the challenges of measuring this concept beyond simply the gender binary (male vs. female). Masculinity is a complex concept and accordingly researchers have utilized more complex measures (Smiler & Epstein, 2010). But, work on measuring this concept has mostly been limited to psychometricians and psychologists. While there are certainly exceptions, public health researchers – including social epidemiologists – have either avoided the concept or limited themselves to a single dimension (i.e. gender ideology) of masculinity (Archer, 2010; Pulerwitz & Barker, 2008). There is a need for social epidemiologists and other public health researchers to utilize and improve upon the broad range of psychometric scales on gender and masculinity that have been developed over the past three decades (Smiler & Epstein, 2010). Building the evidence base for masculinity as a social determinant of health will require incorporating these measures into survey research. Masculinity is a multi-faceted concept and pinpointing the aspects that contribute to harmful behaviors requires examining the concept from multiple angles. Policies and interventions are developed based on available evidence and focusing on a single dimension of masculinity

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<sup>18</sup> The World Health Organization defines social determinants of health as '*social determinants of health are the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels.*' (WHO, 2015)

constrains our field's ability to innovate. Findings from this dissertation (particularly Chapter 6), demonstrate that men's behaviors are influenced by their concern about demonstrating masculine characteristics. In Chapter 5, I started to explore the role that Gender Role Conflict/Stress plays in men's sexual behaviors, but there are other masculine dimensions that need to be explored. For example, competition for social status in particular creates social dynamics that facilitate men's risk behaviors. Future research needs to use measures – either currently existing or newly developed – that can explore these more nuanced aspects of masculinity.

While building the quantitative evidence for the role of masculinity in the health of communities is important to its widespread acceptance as a social determinant of health, qualitative research is also crucial to improving our understanding of how these relationships work. There is a need for in-depth ethnographic research to tease apart how men construct their masculine identity and better understand how contextual factors shape men's performance of their masculinity. Ideally this research would include participant observation to allow for understanding these dynamics within 'real-world' settings rather than relying solely on a participant's own description. A few notable ethnographies using both interviews and participant observation have explored these concepts (Gutmann, 2006; Padilla, 2008) and more examples could allow for comparisons across settings to gain a more global perspective on how these factors are working across settings. These types of qualitative research (e.g. participant observation, in-depth interviews, and focus groups) can shed light on specific social dynamics and provide clues for how public health might intervene with men.

This dissertation is one of the first studies to explicitly explore how masculinity influences men's experience of an intervention. Since masculinity has been shown to be an influential factor in men's lives, additional research needs to explore how masculinity influences men's willingness to engage in health programs and their satisfaction. The VMMC intervention is not explicitly trying to



change men's behaviors and thus this dissertation research could not explore how masculinity influences the success of an intervention. Future behavioral interventions could examine whether or men's gender ideology or GRC/S (or another dimension of masculinity) is a moderator for intervention effects. This research could help refine interventions to address masculinity-related factors that are preventing men from adopting the desired health behavior.

Finally, much of the exploration of masculinity in public health has adopted an individualistic approach and ignored the role of institutions. Social environments like the military, bars, or fraternities have been shown to facilitate risky behaviors (Flood, 2008; Mankayi, 2009; Mankayi & Vernon Naidoo, 2011; Michael A Messner, 1995). Understanding how these environments function and enforce norms of masculinity will be important to addressing men's health risk behaviors. Given that men in this dissertation described adopting harmful behaviors when within all-male environments, determining how these environments can be more supportive of healthy behaviors could be a key to interventions with men. Future research should explicitly explore institutional rules, policies and social dynamics of social institutions as well as other environments where men's harmful health behaviors occur.

#### *Future directions for interventions*

My findings provide further support for the need of gender-transformative interventions (Barker et al., 2010; Dunkle & Jewkes, 2007; Gupta, 2000). Gender-transformative interventions are focused on challenging harmful norms of masculinity and democratizing the relations between men and women (Dworkin et al., 2013; Gupta, 2000). Given that we find support for the influential role of masculine norms on men's HIV risk behaviors, gender-transformative interventions offer a specific strategy to tackle this root cause of men's HIV risk (Dworkin et al., 2015).

Interventionists need to modify gender-transformative interventions to allow for an intersectionality approach with men. Men's experience of masculinity depends on their class,

race/ethnicity, and other aspects of their identity (Bowleg et al., 2013; Crenshaw, 1991; McCall, 2005). It may be difficult to change men's behaviors if interventions are limited to only focusing on masculinity. Instead, it may be more fruitful to combine an emphasis on masculinity with also addressing aspects of poverty or racial discrimination. Together, such efforts could tackle multiple social determinants of health and more effectively make changes.

There is also a need for gender-transformative interventions to expand beyond simply focusing on shifting men's attitudes towards the role of women or making relationships between men and women more equitable. This dissertation highlights the importance of men's relationships with other men – and specifically competition amongst them – to their behaviors. Addressing this male hierarchy and breaking down beliefs that some men have greater worth than others could help address some of the social dynamics that are facilitating risk behaviors. Ultimately, interventions should connect social worth to gender-neutral characteristics like being kind or helping others, rather than masculine traits like aggressiveness or sexual prowess. These efforts may not eliminate men's competition but competition would be oriented around more positive characteristics that are not specifically masculine traits.

Finally, not every public health intervention can be gender-transformative. First, it is important that interventions do not reinforce harmful gender norms (Fleming et al., 2014b). Public health interventions should avoid messaging that implies that there is a correct way to be a man (e.g. 'Real men \_\_\_\_\_'). Additionally, those interventions that are not aiming to be explicitly gender-transformative should consider what role gender or masculinity might play in their health outcome. When gender/masculinity is a factor, these interventions could adapt programming to include principles from gender-transformative interventions. Indeed, researchers and interventionists that develop gender-transformative interventions need to ensure that their programs have key evidence-based elements that might be adapted and included into other interventions that do not have a focus

on gender/masculinity. To achieve this goal, interventionists developing gender-transformative approaches need to better understand which specific intervention tactics help to modify behaviors and package those tactics in ways that can be adapted across intervention settings. This important work would facilitate the spread of gender-transformative approaches into mainstream public health programming and thus reach a wider audience of men.

## APPENDIX A: GENDER ROLE CONFLICT/STRESS SCALE

1.	Es importante para mí saber que puedo dar placer sexual a mis parejas  It's important to me to know that I can sexually please my partners	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)
2.	Ser bueno en la cama es parte de ser un hombre exitoso  Being good in bed is part of being a successful man	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)
3.	Me preocuparía si una pareja sexual dijera que no está satisfecha  I'd worry if a sexual partner said that she wasn't satisfied	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)
4.	El poder funcionar sexualmente es importante para mí como hombre.  Being able to function sexually is important to me as a man	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)
5.	Creo que siempre debo estar dispuesto a tener sexo con mi pareja, aunque este cansado.  I think that I should always be ready to have sex with my partner, even if I'm tired.	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)
6.	Me preocupa no poder excitarme sexualmente cuando yo quiera.  I worry about not being able to get aroused sexually when I want to	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)
7.	Tener una novia o esposa es parte de mi idea de ser un hombre exitoso.  Having a girlfriend or wife is part of my idea of a successful man	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)

8.	Siento que necesito estar en control y ser responsable de los demás.  I feel like I need to be in control and be responsible for others	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)
9.	Me preocupa como los demás evalúan mi capacidad de mantener a mi familia.  I worry how others will evaluate my ability to provide for my family	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)
10.	Yo valgo como persona en la medida que puedo ganar dinero o encontrar trabajo.  I have value as a person depending on whether I can earn money or find work	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)
11.	Me preocuparía si mis amigos supieran que vivía con una mujer y que yo hacía los oficios en la casa.  I'd worry if my friends knew that I lived with a woman and I did the housework.	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)
12.	A mí no me gusta dejar que una mujer coja el control de una situación.  I don't like to let a woman take control of a situation	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)
13.	Tengo dificultad para encontrar las palabras que describan como me siento.  I have difficulty finding the words that describe how I'm feeling.	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)
14.	No me gusta mostrar mis emociones y mis sentimientos a los demás.  I don't like to show my emotions and my feelings to others.	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)
15.	Sería difícil para mí que alguien me viera llorando.  It would be difficult for me if someone saw my crying.	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)

16.	Mostrar afecto y cariño a otros hombres me hace sentir incómodo.  Showing affection or love to other men makes me feel uncomfortable.	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)
17.	Sentir que estoy en buena condición física es importante para mí como hombre.  Feeling that I'm in good physical condition is important to me as a man	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)
18.	Ser físicamente más fuerte que otros hombres es importante para mí.  Being physically stronger than other men is important to me.	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)
19.	Es importante para mí saber que puedo tomar tanto o más alcohol que los demás.  It's important for me to know that I can drink as much or more alcohol than others	1-Muy de acuerdo (Agree) 2-Un poco de acuerdo (Somewhat agree) 3-En desacuerdo (Disagree) 4-Rehusó de contestar (Refusal)

## APPENDIX B: QUALITATIVE INTERVIEW GUIDE FOR IN-DEPTH INTERVIEWS

### Estudio piloto de circuncisión: Republica Dominicana Male circumcision Pilot Study: Dominican Republic

#### Guía de entrevistas en profundidad *In-depth interview guide* Visita 6 meses después de la circuncisión *6 month post-operative visit*

Gracias por venir aquí para hablar conmigo. Durante esta entrevista, me gustaría hablar contigo sobre la experiencia en este estudio y preguntarte sobre tus ideas y sugerencias de como podemos mejorar nuestro trabajo en el futuro. Todo lo que nosotros hablamos hoy es confidencial; no te vamos a identificar con ningunas de las respuestas que comparta conmigo hoy.

*Thank you again for agreeing to participate in this interview. I would like to remind you that this interview is confidential and private and will not have any impact on your ability to access health services in the future.*

### **I. DECISION DE SER CIRCUNCIDADO**

#### ***Circumcision decision***

**Dime un poco sobre tu decisión de circuncidarte...**

1.1 ¿Como te enteraste sobre el circuncision?

*How did you first hear about circumcision?*

1.2 Como te enteraste del estudio?

*How did you find out about the study?*

1.3 ¿Por qué decidiste circuncidarse?

*Why did you decide to get circumcised?*

1.4 ¿Con quién hablaste sobre tu decisión?

*Did you tell people that you were going to get circumcised?*

1.5 ¿Qué te preocupaba sobre la circuncisión?

*Was there anything that worried you about getting circumcised?*

### **II. EXPERIENCIA CON EL ESTUDIO**

#### ***Experience with the study***

2.1 Cuéntame de tu proceso desde la primera visita hasta ahora...cuales fueron los diferentes pasos de este estudio

*Tell me about your experience getting circumcised here. Think back to the day you had the procedure and tell me about that day step by step.*

¿Como te sentiste el dia que te circuncidaron?

*How did you feel on the day of your procedure?*

¿Estabas nervioso? *Were you nervous or concerned about anything? Tell me more...*

¿Como te sentiste despues? *How did you feel after the procedure?*

2.2 ¿Como te sentiste de ir al clínica/hospital?

*How did you feel going to the clinic/hospital for the first time?*

2.3 ¿Habías visitado clínicas/hospitales/doctores antes? Cuéntame de su(s) experiencia anterior.

*Had you visited clinics/hospitals/doctors before? Tell me a bit about your previous experiences*

2.4 ¿Cómo fue el trato por las personas que te atendieron?

*How were you treated by the study staff, doctors, and nurses?*

2.5 ¿Cómo te sentiste sobre el estudio después del circuncisión?

*How did you feel about participating in the study after the circumcision?*

2.6 ¿Que tan satisfecho estas con tu participación en este estudio?

*How satisfied are you with your participation in the study?*

### **III. Experiencias despues de la circumcision**

#### ***Post-operative experiences***

Ahora, me gustaría preguntarte un poco sobre tu proceso de recuperación después de la circuncisión y tu vida en general desde que te circuncidaron.

*Now I would like to ask you a few questions about your recovery process after your circumcision and your life in general since you have been circumcised.*

3.1 Piense en los dias despues de la circumcision, ¿como te sentiste despues de la operacion? *Think back to the days after you were circumcised. How did you feel after the procedure?*

3.2 ¿Como te cuidabas? *How did you take care of yourself?*

¿Alguien te ayudó? *Did anyone help you?*

¿Te sentiste con mucho dolor? *Did you experience pain?*

¿Tuviste que regresar a la clínica por dolor, infección, u otros problemas? *Did you ever need to come back to the clinic because of pain, infection or other problems? Tell me more about this.*

3.3 ¿Ha cambiado algo en sus practicas higienicas desde que te circuncidaron?

*Has anything changed in your routine daily bathing and hygiene practices since you were circumcised?*

¿Algo ha mejorado? *Has anything improved?*

¿Algo ha cambiado a ser mas dificil? *Has anything become harder or created a problem for you?*



3.4 Now I would like to ask some more personal questions about your sexual life. Tell me about your sexual experience following your circumcision.

3.4.1 ¿Cuánto tiempo esperaste para tener sexo después de la circuncisión?

*How long did you wait to resume sexual relations?*

3.4.2 Dime un poco sobre la primera vez que tuviste sex después...

*Tell me a bit about the first time you had sex after being circumcised...*

3.4.3 ¿Como te sientes tener sex ahora? *How do you feel having sex now that it has been 6 months since your circumcision?*

3.4.5 ¿Ha cambiado tu experiencia sexual después de la circuncisión? ¿Cuáles son los cambios que te has notado?

*Has quality of your sexual experience with changed since you were circumcised? If so, tell me more about this.*

3.4.6 Dime un poco sobre tu pareja principal... ¿Cual es la opinión de ella acerca de la circuncisión?

*Tell me about your main partner...What does she think about the circumcision?*

3.4.4 ¿Ha cambiado la frecuencia de tener sexo? Explícame esta parte un poco más...

*Has the frequency of your sexual activity changed since you were circumcised? Tell me more about this...*

3.4.7 ¿Ha cambiado tu uso del condón? Cuéntame de esto...

*Has your condom use habits changed? Tell me more about this...*

#### **IV. Being a man in the Dominican Republic**

4.1 ¿Qué significa ser un hombre para ti?

*What does it mean to be a man?*

4.1.1 ¿Qué significa ser un tiguere?

*What does it mean to be a tiguere?*

4.1.2 ¿Qué tipos de hombres hay?

*What are the different types of men here?*

4.2 Dime algunas cosas que los hombres tiene que hacer para estar reconocidos como hombres..

*What are things that a man has to do for others to consider him a real man?*

4.3 ¿Cuál es tu opinión acerca de estas características que me mencionaste?

*What do you think about these characteristics? Do you agree with them?*

4.4 ¿Que tanto te preocupa los que puede decir la gente de ti acerca de \_\_\_\_\_

*(características claves que él mencione)?*

*How much do you worry about what other people might say about you related to \_\_\_\_\_ (characteristics previously mentioned)*

¿Los amigos?

¿Tu pareja?

¿La comunidad?

¿Tu familia?

*What your partner could say?*

*What your friends could say?*

*What your family could say?*

*What your community could say?*

4.5 Me puede dar un ejemplo de una vez cuando alguien se bromeó de ti sobre (*características claves*) y te sentiste molesto?

*Could you give me an example of a time when someone teased you about \_\_\_\_\_ and you were bothered by it?*

## **V. Sexual reputations**

4.1 Dime que dicen los hombres Dominicanos sobre la importancia de la capacidad de un hombre de dar placer sexual a una mujer...

*What do Dominican men say about the importance of a man being able to please a woman sexually?*

4.2 ¿De que hablan entre amigos sobre este tema?

*What do men say among friends about this topic?*

¿Se hacen chistes o relajos?

*Jokes?*

¿Tus amigos hablan de eso? ¿Cuéntame un poco....

*Do your friends talk about this? Tell me a bit about this...*

4.3 ¿Como se enteran la gente si un hombre no es bueno en la cama?

*How do people find out about the sexual reputation of a man?*

¿La pareja habla? ¿Con quién?

*His partners talk? With who?*

¿Has escuchado comentarios sobre la reputación de algunos de tus amigos/vecinos/conocidos?

*Have you heard any comments about the reputations of your friends/ neighbors/ acquaintances?*

4.4 ¿Qué tanto los hombres se preocupan por lo que dicen la gente acerca de eso?

*How much do men worry about what people say about this?*

¿Por qué se preocupan?

*Why do they worry?*

Alguna vez en tu vida, ¿has sentido preocupado por tu capacidad de dar placer sexual a una mujer?

*Have you ever felt worried about your ability to please a woman?*

4.5 ¿Su capacidad sexual fue una motivación para ser circuncidado? ¿Por qué?  
*Was being able to please women better a motivation to be circumcised? Why or why not?*

## **V. Promoción de circumcision**

### ***Promoting male circumcision in the DR***

5.1 Te recomendarías una circuncisión a otros hombres? Dime mas...

*Would you recommend this procedure to other men like you? Tell me more about why you would or wouldn't...*

¿Cuales consejos darías a otro hombre que iba a circuncidarse?

*What advice would you give to a man who was going to get circumcised?*

Para ti, ¿cuales son los beneficios de circuncidarse?

*What do you think are the benefits of getting circumcised?*

5.2 Si tuvieras un hijo, lo circuncidaría? Dime porque...

*Would you circumcise your own son? Tell me more about why or why not...*

5.3 ¿Cuales son la barreras principal que previene que los hombres se circuncidan?

*What do you think are the main barriers to getting circumcised for other men?*

5.4 ¿Cuales estrategias podemos utilizar para convencer a otros hombres como tu que deben circuncidarse?

*How do you think we can most effectively encourage other men like you to get circumcised?*

¿Como te responderías si alguien te dijo, 'los hombres machos no se circuncidan'?

*How would you respond to someone who says "real men don't get circumcised?"*

¿Crees que hay hombres que piensan así?

*Do you think many men would feel this way?*

5.5 ¿Como podemos convencer a hombres que tienen que usar un condón después de que se circuncidan?

*How do you think we can encourage men to continue using condoms to protect themselves and their sex partners from pregnancy, HIV/ AIDS and other STI even after they are circumcised?*

¿Tu crees que es importante? Dime mas....

*Do you think this is important? Tell me more...*

5.6 ¿Tu tienes alguna preguntas? Hay algo mas que tu quieres compartir?

*Do you have any questions? Is there anything else you would like to share?*

Muchas gracias por participar, nos ayuda mucho!

*Thank you very much for participating in this study.*

## REFERENCES

- Adair, T. (2008). Mens condom use in higher-risk sex: Trends and determinants in five Sub-Saharan countries. In USAID (Ed.), DHS Working Papers. Calverton, MD: MEASURE DHS.
- Adams, A., & Moyer, E. (2015). Sex is never the same: Men's perspectives on refusing circumcision from an in-depth qualitative study in Kwaluseni, Swaziland. *Glob Public Health*, 10, 721-738.
- Aggleton, P. (2007). "Just a snip"?: a social history of male circumcision. *Reprod Health Matters*, 15, 15-21.
- Agot, K.E., Kiari, J.N., Nguyen, H.Q., Odhiambo, J.O., Onyango, T.M., & Weiss, N.S. (2007). Male circumcision in Siaya and Bondo Districts, Kenya: prospective cohort study to assess behavioral disinhibition following circumcision. *J Acquir Immune Defic Syndr*, 44, 66-70.
- Anderson, J.E. (2003). Condom use and HIV risk among US adults. *Am J Public Health*, 93, 912-914.
- Archer, J. (2010). Derivation and assessment of a hypermasculine values questionnaire. *Br J Soc Psychol*, 49, 525-551.
- Arciniega, G.M., Anderson, T.C., Tovar-Blank, Z.G., & Tracey, T.J. (2008). Toward a fuller conception of Machismo: Development of a traditional Machismo and Caballerismo Scale. *Journal of Counseling Psychology*, 55, 19.
- Atlas.ti. (2012). Version 7.1. Atlas.ti Scientific Software Development GmbH.
- Auvert, B., Taljaard, D., Lagarde, E., Sobngwi-Tambekou, J., Sitta, R., & Puren, A. (2005). Randomized, controlled intervention trial of male circumcision for reduction of HIV infection risk: the ANRS 1265 Trial. *PLoS Med*, 2, e298.
- Auvert, B., Taljaard, D., Rech, D., Lissouba, P., Singh, B., Bouscaillou, J., et al. (2013). Association of the ANRS-12126 male circumcision project with HIV levels among men in a South African township: evaluation of effectiveness using cross-sectional surveys. *PLoS Med*, 10, e1001509.
- Baeten, J.M., Richardson, B.A., Lavreys, L., Rakwar, J.P., Mandaliya, K., Bwayo, J.J., et al. (2005). Female-to-male infectivity of HIV-1 among circumcised and uncircumcised Kenyan men. *J Infect Dis*, 191, 546-553.
- Bailey, R.C., Moses, S., Parker, C.B., Agot, K., Maclean, I., Krieger, J.N., et al. (2007). Male circumcision for HIV prevention in young men in Kisumu, Kenya: a randomised controlled trial. *Lancet*, 369, 643-656.
- Barker, G. (2005). *Dying to be men: youth, masculinity and social exclusion*. London ; New York: Routledge.
- Barker, G., Contreras, J.M., Heilman, B., Singh, A.K., Verma, R.K., & Nascimento, M. (2011). *Evolving Men: Initial Results from the International Men and Gender Equality Survey (IMAGES)*. Washington, D.C. and Rio de Janeiro: International Center for Research on Women (ICRW) and Instituto Promundo.

- Barker, G., Ricardo, C., Nascimento, M., Olukoya, A., & Santos, C. (2010). Questioning gender norms with men to improve health outcomes: Evidence of impact. *Global Public Health*, 5, 539-553.
- Barrington, C. (2007). Social networks, norms, and the HIV-related behaviors among the male partners of female sex workers in La Romana, Dominican Republic. International Health. Baltimore, MD: Johns Hopkins University.
- Barrington, C., Fleming, P., Moya, M., Rosario, S., Donastorg, Y., Broxton, C., et al. (2012). Emotional men and pragmatic women: relationship and gender dynamics between female sex workers and their regular partners in the Dominican Republic. XIX International AIDS Conference. Washington, D.C.
- Barrington, C., & Kerrigan, D. (2014). Debe cuidarse en la calle: normative influences on condom use among the steady male partners of female sex workers in the Dominican Republic. *Culture, Health & Sexuality*, 16, 273-287.
- Barrington, C., Latkin, C., Sweat, M.D., Moreno, L., Ellen, J., & Kerrigan, D. (2009). Talking the talk, walking the walk: social network norms, communication patterns, and condom use among the male partners of female sex workers in La Romana, Dominican Republic. *Social Science & Medicine*, 68, 2037-2044.
- Bem, S.L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 42, 155-162.
- Berger, M.T., & Guidroz, K. (2009). *Intersectional Approach: Transforming the Academy through Race, Class, and Gender*. Chapel Hill, NC: University of North Carolina Press.
- Bingham, T.A., Harawa, N.T., & Williams, J.K. (2013). Gender role conflict among African American men who have sex with men and women: associations with mental health and sexual risk and disclosure behaviors. *Am J Public Health*, 103, 127-133.
- Blane, D. (1995). Social determinants of health--socioeconomic status, social class, and ethnicity. *Am J Public Health*, 85, 903-905.
- Bleustein, C.B., Fogarty, J.D., Eckholdt, H., Arezzo, J.C., & Melman, A. (2005). Effect of neonatal circumcision on penile neurologic sensation. *Urology*, 65, 773-777.
- Bogaert, A.F., & Fisher, W.A. (1995). Predictors of university men's number of sexual partners. *Journal of Sex Research*, 32, 119-130.
- Bollinger, D., & Howe, R.S.V. (2011). Alexithymia and circumcision trauma: a preliminary investigation. *International Journal of Men's Health*, 10, 184-195.
- Bosson, J.K., & Vandello, J.A. (2011). Precarious manhood and its links to action and aggression. *Current Directions in Psychological Science*, 20, 82-86.

- Bosson, J.K., Vandello, J.A., Burnaford, R.M., Weaver, J.R., & Wasti, S.A. (2009). Precarious manhood and displays of physical aggression. *Personality and Social Psychology Bulletin*, 35, 623-634.
- Bowleg, L. (2004). Love, Sex, and Masculinity in Sociocultural Context HIV Concerns and Condom Use among African American Men in Heterosexual Relationships. *Men and Masculinities*, 7, 166-186.
- Bowleg, L. (2012). The problem with the phrase women and minorities: intersectionality-an important theoretical framework for public health. *Am J Public Health*, 102, 1267-1273.
- Bowleg, L. (2013). The 'forgotten': Where are the heterosexually active men in HIV prevention theory, research, and interventions? *Psychology & AIDS Exchange*, Spring 2011, 1-6.
- Bowleg, L., Teti, M., Malebranche, D.J., & Tschann, J.M. (2013). "It's an Uphill Battle Everyday": Intersectionality, Low-Income Black Heterosexual Men, and Implications for HIV Prevention Research and Interventions. *Psychol Men Masc*, 14, 25-34.
- Bowleg, L., Teti, M., Massie, J.S., Patel, A., Malebranche, D.J., & Tschann, J.M. (2011). 'What does it take to be a man? What is a real man?': ideologies of masculinity and HIV sexual risk among Black heterosexual men. *Cult Health Sex*, 13, 545-559.
- Braveman, P.A., Egerter, S.A., & Mockenhaupt, R.E. (2011). Broadening the focus: the need to address the social determinants of health. *American journal of preventive medicine*, 40, S4-S18.
- Brito, M.O., Caso, L.M., Balbuena, H., & Bailey, R.C. (2009). Acceptability of male circumcision for the prevention of HIV/AIDS in the Dominican Republic. *PLoS One*, 4, e7687.
- Brito, M.O., Lerebours, L., Volquez, C., Basora, E., Khosla, S., Lantigua, F., et al. (Under review). A Pilot Study to Introduce Voluntary Medical Male Circumcision for HIV Prevention in Areas of High Prevalence in the Dominican Republic. *PLoS One*.
- Brito, M.O., Luna, M., & Bailey, R.C. (2010). The feasibility and acceptability of male circumcision among men, women, and health providers of the Altagracia Province, Dominican Republic. *AIDS care*, 22, 1530-1535.
- Britten, N. (2006). Qualitative interviews. *Qualitative research in health care*, 3, 12-20.
- Brown, J., Sorrell, J., & Raffaelli, M. (2005). An exploratory study of constructions of masculinity, sexuality and HIV/AIDS in Namibia, Southern Africa. *Cult Health Sex*, 7, 585-598.
- Butler, J. (1990). *Gender trouble: Feminism and the Subversion of Identity*. New York, NY: Routledge.
- Butler, J. (1993). *Bodies that Matter: On the Discursive Limits of Sex*. London and New York: Routledge.
- Butler, J. (1997). *Excitable Speech: A politics of the Performative*. London and New York: Routledge.
- Byers, E.S. (1996). How well does the traditional sexual script explain sexual coercion? Review of a program of research. *Journal of Psychology & Human Sexuality*, 8, 7-25.

- Cameron, D.W., Simonsen, J.N., D'Costa, L.J., Ronald, A.R., Maitha, G.M., Gakinya, M.N., et al. (1989). Female to male transmission of human immunodeficiency virus type 1: risk factors for seroconversion in men. *Lancet*, 2, 403-407.
- Card, C. (1996). Rape as a Weapon of War. *Hypatia*, 11, 5-18.
- Carey, M.P., Senn, T.E., Seward, D.X., & Venable, P.A. (2010). Urban African-American men speak out on sexual partner concurrency: findings from a qualitative study. *AIDS Behav*, 14, 38-47.
- Carpenter, L.M. (2009). Influencing health debates through letters to the editor: the case of male circumcision. *Qual Health Res*, 19, 519-534.
- Cassell, M.M., Halperin, D.T., Shelton, J.D., & Stanton, D. (2006). HIV and risk behaviour: Risk compensation: the Achilles' heel of innovations in HIV prevention? *BMJ: British Medical Journal*, 332, 605.
- Castro-Vázquez, G. (2000). Masculinity and condom use among mexican teenagers: The Escuela Nacional Preparatoria No. 1's case. *Gender and Education*, 12, 479-492.
- Castro-Vázquez, G. (2013a). The beauty of male circumcision in Japan: Gender, Sexuality and the Male Body in a Medical Practice. *Sociology*, 47, 687-704.
- Castro-Vázquez, G. (2013b). Gender, pride and medical circumcision in contemporary Japan. *Cult Health Sex*, 15, 101-113.
- Castro-Vázquez, G. (2013c). Sexuality, gender or hygiene: urologists and plastic surgeons discussing male circumcision in Japan. *Critical Public Health*, 23, 482-497.
- CESDEM, & Macro International Inc. (2008). Encuesta Demografica y de Salud 2007 [Demographic and Health Survey 2007]. Santo Domingo, Republica Dominicana: Centro de Estudios Sociales y Demograficos (CESDEM), Macro International Inc.
- CESDEM, & Macro International Inc. (2015). Encuesta Sociodemografica y sobre VIH/SIDA en los Bateyes Estatales de la Republica Dominicana. Santo Domingo, Republica Dominicana: Centro de Estudios Sociales y Demograficos (CESDEM), Macro International Inc.
- CESDEM & Macro International Inc. (2014). Encuesta Demografica y de Salud 2013 [Demographic and Health Survey 2013]. Santo Domingo, Republica Dominicana: Centro de Estudios Sociales y Demograficos (CESDEM), Macro International Inc.,.
- Champion, V.L., & Skinner, C.S. (2008). The Health Belief Model. In K. Glanz, B.K. Rimer, & K. Viswanath (Eds.), *Health Behavior and Health Education: Theory, research, and practice*. San Francisco, CA: Jossey-Basee.
- Cianelli, R., Ferrer, L., & McElmurry, B.J. (2008). HIV prevention and low-income Chilean women: machismo, marianismo and HIV misconceptions. *Culture, Health & Sexuality*, 10, 297-306.
- Cohan, M. (2009). Adolescent heterosexual males talk about the role of male peer groups in the sexual decision making. *Sexuality & Culture*, 13, 152-177.

- CONAVIHSIDA. (2014). Segunda Encuesta de Vigilancia de Comportamiento con Vinculacion Serologica en Poblaciones Claves. Santo Domingo, Dominican Republic.
- Connell, R.W. (1987). *Gender and power*. Stanford, CA: Stanford University Press.
- Connell, R.W. (1995). *Masculinities*. Berkeley: University of California Press.
- Consejo Nacional de Poblacion y Familia. (2010). Estimaciones y proyecciones de la poblacion Dominicana por Regiones, Provincias, Municipios y Distritos Municipales, 2010. <https://web.archive.org/web/20110808193423/http://www.conapofa.gov.do/estimaciones.asp>: Consejo Nacional de Poblacion y Familia.
- Copenhaver, M.M., Lash, S.J., & Eisler, R.M. (2000). Masculine gender role stress, anger and male intimate abusiveness: Implications for men's relationships. *Sex Roles*, 42, 405-414.
- COPRESIDA. (2008). 1era Encuesta de Vigilancia de Comportamiento con Vinculacion Serologica en Poblaciones Vulnerables. Santo Domingo, Dominican Republic.
- Courtenay, W.H. (2000). Constructions of masculinity and their influence on men's well-being: a theory of gender and health. *Social Science & Medicine*, 50, 1385-1401.
- Coyne, J.A. (2000). Of vice and men: The fairy tales of evolutionary psychology. *New Republic*, 147, 27-34.
- Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford law review*, 43, 1241-1299.
- Creswell, J., & Plano Clark, V. (2011). *Designing and conducting mixed methods research (2nd ed.)*. Thousand Oaks, CA: Sage.
- Crook, T., Thomas, C.M., & Cobia, D.C. (2009). Masculinity and sexuality: Impact on intimate relationships of African American men. *The Family Journal*, 17, 360-366.
- De Bro, S.C., Campbell, S.M., & Peplau, L.A. (1994). Influencing a partner to use a condom. A college student perspective. *Psychol Women Q*, 18, 165-182.
- de Moya, E.A. (2003). Versiones y subversiones de la masculinidad en la cultura dominicana. *Perspectivas psicológicas*, 3, 184-190.
- de Moya, E.A. (2004). Power games and totalitarian masculinity in the Dominican Republic. In R. Reddock (Ed.), *Interrogating Caribbean masculinities: Theoretical and empirical analyses* pp. 68-102). Kingston, Jamaica: University of West Indies Press.
- de Moya, E.A., & Garcia, R. (1996). AIDS and the enigma of bisexuality in the Dominican Republic. In P. Aggleton (Ed.), *Bisexualities & AIDS*. Bristol, PA: Taylor & Francis.
- Denniston, G. (2004). Circumcision and Sexual Pleasure. In G.C. Denniston, F.M. Hodges, & M.F. Milos (Eds.), *Flesh and Blood: Perspectives on the Problem of Circumcision in Contemporary Society*. New York: Springer Science+Business.



- Devries, K.M., & Free, C. (2010). 'I told him not to use condoms': masculinities, femininities and sexual health of Aboriginal Canadian young people. *Sociol Health Illn*, 32, 827-842.
- DIGECITSS. (2014). El Estado Epidemico del VIH en Republica Dominicana [The state of the HIV Epidemic in the Dominican Republic]. Santo Domingo, Dominican Republic: Direccion General del Control de las Infecciones de Transmision Sexual y SIDA, Ministerio de Salud Publica y Asistencia Social.
- Donoval, B.A., Landay, A.L., Moses, S., Agot, K., Ndinya-Achola, J.O., Nyagaya, E.A., et al. (2006). HIV-1 target cells in foreskins of African men with varying histories of sexually transmitted infections. *Am J Clin Pathol*, 125, 386-391.
- Dorais, M., & Lajeunesse, S. (2004). *Dead boys can't dance: Sexual orientation, masculinity, and suicide*. Montreal, QC: McGill-Queen's University Press.
- Dunkle, K.L., & Jewkes, R. (2007). Effective HIV prevention requires gender-transformative work with men. *Sex Transm Infect*, 83, 173-174.
- Dworkin, S.L., Fleming, P.J., & Colvin, C.J. (2015). The promises and limitations of gender-transformative health programming with men: Critical reflections from the field. *Culture, Health & Sexuality*.
- Dworkin, S.L., Fullilove, R.E., & Peacock, D. (2009). Are HIV/AIDS prevention interventions for heterosexually active men in the United States gender-specific? *Am J Public Health*, 99, 981-984.
- Dworkin, S.L., Treves-Kagan, S., & Lippman, S.A. (2013). Gender-Transformative Interventions to Reduce HIV Risks and Violence with Heterosexually-Active Men: A Review of the Global Evidence. *AIDS Behav*, 17, 2845-2863.
- Eisler, R.M., & Skidmore, J.R. (1987). Masculine Gender Role Stress: Scale Development and Component Factors in the Appraisal of Stressful Situations. *Behavior Modification*, 11, 123-136.
- Emerson, R.M., Fretz, R.I., & Shaw, L.L. (2011). *Writing ethnographic fieldnotes*. Chicago, IL: University of Chicago Press.
- Exner, T.M., Gardos, P.S., Seal, D.W., & Ehrhardt, A.A. (1999). HIV sexual risk reduction interventions with heterosexual men: the forgotten group. *AIDS Behav*, 3, 347-358.
- Eyre, S.L., Hoffman, V., & Millstein, S.G. (1998). The gamesmanship of sex: A model based on African American adolescent accounts. *Med Anthropol Q*, 12, 467-489.
- Fair, B. (2011). Constructing masculinity through penetration discourse: The intersection of misogyny and homophobia in high school wrestling. *Men and Masculinities*, 14, 491-504.
- Finch, J. (1987). The vignette technique in survey research. *Sociology*, 21, 105-114.
- Fine, C. (2010). *Delusions of gender: How our minds, society, and neurosexism create difference*: WW Norton & Company.

- Fleming, P.J. (2015). Are men and women with gender-typical behaviors more likely to engage in concurrent sexual partnerships? A nationally representative longitudinal data analysis. Population Association of America 2015 Annual Meeting. San Diego, CA.
- Fleming, P.J., Andes, K.L., & DiClemente, R.J. (2013). 'But I'm not like that': young men's navigation of normative masculinities in a marginalised urban community in Paraguay. *Cult Health Sex*, 15, 652-666.
- Fleming, P.J., Barrington, C., Perez, M., Donastorg, Y., & Kerrigan, D. (2014a). Amigos and amistades: the role of men's social network ties in shaping HIV vulnerability in the Dominican Republic. *Cult Health Sex*, 16, 883-897.
- Fleming, P.J., Barrington, C., Perez, M., Donastorg, Y., & Kerrigan, D. (2015). Strategies for Recruiting Steady Male Partners of Female Sex Workers for HIV Research. *AIDS Behav*, 19, 362-368.
- Fleming, P.J., DiClemente, R.J., & Barrington, C. (under review). Masculine norms and HIV: A synthesis and application of theories of masculinity for understanding men's HIV risk behaviors.
- Fleming, P.J., Lee, J.G., & Dworkin, S.L. (2014b). "Real men don't": constructions of masculinity and inadvertent harm in public health interventions. *Am J Public Health*, 104, 1029-1035.
- Flood, M. (2008). Men, sex, and homosociality - How bonds between men shape their sexual relations with women. *Men and Masculinities*, 10, 339-359.
- Fortson, J.G. (2008). The gradient in sub-Saharan Africa: socioeconomic status and HIV/AIDS. *Demography*, 45, 303-322.
- Fragoso, J.M., & Kashubeck, S. (2000). Machismo, gender role conflict, and mental health in Mexican American men. *Psychology of Men & Masculinity*, 1, 87.
- Franchina, J.J., Eisler, R.M., & Moore, T.M. (2001). Masculine gender role stress and intimate abuse: Effects of masculine gender relevance of dating situations and female threat on men's attributions and affective responses. *Psychology of Men & Masculinity*, 2, 34-41.
- Frisch, M., Aigrain, Y., Barauskas, V., Bjarnason, R., Boddy, S.A., Czauderna, P., et al. (2013). Cultural bias in the AAP's 2012 Technical Report and Policy Statement on male circumcision. *Pediatrics*, 131, 796-800.
- Gage, E.A. (2008). Gender attitudes and sexual behaviors: comparing center and marginal athletes and nonathletes in a collegiate setting. *Violence Against Women*, 14, 1014-1032.
- Gibbs, G. (2007). The nature of qualitative analysis. *Analyzing Qualitative Data*. Thousand Oaks, CA: Sage.
- Gibbs, G. (2008a). Analyzing biographies and narratives. *Analyzing Qualitative Data* pp. 56-72). Thousand Oaks, CA: Sage.

- Gibbs, G. (2008b). Thematic coding and categorizing. *Analysing qualitative data*. Thousand Oaks, CA: Sage.
- Gilmore, D.D. (1990). *Manhood in the Making: Cultural Concepts of Masculinity*. New Haven: Yale University Press.
- Glanz, K., & Schwartz, M.D. (2008). Stress, coping, and Health Behavior. In K. Glanz, B.K. Rimer, & K. Viswanath (Eds.), *Health Behavior and Health Education: Theory, research, and practice*. San Francisco, CA: Jossey-Bass.
- Gottert, A. (2014). Gender norms, masculine gender-role strain and HIV risk behaviors among men in rural South Africa. *Health Behavior*. Chapel Hill, NC: University of North Carolina.
- Grabe, S. (2010). Promoting Gender Equality: The Role of Ideology, Power, and Control in the Link Between Land Ownership and Violence in Nicaragua. *Analyses of Social Issues and Public Policy*, 10, 146-170.
- Gray, R., Kigozi, G., Kong, X., Ssempiija, V., Makumbi, F., Watty, S., et al. (2012). The effectiveness of male circumcision for HIV prevention and effects on risk behaviors in a posttrial follow-up study. *AIDS*, 26, 609-615.
- Gray, R., Kigozi, G., Serwadda, D., Makumbi, F., Watya, S., Nalugoda, F., et al. (2007). Male circumcision for HIV prevention in men in Rakai, Uganda: a randomised trial. *Lancet*, 369, 657-666.
- Gray, R.H., Kiwanuka, N., Quinn, T.C., Sewankambo, N.K., Serwadda, D., Mangan, F.W., et al. (2000). Male circumcision and HIV acquisition and transmission: cohort studies in Rakai, Uganda. Rakai Project Team. *AIDS*, 14, 2371-2381.
- Griffith, D.M., Ellis, K.R., & Allen, J.O. (2013). An intersectional approach to social determinants of stress for African American men: men's and women's perspectives. *Am J Mens Health*, 7, 19S-30S.
- Grund, J.M., & Hennink, M.M. (2012). A qualitative study of sexual behavior change and risk compensation following adult male circumcision in urban Swaziland. *AIDS care*, 24, 245-251.
- Guerriero, I., Ayres, J.R., & Hearst, N. (2002). [Masculinity and vulnerability to HIV among heterosexual men in Sao Paulo, Brazil]. *Rev Saude Publica*, 36, 50-60.
- Guest, G., & Fleming, P.J. (2014). Mixed Methods Research. In G. Guest, & E. Namey (Eds.), *Public Health Research Methods*. Thousand Oaks, CA: Sage.
- Gupta, G.R. (2000). HIV/AIDS: The What, the Why and the How. XIIIth International AIDS Conference. Durban, South Africa.
- Gutmann, M.C. (2006). *The meanings of macho: Being a man in Mexico City*. Berkeley, CA: University of California Press.
- Hagen, R. (1979). *The bio-sexual factor*. New York, NY: Doubleday.

- Halata, Z., & Munger, B.L. (1986). The neuroanatomical basis for the protopathic sensibility of the human glans penis. *Brain Res*, 371, 205-230.
- Halperin, D.T., de Moya, E.A., Perez-Then, E., Pappas, G., & Garcia Calleja, J.M. (2009). Understanding the HIV epidemic in the Dominican Republic: a prevention success story in the Caribbean? *J Acquir Immune Defic Syndr*, 51 Suppl 1, S52-59.
- Hammond, T. (1999). A preliminary poll of men circumcised in infancy or childhood. *BJU international*, 83, 85-92.
- Harbour, R., & Miller, J. (2001). A new system for grading recommendations in evidence based guidelines. *BMJ*, 323, 334-336.
- Hatcher, A.M., Colvin, C.J., Ndlovu, N., & Dworkin, S.L. (2014). Intimate partner violence among rural South African men: alcohol use, sexual decision-making, and partner communication. *Cult Health Sex*, 16, 1023-1039.
- Herold, E., Garcia, R., & DeMoya, T. (2001). Female Tourists and Beach Boys: Romance or Sex Tourism? *Annals of Tourism Research*, 28, 978-997.
- Hewett, P.C., Haberland, N., Apicella, L., & Mensch, B.S. (2012). The (mis) reporting of male circumcision status among men and women in Zambia and Swaziland: a randomized evaluation of interview methods. *PLoS One*, 7, e36251.
- Hirsch, J.S. (2009). The Geography of Desire: Social Space, Sexual Projects, and the Organization of Extramarital Sex in Rural Mexico. In J.S. Hirsch, H. Wardlow, D.J. Smith, H. Phinney, S. Parikh, & C.A. Nathanson (Eds.), *The Secret: Love, Marriage, and HIV*. Nashville, TN: Vanderbilt University Press.
- Holloway, W. (1984). Gender difference and the production of subjectivity. In J. Henriques, W. Holloway, C. Urwin, C. Venn, & V. Walkerdine (Eds.), *Changing the subject: Psychology, Social regulation and subjectivity*. London: Methuen.
- Holloway, W. (1996). Recognition and heterosexual desire. In D. Richardson (Ed.), *Theorising Heterosexuality*. Buckinghamshire, UK: Open University Press.
- Hoschke, B., Fenske, S., Brookman-May, S., Spivak, I., Gilfrich, C., Fritsche, H.M., et al. (2013). [Male circumcision is not associated with an increased prevalence of erectile dysfunction: results of the Cottbus 10,000-men survey]. *Urologe A*, 52, 562-569.
- Hosseini, S.R., Khazaeli, M.H., & Atharikia, D. (2008). Role of postcircumcision mucosal cuff length in lifelong premature ejaculation: a pilot study. *J Sex Med*, 5, 206-209.
- Hull, T.H., & Budiharsana, M. (2001). Male circumcision and penis enhancement in Southeast Asia: matters of pain and pleasure. *Reprod Health Matters*, 9, 60-67.
- Hunter, M. (2005). Cultural politics and masculinities: multiple-partners in historical perspective in KwaZulu-Natal. *Cult Health Sex*, 7, 209-223.

- Hyde, A., Drennan, J., Howlett, E., & Brady, D. (2009). Young men's vulnerability in constituting hegemonic masculinity in sexual relations. *Am J Mens Health*, 3, 238-251.
- Jakupcak, M., Lisak, D., & Roemer, L. (2002). The role of masculine ideology and masculine gender role stress in men's perpetration of relationship violence. *Psychology of Men & Masculinity*, 3, 97-106.
- Jewkes, R., & Abrahams, N. (2002). The epidemiology of rape and sexual coercion in South Africa: an overview. *Social Science & Medicine*, 55, 1231-1244.
- Jewkes, R., Dunkle, K., Koss, M.P., Levin, J.B., Nduna, M., Jama, N., et al. (2006). Rape perpetration by young, rural South African men: Prevalence, patterns and risk factors. *Social Science & Medicine*, 63, 2949-2961.
- Jewkes, R., Fulu, E., Roselli, T., & Garcia-Moreno, C. (2013). Prevalence of and factors associated with non-partner rape perpetration: findings from the UN Multi-country Cross-sectional Study on Men and Violence in Asia and the Pacific. *The Lancet Global Health*, 1, e208-e218.
- Jewkes, R., Sikweyiya, Y., Morrell, R., & Dunkle, K. (2011). Gender inequitable masculinity and sexual entitlement in rape perpetration South Africa: findings of a cross-sectional study. *PLoS One*, 6, e29590.
- Kalichman, S., Eaton, L., & Pinkerton, S. (2007a). Circumcision for HIV prevention: failure to fully account for behavioral risk compensation. *PLoS Medicine*, 4, e138.
- Kalichman, S.C., Simbayi, L.C., Kaufman, M., Cain, D., & Jooste, S. (2007b). Alcohol use and sexual risks for HIV/AIDS in sub-Saharan Africa: systematic review of empirical findings. *Prev Sci*, 8, 141-151.
- Kerrigan, D., Moreno, L., Rosario, S., Gomez, B., Jerez, H., Barrington, C., et al. (2006). Environmental-structural interventions to reduce HIV/STI risk among female sex workers in the Dominican Republic. *Am J Public Health*, 96, 120-125.
- Kerrigan, D., Moreno, L., Rosario, S., & Sweat, M. (2001). Adapting the Thai 100% condom programme: developing a culturally appropriate model for the Dominican Republic. *Culture, Health & Sexuality*, 3, 221-240.
- Khan, S.I., Hudson-Rodd, N., Saggars, S., Bhuiyan, M.I., Bhuiya, A., Karim, S.A., et al. (2008). Phallus, performance and power: crisis of masculinity. *Sexual and Relationship Therapy*, 23, 37-49.
- Khumalo-Sakutukwa, G., Lane, T., van-Rooyen, H., Chingono, A., Humphries, H., Timbe, A., et al. (2013). Understanding and addressing socio-cultural barriers to medical male circumcision in traditionally non-circumcising rural communities in sub-Saharan Africa. *Cult Health Sex*, 15, 1085-1100.
- Kigozi, G., Lukabwe, I., Kagaayi, J., Wawer, M.J., Nantume, B., Kigozi, G., et al. (2009). Sexual satisfaction of women partners of circumcised men in a randomized trial of male circumcision in Rakai, Uganda. *BJU international*, 104, 1698-1701.

- Kigozi, G., Watya, S., Polis, C.B., Buwembo, D., Kiggundu, V., Wawer, M.J., et al. (2008). The effect of male circumcision on sexual satisfaction and function, results from a randomized trial of male circumcision for human immunodeficiency virus prevention, Rakai, Uganda. *BJU Int*, 101, 65-70.
- Kim, J.C., Watts, C.H., Hargreaves, J.R., Ndhlovu, L.X., Phetla, G., Morison, L.A., et al. (2007). Understanding the impact of a microfinance-based intervention on women's empowerment and the reduction of intimate partner violence in South Africa. *Am J Public Health*, 97, 1794-1802.
- Kimmel, M.S., & Mahler, M. (2003). Adolescent Masculinity, Homophobia, and Violence Random School Shootings, 1982-2001. *American behavioral scientist*, 46, 1439-1458.
- Kimmel, M.S., & Messner, M.A. (2001). *Men's Lives*, 5th edition. Needham Heights, MA: Allyn and Bacon.
- Knipper, E., Rhodes, S.D., Lindstrom, K., Bloom, F.R., Leichter, J.S., & Montano, J. (2007). Condom use among heterosexual immigrant Latino men in the southeastern United States. *AIDS Educ Prev*, 19, 436-447.
- Krieger, J.N., Mehta, S.D., Bailey, R.C., Agot, K., Ndinya-Achola, J.O., Parker, C., et al. (2008). Adult male circumcision: effects on sexual function and sexual satisfaction in Kisumu, Kenya. *J Sex Med*, 5, 2610.
- Lagarde, E., Dirk, T., Puren, A., Reathe, R.T., & Bertran, A. (2003). Acceptability of male circumcision as a tool for preventing HIV infection in a highly infected community in South Africa. *AIDS*, 17, 89-95.
- Laumann, E.O., Masi, C.M., & Zuckerman, E.W. (1997). Circumcision in the United States. Prevalence, prophylactic effects, and sexual practice. *JAMA*, 277, 1052-1057.
- Lavreys, L., Rakwar, J.P., Thompson, M.L., Jackson, D.J., Mandaliya, K., Chohan, B.H., et al. (1999). Effect of circumcision on incidence of human immunodeficiency virus type 1 and other sexually transmitted diseases: a prospective cohort study of trucking company employees in Kenya. *J Infect Dis*, 180, 330-336.
- Levant, R.F., Hirsch, L.S., Celentano, E., & Cozza, T.M. (1992). The male role: An investigation of contemporary norms. *Journal of Mental Health Counseling*, 14, 325-337.
- Levinson, R.A., Sadigursky, C., & Erchak, G.M. (2004). The impact of cultural context on Brazilian adolescents' sexual practices. *Adolescence*, 39, 203-227.
- Lippa, R.A., & Connelly, S. (1990). Gender diagnosticity: A new bayesian approach to gender-related individual differences. *J Pers Soc Psychol*, 59, 1051-1063.
- Lusher, D., & Robins, G. (2010). A social network analysis of hegemonic and other masculinities. *Journal of Men's Studies*, 18, 22-44.

- MacKinnon, D.P., Krull, J.L., & Lockwood, C.M. (2000). Equivalence of the mediation, confounding and suppression effect. *Prev Sci*, 1, 173-181.
- MacQueen, K.M., Nopkesorn, T., Sweat, M.D., Sawaengdee, Y., Mastro, T.D., & Weniger, B.G. (1996). Alcohol consumption, brothel attendance, and condom use: normative expectations among Thai military conscripts. *Med Anthropol Q*, 10, 402-423.
- Madhivanan, P., Hernandez, A., Gogate, A., Stein, E., Gregorich, S., Setia, M., et al. (2005). Alcohol use by men is a risk factor for the acquisition of sexually transmitted infections and human immunodeficiency virus from female sex workers in Mumbai, India. *Sexually transmitted diseases*, 32, 685.
- Mah, T.L., & Halperin, D.T. (2010). Concurrent sexual partnerships and the HIV epidemics in Africa: evidence to move forward. *AIDS Behav*, 14, 11-16.
- Mahalik, J.R., Burns, S.M., & Syzdek, M. (2007). Masculinity and perceived normative health behaviors as predictors of men's health behaviors. *Soc Sci Med*, 64, 2201-2209.
- Malamuth, N.M., Linz, D., Heavey, C.L., Barnes, G., & Acker, M. (1995). Using the confluence model of sexual aggression to predict men's conflict with women: a 10-year follow-up study. *J Pers Soc Psychol*, 69, 353.
- Male circumcision. (2012). *Pediatrics*, 130, e756-785.
- Malebranche, D.J., Gvetadze, R., Millett, G.A., & Sutton, M.Y. (2012). The relationship between gender role conflict and condom use among black MSM. *AIDS Behav*, 16, 2051-2061.
- Mankayi, N. (2009). Military men and sexual practices: discourses of 'othering' in safer sex in the light of HIV/AIDS. *SAHARA J*, 6, 33-41.
- Mankayi, N., & Vernon Naidoo, A. (2011). Masculinity and sexual practices in the military: a South African study. *African Journal of AIDS Research*, 10, 43-50.
- Mao, L., Templeton, D.J., Crawford, J., Imrie, J., Prestage, G.P., Grulich, A.E., et al. (2008). Does circumcision make a difference to the sexual experience of gay men? Findings from the Health in Men (HIM) cohort. *J Sex Med*, 5, 2557-2561.
- Marin, B.V., Gomez, C.A., Tschann, J.M., & Gregorich, S.E. (1997). Condom use in unmarried Latino men: a test of cultural constructs. *Health Psychol*, 16, 458-467.
- Marston, C., & King, E. (2006). Factors that shape young people's sexual behaviour: a systematic review. *Lancet*, 368, 1581-1586.
- Masters, W.H., & Johnson, V.E. (1966). *Human sexual response*. Boston Little, Brown & Co.
- Matser, A., Heiligenberg, M., Gekus, R., Heijman, T., Low, N., Kretzschmar, M., et al. (2014). The importance of partnership factors and individual factors associated with absent or inconsistent condom use in heterosexuals: a cross-sectional study. *Sex Transm Infect*, 90, 325-331.

- Mattson, C.L., Bailey, R.C., Muga, R., Poulussen, R., & Onyango, T. (2005). Acceptability of male circumcision and predictors of circumcision preference among men and women in Nyanza Province, Kenya. *AIDS care*, 17, 182-194.
- Mattson, C.L., Campbell, R.T., Bailey, R.C., Agot, K., Ndinya-Achola, J.O., & Moses, S. (2008). Risk compensation is not associated with male circumcision in Kisumu, Kenya: a multi-faceted assessment of men enrolled in a randomized controlled trial. *PLoS One*, 3, e2443.
- McCall, L. (2005). The complexity of intersectionality. *Signs*, 30, 1771-1800.
- McFadden, P. (1992). Sex, sexuality and the problems of AIDS in Africa. *Gender in Southern Africa: Conceptual and theoretical issues*, 157-195.
- McKernon, S. (1996). Managing condom use and non-use: a study of condom uses among clients of a sexual health clinic. *Venereology*, 9, 233-238.
- McLellan, E., MacQueen, K.M., & Neidig, J.L. (2003). Beyond the qualitative interview: Data preparation and transcription. *Field methods*, 15, 63-84.
- Measor, L. (2006). Condom use: A culture of resistance. *Sex Education*, 6, 393-402.
- Mehta, S.D., Moses, S., Agot, K., Odoyo-June, E., Li, H., Maclean, I., et al. (2013). The long term efficacy of medical male circumcision against HIV acquisition. *AIDS*, 27, 2899-2907.
- Merriam-Webster. (2014). Machismo. <http://www.merriam-webster.com/dictionary/machismo>: Merriam-Webster Dictionary.
- Messner, M.A. (1995). *Power at play: Sports and the problem of masculinity*. Boston: Beacon Press.
- Messner, M.A. (1997). *Politics of Masculinities: Men in movements*. Lanham, MD: Altamira Press.
- Miles, M.B., & Huberman, A.M. (1994). Matrix displays: Some rules of thumb. *Qualitative Data Analysis*. pp. 239-244). Thousand Oaks, CA: Sage.
- Mlewa, A.J. (2013). Acceptability of medical male circumcision among uncircumcised young men at Mansa College of Education, Zambia: influence of perception about effects on male sexuality. Economics and Management Science: Stellenbosch University.
- Montano, D.E., Kasprzyk, D., Hamilton, D.T., Tshimanga, M., & Gorn, G. (2014). Evidence-based identification of key beliefs explaining adult male circumcision motivation in Zimbabwe: targets for behavior change messaging. *AIDS Behav*, 18, 885-904.
- Morris, B.J., & Krieger, J.N. (2013). Does Male Circumcision Affect Sexual Function, Sensitivity, or Satisfaction?-A Systematic Review. *J Sex Med*, 10, 2644-2657.
- Moses, S., Bradley, J.E., Nagelkerke, N.J., Ronald, A.R., Ndinya-Achola, J.O., & Plummer, F.A. (1990). Geographical patterns of male circumcision practices in Africa: association with HIV seroprevalence. *Int J Epidemiol*, 19, 693-697.



- Mosher, D.L., & Sirkin, M. (1984). Measuring a macho personality constellation. *Journal of Research in Personality*, 18, 150-163.
- Moyo, S., Mhloyi, M., Chevo, T., & Rusinga, O. (2015). Men's attitudes: A hindrance to the demand for voluntary medical male circumcision - A qualitative study in rural Mhondoro-Ngezi, Zimbabwe. *Glob Public Health*, 10, 708-720.
- Muehlenhard, C.L., Danoff-Burg, S., & Powch, I.G. (1996). Is rape sex or violence? Conceptual issues and implications. *Sex, power, conflict: Evolutionary and feminist perspectives*, 119-137.
- Munoz Boudet, A., Petesch, P., Turk, C., & Thumala, A. (2012). On Norms and Agency: Conversations about Gender Equality with Women and Men in 20 countries. Washington, DC: World Bank.
- Murray, L., Moreno, L., Rosario, S., Ellen, J., Sweat, M., & Kerrigan, D. (2007). The role of relationship intimacy in consistent condom use among female sex workers and their regular paying partners in the Dominican Republic. *AIDS Behav*, 11, 463-470.
- Nelson, L.E., Thach, C.T., & Zhang, N. (2014). Gender Equity Predicts Condom Use among Adolescent and Young Adult Parents in Toronto, Canada. *The Canadian Journal of Human Sexuality*, 23, 1-8.
- Ngalande, R.C., Levy, J., Kapondo, C.P., & Bailey, R.C. (2006). Acceptability of male circumcision for prevention of HIV infection in Malawi. *AIDS Behav*, 10, 377-385.
- Ning, C., Jiang, J., Ye, L., Yang, X., Wei, B., Deng, W., et al. (2013). Comparison of three intervention models for promoting circumcision among migrant workers in western China to reduce local sexual transmission of HIV. *PLoS One*, 8, e76107.
- Njeuhmeli, E., Forsythe, S., Reed, J., Opuni, M., Bollinger, L., Heard, N., et al. (2011). Voluntary medical male circumcision: modeling the impact and cost of expanding male circumcision for HIV prevention in eastern and southern Africa. *PLoS Med*, 8, e1001132.
- Noar, S.M., & Morokoff, P.J. (2002). The relationship between masculinity ideology, condom attitudes, and condom use stage of change: A structural equation modeling approach. *International Journal of Men's Health*, 1, 43-58.
- Nyanzi, S. (2009). Male Promiscuity: The negotiation of Masculinities by Motorbike Taxi-riders in Masaka, Uganda. *Men and Masculinities*, 12.
- O'Neil, J.M. (2008). Summarizing 25 years of research on men's gender role conflict using the gender role conflict scale new research paradigms and clinical implications. *The Counseling Psychologist*, 36, 358-445.
- O'Neil, J.M. (2015). *Men's gender role conflict: Psychological costs, consequences, and an agenda for change*. Washington, DC: American Psychological Association.
- O'Neil, J.M., Helms, B.J., & Gable, R.K. (1986). Gender-Role Conflict Scale: College Men's Fear of Femininity. *Sex Roles*, 14, 335-350.

- O'Sullivan, L.F., Hoffman, S., Harrison, A., & Dolezal, C. (2006). Men, multiple sexual partners, and young adults' sexual relationships: understanding the role of gender in the study of risk. *J Urban Health*, 83, 695-708.
- O'hara, K., & O'hara, J. (1999). The effect of male circumcision on the sexual enjoyment of the female partner. *BJU international*, 83, 79-84.
- Obure, A., Nyambedha, E.O., Oindo, B.O., & Koderu, H.M. (2009). Psychosocial factors influencing promotion of male circumcision for HIV prevention in a non-circumcising community in rural western Kenya. *The Qualitative Report*, 14, 666-687.
- Padilla, M. (2008). *Caribbean pleasure industry: tourism, sexuality, and AIDS in the Dominican Republic*. Chicago, IL: University of Chicago Press.
- Padilla, M., Castellanos, D., Guilamo-Ramos, V., Reyes, A.M., Sanchez Marte, L.E., & Soriano, M.A. (2008). Stigma, social inequality, and HIV risk disclosure among Dominican male sex workers. *Soc Sci Med*, 67, 380-388.
- Patterson, B.K., Landay, A., Siegel, J.N., Flener, Z., Pessis, D., Chaviano, A., et al. (2002). Susceptibility to human immunodeficiency virus-1 infection of human foreskin and cervical tissue grown in explant culture. *Am J Pathol*, 161, 867-873.
- Payne, K., Thaler, L., Kukkonen, T., Carrier, S., & Binik, Y. (2007). Sensation and Sexual Arousal in Circumcised and Uncircumcised Men. *The journal of sexual medicine*, 4, 667-674.
- Pinkerton, S.D. (2001). Sexual risk compensation and HIV/STD transmission: empirical evidence and theoretical considerations. *Risk Anal*, 21, 727-736.
- Pleck, J.H. (1981). *The myth of masculinity*. Cambridge, MA: MIT Press.
- Pleck, J.H. (1995). The Gender Role Strain Paradigm. In R.F. Levant, & W.S. Pollack (Eds.), *A new psychology of men*. New York, NY: Basic Books.
- Pleck, J.H., Sonenstein, F.L., & Ku, L.C. (1993). Masculinity ideology: Its impact on adolescent males' heterosexual relationships. *Journal of Social Issues*, 49, 11-29.
- Price, J.E., Phiri, L., Mulenga, D., Hewett, P.C., Topp, S.M., Shiliya, N., et al. (2014). Behavior change pathways to voluntary medical male circumcision: narrative interviews with circumcision clients in Zambia. *PLoS One*, 9, e111602.
- Pulerwitz, J., & Barker, G. (2008). Measuring attitudes toward gender norms among young men in Brazil: Development and psychometric evaluation of the GEM Scale. *Men and Masculinities*, 10, 322-338.
- Pulerwitz, J., Michaelis, A., Verma, R., & Weiss, E. (2010). Addressing Gender Dynamics and Engaging Men in HIV Programs: Lessons Learned from Horizons Research. *Public Health Reports*, 125, 282-292.

- Quevedo-Gómez, M.C., Krumeich, A., Abadía-Barrero, C.E., Pastrana-Salcedo, E., & van den Borne, H. (2012). Machismo, public health and sexuality-related stigma in Cartagena. *Culture, Health & Sexuality*, 14, 223-235.
- Ragnarsson, A., Townsend, L., Ekstrom, A.M., Chopra, M., & Thorson, A. (2010). The construction of an idealised urban masculinity among men with concurrent sexual partners in a South African township. *Glob Health Action*, 3.
- Reeser, T.W. (2010). *Masculinities in Theory: An Introduction*. Wiley-Blackwell.
- Reidy, D.E., Brookmeyer, K.A., Gentile, B., Berke, D.S., & Zeichner, A. (2015). Gender Role Discrepancy Stress, High-Risk Sexual Behavior, and Sexually Transmitted Disease. *Arch Sex Behav*.
- Rennie, S., Perry, B., Corneli, A., Chilungo, A., & Umar, E. (2015). Perceptions of voluntary medical male circumcision among circumcising and non-circumcising communities in Malawi. *Glob Public Health*, 10, 679-691.
- Reynolds, S.J., Shepherd, M.E., Risbud, A.R., Gangakhedkar, R.R., Brookmeyer, R.S., Divekar, A.D., et al. (2004). Male circumcision and risk of HIV-1 and other sexually transmitted infections in India. *Lancet*, 363, 1039-1040.
- Richardson, D. (2010). Youth masculinities: compelling male heterosexuality. *Br J Sociol*, 61, 737-756.
- Richters, J. (2006). Circumcision and the socially imagined sexual body. *Health Sociology Review*, 15, 248-257.
- Riess, T.H., Achieng, M.M., Otieno, S., Ndinya-Achola, J., & Bailey, R.C. (2010). "When I was circumcised I was taught certain things": Risk compensation and protective sexual behavior among circumcised men in Kisumu, Kenya. *PLoS One*, 5, e12366.
- Risser, J.M., Risser, W.L., Eissa, M.A., Cromwell, P.F., Barratt, M.S., & Bortot, A. (2004). Self-assessment of circumcision status by adolescents. *American journal of epidemiology*, 159, 1095-1097.
- Rojas, P., Malow, R., Ruffin, B., Rothe, E.M., & Rosenberg, R. (2011). The HIV/AIDS Epidemic in the Dominican Republic: Key Contributing Factors. *J Int Assoc Physicians AIDS Care*, 10, 306-315.
- Rosenfield, A.G. (2000). After Cairo: women's reproductive and sexual health, rights, and empowerment. *Am J Public Health*, 90, 1838-1840.
- Saldaña, J. (2009). Writing Analytic Memos. *The Coding Manual for Qualitative Researchers*. Thousand Oaks, CA: Sage.
- Sandelowski, M. (1995). Qualitative analysis: What it is and how to begin. *Research in nursing & health*, 18, 371-375.

- Santana, M.C., Raj, A., Decker, M.R., La Marche, A., & Silverman, J.G. (2006). Masculine gender roles associated with increased sexual risk and intimate partner violence perpetration among young adult men. *J Urban Health*, 83, 575-585.
- SAS Institute Inc. (2014). SAS, 9.4. Cary, NC: SAS Institute Inc.,.
- Schoeneberger, M., Logan, T., & Leukefeld, C. (1999). Gender roles, HIV risk behaviors, and perceptions of using female condoms among college students. *Population Research and Policy Review*, 18, 119-136.
- Scott, B.E., Weiss, H.A., & Viljoen, J. (2005). The acceptability of male circumcision as an HIV intervention among a rural Zulu population, Kwazulu-Natal, South Africa. *AIDS care*, 17, 304-313.
- Seal, D.W., & Ehrhardt, A.A. (2003). Masculinity and urban men: Perceived scripts for courtship, romantic, and sexual interactions with women. *Culture, Health & Sexuality*, 5, 295-319.
- Seguino, S. (2007). PlusÇa Change? Evidence on global trends in gender norms and stereotypes. *Feminist Economics*, 13, 1-28.
- Senel, F.M., Demirelli, M., Misirlioglu, F., & Sezgin, T. (2012). Adult male circumcision performed with plastic clamp technique in Turkey: results and long-term effects on sexual function. *Urol J*, 9, 700-705.
- Senkul, T., Iser, I.C., sen, B., Karademir, K., Saracoglu, F., & Erden, D. (2004). Circumcision in adults: effect on sexual function. *Urology*, 63, 155-158.
- Senn, T.E., Scott-Sheldon, L.A., Seward, D.X., Wright, E.M., & Carey, M.P. (2011). Sexual partner concurrency of urban male and female STD clinic patients: a qualitative study. *Arch Sex Behav*, 40, 775-784.
- Senol, M.G., Sen, B., Karademir, K., Sen, H., & Saracoglu, M. (2008). The effect of male circumcision on pudendal evoked potentials and sexual satisfaction. *Acta Neurol Belg*, 108, 90-93.
- Shannon, K., Leiter, K., Phaladze, N., Hlanze, Z., Tsai, A.C., Heisler, M., et al. (2012). Gender inequity norms are associated with increased male-perpetrated rape and sexual risks for HIV infection in Botswana and Swaziland. *PLoS One*, 7, e28739.
- Shattuck, D., Burke, H., Ramirez, C., Succop, S., Costenbader, B., Attafuah, J.D., et al. (2013). Using the Inequitable Gender Norms scale and associated HIV risk behaviors among men at high risk for HIV in Ghana and Tanzania. *Men and Masculinities*, 16, 540-559.
- Silva, C.G. (2002). [The meaning of fidelity and AIDS prevention strategies among married men]. *Rev Saude Publica*, 36, 40-49.
- Silverman, E.K. (2004). Anthropology and circumcision. *Annual Review of Anthropology*, 33, 419-445.

- Siu, G.E., Seeley, J., & Wight, D. (2013). Dividuality, masculine respectability and reputation: How masculinity affects men's uptake of HIV treatment in rural eastern Uganda. *Social Science & Medicine*.
- Skolnik, L., Tsui, S., Ashengo, T.A., Kikaya, V., & Lukobo-Durrell, M. (2014). A cross-sectional study describing motivations and barriers to voluntary medical male circumcision in Lesotho. *BMC Public Health*, 14, 1119.
- Smiler, A.P., & Epstein, M. (2010). Measuring Gender: Options and Issues. In J.C. Chrisler, & D.R. McCreary (Eds.), *Handbook of Gender Research in Psychology: Gender research in general and experimental psychology*. New York: Springer.
- Sobngwi-Tambekou, J., Taljaard, D., Lissouba, P., Zarca, K., Puren, A., Lagarde, E., et al. (2009). Effect of HSV-2 serostatus on acquisition of HIV by young men: results of a longitudinal study in Orange Farm, South Africa. *J Infect Dis*, 199, 958-964.
- Sorrells, M.L., Snyder, J.L., Reiss, M.D., Eden, C., Milos, M.F., Wilcox, N., et al. (2007). Fine-touch pressure thresholds in the adult penis. *BJU Int*, 99, 864-869.
- Stern, C., Fuentes Zurita, C., Lozano Trevino, L.R., & Reysoo, F. (2003). Masculinidad y salud sexual y reproductiva: un estudio de caso con adolescentes de la Ciudad de Mexico. *Salud Publica de Mexico*, 45, S34-43.
- Stewart-Williams, S., & Podd, J. (2004). The placebo effect: dissolving the expectancy versus conditioning debate. *Psychol Bull*, 130, 324-340.
- Stutterheim, S.E., Bertens, M.G., Mevissen, F.E., & Schaalma, H.P. (2013). Factors contributing to inconsistent condom use among heterosexual men in Curacao. *Cult Health Sex*, 15, 420-433.
- Sweat, M.D., Denison, J., Kennedy, C., Tedrow, V., & O'Reilly, K. (2012). Effects of condom social marketing on condom use in developing countries: a systematic review and meta-analysis, 1990-2010. *Bulletin of the World Health Organization*, 90, 613-622A.
- Tabet, S.R., de Moya, E.A., Holmes, K.K., Krone, M.R., de Quinones, M.R., de Lister, M.B., et al. (1996). Sexual behaviors and risk factors for HIV infection among men who have sex with men in the Dominican Republic. *AIDS*, 10, 201-206.
- Taylor, J.R., Lockwood, A., & Taylor, A. (1996). The prepuce: specialized mucosa of the penis and its loss to circumcision. *British journal of urology*, 77, 291-295.
- Thompson, E.H., & Pleck, J.H. (1986). The structure of male role norms. *American behavioral scientist*, 29, 531-543.
- Thompson, E.H., Pleck, J.H., & Ferrera, D.L. (1992). Men and masculinities: Scales for masculinity ideology and masculinity-related constructs. *Sex Roles*, 27, 573-607.
- Thornhill, R., & Palmer, C. (2001). *A natural history of rape: Biological bases of sexual coercion*. Cambridge, MA: MIT Press.

- Tian, Y., Liu, W., Wang, J.Z., Wazir, R., Yue, X., & Wang, K.J. (2013). Effects of circumcision on male sexual functions: a systematic review and meta-analysis. *Asian J Androl*, 15, 662-666.
- Townsend, L., Mathews, C., & Zembe, Y. (2013). A systematic review of behavioral interventions to prevent HIV infection and transmission among heterosexual, adult men in low-and middle-income countries. *Prev Sci*, 14, 88-105.
- Tulloch, J., & Lupton, D. (1997). *Television, AIDS and risk: A cultural studies approach to health communication*. St. Leonards: Allen and Unwin.
- Tynan, A., Hill, P.S., Kelly, A., Kupul, M., Aeno, H., Naketrumb, R., et al. (2013). Listening to diverse community voices: the tensions of responding to community expectations in developing a male circumcision program for HIV prevention in Papua New Guinea. *BMC Public Health*, 13, 749.
- UNAIDS. (2013). Global Report: UNAIDS Report on the Global AIDS Epidemic 2013. Geneva: UNAIDS.
- UNAIDS, COPRESIDA, & DIGECITSS. (2010). HIV Modes of Transmission Model: Analysis of the distribution of new infections in the Dominican Republic and recommendations for prevention. In UNAIDS (Ed.). Santo Domingo, Dominican Republic.
- Van den Berg, W., Hendricks, L., Hatcher, A., Peacock, D., Godana, P., & Dworkin, S. (2013). 'One Man Can': shifts in fatherhood beliefs and parenting practices following a gender-transformative programme in Eastern Cape, South Africa. *Gender & Development*, 21, 111-125.
- Vandello, J.A., & Bosson, J.K. (2012). Hard won and easily lost: A review and synthesis of theory and research on precarious manhood. *Psychology of Men & Masculinity*, 14, 101-113.
- Vandello, J.A., Bosson, J.K., Cohen, D., Burnaford, R.M., & Weaver, J.R. (2008). Precarious manhood. *J Pers Soc Psychol*, 95, 1325.
- Vanlandingham, M., Knodel, J., Saengtienchai, C., & Pramualratana, A. (1998). In the company of friends: peer influence on Thai male extramarital sex. *Soc Sci Med*, 47, 1993-2011.
- Verma, R.K., Pulerwitz, J., Mahendra, V., Khandekar, S., Barker, G., Fulpagare, P., et al. (2006). Challenging and changing gender attitudes among young men in Mumbai, India. *Reprod Health Matters*, 14, 135-143.
- Villa-Torres, L., Fleming, P.J., & Barrington, C. (2015). Engaging men as promotores de salud: perceptions of community health workers among latino men in north Carolina. *J Community Health*, 40, 167-174.
- Waldinger, M.D., McIntosh, J., & Schweitzer, D.H. (2009). A Five-nation Survey to Assess the Distribution of the Intravaginal Ejaculatory Latency Time among the General Male Population. *The journal of sexual medicine*, 6, 2888-2895.

- Waldinger, M.D., Quinn, P., Dilleen, M., Mundayat, R., Schweitzer, D.H., & Boolell, M. (2005). A multinational population survey of intravaginal ejaculation latency time. *J Sex Med*, 2, 492-497.
- Weiss, H.A., Quigley, M.A., & Hayes, R.J. (2000). Male circumcision and risk of HIV infection in sub-Saharan Africa: a systematic review and meta-analysis. *AIDS*, 14, 2361-2370.
- Weiss, H.A., Thomas, S.L., Munabi, S.K., & Hayes, R.J. (2006). Male circumcision and risk of syphilis, chancroid, and genital herpes: a systematic review and meta-analysis. *Sex Transm Infect*, 82, 101-109.
- West, C., & Zimmerman, D.H. (1987). Doing gender. *Gender & Society*, 1, 125-151.
- Westercamp, N., Agot, K., Jaoko, W., & Bailey, R.C. (2014). Risk compensation following male circumcision: results from a two-year prospective cohort study of recently circumcised and uncircumcised men in Nyanza Province, Kenya. *AIDS Behav*, 18, 1764-1775.
- Westercamp, N., & Bailey, R.C. (2007). Acceptability of male circumcision for prevention of HIV/AIDS in sub-Saharan Africa: a review. *AIDS Behav*, 11, 341-355.
- White, I.R., & Carlin, J.B. (2010). Bias and efficiency of multiple imputation compared with complete-case analysis for missing covariate values. *Stat Med*, 29, 2920-2931.
- Whitehead, T.L. (1984). The buccra-massa and the little man's broker in a Jamaican sugartown: implications for community health education. *Soc Sci Med*, 19, 561-572.
- WHO. (2007). Male circumcision: Global trends and determinants of prevalence, safety and acceptability. Geneva: World Health Organization.
- WHO. (2011). Progress in scaling up voluntary medical male circumcision for HIV prevention in East and Southern Africa: January-December 2011. Geneva: World Health Organization.
- WHO. (2014). Male Circumcision for HIV Prevention. Geneva: World Health Organization.
- WHO. (2015). What are Social Determinants of Health. Geneva: World Health Organization.
- WHO, UNAIDS, & JHPIEGO. (2009). Manual for MC under local anaesthesia. Geneva: World Health Organization.
- Wilkinson, R.G., & Marmot, M.G. (2003). *Social determinants of health: the solid facts*. Geneva: World Health Organization.
- Williams, D.R. (2003). The health of men: structured inequalities and opportunities. *Am J Public Health*, 93, 724-731.
- Wilson, P.J. (1969). Reputation and respectability: a suggestion for Caribbean ethnology. *Man*, 70-84.
- Wilson, P.J. (1973). *Crab Antics: The Social Anthropology of English-speaking Negro Societies of the Caribbean*. New Haven: Yale University Press.

- Wilson, P.J. (1974). *Oscar: An inquiry into the Nature of Sanity*. New York: Random House.
- Wingood, G.M., & DiClemente, R.J. (2000). Application of the theory of gender and power to examine HIV-related exposures, risk factors, and effective interventions for women. *Health Education & Behavior*, 27, 539-565.
- Wojcicki, J.M. (2005). Socioeconomic status as a risk factor for HIV infection in women in East, Central and Southern Africa: a systematic review. *Journal of biosocial science*, 37, 1-36.