

**EXPLORING THE RELATIONSHIPS OF MASCULINITY AND GENDER ATTITUDES
WITH SEXUAL RISK BEHAVIORS AMONG YOUNG MEN INVOLVED IN THE
JUVENILE JUSTICE SYSTEM**

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ABSTRACT

The prevalence of sexually transmitted infections is higher among youth involved in the juvenile justice system (JJS) compared to those not involved. From a public health and primary prevention perspective, it is critical to understand the multiple factors that contribute to sexual risk behaviors among young men involved in the JJS. The literature suggests that gender inequitable attitudes are a potentially modifiable risk factor for poor sexual health among young men. Young men of color from low-socioeconomic backgrounds are overrepresented in the JJS, and the intersections of gender, race, class, and sexuality need to be considered. The extent to which masculinity and gender attitudes are associated with sexual risk behaviors among juvenile justice-involved youth have not been assessed. This dissertation presents a systematic literature review and a mixed methods study to assess masculinity and gender attitudes related to sexual risk behaviors among young men involved in the juvenile justice system compared to those not involved. The study samples derive from a community-based randomized controlled trial of a sexual violence prevention program. The quantitative study uses existing data from a cross-sectional computer-based survey. Qualitative in-depth, face-to-face interviews are conducted with a sub-sample of participants. Systematic review findings show there is a significant gap in the literature about masculinity and gender attitudes related to sexual risk and sexual health outcomes among young men involved in the juvenile justice system. The quantitative study provides evidence that there is an association between gender attitudes, juvenile justice status,

and sexual risk behaviors. The qualitative data indicate that young men involved in the JJS displayed less equitable gender attitudes. These results suggest there are complex and intersecting topics related to gender, race, and other sociocultural factors that shape masculinity, gender attitudes, and sexual risk behaviors among young men involved in the JJS. This small, yet substantive study lays the foundation for future work. A comprehensive understanding of these associations and the people who influence these attitudes and behaviors may better inform the development of new interventions and approaches to promote healthy masculinity and sexuality among young men involved in the juvenile justice system.

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PREFACE

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1.0 INTRODUCTION

Nearly half of all new sexually transmitted infections (STIs) (over 20 million cases annually) in the US are among adolescents and young adults ages 15–24.^{1,2} STI prevalence is higher among youth involved in the juvenile justice system (JJS) and is associated with increased sexual risk behaviors, including having multiple sex partners and condom non-use. It is important to acknowledge among youth involved in the JJS, females have higher rates of STI compared to their male counterparts. However, little is known about the male partners who are also infected and can continue transmission to other sexual partners.³ Therefore, from a primary prevention standpoint, it is critical to understand the multiple factors related to sexual risk behaviors among young men involved in the JJS. A large body of literature suggests that gender inequitable attitudes, including hyper-masculinity, are a potentially modifiable risk factor for poor sexual health among young men.⁴⁻¹² Yet a majority of these studies have taken place internationally and an understanding of these issues within the context of the United States is lacking. Existing literature supports that gender and hegemonic masculinity are socially and culturally constructed^{13,14} and the culture of the JJS reinforces traditional hyper-masculine attitudes and behaviors.^{15,16} Therefore, the association of gender inequitable attitudes and sexual risk needs to be explored within the context of young men involved in the United States JJS. Youth involved in the JJS are overwhelmingly, male,^{17,18} minorities,^{18,19} and from low socioeconomic status,¹⁸ and thus the intersections of gender, race, class, and sexuality as the context for gender

inequitable attitudes and practices need to be considered in designing meaningful prevention programs. The relationships to which masculinity and gender attitudes are associated with sexual risk behaviors among this vulnerable population of juvenile justice-involved youth has not been assessed.

This dissertation presents a systematic literature review and a mixed methods study to assess masculinity and gender attitudes related to sexual risk behaviors among young men involved in the JJS compared to those not involved. The samples for the mixed method study derive from a community-based, longitudinal randomized controlled trial of a sexual violence prevention program in Western Pennsylvania. The quantitative study uses existing data from a cross-sectional computer-based survey. Qualitative in-depth, face-to-face interviews were conducted with a sample of study participants who are either involved or not involved in the JJS. The overarching goal of this dissertation is to address these three specific aims:

Aim 1: To evaluate the relationship to which masculinity and gender attitudes may contribute to sexual risk behaviors and outcomes among young men in the United States juvenile justice system.

Aim 2: To examine the associations between gender inequitable attitudes and sexual risk behaviors among young men involved in the JJS compared to a sample of young men from the community those not involved in the JJS.

Aim 3: To understand how social and cultural factors, including youths' racial identities and experiences, influence these young men's perspectives on masculinity, gender attitudes, and sexual risk behaviors.

The first chapter describes a systematic literature review, methods, and results. The review includes manuscripts published in peer-reviewed journals that examine adolescent males

involved in the US JJS within the topic areas of: (a) gender attitudes or (b) gender norms or (c) gender and power theory or (d) masculinity norms and (e) sexual risk behaviors or (f) sexual health outcomes. Six electronic databases were utilized and include PubMed, Ovid PsycINFO, Ebscohost Social Sciences Abstracts-H.W. Wilson, Cochrane Library from Wiley, Ebscohost Criminal Justice Abstracts and ProQuest GenderWatch. Reviewers searched for publications about how masculinity norms and gender inequitable attitudes are associated with sexual risk behaviors, specifically, multiple sexual partners, condom and contraceptive nonuse, sex under the influence of drugs or alcohol, and/or sexual health outcomes related to STIs/STDs including HIV/AIDS.

Chapter two presents secondary analyses of data including system-involved youth and assess the frequencies of sexual risk behaviors, including the number of lifetime sexual partners, condom use, sex under the influence of drugs or alcohol, and mean gender attitude scores comparing young men involved in the JJS to those not involved. Further examination is needed to assess the associations of gender attitudes and juvenile justice status related to these sexual risk behaviors.

The third chapter places findings from Aim 2 in context. This qualitative study utilized in-depth, face-to-face interviews with young men ages 14-19 to understand how their experiences and perspectives of masculinity as it relates to sexuality are influenced by social and cultural factors. This study compared young men in the JJS to those not in the system to understand differences from interpersonal factors, including familial and peer relationships, to community level factors that may influence these perspectives. As compared to youth who are not juvenile justice-involved, juvenile justice-involved youth have greater exposure to deviant

peers, single-family households, poverty, poor educational attainment, and exposure to child maltreatment, violence, and victimizations.²⁰

The final chapter provides a comprehensive summary of the findings from each of the three chapters. This includes a discussion of the importance of taking these findings and lessons learned to inform future research and implement practical applications in the field. Broader applications need to be considered to provide more primary prevention approaches prior to young men becoming involved in the juvenile justice system. Collaborative partnerships may be a critical avenue to develop structural interventions and system-based approaches to improve the sexual health of this vulnerable population.

2.0 BACKGROUND

2.1 TERMS AND DEFINITIONS

The key terms used in this dissertation are defined below. This language is applied within the conceptual frameworks of gender and power theory, intersectionality, and the socio-ecological model.

Adolescence: This is a period when a young person is developing from a child into an adult and generally refers to the ages of 10-19 years old. This includes a series of transitions: biological, psychological, social, and financial. Biologically, this is when an individual becomes interested in sexual intercourse and capable of becoming or making someone pregnant. During adolescence, individuals expand their cognitive reasoning and decision-making skills. From a societal standpoint, a young person is allowed to gain employment, get married, and vote during adolescence.^{21,22}

Juvenile justice system: For the purpose of this dissertation the term “young men involved in the juvenile justice system (JJS)” is inclusive of adolescent males ages of 14-19 years old, placed under arrest and/or detained as a juvenile, diverted or adjudicated through juvenile corrections or court, and those incarcerated in juvenile correctional/residential facilities.

Masculinity and related terms: Masculinity includes the socially constructed traits, attitudes and behaviors commonly related to boys and men.^{13,23} Hyper-masculinity is an excessive display of aggression and dominance over others.²⁴ Hegemonic masculinity is a practice that validates men's position to be dominant in a society and legitimizes the subordination of others unlike them.¹⁴

Gender attitudes and behaviors: Gender attitudes and behaviors include perspectives of gender roles (how men and women should act and specific societal norms of what is acceptable and appropriate based on gender) and gender equity (the fair and equal treatment and access to resources and opportunities regardless of gender).^{25,26} Gender inequitable attitudes and behaviors result from adherence to toxic/rigid masculinity such as attitudes that condone violence against women (including rape myth acceptance), adherence to rigid gender roles (how men and women should act, specific societal roles), and homophobic attitudes.

Hyper-sexuality: Hyper-sexuality on the individual level is considered an extreme level of sexual desire or behaviors or increased libido.²⁷ From the sociocultural perspective this is inclusive of exaggerated displays of sex and sexuality.¹³

Compulsory heterosexuality: Compulsory heterosexuality is defined as the inclination or obligation to follow relationship norms that prioritize partnerships with one man and one woman.²⁸

Sexual risk behaviors: Sexual risk behaviors are behaviors related to increased risk for contracting sexually transmitted infections and diseases. These include behaviors such as early sexual intercourse, multiple sexual partners, condom non-use, and sex under the influence of drugs or alcohol.^{3,29-37} These behaviors have been related to increased adverse sexual health outcomes, specifically sexually transmitted infection and/or disease including HIV/AIDS.

2.2 SCOPE OF PROBLEM

Adolescence generally refers to the ages of 10-19 years old.²¹ This is a critical and highly dynamic transition period from childhood to adulthood due to dramatic biological changes during puberty, development of cognitive reasoning, differentiation and emergence of identity, and exploration of diverse social relationships.³⁸⁻⁴⁰ During this period, adolescents establish attitudes and behaviors that can impact both their current health and future health as adults.⁴¹ Adolescence is the peak risk period for serious public health problems,^{21,38,41} among them, sexually transmitted infections (STIs).

Nearly half of all new STIs (over 20 million STIs cases per year) in the United States are among adolescents and young adults ages 15–24 year old.^{1,2} The most commonly reported bacterial STIs are chlamydia and gonorrhea, with adolescents comprising two-thirds and one-half of all chlamydia and gonorrhea cases, respectively.^{1,2} Studies have also documented stark racial disparities in bacterial STIs, with African American adolescent males 9 times more likely to have been diagnosed with chlamydia and 10 times more likely to have had a gonorrhea diagnosis compared to their Caucasian counterparts (See Table 1).⁴²⁻⁴⁴ These racial disparities are also found within new diagnoses of HIV infection. The highest rates of HIV occur among African American adolescents (27.9 per 100,000), which is close to 5 times that of Hispanic/Latino adolescents (5.6 per 100,000) and 20 times that of Caucasian adolescents (1.4 per 100,000). When comparing HIV rates by gender, adolescent males (10.0 per 100,000) have 4 times the rate of HIV incidence as compared to adolescent females (2.5 per 100,000).⁴⁵

Youth involved in the juvenile justice system (JJS) are disproportionately affected by these disparities, with substantially higher prevalence of STIs. These youths are adolescents (generally between the ages of 10-19 years old) placed under arrest and/or detained as a juvenile,

diverted or adjudicated through juvenile corrections or court, and incarcerated in juvenile correctional/residential facilities. The JJS consists of law enforcement, juvenile court, detention centers and residential facilities. Outside agencies such as child welfare and social service agencies are also included in this system.⁴⁶

Youth involved in the JJS are a high-risk and medically underserved population due to their multiple unmet developmental, mental, and physical health needs.^{31,32,47-54} Numerous studies have found that high-risk behaviors (e.g. substance use and risky sexual behavior) and associated health outcomes (e.g. psychiatric disorders and sexually transmitted diseases) are more prevalent among juvenile justice-involved youth than the general adolescent population.^{31,48,55-60}

Many studies have found high prevalence of bacterial STIs among youth involved in the JJS, specifically chlamydia and gonorrhea, as compared to general youth populations^{3,32,36,37,55,61-69} and adult incarcerated populations.^{61,70,71} (See Table 1) Further, epidemiologic studies have found that African American males who are juvenile justice-involved have significantly higher rates of chlamydia and gonorrhea as compared to general adolescent male populations^{36,61-68,72} and to their Caucasian male counterparts involved in the JJS.^{36,61,63,65} (See Table 1) These adverse sexual health outcomes are associated with increased sexual risk behaviors reported by juvenile justice-involved youth, including early sexual intercourse, multiple sexual partners, condom non-use, sex under the influence of drugs or alcohol,^{3,29-37} unprotected anal sexual intercourse, and sex with a STI/HIV infected partner.^{3,29,30} Likewise, the particularly elevated STI risk among youth in the JJS has been associated with a history of sexual abuse^{33,50} and drug use.^{29,31} Females have higher rates of STI compared to their male counterparts; however, little is known about the male partners who are also infected. From a primary prevention perspective, it

is critical to understand the factors that contribute to sexual risk behaviors among young men involved in the JJS.

Young men are overrepresented in the JJS. Over 1 million juvenile cases annually were handled by juvenile court and approximately over 75% of these juvenile cases were males.¹⁷ Further, African American males have the highest rate of incarceration. Of those cases handled by juvenile courts, 66% are young men (ages 13-19) and of those 35% are African American,¹⁷ which accounts for almost all of the male minorities in juvenile court. Further, among the cases that result in incarceration, 86% are males and of those 41% are African American.¹⁹ African Americans represent the largest racial group of incarcerated males in juvenile corrections.¹⁹

Given the elevated prevalence of STIs^{3,32,36,37,55,61-69} and sexual risk behaviors^{3,29-37} among juvenile justice-involved youth and among African American young men who are overrepresented in the JJS, it is critical for research to assess whether and how race, class, gender and sexuality influence attitudes about masculinity and gender attitudes related to sexual risk behaviors among this marginalized population. Findings may inform how sexual health prevention programs and interventions may incorporate topics of masculinity and gender attitudes to help reduce sexual risk among young men involved in the juvenile justice system.

Table 1. Prevalence of Sexually Transmitted Infections Among Young Men in the US Juvenile Justice System Compared to Young Men from the General Population*

YOUNG MEN IN THE US JUVENILE JUSTICE						YOUNG MEN FROM GENERAL POPULATION					
Prevalence of Chlamydia (CT) ^A			Prevalence of Gonorrhea (GC) ^A			Prevalence of Chlamydia (CT) ^B			Prevalence of Gonorrhea (GC) ^B		
Overall	African American	Caucasian	Overall	African American	Caucasian	Overall	African American	Caucasian	Overall	African American	Caucasian
8,700	12,500	3,000	3,100	3,300	500	718	2,004	222	221	816	46
(5,900-12,900)	(7,200-14,400)	(1,000-5,800)	(600-6,600)	(800-5,400)	(0-1,300)						

*General population is indicated in parenthesis (i.e. 5,900-12,900)

^AReported percentages of positive CT and GC found from the literature were converted to mean and range of cases per 100,000 among young men involved in the US juvenile justice system^{36,61-68,72}

^BPrevalence from the CDC STI Reports includes approximated cases per 100,000 among young men ages 15-19^{2,42-44}

2.3 CONCEPTUAL FRAMEWORK

This dissertation explores the relationship of masculinity, gender attitudes and sexual risk behaviors among young males involved in the juvenile justice system using gender and power theory, intersectionality, and the social-ecological model. These theoretical frameworks are appropriate for examining how self-identities (e.g. racial, gender), cultural masculinities, and gender attitudes are formed and how this may be associated with promoting gender equity and healthy sexuality (See Figure 1).⁷³⁻⁷⁵

Gender and power theory suggests sexual relationships are influenced by social norms about performing gender and maintaining power. Thus, changing sexual behaviors requires attention to power dynamics, attitudes related to gender norms, and gender performance within relationships to effectively reduce negative sexual risk behaviors and health outcomes. These poor health outcomes include unsafe sexual practices (such as having multiple sex partners, unprotected sex, inconsistent condom use, sex while drunk or high on drugs, and sex with an infected partner)^{5,76-81} higher rates of STI acquisition, HIV transmission,⁸²⁻⁸⁸ and unintended pregnancy.⁸⁹⁻⁹² Specifically, global research has found that masculinity norms and gender inequitable attitudes are modifiable risk factors that can be targeted to reduce sexual risk behaviors and to promote healthy sexuality.^{4,9-12}

Intersectionality theorizes there is an intersection of how race, class, gender, and sexuality intertwine simultaneously to influence power, social structures, and health outcomes. This intersection includes the ways societal factors such as politics, culture, and economics construct identities, interactions, and systems that impact health outcomes.⁹³⁻⁹⁷ Intersectionality

has become more of a normative approach and research paradigm for understanding the complexity of health inequalities.⁹⁸⁻¹⁰¹ Further, intersectionality is recognized as an approach to understanding the construction and development of self-identities among youth⁹⁶ and how these identities influence attitudes and behaviors related to health. Researchers have utilized this intersectionality to also understand the influences of gender and race on the health of youth involved in juvenile justice system.⁹⁷

The socio-ecological model considers individual behavior in the context of the social and physical environment and how these different contextual factors influence health behaviors and outcomes (See Figure 1).⁷³⁻⁷⁵ The socio-ecological model is ideal for understanding how young men's experiences and perspectives of masculinity, as they relate to sexuality, are influenced by social and cultural factors.

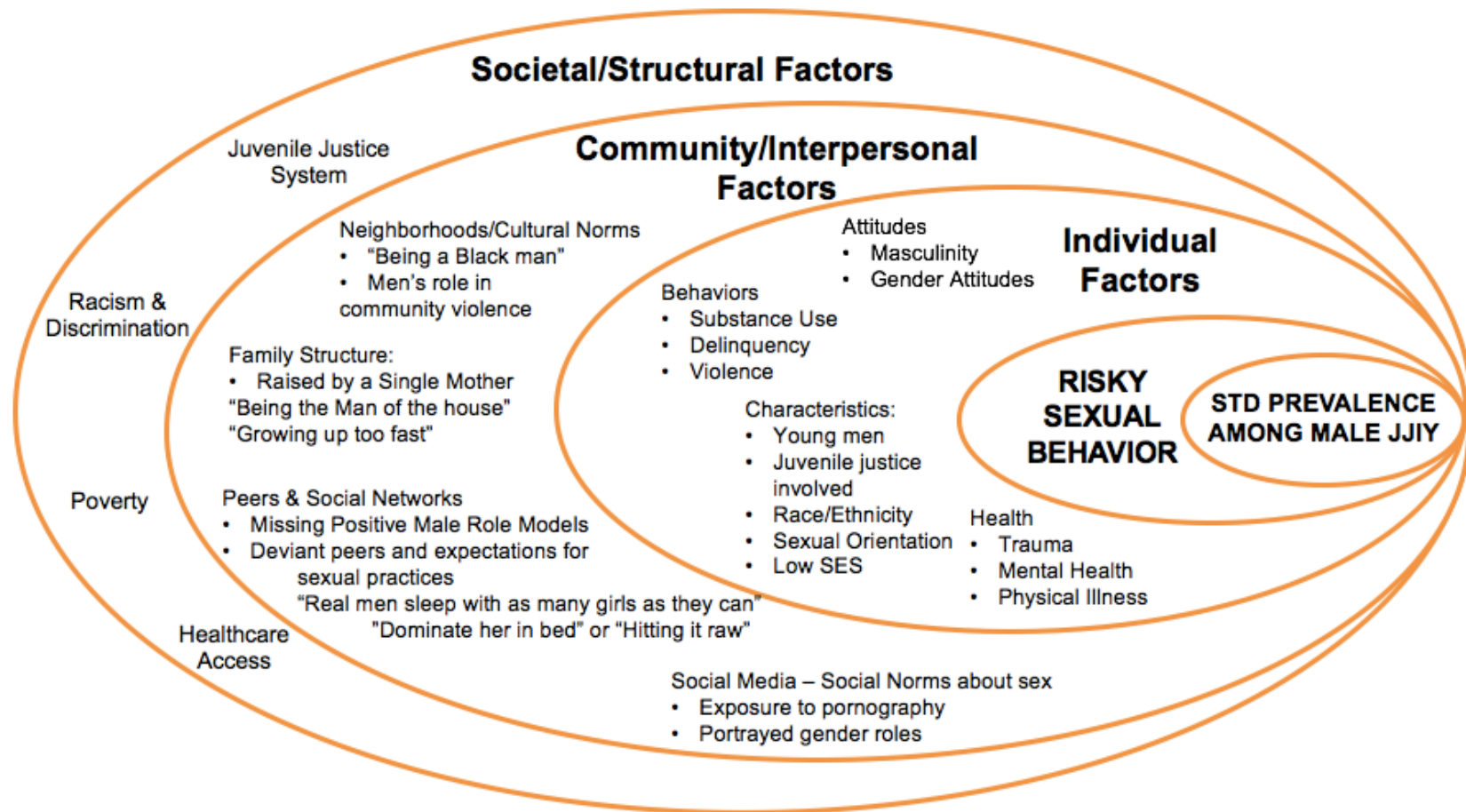


Figure 1. Proposed Theoretical Framework

Modified from Bronfenbrenner & Poundstone, et al^{75,102}

**3.0 CHAPTER 1 - THE ROLE OF MASCULINITY AND GENDER NORMS IN
PROMOTING HEALTHIER SEXUAL BEHAVIORS AND SEXUAL HEALTH
OUTCOMES AMONG YOUNG MEN INVOLVED IN THE JUVENILE JUSTICE
SYSTEM: A SYSTEMATIC REVIEW**

3.1 ABSTRACT

Background

There is a large body of literature addressing the development of gender identity during childhood and adolescence, gender socialization, and the intersection of race and social class that influence one's masculinity identity. There is also published work addressing the connection between masculinity and sexuality. Researchers suggest that more hegemonic masculinities are being constructed among young men who are involved in the juvenile justice system (JJS). These higher levels of hyper-masculinity may contribute to the development of gender inequitable attitudes related to sexual risk behaviors. A systematic literature review is needed to better understand these relationships of masculinity and gender attitudes with sexual health among male youth involved in the juvenile justice system.

Methods

A health sciences librarian completed searches in the following peer-reviewed electronic databases: PubMed, Ovid PsycINFO, Ebscohost Social Sciences Abstracts-H.W. Wilson,

Cochrane Library from Wiley, Ebscohost Criminal Justice Abstracts and ProQuest GenderWatch. Standardized search strategies included a set conceptual structure with consistent terms for the target population and the study domain. Synonyms for each concept were identified and tested for inclusion. The review protocol included set inclusion and exclusion criteria and standardized review procedures with two reviewers and a senior reviewer. The systematic review was completed with a primary and secondary reviewer through 3 phases of abstract and title screening, full text article screening, and data extraction. The primary eligibility criteria were the sample of participants needed to be involved in the US juvenile justice system (JJS), identified as male, and within the ages of 14-19 years old. The study domain included topics about masculinity and gender attitudes related to sexual risk behaviors and outcomes.

Results

A total of 1180 citations were identified for inclusion in phase 1 title and abstract screening. In the second phase, 135 citations were found eligible for full text article screening. Of those articles, only one article was eligible and included for data extraction. Due to the limited number of articles, the research team completed an ad hoc analysis of the last 3 articles that did not meet the final inclusion criteria for data extraction. Two of the articles focused on outcomes related to delinquency and sexual violence and the one study was limited by its study design as a case report.

Conclusion

Due to the limited number of studies resulting from this review, researchers suggest more rigorous research needs to be conducted to test the associations of masculinity and gender attitudes with sexual risk behaviors comparing those youth involved in the JJS to those not involved.

3.2 BACKGROUND

The term “gender identity” describes an individual’s identification as being male or female and is established by age 3 years old.^{103,104} As a concept, gender is seen as having both biological (e.g. sex chromosomes) and environmental (e.g. adhering to socially and culturally defined characteristics of being a man or a woman) components. Gender identities are based on a spectrum with masculinity on one end and femininity on the other end.¹⁰⁵ These identities are related to gender roles, which are a perceived set of norms and behaviors associated with being a man or a woman, within a socialized group or established institution. The process through which a person learns and accepts these gender roles is gender socialization.¹⁰⁶

Historically, there is a large body of literature across multiple disciplines about the development of gender identity during childhood and adolescence, gender socialization, and the intersection of race and social class that influence one’s masculinity identity.^{13,23,107-109} For men and boys these behaviors are associated with masculinity and compared to not being feminine. Often in the current western culture being masculine is related to the practice of being objective, strong, dominating, in control and associated with acts of violence to protect and defend, and sexual prowess to lure women.^{13,23,110} These masculine attitudes and behaviors are performed based on intersecting identities related to gender, race, social status and class, and sexual orientation. The way individuals behave are considered by the success and failure of meeting a set of societal expectations.¹³ Masculinity theorists suggest men have a range of gendered attitudes and behaviors based on their responses to their social and cultural environments.^{23,107,109,111}

A wealth of existing research also shows that masculinity is strongly connected to a man’s sexuality.¹¹² Researchers have described that men and boys construct their sexual identity

through gender and “gender informs sexuality, sexuality confirms gender” (p. 457).¹¹² As a young man develops his gender identity and gender roles, his sexuality is intertwined to these ideals and norms.¹¹³ Therefore, one’s gender attitudes and behaviors related to masculinity are likely linked to one’s sexual beliefs and practices.

Researchers suggest that these masculinities are constructed differently for young men who are involved in the juvenile justice system (JJS).¹¹⁴ Connell (2005) defined the term “hegemonic masculinity,” which is a practice that validates men’s position to be dominant in a society and legitimizes the subordination of others unlike them. The controlled supervision and punitive treatment of young men in the juvenile justice system may introduce or reaffirm more hegemonic masculine attitudes and behaviors.^{16,114} This hyper-masculinity is further reinforced in the context of incarceration also known as “prisonization.”¹¹⁵ Young men involved in the JJS construct their self-identities through the intersections of racial identities and experiences, social class, delinquency history, and other connections with gang or deviant peer groups.^{16,114} It is also important to consider the construction of these identities prior to the involvement in the juvenile justice system. Previous studies examining masculinity among young men involved have demonstrated that traditional masculinity, aggression, misogyny, and mental indicators, may also be related to adolescent’s delinquent and criminal behavior.^{116,117} The development of these ideals and behaviors can influence masculinity and gender attitudes prior to entering the system.

Adolescent males coming into the juvenile justice system may practice more traditional masculinities and further involvement to the system may reinforce more hyper-masculinity compared to their counterparts who do not encounter the system. These prior experiences and exposures to hegemonic masculinities while juvenile justice-involved may contribute to the development of more gender inequitable attitudes related to sexual risk behaviors. A systematic

literature review is needed to better understand these relationships of masculinity and gender attitudes with sexual health among male youth involved in the United States juvenile justice system. Specifically, how these constructs of masculinity and gender attitudes contribute to increase sexual risk behaviors related to adverse sexual health outcomes found among juvenile justice-involved youth.

3.3 AIMS

The primary aim of this article is to evaluate the relationship to which masculinity and gender attitudes may contribute to sexual risk behaviors and outcomes among young men in the United States juvenile justice system. Specific attention is given to addressing the following research questions: 1) Are there relationships with masculinity and/or gender attitudes related to sexual risk behaviors (condom nonuse, sex under the influence of drugs/alcohol and number of recent sex partners) and sexual health outcomes (primarily STIs), among males (14-19 years old) from the US juvenile justice system? 2) If so, what specifically about these constructs are related with these sexual risk behaviors and sexual health outcomes among this male population?

3.4 METHODS

3.4.1 Search Strategies

A health sciences librarian completed the systematic review searches in the following electronic databases: PubMed, Ovid PsycINFO, Ebscohost Social Sciences Abstracts-H.W. Wilson,

Cochrane Library from Wiley, Ebscohost Criminal Justice Abstracts and ProQuest GenderWatch. Based on our research protocol (Appendix A) the librarian developed, tested and revised a search initially in PubMed for these concepts: (adolescents AND males AND juvenile justice) AND (gender attitudes OR gender norms OR gender and power theory OR masculinity norms) AND (sexual risk behaviors OR sexual health outcomes). Synonyms for each concept were identified and tested for inclusion. The search in PubMed (1946-Nov. 2016) was then run in Ovid PsycINFO (1967-Jan 2017), Ebscohost Social Sciences Abstracts-H.W. Wilson (1972-Jan 2017), all databases of the Cochrane Library from Wiley, (beginning –Jan 2017), Ebscohost Criminal Justice Abstracts (2007-April 2017), and ProQuest GenderWatch (2007-April 2017) (See Appendix B). Citations from initial databases, PubMed, PsycINFO and Social Sciences Abstracts were excluded at the search if they were in a language other than English. The remaining databases, Cochrane Library, Criminal Justice Abstracts and GenderWatch, extended exclusion of reported studies in a location outside of the United States or were published prior to 2007. Database results were de-duplicated in EndNote using the Bramer method.¹¹⁸ The 1180 citations that remained after de-duplication were uploaded to DistillerSR¹¹⁹ for review.

3.4.2 Eligibility of Citations

To be eligible for inclusion, studies must have had participants who were currently or historically involved in the juvenile justice system (JJS), identified as male, and must have had participants who were at least 75% of the sample was aged 14-19 years old. The exclusion criteria were studies whose participants were not involved in the juvenile justice system, identified as female, and more than 25% of the sample was not inclusive of participants aged 14-19 years old. The criteria for participants involved in the juvenile justice system was defined as any person placed

under arrest and/or detained, diverted or adjudicated through juvenile corrections or court, and those incarcerated in juvenile correctional/residential facility.⁴⁶ The purpose for setting the proportion of the sample within the age criteria was because many studies include adolescent participants that were under the age of 14 and/or over the age of 19. Specifically for this review, researchers were interested in this subpopulation of adolescents who are sexually active and at greater risk for adverse sexual health outcomes. Researchers included studies where a majority of the sample included 14 to 19 years old. This criterion has been applied in previous Cochrane reviews.^{120,121}

The domain being studied was the role masculinity and gender attitudes have with reductions of sexual risk behaviors to promote healthy sexual behaviors and outcomes. The domain eligibility included studies that assessed masculinity and/or gender attitudes and behaviors and assessed sexual risk behaviors (including as condom nonuse, sex under the influence of drugs/alcohol and number of recent sex partners) and/or sexual health outcomes (including STIs/STDs/HIV).

The criteria for intervention and exposures included articles that describe any sexual health education, prevention or intervention studies that measured the relationships or associations between masculinity and/or gender attitudes with sexual risk behaviors and/or sexual health outcomes. The studies included were randomized controlled trials to assess the effects of using gender-based intervention and programming to reduce sexual risk behaviors, along with cohort and observational studies (including prospective case control, cross sectional and mixed methods). Researchers excluded case reports because the aim of the review was primarily to assess the association between masculinity and gender attitudes to sexual risk

behaviors and sexual health outcomes. Studies where sexual offenders or sex crimes were the primary outcome were also excluded.

The setting was restricted to studies that took place in the United States. Literature supports that gender and masculinity are socially and culturally constructed.^{13,14} Therefore, it was important to restrict the setting to the US to account for the sociocultural differences of the juvenile justice system domestically as opposed to internationally. These settings vary in culture and values that reinforce different meanings of masculinity and gender attitudes among young men involved in the JJS.

3.4.3 Procedures

Researchers worked collaboratively with the librarian to finalize the search strategy (See Appendix B) and to reach consensus about the review protocol. Additional restrictions were added to exclude studies outside of the United States and that were published prior to 2007, given the geographic focus and the concern that publications over a decade old would not reflect the current juvenile justice system context. After the librarian completed searches in each database, she had an additional librarian peer review the search strategy and results.

The librarian provided the abstracts and citations that were eligible for review and compiled them into an Endnote data file. The primary reviewer uploaded data files and managed all screenings and data extraction through DistillerSR.¹¹⁹ Primary and secondary reviewers were involved in all three phases of citation review, initial screening, full text article screening, and data extraction. Due to timeline and reviewer availability a subset of citations was reviewed and vetted by the secondary reviewer at each phase. All screening and data extraction forms are included (See Appendix C). Quality assurance was completed between the two reviewers by

meeting regularly throughout the review process and resolving any discrepancies immediately. A senior reviewer was consulted as needed if any discrepancies were unable to be resolved.¹²² All procedures aligned with standardized systematic review protocols.¹²³

Phase 1 was the initial screening using the title and abstract. Reviewers piloted the initial screening form for clarity and consistency with the first 10 citations. After the pilot, both reviewers met and discussed any discrepancies and the primary reviewer reconciled any conflicts. Any revisions on the screening form was also reviewed and approved by the senior reviewer. The primary reviewer completed 100% of the initial screening forms. During the primary reviewer's screening, conflicts arose about the inclusion or exclusion of certain citations and were referred to the second reviewer to complete screening. As a result, the second reviewer completed 12.5% of the initial screening forms. These citations were documented on an excel spreadsheet and sent to the second reviewer to assess each citation independently using the initial screening form. Reviewers discussed any discrepancies and reconciled any conflicts about eligibility. The senior reviewer was not used for additional consultation for phase 1 review.

Phase 2 was the full text article screening. The review process was parallel to phase 1, as described above. The reviewers piloted the screening form with the first 8 articles and then completed another 10 full text article screenings. After consensus was reached regarding the form, each reviewer independently screened the remaining full text articles. Of the remaining full text articles, the primary reviewer completed 85% and the secondary reviewer completed 15%. Once the full text screening was complete, reviewers met and discussed the articles found eligible for data extraction.

Phase 3 was data extraction, which was completed after reviewers reached consensus about the articles to include and the senior reviewer confirmed eligibility of the articles. The data

extracted included study title, author, year, design, population, setting, sample size, relevant search concepts/terms, results measuring the variables of interest and additional information regarding future recommendations, limitations and bias of the study.

3.4.4 Analysis

Researchers selected two tools for assessing methodological quality of articles included in data extraction. Both qualitative and quantitative studies could be included in this review: the “Quality Assessment Tool for Quantitative Studies (QATQS)¹²⁴” was selected for quantitative studies and the “Critical Appraisal Skills Programme (CASP)¹²⁵” for qualitative studies. The QATQS provides a checklist to evaluate methodological rigor for both randomized and non-randomized studies.¹²⁴ The tool includes a rating scale ranging from weak, moderate, and strong based on selection bias, study design, confounders, blinding, data collection methods, withdrawals and drop-outs, intervention integrity, and analysis.¹²⁴ The CASP provides a checklist to complete a critical appraisal exercise to assess the methodological rigor of qualitative research.

A descriptive narrative synthesis¹²⁶ provided the framework for the review analysis. The framework outlines the importance of reviewing the theory related to the intervention and the rationale for who the intervention was successful and how and why the intervention was successful, then assessing the synthesis of the findings from the eligible studies and exploring the relationship in the data collected and the robustness of their associations. The assessment tools previously described standardized this process to enable an understanding of the implementation and effectiveness of studies included for data extraction. After using the assessment tool, researchers synthesized the findings related to the associations found between masculinity and

gender inequitable attitudes with sexual risk behaviors and sexual health outcomes among young men in the US juvenile justice system.

As only one article met criteria for data extraction, researchers also completed an ad hoc narrative review of the last 3 articles that were not included in the systematic review based on the final eligibility criteria. This review provided an opportunity to understand the clear gap in the literature and assess how topics of masculinity and sexual health were being studied in the target population.

3.5 RESULTS

Results from the literature search yielded 1180 citations for the initial screening review. After title and abstract were screened, 135 citations were eligible for full text screening (See exclusion details in Figure 3). During phase 3 data extraction, the reviewers discussed the potential articles and after careful review of those articles only one was eligible for inclusion.

The one article included for data extraction was titled “Creating REAL MEN: Description of an Intervention to Reduce Drug Use, HIV Risk, and Rearrest Among Young Men Returning to Urban Communities From Jail,” by Daniels and colleagues.¹⁸ The article described the social characteristics and health of 552 young men imprisoned in two facilities located in a New York City detention center. The participants were exclusively between the ages of 16 to 18 years old. The researchers presented the theoretical base, methods, and baseline data for an intervention they designed called the “Returning Educated African American and Latino Men to Enriched Neighborhoods (REAL MEN)” program. The program was designed to reduce risk of HIV infection, substance use, and re-arrest after young men were released from detention. This

manuscript did not include results of the effects of the intervention or associations between variables.

Researchers were able to assess variables of interest as reported from a cross-sectional baseline survey data as descriptive statistics. This included frequencies and percentages of participants' sexual history (sexual activity, age of first sex, frequency of long-term and/or short-term partners and condom use in the context of those partners) and gender related attitudes included participants perceptions of violence and sex in a relationship. These attitudes were reported by frequency and percentage of agreement to the following 7 statements: "Boy who hits girlfriend loves her," "Violence between dating partners improves relationship," "Girls sometimes deserve to be hit," "Okay for a man to hit his wife," "Most men want to go out with women just for sex," "Boys sometimes deserve to be hit by the girls they date," and "Girls sometimes deserve to be hit by the boys they date."

Their findings showed low rates of agreement with results that were categorized by the authors as 'hyper-masculine' attitudes. In this study, hyper-masculine attitudes are defined as actions and environments that are exemplified by behaviors such as having multiple sex partners, controlling partners with emotional or physical force, and use of violence for conflict resolution and to garner respect. They also found high rates of risky sexual behaviors. Most young men did agree with some traditional gender stereotypes. First, regarding men's sexual proclivity, over 80% of the young men agreed with the item "most men want to go out with women just for sex." Some endorsed norms that inflicting violence towards boys was more acceptable and deserved than violence towards girls. Over 45% of the young men agreed that "boys sometimes deserve to be hit by the girls they date" compared to 24% who agreed with "girls sometimes deserve to be hit by the boys they date."

With regard to sexual risk behaviors, close to 100% of the sample was sexually active and on average, age at first sex was 13 years old. Over half reported having both long-term partners and short-term partners in the past year. There was higher condom use among short-term partners (60%) than with long-term partners (31%). More than 40% of the sample reported having had three or more sexual partners in the 3 months before they were incarcerated. Researchers only provided interpretation based on these descriptive statistics presented and did not run formal statistical analyses testing the association of these attitudes and sexual risk behaviors. Further, the researchers did not include additional discussion regarding the association of these gender attitudes and sexual behaviors.

The quality assessment was not applicable because the article is a methods paper and the results are a population description rather than an analysis of behaviors or attitudes. There was no description of the participant screening process and the study design did not specify the random assignment of participants. No information was provided about any potential cofounders and no mentions of blinding or the participants' awareness of the research aim were made. Further, the measures used for attitudes of violence and sex in relationships were not cited as tested measures and no test of validity or reliability was discussed. Since this was only the baseline program data there was potential for a follow up publication to provide intervention data. However, researchers found the next publication on the REAL MEN intervention, by Satyasree Upadhyayula and colleagues, was based on the sample population of young men released from jail and tested the association of cultural pride with health outcomes. This article did not meet inclusion criteria for this review as it was not related to association of gender attitudes and sexual risk behaviors.

Ad Hoc Narrative Review

The following describes the additional papers reviewed and data extracted ad hoc, which included some discussion of masculinity or gender attitudes and sexual health behaviors.

A case report study met the review's inclusion criteria as it covered assessment of masculinity and sexual health in terms of fatherhood. Case studies were excluded in the systematic review protocol and thus, this article was not included in data abstracting. Through further review, the association of masculinity was restricted specifically to fatherhood identity as opposed to sexual risk behaviors related to becoming an unexpected father (i.e., getting someone pregnant). The study used the framework of adolescent identity development and intersectionality to understand adolescent fatherhood in the context of incarceration.⁹⁷ Authors focused on how hegemonic masculinity, defined as the hyper-masculine standard that men are held to and reinforces in the dominant male figure,¹⁴ relates to male gender identity and how the juvenile justice setting interacts with individual values that influence youth development and fatherhood.

The two remaining articles included masculinity beliefs and traditional male aggression and associations with violent delinquency and sex crimes. The first article by Brown and colleagues investigated the associations of conventional masculine views between various subsamples of youth sexual abusers and general delinquents (nonsexual offenders).¹¹⁷ This paper was excluded from the systematic review because the outcome was not focused on sexual risk behaviors and instead on violent delinquency. The associations of masculinity were examined to assess if they aligned with common traits for antisocial traits and psychopathy. Masculinity was measured using the validated scale of "Male Role Norms Inventory (MRNI),"¹²⁷ which measures masculinity outside the relational context of women and girls. The MRNI scores were compared

among groups with of varying sexual abusers of peers and adults, sexual abusers of children, nonsexual violent delinquents and nonsexual nonviolent delinquents. The researchers concluded there were there were no differences in masculinity ideals between any youth with any of these behaviors of interest. These researchers emphasized the importance of re-evaluating using masculinity as a measure to associate with violent delinquency. Further research needs to consider that misogyny and mental indicators may be the contributing factors.¹¹⁷

The third study by Lopez and Emmer aimed to understand youth offenders' perspectives on violent crimes, including rape, assault, drive-by shootings and murder, and how these youth's lookouts influenced their decision making to commit violent crimes.¹¹⁶ This was excluded from the systematic review because of its focus was on cognition and understanding related to committing violent acts and did not include sexual risk behaviors. In-depth semi-structured interviews were used to assess adolescents' perspectives about different delinquent behaviors. The authors focused on how the adherence to traditional masculinity and aggression related to the context of adolescent's criminal behavior and violent offenses. The results support that youth found it reasonable to commit a violent crime if it was to avenge a wrong or to maintain their own identity or gang affiliation. Committing these violent crimes were supported by conventional male gender roles and values of aggression.¹¹⁶

3.6 DISCUSSION

This systematic review demonstrates the clear gap in the literature regarding associations between masculinity and gender attitudes and sexual risk behaviors among youth in the JJS. Existing studies among youth in the JJS that touch on gender attitudes or masculinity are focused

almost exclusively on delinquency or substance abuse. To the researcher's knowledge, no studies related to sexual risk behavior have examined the relationship to gender attitudes except for the one study identified above. The single manuscript that met the researchers inclusion criteria is written as a methods paper and did not include the information needed to assess study design procedures and measures. Thus, reviewers agreed, due to these limitations, that a more complete quality assessment was neither feasible nor appropriate.

Despite the limited articles included in the review, the 4 papers reviewed and synthesized have findings important to consider as researchers study masculinity and gender attitudes related to sexual health among young men involved in the juvenile justice system. The data from Daniels and colleagues demonstrated that young men adhered more to traditional gender stereotypes related to sexual proclivity of men and acceptability of women perpetrating violence but not men.¹⁸ This begins to unpack some insight about young men's gender attitudes and gender roles among male and female partners. Results from this study also demonstrated juvenile justice-involved youth had varying condom use based long-term or short-term sexual partnerships.¹⁸ This context of non-condom use dependent on partner context may be critical to further explore and to understand more about young men's sexual decision making related to this sexual risk behavior. In addition, young men were practicing safer sexual practice with short-term sexual partners and important to keep in mind related to strength-based approaches to STI prevention.

Two out of the 4 studies highlighted the significance of understanding more about young men's identities and how identity formation may be influenced by the juvenile justice system. Daniel and colleagues identified how racial identity, specifically racial pride, may be a potential strength when examining these young men's experiences with manhood.¹⁸ Shade et al.

emphasizes the importance of young men's identities as well but in the context of fatherhood identity. Using the concept of intersectionality, Shade and colleagues support young men's gender identity and how the juvenile justice setting interacts with their individual values and identities.⁹⁷ The formation of young men's identities in the context of the other identities and the influence of juvenile justice system is worth considering when examining how these identities influence sexual risk behaviors among juvenile justice-involved youth.

Though the two remaining articles focused on traditional masculinity and aggression related to violent delinquency and sex crimes. These studies show there are other associations related to masculinity and the context of criminality influences young men's attitudes and behaviors. Researchers need to consider this context and many juvenile justice-involved youth come from disadvantaged social and cultural circumstances. This includes having deviant peers,¹²⁸⁻¹³² coming from single-parent households,¹³³ experiencing poverty, having poor educational attainment,¹³⁴⁻¹³⁷ early fatherhood^{138,139} and exposure to child maltreatment, violence, and victimizations^{20,133} and these additional contextual factors may also be important in the formation of healthy masculinity, development of gender attitudes and sexual practices.

However, these other contextual factors and associations cannot be considered until additional research is conducted to assess if masculinity and gender attitudes are associated with sexual risk. The existing literature supports that masculinity norms and gender inequitable attitudes are modifiable risk factors that can be targeted to reduce sexual risk behaviors.^{4,9-12} A majority of these studies take place primarily in the international settings. Barker and colleagues are researchers in the field of male engagement and gender equity and reviewed 20 evidence-based studies related to sexual and reproductive health. They identified 3 out of the 20 studies were conducted in the US among youth not involved in the juvenile justice system. Two out of

the 3 showed to have promising effective interventions, one study included older men ages 18 to 50 years old and the other included adolescent males between 14 to 18 years old.⁴ Brindis and colleagues who target the adolescent male population, implemented a statewide group education and community outreach program to engage young men to promote teen pregnancy prevention. The study reached a culturally and ethnically diverse population from multiple community settings, which included low-income neighborhoods. The results showed increased knowledge about pregnancy risk, improved attitudes about joint responsibility for contraception, and among subgroups of African American youth increased contraceptive use at last sex. The researchers recognized the importance of considering the other contextual factors that issue male involvement in pregnancy prevention and related to rooted and complex sociocultural norms.¹⁴⁰ Though this was not among juvenile justice youth, the study provides additional support for the importance of engaging young men in sexual health and complexities with the interplay involved with young men's norms and social environment.

Limitations

There were some limiting factors to this systematic review. The systematic review did not include citations from the grey literature. Reviewers agreed there was potential risk that the conclusions and data from non-peer reviewed publications may not be as plausible or robust in quality. With one primary reviewer for both screening phases there is potential risk for both investigator bias and selection bias. However, this risk is mitigated given that there were two reviewers throughout the process and both adhered to the predefined review protocol and followed all outlined eligibility criteria. Each citation was assessed for relevance to the study's populations and eligibility, interventions and fidelity to implementation, and outcome measurements. The restriction to intervention studies rather than descriptive studies may have

led to limited articles found. However, the scope of the review was focused on the associations of gender norms with sexual risk behaviors. Now understanding the limited literature, a broader criterion for another literature review may need to be considered. The review could focus on comparing the associations being tested related to masculinity and gender attitudes and the associations being examined related to sexual risk behaviors and outcomes.

3.7 CONCLUSIONS

There are a limited number of studies testing the association of masculinity and gender attitudes with sexual health. Based on the articles reviewed there were important findings to consider as more research is conducted regarding masculinity and gender attitudes associated to sexual risk behaviors of young men involved in the juvenile justice system. Overall there is evidence that young men do align with traditional gender stereotypes and there is potential to address improved condom use particularly with short-term sexual partners. Other studies among juvenile justice-involved youth highlighted the significance of understanding more about young men's identities, particular racial identity, and considering the influences of the juvenile justice system on these identities. It is also worth considering the other associations related to masculinity and the context of criminality related to young men's attitudes and behaviors. Based on the existing literature among non-juvenile justice-involved youth, there are evidence-based studies related to sexual and reproductive health in the US. These researchers have been effective in engaging young men in sexual health and recognize the complexities of sociocultural factors regarding young men's varying circumstances. It is important to consider these studies when researchers address the clear gap in the literature about juvenile justice-involved youth. More research is

needed to tests the associations of masculinity and gender attitudes with sexual risk behaviors and comparing those youth involved in the JJS to those not involved.

3.8 ACKNOWLEDGEMENTS

A special thank you Merrian Brooks for your mentorship and being the second reviewer for this review. Additional thank you to Elizabeth Miller for your guidance and being the senior reviewer on this review.

Many thanks to Barb Folb for guiding me through this systematic review process and providing your expertise to operationalize all of the searches used in this review.

3.9 TABLES AND FIGURES

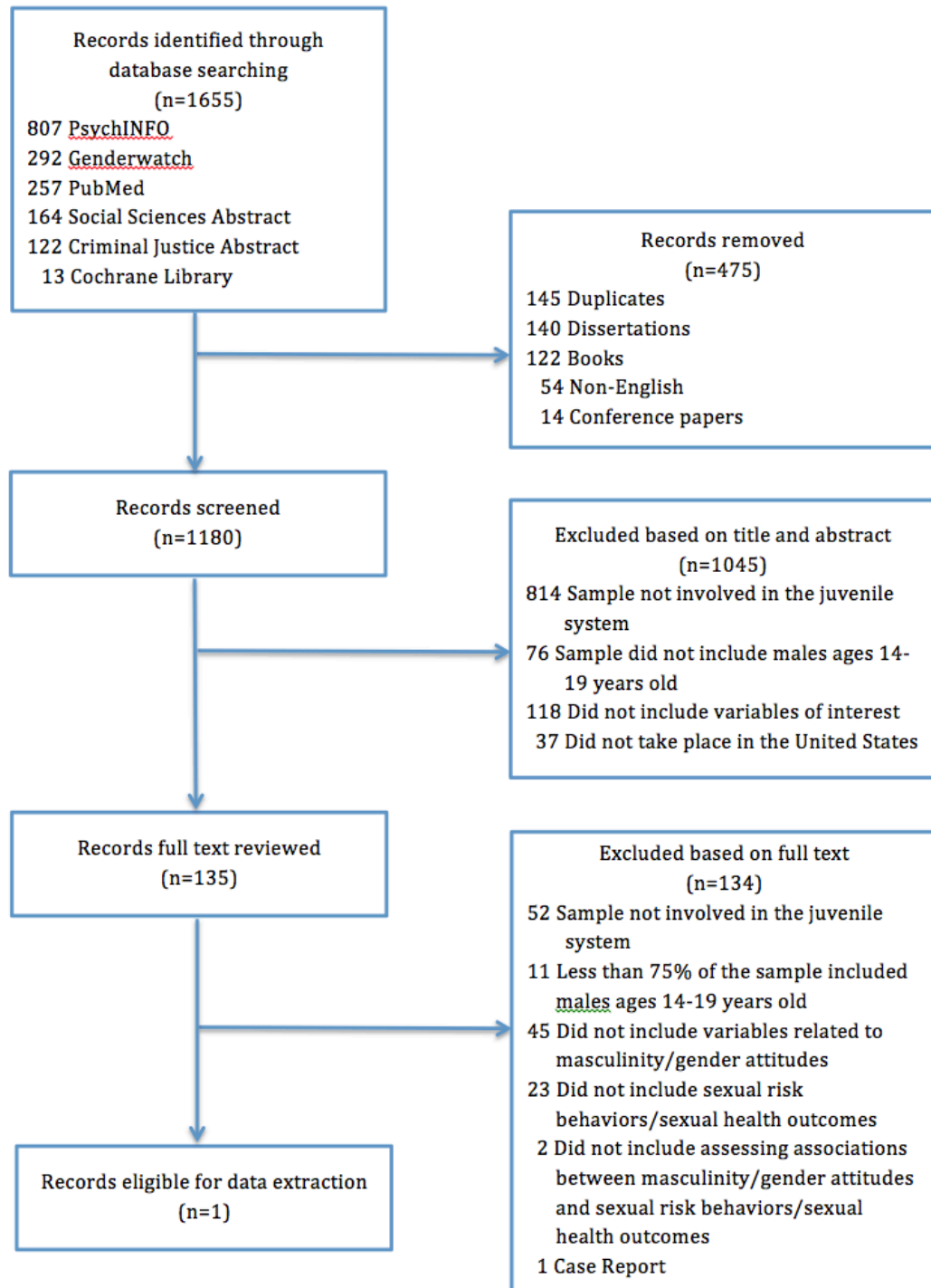


Figure 2. Consort Diagram of Citation Searches and Results of the Review Process

4.0 CHAPTER 2 - A QUANTITATIVE EXAMINATION OF THE PREVALENCE AND ASSOCIATIONS OF GENDER INEQUITABLE ATTITUDES AND SEXUAL RISK BEHAVIORS AMONG YOUNG MEN JUVENILE JUSTICE-INVOLVED

4.1 ABSTRACT

Background

STI prevalence and sexual risk behaviors associated with STI transmission are higher among young men involved in the juvenile justice system (JJS) compared to those not involved. Gender-inequitable attitudes are a key modifiable risk factor for poor sexual health among young men, though studies have not assessed these relationships among juvenile justice-involved (JJI) youth.

Methods

Researchers analyzed baseline data from a randomized controlled trial testing a sexual violence prevention program in the Western Pennsylvania for adolescent males, ages 13-19 years old (n=774). A subsample of young men who have had sex (n=412) were compared by juvenile justice status, describing those who were involved in the JJS (n=72) versus those not involved (=338), to assess the association of gender inequitable attitudes with sexual risk behaviors. Adjusted logistic regression models were estimated to account for significant group differences. All analyses accounted for neighborhood level clustering.

Results

The subsample of young men involved in the JJS were primarily between the ages of 17-18 years old. The majority identified as non-Hispanic Black (69%), and most were currently enrolled in school (82%) and had parents who held less than a high school degree (68%). JJI youth were

more likely to have 4 or more sexual partners ($p < 0.001$) and to report inconsistent condom use ($p = 0.037$) compared to non-involved youth. Those involved in the JJS had lower gender equitable attitudes compared to those not involved (3.26 versus 3.40 ($p = 0.013$)). In unadjusted and adjusted models, more equitable gender attitudes were associated with reduced odds of having 4 or more sexual partners (OR=0.32, 95% CI 0.21, 0.51). Those involved in JJS had reduced odds of having sex under the influence of drugs or alcohol (AOR=0.53, 95% CI 0.30, 0.94) and higher odds of having inconsistent condom use (OR=2.43, 95% CI 1.12, 5.23). Only one of the interaction terms was statistically significant for the model predicting inconsistent condom use (AOR 4.16, 95% CI 1.26, 13.67).

Conclusion

Findings suggest young men involved in the JJS have more hyper-masculine and gender inequitable attitudes, which are associated with greater odds of having more lifetime sexual partners and inconsistent condom use, and lower odds of having sex under the influence of drugs or alcohol. Interventions to shift gender inequitable attitudes may help reduce sexual risk among this vulnerable population.

4.2 BACKGROUND

Many studies have found high prevalence of bacterial STIs among youth involved in the JJS, specifically chlamydia and gonorrhea, when compared to general youth populations^{3,32,36,37,55,61-69} and adult incarcerated populations.^{61,70,71} Female youth involved in the JJS have higher rates of STI than males.^{3,32,36,37,55,61-70} However, little is known about the male partners who are transmitting these infections to their female sexual partners. STIs, including chlamydia,

gonorrhea, and HIV, are associated with increased sexual risk behaviors reported by youth involved in the JJS, including early sexual intercourse, multiple sexual partners, condom non-use, sex under the influence of drugs or alcohol,^{3,29-37} anal sexual intercourse, and sex with a STI/HIV infected partner.^{3,29,30} Among youth involved in the JJS, increased STI risk has been associated with a history of sexual abuse^{33,50} and drug use.^{29,31} From a primary prevention standpoint, it is critical to understand the multiple factors related to sexual risk behaviors among young men involved in the JJS and how to support these young men to engage in safer sex practices.

Gender and power theory offers a critical approach to reducing sexual risk behaviors and negative sexual health outcomes. Developed by Connell in 1987, this theory describes the social structures that distinguish the gendered relationship between men and women.¹⁰⁷ A large body of literature has shown that gender inequity (discrimination on the basis of sex), power differentials (imbalance of control), and intimate partner violence (physical, sexual, or psychological harm by a current or previous romantic partner or spouse) adversely influence sexual and reproductive health outcomes, including sexual risk behaviors (such as having multiple sex partners, unprotected sex, inconsistent condom use, sex while drunk or high on drugs, and sex with an infected partner),^{5,76-81} higher rates of STI, HIV transmission,⁸²⁻⁸⁸ and unintended pregnancy (UIP).⁸⁹⁻⁹² Rigid masculinity norms and gender inequitable attitudes appear to contribute to condom nonuse and lack of contraceptive knowledge in addition to IPV and SV perpetration.¹⁴¹

A growing body of research has found that men's inequitable attitudes and behaviors are associated with poor sexual health outcomes for men (including HIV infection) and increased violence perpetration, resulting in poor outcomes for their sexual partners.⁴⁻⁸ The literature indicates that masculinity norms and gender inequitable attitudes are modifiable risk factors to

reduce sexual risk behaviors and SV to promote healthy sexuality.^{4,9-12} Gender transformative programs are prevention programs that promote shifting masculinity norms and aim to “transform gender roles and promote more gender equitable relationships between men and women” (p. 4).⁴ The World Health Organization (WHO) has recognized the importance of including this approach to improve men’s and women’s health.⁴

A majority of these gender- and sexual-based studies have been conducted internationally and not among young men involved in the US juvenile justice system. Therefore, more research is needed to test the associations of gender inequitable attitudes with sexual risk behaviors (such as multiple sexual partners and condom nonuse) among young men involved in the juvenile justice system. As described in the previous systematic literature review section, these associations have not been examined, especially among this high-risk population.

4.3 AIMS

The primary aim of this article is to examine the associations between gender inequitable attitudes and sexual risk behaviors among young men involved in the juvenile justice system (JJS) compared to those not involved in the JJS. The primary research question is: Is there an association among gender inequitable attitudes and sexual risk behaviors among young men involved in the juvenile justice system? If so, what are the differences of these associations between young men who are juvenile justice-involved compared to those who are not involved? The hypothesis driving this analysis is that young men who are juvenile justice-involved will have higher levels of gender inequitable attitudes and sexual risk behaviors as compared to young men not involved.

4.4 METHODS

4.4.1 Procedures

This current secondary data analysis used data collected as part of a 2-arm cluster randomized controlled trial titled “Engendering Healthy Masculinities to Prevent Sexual Violence” (EHM). This trial assesses the effects of a gender-based violence prevention and sexual health program called “Manhood 2.0” (intervention) compared to a job skills development curriculum (control) among young men ages 13 to 19 years old (PI, Miller). Data collection was standardized using an anonymous online survey instrument in REDCap, which measured gender equitable attitudes, sexual history and sexual risk behaviors, and intimate partner violence and sexual violence. Study procedures were approved by University of Pittsburgh Human Research Protections Office.

4.4.2 Participants and Sampling

The sample involves primarily African American young men ages 13 to 19 years old recruited from 21 socioeconomically disadvantaged neighborhoods in the Pittsburgh region, including Hazelwood, the Hill District, Penn Hills, McKeesport, Duquesne, Braddock, East Hills, and Northview Heights. Recruitment occurred in youth-serving community based organizations, including YMCAs, the Urban League, churches, and other local community-based youth programs.

Included within several neighborhood sites for program implementation were Community Intensive Supervision Programs (CISP). These programs are operated through the Court of Common Pleas of Allegheny County, Family Division and Juvenile Section. CISP

serves first-time and repeat male offenders, ages 10-18 years old. CISP youth are under 24-hour supervision, required to have a mandatory check in after school and during the weekend, and must complete 100 hours of community service before discharge from the program.¹⁴² Participants from the county CISP program were identified as young men who were juvenile justice-involved (JJI) and those who were not in the CISP program were identified as non-juvenile justice-involved (non-JJI). Among the 21 neighborhoods participating in the EHM study, 5 neighborhoods included a CISP site (Penn Hills, McKeesport, Garfield, Hill District, and Northview Heights).

The EHM large-scale trial is ongoing. A total of 774 youth baseline surveys were available for this analysis, which included 103 JJi and 671 non-JJI participants. As the purpose of the current study was to assess sexual risk behaviors, the sample was restricted to those who reported ever having sexual intercourse (included vaginal or anal sex), and comparing those who were juvenile justice-involved (n=72) to those who were not juvenile justice-involved (n=338). To account for clustering by neighborhood, researchers estimated an ICC of 0.01 (based on our previous research with adolescents), which brought the effective sample size to 61 for the JJi and 285 for the non-JJI. With this effective sample size that accounts for clustering and alpha set at 0.05, researchers anticipated 80% power to detect a standardized difference of 0.40 between JJi versus those non-JJI for the continuous measure gender equitable attitudes. For the dichotomous outcomes related to sexual risk behaviors (lifetime number of sexual partners, recent condom use and drug/alcohol use during last sex), selecting lifetime number of partners as the primary outcome, researchers have 80% power to detect a 14.6-point increased prevalence of those who have 4 or more sexual partners among the sample of JJi (26.1%) compared to the non-JJI (11.5%, based on national estimates¹⁴³).

For the secondary outcomes for recent condom use and sex under the influence of drugs or alcohol, the sample was restricted to those who reported having sexual intercourse in the past 3 months and compared those who were juvenile justice-involved (n=60) and those who were not juvenile justice-involved (n=180). To account for clustering by neighborhood, researchers estimated an ICC of 0.01 (based on our previous research with adolescents), which brought the effective sample size to 54 for the JJI and 163 for the non-JJI. For the dichotomous outcome of recent condom use at last sex, researchers have 80% power to detect a 21.8-point decreased prevalence of those who have used a condom at last sex among the sample of JJI (35.1%) compared to the non-JJI (56.9%, based on national estimates¹⁴³). For the dichotomous outcome of sex under the influence of drugs or alcohol, researchers have 80% power to detect an 19.7-point increased prevalence of those having sex under the influence among the sample of JJI (40.3%) compared to the non-JJI (20.6%, based on national estimates¹⁴³).

4.4.3 Measures

In collaboration with the CDC, Dr. Miller, and her research staff, the EHM survey instrument used standardized measures from previous RCTs and was piloted with high school age males prior to fielding.¹⁴⁴ Measures included demographic characteristics, scales for gender equitable attitudes, sexual risk behaviors, and intimate partner violence and sexual violence. These measures were operationalized in the EHM baseline survey as follows (See Appendix D).

Demographics: The demographic characteristics included age, race, caregiver/parent's highest completed level of education (a proxy for socioeconomic status), and youth enrollment in school.

Gender equitable attitudes: The Gender Equitable Men (GEM) scale was modified by Miller¹⁴⁴ for use with another violence prevention program with high school aged male athletes.¹⁴⁵ This modified scale included 13 items assessing hyper-sexuality, homophobic attitudes, rape myth acceptance, attitudes condoning violence, and gender roles. Example items include, “If a girl is raped it is often because she did not say no clearly enough” and “It bothers me when a guy acts like a girl.” Participants indicated their level of agreement on a 5-point Likert scale from “strongly agree” to “strongly disagree.” Responses were averaged across the 13 items to calculate a mean score, with appropriate reverse coding; higher mean scores indicating greater gender equitable attitudes. The scale is interpreted by the difference in the standard deviation. The Cronbach’s alpha for this sample was 0.64 indicating moderate internal validity and potentially not covering the full content that matters to this measure. However, Miller and colleagues have continued to pilot and modify this scale accordingly as they work with various adolescent male populations. For an additional analysis, the gender attitudes score was dichotomized to less than the median score (i.e., low gender attitudes) and equal to or above the median (i.e., high gender attitudes).

Sexual history and sexual risk behaviors: Items from the CDC Youth Risk Behavior Survey (YRBS)¹⁴⁶ assessed history of sexual contact and intercourse. For those reporting any sexual contact, the gender(s) of these sexual contacts was reported. Those who reported any sexual intercourse were assessed for measures of sexual risk behaviors; these included the number of lifetime sexual partners, which was dichotomized as having 3 or fewer partners (low risk) vs 4 or more partners (high risk.) Participants were also asked about their recent (e.g. past 3 months) sexual behavior, including how often they had sex under the influence of drugs or alcohol and how frequently they used a condom. Responses for both measures were on a 5-point

Likert scale ranging from “Never” to “Every time.”¹⁴⁶ Sex under the influence of drugs or alcohol was dichotomized as “any sex under the influence” (“always,” “often,” “sometimes,” “mostly never”) vs. “no sex under the influence” (“never”). If participants reported using a condom “never,” “mostly never”, or “sometimes,” they were coded as using condoms inconsistently.

Physical and sexual abuse perpetration including intimate partner violence (IPV) and sexual violence (SV): The IPV and SV items were modified by Miller and colleagues from the Revised Conflict Tactics Scale¹⁴⁷ and the Sexual Experiences Survey Perpetration¹⁴⁸ and included perpetration against both a dating partner and non-partner. For example, physical IPV was assessed with the following item: “Have you hit, pushed, slapped, choked or otherwise physically hurt someone you were going out with or hooking up with (like he or she was your partner/girlfriend/boyfriend, you were dating or going out with them)?,” while SV was measured with: “Have you have ever used physical force or threats to make someone you were not going out with or hooking up with have sex (vaginal, oral, or anal sex) with you when they didn't want to?” These items measured lifetime and past 9 months perpetration, and were coded as any IPV/SV perpetration. Incapacitated rape was measured with, “Have you done something sexual with someone when they were too drunk or high to stop you (this can include kissing, touching, fingering them, or having intercourse)?” and “Have you given someone alcohol or drugs so you could do something sexual with them (this can include kissing, touching, fingering them, or having intercourse)?”¹⁴⁹ Sexual intercourse was previously described as vaginal or anal sex. Any endorsement of IPV/SV perpetration or incapacitated rape was coded as yes to any lifetime IPV/SV perpetration in the models.

4.4.4 Quantitative Analysis

Demographic characteristics including age, race, caregiver/parent's highest completed level of education (a proxy for socioeconomic status), and youth enrollment in school were described separately for young men involved in the juvenile justice system and those not involved. The differences by juvenile justice status were tested using Wald chi-squared tests (categorical) and clustered t-tests (continuous), with nonparametric tests used as needed, and accounting for clustering.

Crude differences in mean gender attitudes scores by juvenile justice status were assessed using clustered t-tests. Unadjusted and adjusted logistic regression models, which accounted for clustering by neighborhood, were used to test for associations between juvenile justice status and gender attitudes with the sexual risk behavior outcomes. Covariates in the adjusted analyses were selected based on the literature supporting that young men involved in the juvenile justice system have lower educational attainment, come from poor socioeconomic backgrounds, and from studies that have shown gender attitudes are influenced by physical and sexual violence perpetration. Therefore, characteristics included *a priori* were school status, parental education, and a dichotomized variable for physical and sexual violence perpetration, in the adjusted analysis. Continuous variables (gender attitude score, age) were centered using the mean of the overall sample.

Three different models were tested for having 4 or more lifetime sexual partners, sex under the influence of drugs or alcohol, and inconsistent condom use. Models 1 and 2 include one main effect of gender attitude score and juvenile justice status, respectively. Model 3 included both main effects and tested juvenile justice status as a potential moderator of the

association between gender attitudes and sexual risk behaviors by including an interaction term between juvenile justice status and gender attitudes. Within each of the three specified models, unadjusted and adjusted estimates were calculated. Additional unadjusted models were tested for the association of gender attitudes and these sexual risk behaviors within each separate subgroup of those involved in the JJS versus those not involved.

An additional model was tested using 4 categories to indicate all possible combinations between, which substituted for the continuous gender attitude score, juvenile justice status, and the interaction variables. The 4 indicator variables were created using the dichotomous gender attitudes scale variable crossed by juvenile justice status. The resulting categories, coded separately as indicator variables, are non-JJI and high gender attitude score (reference group), non-JJI and low gender attitude score, JJI and high gender attitude score, and JJI and low gender attitude score. These indicator variables (excluding the reference group variable) were tested with the three sexual risk behavior outcomes and included the same set of covariates as previous models. The unadjusted and unadjusted odds ratio for each group was calculated relative to the reference group of non-JJI and high gender attitudes, and allowed for assessment of the conjoint effect of the two conditions of gender attitudes and juvenile justice status.

While conducting these analyses, several models had quasi-complete separation and thus had questionable validity of model fit. In these instances, backwards elimination of covariates (by iteratively removing the covariate with the highest p-value) was attempted to achieve satisfactory model fit. However, this process failed to achieve satisfactory fit for several models, after reducing to one or zero covariates with the main effects. Researchers have thus chosen to present the fully adjusted models as they were proposed *a priori*, and have noted the quasi-separation in the corresponding tables.

To account for clustering, all analyses were conducted using SAS survey logistics procedures, with neighborhood specified as the cluster. SAS statistical software was used to conduct all the analyses described with a significance set to an alpha of 0.05.

4.5 RESULTS

The data included 774 participants among the 21 cluster sites. A total of 103 young men from 5 cluster sites were classified as involved in the juvenile justice system (JJS) based on their enrollment in the CISP program. The remaining 671 participants did not participate in the CISP program and were classified as young men not involved in the juvenile justice system.

Based on self-reported sexual contact (meaning any type of intimate contact, not specifically sexual intercourse), both groups of young men reported primarily heterosexual sexual relationships. Young men involved in the JJS reported having sexual contact with females only (99%) and did not report any contact with males only or both males and females (missing=1.3%). Young men not involved in the JJS also predominantly reported sexual contact with only female partners (94%), however also included reports of male only partners and both male and female sexual contact (missing=1.7%). Among those who reported sexual contact, juvenile justice-involved men were significantly older, identified more as non-Hispanic white, had fewer current enrollment in school, and more reported not being in school without a high school degree. (See Appendix E, Table 7)

The following results focus on two subsamples of those young men who have ever had sexual intercourse and those who have had recent sex (sex in the past three months). Among the entire sample, 53% of young men reported ever having sexual intercourse (including vaginal or

anal sex). Those who reported ever having sexual intercourse were significantly older ($p < 0.001$) than those who have not had sexual intercourse. There were no other demographic differences by race, school status, and parental education among those with and without a history of sexual intercourse. Of young men involved in the JJS, 70% had sexual intercourse compared to 50% of young men not involved in JJS ($p = 0.016$). The demographic characteristics described are based on young men who reported having sexual intercourse, compared by juvenile justice status (See Table 2). Compared to non-JJI, JJI young men were more likely to be between the ages of 17 to 18 years old (30% and 49%, respectively, $p = 0.001$).

Both groups primarily identified their race/ethnicity as non-Hispanic Black, though this was slightly more common among non-JJI youth ($p = 0.005$). While participants largely reported being enrolled in school, JJI youth had a marginally significant greater proportion of young men who were not in school and did not complete high school (10% versus 4%, $p = 0.056$). Using parental education as a proxy for socioeconomic status, 68% of JJI participants and 58% of non-JJI participants reported their parent or primary caregiver as having a high school degree or less, ($p = 0.133$).

Among the entire sample (i.e., regardless of ever having sexual intercourse), JJI participants had a lower gender attitude mean score compared to non-JJI participants (3.26 vs. 3.40, respectively, $p = 0.041$). This is a difference of 0.28 standard deviations. For those who have had sexual intercourse, young men involved in the JJS had lower mean gender attitude scores compared to those young men not involved in the JJS, but these differences were not statistically significant (See Table 3).

Sexual risk behaviors were also compared by juvenile justice status (See Table 4). Young men involved in the JJS who have ever had sexual intercourse were more likely to report 4 or more sexual partners (69%) than those not involved (52%; $p < 0.001$).

Of the entire sample, 31% of young men have had sexual intercourse in the past 3 months. Fifty-eight percent of young men involved in the JJS reported having recent sex compared to 27% for young men not in the JJS ($p = 0.006$). Among those who had recent sexual intercourse, there was no significant difference in sex under the influence of drugs or alcohol (33% vs 41% for JJI and non-JJI, respectively, $p = 0.145$). Young men involved in the JJS had significantly higher inconsistent condom use (68%) compared to their non-involved counterparts (45%, $p = 0.037$).

Table 5 presents the findings from logistic regression models testing associations between juvenile justice status and gender attitudes with sexual risk behavior outcomes. For each outcome, gender attitudes and juvenile justice status were modeled separately in Models 1 and 2, with a final model (Model 3) including gender attitudes, juvenile justice status, and the interaction of gender attitudes and juvenile justice status.

In Model 1, young men who held more gender equitable attitudes had significantly lower odds of having 4 or more sexual partners in the unadjusted model (OR 0.32, 95% CI 0.21, 0.51). However, gender attitudes were not significantly associated with having sex under the influence of drugs or alcohol or inconsistent condom use. Adjusted models included as covariates age, race/ethnicity, school status, parental education, and any physical or sexual violence perpetration.

Additional unadjusted models were tested for the association of gender attitudes and these sexual risk behaviors within each separate subgroup of those involved in the JJS versus

those not involved. There was a significant negative association between gender equitable attitudes and having 4 or more partners for both subgroups of those involved in the JJS (OR 0.19, 95% CI 0.06, 0.63) and those not involved (OR 0.34, 95% CI 0.21, 0.55). However, there was only a significant association with gender attitudes and having sex under the influence among the subgroup of those involved in the JJS (OR 0.44, 95% CI 0.20, 0.98). Among those not involved in the JJS, the only significant association of gender attitudes was with inconsistent condom use (OR 0.48, 95% CI 0.25, 0.91).

For Model 2, juvenile justice status was significantly associated with having 4 or more sexual partners (OR 3.60, 95% CI 2.13, 6.10) For the outcome of having sex under the influence of drugs or alcohol, both model 2 unadjusted and adjusted odds ratios were not significantly associated with juvenile justice status. Juvenile justice status was significantly associated with higher odds of having inconsistent condom use (AOR 2.38, 95% CI 1.06, 5.32). Upon completing assessment of model 2, supplementary unadjusted models were tested to assess if the association of juvenile justice status and these sexual risk behaviors were consistent among each subgroup of those involved in the JJS and those not involved. There was not a significant association between juvenile justice status and the outcomes of having 4 or more partners and having sex under the influence of drugs or alcohol. Those involved in the JJS had greater odds of having inconsistent condom use (OR 2.55, 95% CI 1.12, 5.84) compared to those not involved in the JJS.

Researchers then tested both gender attitudes and juvenile justice status with interaction effects in Model 3. Gender attitudes and juvenile justice status were associated with having 4 or more sexual partners in the unadjusted model, those who had more equitable gender attitudes had lower odds of having 4 or more sexual partners (OR 0.33, 95% CI 0.21, 0.52) and those who

were involved in the JJS had higher odds of having 4 or more sexual partners (OR 3.53, 95% CI (2.25, 5.55)). In the unadjusted and adjusted model 3 for having sex under the influence, gender attitudes and juvenile justice status were not significant predictors. However, in the adjusted model that included an interaction between gender attitude score and juvenile justice status, juvenile justice status was a significant predictor of sex under the influence (AOR=0.53, 95% CI 0.30, 0.94). For the Model 3 unadjusted and adjusted models for inconsistent condom use, gender attitudes were not a significant predictor. However, JJ status was a significant predictor for inconsistent condom use in the unadjusted model (OR=2.42, 95% CI 1.12, 5.23).

Researchers also tested for interactions of gender attitudes and juvenile justice status in Model 3. The interaction term was only statistically significant for the model predicting inconsistent condom use (AOR 4.16, 95% CI 1.26, 13.67). Thus, the estimate for a JJI youth with a one-unit higher than average gender attitudes score was calculated for odds of inconsistent condom use, at AOR=6.25 (95% CI 2.21, 17.64).

An additional model was tested using 4 indicator variables. These indicator variables were tested with the same three sexual risk behavior outcomes described above. For the outcome of having 4 or more sexual partners there was a significant association among all 3 groups, with non-JJI and low gender attitude score having the lowest odds of having multiple partners (OR=2.36, 95% CI 1.36, 4.12). The odds increased with juvenile justice status and decreased with gender attitude scores. With JJI and high gender attitude score (OR=3.95, 95% CI (2.48, 6.30), and JJI and low gender attitude score (OR=7.85, 95% CI 3.70, 16.66). The only group that had significant associations for sex under the influence was JJI and high gender attitudes (AOR=0.33, 95% CI 0.17, 0.65) and showed this group had lower odds of sex under the influence of any substances compared to those non-JJI and high gender attitude score. Both the

unadjusted and adjusted results from the outcome of inconsistent condom use were not valid with model fit. The results followed similar outcomes as discussed in the previous models 1 through 3 and had larger confidence intervals and experienced more quasi-separation. Additional results are included in the Appendix E, Table 8.

4.6 DISCUSSION

The findings from this study highlighted that young men involved in the JJS had lower gender attitudes scores, indicating more hyper-masculine and gender inequitable attitudes, which was strongly associated with greater odds of having more lifetime sexual partners. Young men's juvenile justice status was also associated having inconsistent condom use. There was a lower odds of those involved in the JJS to have sex under the influence of drugs or alcohol compared to those not involved. Juvenile justice status was found to be a significant moderator for the association of gender attitudes and inconsistent condom use. This indicates that the association between gender attitudes and inconsistent condom use may vary depending on juvenile justice status.

These findings begin to address the gap in the literature and provide evidence that there are associations between gender attitudes and juvenile justice status with sexual risk behaviors. Since the results support associations with gender inequitable attitudes and number of lifetime sexual partners, more exploration is need to understand why and how these young men form these attitudes that are associated with this sexual risk behavior. To elucidate the influence of juvenile justice status on health behaviors, more studies need to test and compare those involved and those not involved in the JJS.

The literature supports juvenile justice-involved youth have higher rates of substance use and abuse (drugs and alcohol)^{47,57} and exceedingly higher than their peers in the general population⁵⁵⁻⁶⁰ However, the association of those involved in the JJS was less likely to have sex under the influence of any substances is contrary to researcher's original hypothesis. This may be due to being enrolled in CISP, where these young men are under strict supervision, including participating in substance use education, random drug testing, and treatment programs.¹⁴² The monitoring and programming involved in the CISP may have led to the participants not using drugs or alcohol and having fewer opportunities for having sex under the influence. This is particularly important since the analysis was based on those who had sex at least once in the past 3 months. Potentially, if the survey question had been in the context of lifetime experience with having sex under the influence of or alcohol, the findings may have differed.

There was also a paradoxical finding among those involved in the JJS where a higher gender equitable attitude score was associated with higher odds of inconsistent condom use. Few studies have examined the meaning of condom use in this population.¹⁸ Inconsistent condom use may be related, for example, to having a steady female partner with whom they are not using condoms (perhaps because she is using contraception and encouraging condom nonuse, or because condoms are considered a sign of mistrust). Much more needs to be explored about how young men's condom use behaviors are related to their sexual networks and gender attitudes. Qualitative interviews with young men involved in the JJS about their relationship histories may provide an avenue to learn more about JJI youth's condom use attitudes and behaviors, their attitudes about contraception, and how they communicate with their sexual partners about condom use and contraception.

The literature has shown that hyper-masculinity¹⁶ and hegemonic masculinity¹¹⁴ are reinforced in the context of being involved in the juvenile justice system, especially among those who have been incarcerated and face the culture known as “prisonization.”¹¹⁵ Research has supported that idea that young men involved in the JJS construct their self-identities through the intersections of racial identities and experiences, social class, delinquency history, and other connections with gang or deviant peer groups.^{16,114} The combination of this hyper-masculine culture and the formation of identity may be a critical time when gender inequitable attitudes are forming and being influenced by these other sociocultural factors. Further research about young men’s experiences and the influence of sociocultural factors may help explain how these gender inequitable attitudes are developed and reinforced. Ultimately, by comparing the differences in gender inequitable attitudes among those involved and those not involved may contribute to understanding why there are greater increases in sexual risk behaviors among juvenile justice-involved youth. Most studies have only focused on solely on youth involved in the JJS or aggregated ‘at risk’ youth in general. This is one of the few studies that actually included a sample of both young men involved and non-involved in the JJS and allowed for comparisons in gender attitudes and sexual risk behaviors by JJ status. By completing this research, researchers have found that gender attitudes are clearly worse among young men involved in the JJS and may be worth targeting in tailored sexual health promotion interventions for juvenile justice youth. This is supported by the results from the interaction models, which suggest that intervening with the gender attitudes may have a greater influence on condom use among juvenile justice-involved youth.

Limitations

This study is not without limitations. The quantitative analysis utilized a cross-sectional study design. Although benefits include being more time- and cost-efficient, the design was limited with one time point of data, and thus researchers were unable to identify temporal relationships, such as when gender attitudes were developed and if sexual risk behaviors and outcomes happened before or after these attitudes were developed.¹⁵⁰ Similarly, it is difficult to know at what point youth first came into contact with the JJS and to what extent that involvement contributes to gender inequitable attitudes and sexual risk behaviors. The parent study provided a suitable sample size to detect differences in juvenile justice-involved youth. However, the smaller sample size of young men involved in the JJS lead to the quasi-complete separation and leading to invalid fit of some of the models. Further, generalizability may be limited with this sample of JJS youth because the sample is not representative of those young men who are currently incarcerated. Recruitment focused on community and youth serving organizations and peer to peer recommendations and the approach may have introduced selection bias. The young men recruited may not be representative of those youth who do not attend these organizations and who have less peer to peer interactions.

For the purposes of this exploratory analysis, researchers have opted to present the models with the *a priori* covariates included. Since this was a secondary analysis from the parent study there were limitations of the measures available in the baseline survey. Researchers were unable to control for other known covariates that influence sexual risk behaviors, such as substance use and sexual abuse.⁵⁰ In addition, the survey did not include a question about the participant's previous involvement in the juvenile justice system. Since this was a community-based sample from low resource neighborhoods with a disproportionate number of youth who

have had contact with the JJS, it was possible that other participants classified as non-JJI may have previously encountered the JJS but were not involved in the CISP at the time of study enrollment.

The Gender Equitable Men (GEM) scale used in the survey was valid and tested measures for assessing gender attitudes. However, these scales do not account for an individual's masculinity outside the relational context of women and girls.¹⁵¹ The GEM scale was appropriate for the scope of the study since a majority of the sample identified as having heterosexual relationships and was relevant to the sexual risk behaviors being studied. The Cronbach's alpha for the GEM scale was less than 0.70, meaning the items in the scale may not be covering the full content that matters to measuring gender attitudes. However, researchers are using the most updated version of the GEM scale and this has been piloted and tested among other adolescent male populations.

4.7 CONCLUSION

The results from this study begin to fill the gap in the literature regarding the association between gender attitudes and juvenile justice status with sexual risk behaviors. Researchers found significant associations with gender inequitable attitudes and number of lifetime sexual partners and associations of juvenile justice status with number of lifetime sexual partners and inconsistent condom use. Future studies need to explore why these associations occur and how social and cultural factors influence young men's masculinity, gender attitudes, and sexual risk behaviors. Listening to stories of young men who are involved and those not involved in the juvenile justice system may provide a better understanding of the differences in experiences

between the two groups and how to best provide gender based prevention and intervention strategies to address hyper-masculinity and gender inequitable attitudes to reduce sexual risk behaviors tailored for high risk youth involved in the JJS.

4.8 ACKNOWLEDGEMENTS

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4.9 TABLES AND FIGURES

Table 2. Characteristics Of Young Men Who Have Had Sexual Intercourse By Juvenile Justice Status

Youth characteristics	Total (n=410) % (n)^{ab}	Young Men Non JJI (n=338) % (n)^{ab}	Young Men JJJ (n=72) % (n)^{ab}	Wald Log- Linear Chi- square p-value
Total	100% (410)	82% (338)^c	18% (72)^c	
Age (years)				
13-14	18% (77)	21% (70)	10% (7)	0.0013*
15-16	43% (175)	43% (147)	39% (28)	
17-18	34% (138)	30% (103)	49% (35)	
19-20	5% (20)	5% (18)	3% (2)	
Race				
Hispanic	6% (25)	6% (21)	6% (4)	0.0046*
Non-Hispanic White	4% (17)	2% (8)	13% (9)	
Non-Hispanic Black	73% (301)	74% (251)	69% (50)	
Non-Hispanic Multiracial	7% (28)	7% (24)	6% (4)	
Non-Hispanic Other	6% (24)	7% (22)	3% (2)	
School Status				
Currently in school	87% (355)	88% (296)	82% (59)	0.0560
Not in school – completed high school degree	4% (17)	4% (13)	6% (4)	
Not in school – did not complete high school degree	5% (19)	4% (12)	10% (7)	
Parental Education				
High school degree or less	60% (245)	58% (196)	68% (49)	0.1334
Higher than high school degree	36% (149)	38% (129)	28% (20)	

* Significant p-value <0.05

^a Due to small amounts of missing data (less than 10% per item), some percentages do not add up to 100%

^b Column percentages

^c Row percentages

JJI = Juvenile Justice Involved

Table 3. Young Men Gender Attitude Scores By Juvenile Justice Status

	Young Men Non JJI	Young Men JJI	
Study Sample	Gender Attitude Mean Score (SD) (n)	Gender Attitude Mean Score (SD) (n)	Estimated Parameter (p-value) ^a
Those who had sexual intercourse	3.38 (0.507) (335)	3.32 (0.386) (72)	-0.065 (0.2659)
Entire sample	3.40 (0.511) (662)	3.26 (0.430) (102)	-0.014 (0.0413)*

* Significant p-value <0.05

^a Clustering by site was accounted for

Table 4. Sexual Risk Behaviors Among Young Men Who Have Had Sexual Intercourse By Juvenile Justice Status

	Total % (n) ^a	Young Men Non JJI % (n) ^a	Young Men JJI % (n) ^a	Wald Log- Linear Chi- square p-value
Young men who have had sexual intercourse				
Total	100% (410)	82% (338) ^b	18% (72) ^b	
Number of Partners				
Having 3 or less	33% (136)	38% (126)	14% (10)	0.0001*
Having 4 or more	55% (225)	52% (175)	69% (50)	
Missing	12% (49)	11% (37)	17% (12)	
Young men who have had sexual intercourse in the past 3 months				
Total	100% (240)	75% (180) ^c	25% (60) ^c	
Sex under the influence of drugs and/or alcohol				
No sex under the influence	57% (137)	54% (98)	65% (39)	0.1447
Yes, any sex under the influence	39% (94)	41% (74)	33% (20)	
Condom use				
Consistent use	45% (109)	51% (91)	30% (18)	0.0369*
Inconsistent use	51% (122)	45% (81)	68% (41)	

* Significant p-value <0.05

^a Due to small amounts of missing data (less than 10% per item), some percentages do not add up to 100%^b Column percentages^c Row percentages

JJJ = Juvenile Justice Involved

Table 5. Associations Between Gender Attitudes And Juvenile Justice Status With Sexual Risk Behaviors Of Young Men Who Have Had Sexual Intercourse

Outcomes	Having 4 or more sexual partners			Sex under the influence of alcohol and/or drugs			Inconsistent condom use		
	Unadjusted Odds Ratios (95% CI)	Adjusted Odds Ratios (95% CI)	Adjusted + Interaction Odds Ratios (95% CI)	Unadjusted Odds Ratios (95% CI)	Adjusted Odds Ratios (95% CI)	Adjusted + Interaction Odds Ratios (95% CI)	Unadjusted Odds Ratios (95% CI)	Adjusted Odds Ratios (95% CI)	Adjusted + Interaction Odds Ratios (95% CI)
Model Parameters									
Model 1 Gender attitude score	0.322* (0.205, 0.507)	0.357*^a (0.216, 0.589)	n/a	0.670 (0.410, 1.092)	0.789 (0.470, 1.322)	n/a	0.542 ^a (0.241, 1.219)	0.553 ^a (0.236, 1.296)	n/a
Model 2 Juvenile justice status	3.600* (2.126, 6.095)	3.852*^a (2.040, 7.274)	n/a	0.679 (0.412, 1.121)	0.581 (0.283, 1.193)	n/a	2.558* (1.121, 5.840)	2.379*^b (1.064, 5.323)	n/a
Model 3 <i>Main effects</i> Gender attitude score	0.325* (0.205, 0.517)	0.370*^a (0.222, 0.617)	0.382*^a (0.216, 0.673)	0.646 (0.394, 1.060)	0.749 (0.451, 1.246)	0.847 (0.454, 1.577)	0.575 ^a (0.264, 1.250)	0.740 ^a (0.305, 1.795)	0.590 (0.282, 1.235)
Juvenile justice status	3.529* (2.245, 5.545)	3.626*^a (2.012, 6.533)	3.735*^a (2.175, 6.416)	0.645 (0.395, 1.051)	0.559 (0.276, 1.133)	0.526* (0.295, 0.939)	2.423*^a (1.122, 5.232)	2.354 ^a (0.946, 5.858)	2.547 (0.976, 6.649)
<i>Interaction</i> Gender attitude score* Juvenile justice status	n/a	n/a	0.574 ^a (0.158, 2.080)	n/a	n/a	0.473 (0.132, 1.701)	n/a	n/a	4.158* (1.264, 13.672)

*Significant p-value <0.05

^a Quasi-complete separation and validity of the model fit is questionable

^b Valid model fit and the remaining covariate left in the model was parental education

Adjusted covariates include age, race/ethnicity, school status, parental education and physical and sexual violence perpetration

Final estimate for significant interaction when both criteria are met is 6.25 (95% CI 2.21, 17.64)

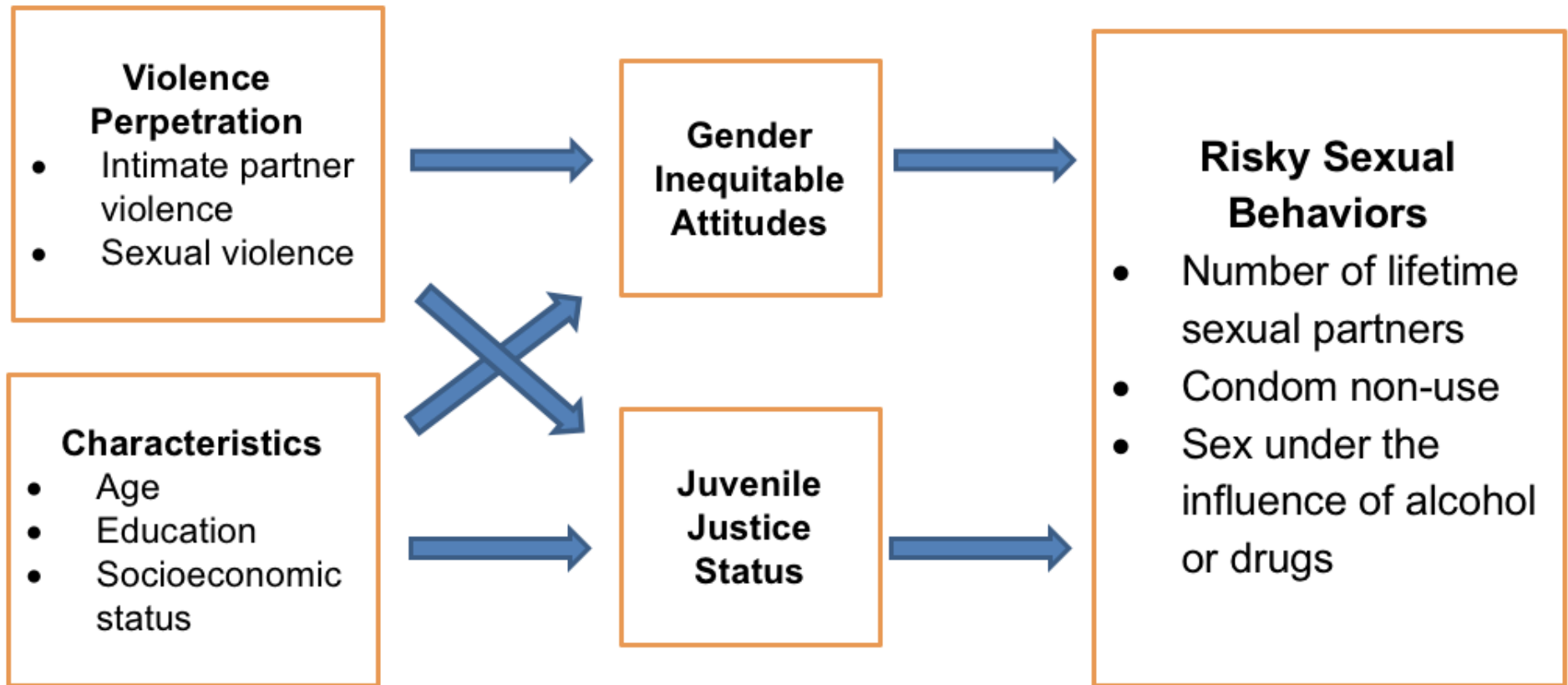


Figure 3. Adapted Theoretical Framework – Individual Level

5.0 CHAPTER 3 - A QUALITATIVE EXPLORATION OF THE SOCIAL AND CULTURAL INFLUENCES ON YOUNG MEN'S PERCEPTIONS OF MASCULINITY, GENDER ATTITUDES, AND SEXUAL RISK BEHAVIORS

5.1 ABSTRACT

Background

The literature describing youth involved in the juvenile justice system emphasizes the disadvantaged social circumstances for many of these youth, which may impact their sexual risk behavior and health. Research supports that perceptions of masculinity and gender attitudes may play an important role in these associations. However, an understanding of whether and how these different sociocultural factors influence young men's perceptions of masculinity, gender attitudes, and sexual behavior is lacking and an in-depth qualitative approach is warranted. An in-depth qualitative approach can begin to elucidate the range of ways in which young men envision their masculinity, how their attitudes about gender may influence their behaviors, and to explore what characteristics may be more specific to being juvenile justice-involved youth compared to youth not involved. Results from a qualitative study may inform how to tailor interventions for this highly vulnerable population.

Methods

A total of 32 interviews were completed among young men who have been involved in the juvenile justice system (JJS) (n=11) and those who have not been involved (n=21). This was a purposive convenience sample recruited from an existing community-based 2-armed randomized controlled trial in Western Pennsylvania. Participants from the parent study who had completed

their final follow up survey for the parent study were eligible to participate in an interview. Recruitment took place from January 2017 to May 2017. All participants completed an anonymous demographic questionnaire prior to the interview, which included a screening question asking about previous involvement in the juvenile justice system.

Results

Between the two groups of young men there were similarities and differences that emerged from their narratives about masculinity, gender attitudes, and sexual behavior. Researchers focused on understanding the key differences between young men involved in the JJS compared to those not involved. The key sociocultural factors identified as influencing masculinity, gender attitudes, and sexual behaviors were racial and gender stereotypes, media, and violence. Among those involved in the JJS, masculinity was more influenced by race and social media. Juvenile justice-involved youth's narratives included comments that reflected less gender equitable attitudes and more about peers who were hyper-masculine and hyper-sexual.

Conclusion

Understanding how these sociocultural factors and social networks impact juvenile justice-involved youth may inform various social campaigns, training and/or sexual health programs within or related to the JJS. Doing so would include developing more content and strategies related to incorporating more discussions about race in discussions related to masculinity, adding social media education to help young men better navigate different messages about manhood, and including peer groups and sexual partners in conversations about healthy relationships and safe sex practices.

5.2 BACKGROUND

The literature has shown that there are high rates of sexually transmitted infections (STIs)^{3,32,36,37,55,61-69} and related sexual risk behaviors^{3,29-37} among young men in the juvenile justice system (JJS). One approach to potentially lowering these sexual risk behaviors among male populations is modifying men's gender inequitable attitudes, including hyper-masculinity.^{4,9-12} To date, a majority of the relevant studies have been conducted in populations outside of the United States and do not include adolescents and younger aged men involved in the juvenile justice system. Results from Jaime et. al. (See Chapter 3) tested the association of gender attitudes with sexual risk behaviors comparing a sample of both young men involved and non-involved in the JJS and found significant associations among juvenile justice-involved youth's gender attitudes and sexual risk behaviors. However, further exploration is needed to understand *how* and *why* gender attitudes are related to young men's sexual risk behavior, and whether these factors differ by juvenile justice status.

The juvenile justice literature supports that youth involved in the system have disadvantaged social circumstances, that include a wide range of factors ranging from having deviant peers,¹²⁸⁻¹³² coming from single-parent households,¹³³ experiencing poverty, having poor educational attainment,¹³⁴⁻¹³⁷ experiencing early fatherhood^{138,139} and exposure to child maltreatment, violence, and victimizations.^{20,133} To better understand how and why these different sociocultural factors influence young men's perceptions and development of masculinity and gender attitudes, and in turn, influence their sexual risk behavior, a qualitative approach using methods designed to gain an in-depth understanding of these complex issues is needed.

There have been a no qualitative studies assessing the relationship of masculinity or gender attitudes with sexual risk behaviors among adolescent and young men involved in the JJS. Of the studies found in the literature among juvenile justice-involved youth, researchers have focused on the associations of masculinity with fatherhood,^{97,152} father identity,¹⁵³ race and health,¹⁵⁴ race and delinquency.¹⁵⁵ Among these qualitative studies that have focused on fatherhood, researchers have not focused on sexual risk behaviors as they relate to unintended pregnancy; rather, they were interested in young men's perceptions of becoming or being a father. The studies relating race and masculinity focus on Latino masculinity known as "machismo"¹⁵⁴ and Black masculinity termed as "cool pose,"¹⁵⁵ and examine how race and gender identities intersect. A study by Munoz-Laboy used qualitative ethnographic and interview approaches to understand overall health risk among older Latino men released from incarceration.¹⁵⁴ These studies have shown the importance of ideas about masculinity on identifying the formation and behaviors of young men involved in the JJS. Further they emphasize the importance of considering various sociocultural and contextual factors of being in and out of incarceration and how this may shape these men's self-identities related to masculinity.^{114,154,155}

As masculinity and gender attitudes are socially and culturally constructed, researchers conducting research related to masculinity should consider how sociocultural factors impact the perceptions and behaviors of young men involved in the JJS. Intersectionality theory and a socio-ecological model of health behaviors provide frameworks for exploring the sociocultural contexts within which ideas about masculinity and gender inequitable attitudes emerge. Previous qualitative research has demonstrated that intersectionality provides a framework to study the intersections and complex relationships occurring among gender, race, culture and class that may

shape the masculinity and sexual behavior among this population of young men.^{96,97} This includes asking young men directly about their perceptions of how these constructs intersect and influence their masculine beliefs, gender attitudes and sexual practices. The socio-ecological model provides a framework for asking questions that relate to the individual's behavior within the context of their social and physical environment.⁷³⁻⁷⁵ This includes assessing the individual, familial, peer, cultural and societal factors that may influence young men's masculinity, gender attitudes and sexual health outcomes and behaviors. Using these approaches may provide better understanding of why and what sociocultural factors impact young men's perceptions and behaviors related masculinity and gender equitable attitudes that promote healthy sexuality.

5.3 AIMS

The primary aim of this study is to understand how social and cultural factors, including youths' racial identities and experiences, influence these young men's perceptions of masculinity, gender attitudes, and sexual risk behaviors. Specific attention is paid to addressing the social and cultural factors that influence the masculinity, gender attitudes, and sexual risk behaviors of young men involved in the juvenile justice system and to exploring how the perceptions of masculinity, gender attitudes and sexual risk behaviors differ between young men involved in the juvenile justice system compared to those not involved.

5.4 METHODS

5.4.1 Procedures

The current parent study, a 2-arm cluster randomized controlled trial titled “Engendering Healthy Masculinities to Prevent Sexual Violence” (EHM) was previously IRB approved for recruitment of youth to participate in anonymous interviews with a waiver of written consent and of parental permission. Interview questions included participants’ reflections about the program they participated in and their experiences participating in a research study. An IRB modification was completed to include a demographic screening questionnaire and updates to the interview guide. The updates included interview questions about reflections and experiences related to masculinity and sexual health. The items focusing on masculinity and sexual health included perceptions and attitudes about what it means to be “a man,” whether and how participants’ racial experiences influence their attitudes about masculinity, how being a man influences their views and behaviors about intimate and sexual relationships, who they talk to about sex and where they get their sexual health information, and their attitudes and behaviors related to sexual risk behaviors.

After IRB approval was complete, researchers worked with the EHM research team and identified eligible youth participants who had completed the final follow up surveys for the parent study. Those participants interested in being interviewed were scheduled for an interview and told about the \$30 incentive for completing the interview. Interviewers met weekly with the research team and coordinated logistics between community partners and interested participants to conduct in-depth, face-to-face interviews.

All interviews took place in a private space at a community partner's organization or community library that was accessible for the participant. Community partners were accessible during each interview in the event a participant became distressed and needed additional resources and services. Two home visits were arranged due to participants being on house arrest and unable to leave their homes. In those instances, the principal investigator was informed beforehand that a home visit was scheduled and she was available by phone if the young person had a disclosure or distress from the interview. An additional research team member accompanied the interviewer during these home visits and participants were asked beforehand for permission to have two team members attend the interview.

Prior to the start of each interview, the interviewer reviewed the consent information sheet (including details about duration of interview and rationale for audio recordings) and allowed the participant time to decide if he wanted to participate in the interview. Participants were reminded about the limits of confidentiality, specifically explaining to the participant that any disclosures about hurting themselves or someone else would need to be reported to the proper authorities according to Pennsylvania state law. Interviewers also encouraged participants not to share identifiable information during the interview and assured that if they did such information would be removed from the transcript.

5.4.2 Participants and Sampling

A purposive convenience sample of 32 young men was recruited from the parent sample for in-depth, face-to-face interviews. Recruitment took place from January 2017 through May 2017. Participants eligible for recruitment were those who completed time 3 follow up surveys for the parent study and were interested in participating in an interview. Among the study sites eligible

were two Community Intensive Supervisions Programs (CISP), a program specifically serving juvenile justice-involved youth. Since this was a community-based sample, as part of the demographic questionnaires, researchers included a screening question asking those who had been previously involved with the juvenile justice system. The researchers tracked and screened those who had a history of juvenile justice involvement and may not specifically have been recruited from CISP or involved in CISP during the study's duration. This purposive sampling using the screening question was used to identify those who were juvenile justice-involved (JJI) combined with direct recruitment from CISP to ensure juvenile justice-involved young men were represented in the sample. A total of 11 young men self-identified as being juvenile justice-involved of whom 4 were from the CISP sites. The remaining 21 young men identified as non-juvenile justice-involved (non-JJI) and were not from the CISP sites.

As a function of the characteristics of the parent sample, more participants were identified and enrolled who were not involved in the juvenile justice system, compared to those who were juvenile justice-involved. However, content saturation was reached at approximately 9-10 youth within each group, aligning with recommended guidelines for qualitative research,¹⁵⁶ and we did not need to identify additional juvenile justice-involved (JJI) youth.

5.4.3 Instruments

In-depth interviews with young men focused on personal reflections about masculinity and sexual health, and specifically how being a man and one's race influenced these two topic areas. The initial masculinity section focused on young men's perceptions and attitudes about being a man (e.g. "In your own words, what does it mean to be a man? How does race influence your definition of what it means to be a man?"), their influences about being a man (e.g. "who or what

influences your attitudes and behaviors about being a man? How does being a “black man” influence this? What type of media [TV, radio, magazines, or the internet] make you think about being a man?”), and where they receive masculine messages from (“Where do you hear or get messages about being a man?”) Additional probes in the interview guide included: “What messages do you get from your peers, adults, or the media [TV, radio, magazines, or internet] do you relate to being a man?”) The interview then transitioned into a conversation about sexual health by asking how being a man influenced their sexual relationships and behaviors (e.g. “After you described being a man, how does this influence your relationships with people you are dating or “hooking up with”?) and then led to who they talk to about sex (e.g. “who do you talk to about sex?”) where they get their sexual health information (e.g. “where do you get information about sex?”) and how they manage choices and decisions about sex (e.g. “what do you think about when deciding to have sex or not?”) Participants were probed with the following: “How does being a man influence these decisions?” These initial topics and probes were informed by existing literature on sexual health and masculinity.

The interview process and the development of the interview guide were iterative. After the first 2-3 interviews were completed and transcribed, the transcripts were reviewed with additional probes added and expanded for each topic area. For example, we added questions regarding the influence of music and religion on their definitions of masculinity. We additionally asked about how young men’s manhood had been tested (e.g. “Has your manhood ever been tested? Like someone saying “man up” or “you’re being a pussy?”) Regarding sexual health, we asked about their recent romantic and sexual relationships and communication about sex and sexual health (e.g. “Who do you think is responsible for having condoms? Having birth control?”)

The interview protocol, including the demographic questionnaire and interview guide, is included in Appendix F.

5.4.4 Qualitative Analysis

A total of 32 interviews were completed among young men who have been involved in the JJS (n=11) and those who have not been involved (n=21). All interviews were audio recorded and transcribed verbatim, removing any participant identifiers. Thematic analysis was conducted using NVivo 10 software. An initial review was completed with the hard copies of the first four transcribed interviews (2 involved in JJS and 2 not involved). The primary coder prepared all files for coders to review and blinded juvenile justice status. Each coder reviewed the hardcopies independently and completed journaling hand-written notes about major emergent themes during their review. All coders met in person and discussed codebook development based on the initial review of transcripts. The primary coder drafted the codebook.

After the codebook was drafted, a pilot coding was completed with all 3 coders. The primary reviewer uploaded interviews to NVivo and blinded juvenile justice status using the audio recorder ID number (e.g. 160908_0135) to label and track each interview. All coders were provided their own NVivo file to independently code two interviews, one involved and one not involved. Using a consensus approach, the team developed a hierarchical coding scheme, including structural codes (question-based codes), and allowing for indexing of data across interviews¹⁵⁷ as well as sub-codes. The structural codes were generated by the original interview guide (e.g. Definition of a Man, sub-codes man_provider, man_responsible) and Sexual Behavior (e.g. sub-codes sexual risk included multiple partners, sex under influence, condom_non) to Sociocultural factors (e.g. sub-codes neighborhood, violence), and structural

code for conceptual frameworks (e.g. Conceptual frameworks (e.g. sub-codes gender equitable attitudes, hyper-masculinity) (See Appendix G). Sub-codes emerged from the data and were defined and agreed upon via consensus of coders and the senior researcher.

Using the final codebook, the primary and secondary coders coded the remaining interviews and the senior researcher was consulted as needed. Primary and secondary coders met regularly to review and resolve any coding discrepancies. The primary coder coded 100% of the interviews and the secondary coder coded 75% of the interviews. Prior to merging the coded NVivo files, primary and secondary coders reviewed and had consensus about which structural codes and sub-codes to include in the query analysis. The files were then merged and un-blinded by juvenile justice status. Queries were conducted among the 11 coded interviews of those involved in the JJS and then repeated among the 21 coded interviews of those not involved. Continuing with the consensus approach, together the coders queried the selected structural codes, “Definition of a Man,” “Manhood,” “Sexual Behavior,” “Conceptual Framework,” against “Sociocultural Factors,” which included the sub-codes of media, music, race, social media, stereotypes, and violence. Additional queries were also conducted with “People Influencers” and the previously mentioned structural codes. A list of salient quotes was compiled after each query was completed for each group (JJI and non-JJI). A thematic analysis was used to compare and summarize the themes that emerged from the data, specifically about the sociocultural factors that influence masculinity, gender attitudes, and sexual risk behaviors among young men.

5.5 RESULTS

Of the young men interviewed, those involved in the JJS included more interviews from young men who were between the ages of 18-19, who identified as Black or African American, who were enrolled in the Manhood program, and who reported having had sex before. The demographic characteristics of the sample are summarized and compared by juvenile justice status (See Table 7).

Recurrent themes emerged among the two groups of young men, including similarities and differences in their perceptions of masculinity, sexual behavior, and gender attitudes. The similarities between the two groups included their definition of a man, which centered on being responsible, identifying positive influencers related to their masculinity and the emergent theme of violence influencing their sexual decision-making. There were also key differences between young men involved in the JJS compared to those not involved. Young men involved in the JJS were more likely to connect their racial identity with being a man, to primarily identify negative images of men on social media, and to relate to positive role models, outside their familial network, from the media. The descriptions about sexual behavior showed young men involved were more concerned about protection from sexually transmitted infections (STI) compared to those not involved. Juvenile justice-involved interviews displayed more homophobia and compulsory heterosexuality, indicating less gender equitable attitudes.

SIMILARITIES BETWEEN YOUNG MEN INVOLVED AND THOSE NOT INVOLVED MASCULINITY

Masculinity as taking responsibility

Both groups shared beliefs and expressions that the primary definition of a man was being responsible. Young men involved described, *“Like, somebody who takes charge and knows how like—is a leader, and it like—takes responsibility for his actions and also helps the people around him.”* (126 – JJI) Likewise, another young man involved shared *“Taken care of your responsibilities and do positive stuff....Like, like get a job or something instead of being out of the streets...”* (64 – JJI). Similarly, when the interviewer asked one young man not involved in the JJS for his definition of a man he responded *“...I feel like what it means to be a man for real, is to not only get out there but take action into what you do or take responsibility in what you do.”* (123 – Non-JJI) Another non-involved participant specified part of a man’s responsibility was not getting involved in “bad” or “rowdy” stuff and defined this stuff as *“Like stealing cars or stuff, toting guns, robbing people, selling drugs, gang fights, cutting up in school, being disrespectful and all that.”* (54 – Non-JJI)

Importance of familial male role models

Young men from both groups identified important familial male role models in their lives. One young man involved in the JJS explained his reasons for looking up to his uncle because in the following way:

“...he owns his own business, like he grew up from, he grew up, like having to struggle like his parents weren’t—he didn’t, he wasn’t as wealthy as other people around him, but he still like overcame and went—and he followed his dream and did what he wanted..”
(126 – JJI)

Another young man who was not involved in the JJS described how his dad taught him the importance of a man being non-violent. He shared:

“My dad kind of influenced too. Because he taught me that having to prove that I’m not weak, like that’s not really as important as avoiding fights. ‘Cuz running away from fights and everything, they say that you respectfully leave the situation. Of course people are all like, “Ahh you’re a pussy and duh duh da duh.” Well, um, that actually shows strength not to do something that will cause even more harm on either you as a person or it could potentially harm your family.” (44 – Non-JJI)

These young men commonly shared their strong admiration for these role models and valued learning from their knowledge and experiences about being man.

SEXUAL BEHAVIORS

Violence and sexual decision-making

One of the emerging themes was the topic of a “*set up*” where a young man could be lured into a sexual encounter to be killed. While this topic was not part of the original interview guide, this phenomenon emerged from a young man in the non-involved group and was asked about during subsequent interviews. The interviewer asked about how being a man influences a dating relationships and the young man answered:

“Cuz, cuz the man, you gotta be on your P’s and Q’s cuz like, cuz some girls you just gotta watch. Like they’ll be the type of girls...[Interviewer: Watch out for what?].Set ups. The young man then defined it as “...like how you get set up and all that from a female. [pause] You’ve never heard of that? When it all starts from a girl that set you up to get you killed?”(132 – Non-JJI).

Correspondingly, a participant from the juvenile justice-involved group when asked, defined a set up as “...like your partner, somebody you think is your partner...they plotting on you with your opposition...” and he described further “If one of them get the girl to set the other one up, he ain’t gonna see that coming,” The interviewer clarified if the opposition is usually the one that sends the girl in and he answered “Yeah, or something like that. Or somebody that already got a girl. They opposition come and take the girl, you know.” (146 –JJI)

This emergent theme of the connection between sexual behavior and violence was present in among both groups of young men who were interviewed.

DIFFERENCES BETWEEN YOUNG MEN INVOLVED AND THOSE NOT INVOLVED

There were also key differences between young men involved in the JJS compared to those not involved. Young men involved in the JJS were more likely to connect their racial identity with being a man, primarily identified negative images of men on social media, and related to positive role models, outside their familial network, from the media. The descriptions about sexual behavior showed young men involved were more concerned about protection from sexually transmitted infections (STI) compared to those not involved. Juvenile justice-involved interviews displayed more homophobia and compulsory heterosexuality, indicating less gender equitable attitudes.

MASCULINITY

Intersections of race and masculinity

When asked if or how race influenced their definition of a man, among young men involved in the JJS who answered “no,” included responses such as “Naw its all the same to me,” and “...just like any other man, white, Caucasian, mixed any race.” At the same time, they would then describe societal definitions of a man and share racial and gender stereotypes. A

majority of these societal definitions of a man was specific to black men. For example, one young man described his societal definition as *“Black man is rude and aggressors, and also people are more scared of us...”* (144 – JJI).

Among those young men involved, several responded that race did not change their definition of a man, yet, in the process of describing these societal definitions of black men, issues of racism, and stereotypes, the young men would reconnect their identity as a man to their racial identity. For example, a young man shared:

“There’s still some racist people out here. Who still want blacks to be slaves and then there’s some cool white people who everybody just like... And as a black man you’ve to be proud like if a white racist person walk up to you and be like oh you nigger this and nigger that. You can’t let that get to you cuz I mean yeah I am black but I mean I am proud...” (152 – JJI)

Another juvenile justice-involved young man, confirms how his definition of man would not change based on race but then proceeds to describe how he has to take into account being a black man and having to work harder compared to other non-black men. He explained:

“I would give you the same definition that I gave as to being a man. (Ok). It’s just the fact that at the end of the day we have to work ten, twenty, you know 100 times harder than you know our Caucasian counterparts or you know our Asian counterparts is the part that’s really like, you know bugs me but at the end of the day I look at it as, yeah ok we gotta work harder, but you know, I guess the more we work the bigger the reward I guess or I don’t want to say reward but the bigger the triumph.” (1051 – JJI)

Again, another juvenile justice-involved participant agreed that race did not matter and despite negating the influence of race, he still identified being a man with his racial background

and described *“I just live my life and be a young brown boy, brown man, brown teenager....you know.”* (143 – JJI)

The intersection of race and gender was a notable reoccurring theme among young men involved and suggests that intersection that exists among the self-identities of those involved in the JJS. This sentiment of connecting race and gender identities were not prominently displayed among those participants who were not involved in the JJS.

Portrayals of hypermasculinity and violence in social media

Those involved in the JJS shared more negative images of men in social media compared to those not involved. Participants not involved in the JJS talked about these images in the media such as movies and on television while those involved with the JJS shared narratives about social media and talked about the context of fighting and violence related to definitions of being a man and proving one’s manhood. For instance, one participant stated *“Like, I see kids posting stuff all the time. Like people my age, like posting pictures of guns. And like stuff like that. Like, the cops don’t be on the internet.”* (64 – JJS) Another young man when asked about other influences about being a man, he shared: *“umm yeah like you get on the streets and walking round seeing other men abusing other females umm disrespecting em, fighting ‘em, seeing videos on Facebook of boys hitting females that’s, I don’t get that at all.”* (143 – JJI)

Further another young man described more personal acts of violence on social media, he shared *“Like [peers on social media] think flashing money and guns and getting a whole bunch of likes on Facebook makes you be popular and being popular and all that everybody thinks that’s—that’s what makes you a man.”* He proceeded to describe how he will fight if he needs to, has fighting videos online, is classified as a *“hot head,”* and then he glorified *“I’ve had fights on Facebook that almost went viral, but they [Facebook] took them down.”* (126 – JJI)

These narratives displayed the negative influences of social media portraying men as violent with guns, harming women, and encouraging aggressive behaviors to become popular and prove one's manhood.

Positive influences on masculinity in the media and social networks

Young men involved in the juvenile justice system also identified positive role models from the media and had those in this study discussed a more diverse group of role models in their social networks than the non-involved. One JJS participant discussed his aspiration to be an athlete and when asked how he thinks athletes influence people's perspectives of being a man, he answered "...they [athletes] follow their dream and they like they'll pursue and stay committed and go—get on—go on and do bigger and better things." (126 – JJI) Another young man discussed the importance of finding a male role model who is a leader and he said "If you're not a leader you're not gonna stand out from the crowd, no one's really gonna notice you. Obama's a great example." (135 – JJI)

The young men involved with the JJS talked more about "positive influencers" outside those previously mentioned male familial role models than did the participants who were not involved with the JJS. One juvenile justice-involved participant responded that his friends were the most influential and he shared "yea, it's just like my group of friends....I choose my friends wisely...They all on point. All they minds is in the right place. We all on the same page with it." (146 - JJS) Another young man identified male role models from his black leadership program and then also shared female role models saying "I was raised by women so of course I have my family, my nana, my mom, my aunt, women mentors [named them]" (1051 – JJI).

Among those interviewed in this study, young men involved in JJS identified a more expanded network of positive role models, whereas those not involved only identified positive role models primarily within their male familial circles.

SEXUAL BEHAVIORS

For sexual behavior and gender attitudes, the participants' narratives shifted from sociocultural influences to more self-perceptions and influences of young men's female sexual partners and their peer groups. The descriptions about sexual behavior showed young men involved in the juvenile justice system were more concerned about their sexual partner's sexual history and protecting themselves from sexually transmitted infections (STI). They gave examples of sexual risk behavior in their description of group sex. For example, a young man involved was the only one who shared being invited to a "train" (group sex) and having peers who participated in "training", compared to young women not involved, who did not describe this experience. Compared to those involved, young men not involved were more worried about getting their sexual partner pregnant than about STI.

Condom use and STIs

Juvenile justice-involved participants talked about the importance of knowing your sexual partner before having sex with them because they did not want to get an STI. One participant described: *"I asked them like, 'Are you burning [having an STI] or anything,' and uh, I mean, to me I've never met a female that actually willing to like come out and be like, 'yeah.'"* Then he proceeded to share how his brother had been though having an STI and how his brother told him *"...it don't matter. Just wrap up. Don't matter if you don't feel the same, or it feels different."* The participant reiterated he did not think people were honest about their STI status and he needed to protect himself. He responded:

“I just wear—I always got condoms, so. It’s just, I always make sure I’m protected, but I also don’t just go around to any girl, like I either have to know you or I gotta get to know you, and then even if I get to know you by yourself, I still go around and talk to your friends and people I know that know you...Background check.” (126 – JJI)

Other young men involved used the term “background check” and referred to the importance of getting as much information about the person they were going to have sex with.

In contrast, those young men not involved in the JJS did not stress concerns about STIs, and instead, they were concerned about not getting their sexual partner pregnant. These young men repeatedly talked about not wanting to have a child and rationalized not being ready to be responsible for a child; placing emphasis on their inability to financially support a child. Others shared the negative consequences of having a child, which included their family being mad and disappointed in them to a baby ruining their chance to go to college or have a good career.

Multiple sexual partners

A participant from the juvenile justice-involved group was the only one who described training (having group sex). He specifically referred to his peers inviting him to participate in a train. He described, *“Well they always talking about like, like are you trying to come and train with us, I don’t do that training shit”* and he defined training as *“Just like, it goes both genders like two dudes training one girl, that s like one fucking her and one getting his dick sucked.”* The participant also added that it could also be *“with a female too like um, a female she can get eaten by another female if she wants to...”* (143 – JJI) Further in the dialogue, said he describes how his peers talk about sex *“Yeah, like, talking about like, how many girls you had sex with, like, for example, like say if I had more bodies than you so say if they were like I got 21 bodies, I don’t care.”* (143 – JJI) He emphasized not caring about the number and just having sex is what

mattered to him. This is an example of the potential influence of peer groups in young men's sexual behaviors and normalizing the behavior of having multiple partners.

GENDER ATTITUDES

During the interviews, among young men involved in the JJS displayed few gender equitable attitudes compared to those not involved. Specifically, young men in the juvenile justice system described more homophobia and compulsory heterosexuality, compared to those not involved.

Influences of social media on young men's gender attitudes

A few young men involved who displayed gender equitable attitudes included influences of social media and personal experiences. Young men reflected on how women are portrayed on social media. One participant said:

“Like, people will make statuses and stuff about like their everyday life and how what happened between him and a girl or stuff that they’ve been experience through—like experience from a girl, and everybody will be like, “all girls are like that,” or they’ll be like, “but yeah, watch out, because there’s girls out there like that.” (126 – JJI)

He exclaimed, “*I hate Facebook*” referring to these posts, which is an illustration of his more gender equitable attitudes since he dislikes these types of posts about girls and reflects his perceptions of gender norms.

Influences of personal experiences on gender attitudes

Another juvenile justice-involved participant reflected on his perceptions of women, which stemmed from his mother's experience with sexual assault:

“...My mother was raped at the age of 17 so, I'm the legit meaning of a bastard child. Uhm, so knowing that, that's one of the things that you know, I keep in mind with being in a

relationship and you know, how to treat women and even you know, going along the lines of just having sex, you know, I'm really careful and thorough of you know, what I do, you know, I treat women with the utmost respect..."(1051 – JJI) For this particular young man, he also shared his experience with his ex-girlfriend having a miscarriage. The combination of these personal experience may be displaying his more equitable gender attitudes.

Homophobia and compulsory heterosexuality

Young men demonstrated limited gender equitable attitudes and instead talked more about homophobia, a dimension of gender inequitable attitudes, in their experiences of sexuality and sexual risk behavior. In three separate interviews, young men shared their disagreement with homosexual relationships. One young man described in the context of being invited to a “train” and why he did not want participate in this type of group sex, *“Cuz I don’t wanna be around another dude’s dick...That’s still kinda gay. Being around another dude and his dick inches away from you.”* (143 – JJI) Despite the magnitude of potential risk for violence and STIs associated with group sex, this young man was more concerned about his image of being portrayed as gay.

With another involved participant, when the interviewer asked *“has anyone ever said, “Hey you need to man up?”* the participant responded *“Nah, somebody called me gay before ‘cause of my eyes, I guess my voice, but that was like only thing that tried to test it...”* (144 – JJI) Later, as the interview progressed, this same participant reflected on whether and how sexuality is important to manhood, *“That tells what you want to be, like your sexuality, you like men, I wouldn’t call you another man...I don’t agree with that either the whole gay thing, I’m just not really into that.”* (144 – JJI) He proceeded to describe that it was important as a man to have sex

with “a female.” This young man automatically associated “manning up” to being called gay and re-emphasized the importance of heterosexuality to being a man.

Another young man involved, when asked about how he felt and thought about having sex and having a sexual relationship, explained:

“I mean I think everybody- it’s normal. I ain’t really got no thoughts about it for real. I mean I don’t like- I don’t got nothing against gay people or nothing, but I don’t like it though. But I don’t want to talk bad about it though.” (146 – JJI)

While this participant displayed less conviction in his condemnation of homosexuality, he reinforced heteronormativity by stating that he did not “like it.”

One participant did not refer to homosexual relationships but emphasized the influence of a woman defining a man, which is a reflection of compulsory heterosexuality. The interviewer probed about the influences of being a man and he answered “women” and proceeded to describe, *“if you’re not a man women wouldn’t want you. Young ladies, some young ladies wouldn’t want you...if you’re a boy you know they might settle for less but if you’re a boy, only a little girl is gonna want you.” (135 – JJI)* This young man places emphasis on heterosexuality because he reiterates being a man is associated with being wanted by a woman.

5.6 DISCUSSION

Results from our qualitative investigation uncovered several sociocultural factors (including race, stereotypes, media, and violence) and social networks (including familial networks, female sexual partners, and peer groups) that appear to influence young men’s perceptions of masculinity, sexual behavior, and gender attitudes. Young men involved and not involved in the

juvenile justice system had similarities and differences in their perceptions of what influenced their attitudes and behaviors. Shared perceptions included young men's primary definition of being a man -- being responsible -- and the importance of positive male familial role models to their masculinity. In addition, violence emerged as a key contextual factor influencing young men's sexual relationships and, specifically, the hypervigilance needed in case a sexual partner was setting them up to be killed. For example, does the fear of setups make young men more or less likely to engage in casual relationships or use condoms with their sexual partners? These interviews did not explicitly explore the impact of setups on young men's sexual behavior and more work is needed to address this connection.

Young men involved in the JJS were more likely to connect their racial identity with that of being a man. Unlike youth not involved in the JJS, juvenile justice-involved youth identified negative images of men on social media, and connected to additional positive role models from the media. Among those involved, young men's connection to their racial identity seemed to be the most significant recurring theme related to masculinity. This connection between gender and racial identity begins to display the intersection that exist among the self-identity's of young men involved in the JJS and how the development of these identities may differ from those not involved. Previous literature suggests that racial identity in conjunction with various sociocultural and contextual factors are related to juvenile justice involvement and may shape these young men's self-identities related to masculinity.^{16,114,154} The juvenile justice system presents norms including rehabilitation and punishment of juveniles based on the enforcement of the law.¹⁵⁸ These norms may contribute to shaping masculine identities of those young men involved in the juvenile justice system. In particular, researchers have examined how the controlled supervision and punitive treatment of juvenile justice-involved youth may reinforce

more hegemonic masculine attitudes and behaviors.^{16,114} The literature shows that intersectionality is one approach to better understand how young men develop their self-identities through the intersections of their gender and racial identities within the context of the juvenile justice system.⁹⁷

However, researchers have not studied how these self-identities and intersections of gender and race impact gender attitudes related to sexual risk behaviors. This is the first known study to use a qualitative approach to further understand these associations. Prior investigators have focused more on masculinity's relationship to fatherhood,^{97,149} father identity,¹⁵⁰ race and health,¹⁵¹ race and delinquency.¹⁵² It is also worth considering that the construction of these identities occur outside the juvenile justice system. Previous studies have associated traditional masculinity, aggression, misogyny, and mental indicators to adolescent delinquency and criminal behavior.^{116,117} Therefore, the development of these ideas and behaviors can influence masculinity and gender attitudes prior to entering the system.

The descriptions about sexual behavior showed young men involved were more concerned about their sexual partner's sexual history and STI prevention compared to those not involved, who were more concerned about preventing pregnancy. While young men did not expand on their concerns, or lack thereof, regarding pregnancy in these interviews, previous research on reproductive coercion highlights the potential connection between pregnancy intentions and the systemic racism in the criminal justice system. Specifically, a clinic-based qualitative study found that women perceived that their male, African American partners promoted pregnancy because of the expectation of future involvement in the criminal justice system and they wanted to establish a family prior to their incarceration.¹⁵⁹ Research is needed to understand how young men's involvement in the juvenile justice system and the expectation of

later involvement in the adult criminal justice system impact their pregnancy intentions, condom use, and sexual behavior.

Youth involved in the JJS displayed fewer gender equitable attitudes. Of the few young men who had narratives about equitable gender attitudes, one displayed disagreement for advertising young girls sexual behaviors and sexual reputations on social media, and another young man shared his personal experiences about the women in his life. This particular young man shared the story of his mother's sexual assault and his ex-girlfriend's experience with a miscarriage. These intense personal experiences may be more impactful on the formation of gender equitable attitudes towards women. In contrast, many more of the youth involved in the JJS displayed homophobia and compulsory heterosexuality, indicating less gender equitable attitudes compared to those not involved. Questions specifically about homosexuality were not part of the interview guide and young men's responses to the questions related to masculinity and sexuality prompted these narratives. Research on masculinity and homophobia among youth (albeit not juvenile justice-involved) suggests that homophobia directed at other men serves to reinforce young men's social identities, including their heterosexual hypermasculinity.¹⁶⁰ Importantly though, perceptions of acceptable masculine and feminine behavior among men (which corresponds to whether or not they are perceived as gay) may differ by race¹⁶⁰ and further research is needed to investigate how young men's racial identities intersect with their gender attitudes in this juvenile justice-involved sample. As young men in this study highlighted the impact of female sexual partners and peer groups on sexual behavior, these social networks maybe a good place to learn more about these inequitable attitudes.

Limitations

This study is not without limitations. The researcher had multiple roles being the interviewer, coder, and analyst in this study. The use of the consensus approach and thematic analysis further the involvement of the researcher in the data construction to interpretation of the data, which can introduce investigator bias. However, there were also two other interviewers who conducted interviews, and both the secondary and senior coder were involved in the codebook development. The primary and secondary coders maintained communication throughout the coding process, and a majority of the interviews were double coded. The thematic analysis was conducted with both coders who reached consensus throughout the analysis process.

It is critical to recognize that the interview participants were recruited from a community-based sample of 21 neighborhoods, comprised primarily of low resource and socioeconomically disadvantaged communities and consisted of predominantly African American populations. These contextual factors, particularly poverty, have been associated with juvenile justice-involved youth and contribute to their delinquency.²⁰ Since both young men involved and not involved are coming from these neighborhoods with similar characteristics including high levels of community violence. These contextual factors may be contributing to young men's beliefs about what it means to be a man and how they combat against the violence in their communities. More needs to be understood about this context of violence and how it impacts young men's relationships and sexual behaviors.

Information may not be generalizable to all segments of young men involved in the JJS. Researchers were able to recruit juvenile justice-involved youth who were part of the CISP program, however this may not be representative of those young men who have been

incarcerated. Therefore, if young men incarcerated are not included in the sample, researchers may not have detected narratives related to more hyper-masculine expression related to being incarcerated,¹¹⁵ and more hegemonic masculinity^{16,114} as mentioned in the literature. The demographic questionnaire did allow other young men involved in the JJS to be identified who were not part of CISP and may have included youth from other segments of the JJS.

There is also potential for selection bias. Because this was a purposive and convenience sample of participants, there could be differences among those who participated versus those who did not complete the final follow up survey for the parent study, and/or who were not interested in being interviewed. Further since interviews were conducted after implementation of the sexual health promotion and job skills programs, there could be program effects that influence the responses to the interview questions. However, there were a similar proportion of young men who participated in the intervention and the control in both groups interviewed. The juvenile justice status of participant was sometimes known prior to the interview and this may have also caused interviewer bias. However, each interviewer followed the protocols outlined in the interview guide.

5.7 CONCLUSION

Using a qualitative approach, researchers were able to identify several key sociocultural factors that influence young men's perceptions of masculinity, sexual behavior, and gender attitudes. Researchers focused on the differences between young men involved compared to those not involved in the juvenile justice system. Given the sexual health disparities experienced by young men in the juvenile justice system and the influence gender attitudes play in shaping health and

behavior, it is critical to develop new strategies and approaches that improve juvenile justice-involved youth's perceptions of masculinity and gender attitudes more broadly to promote safe sex practices.

These findings suggest the importance of recognizing the intersection of young men's racial identity with their gender identities and perceptions of masculinity. These intersecting identities are shaped by contextual factors including exposure to violence and social media, which may be addressed in interventions discussing healthy masculinity formation and sexual decision making with youth. Given that young men's attitudes are shaped by their environments, including the systems they are involved in and the adults who model healthy and unhealthy behaviors, intervention efforts would be strengthened by partnering with JJS stakeholders and community partners to reach young men. This could include training probation officers or working with wardens and guards to judges and court officials, who impart punitive treatment or consequences to young men involved. Challenging stakeholders and partners to reduce displays of rigid and aggressive attitudes and behaviors related to traditional masculinity and to decrease the use of racial and gender stereotypes may contribute to a healthier culture of masculinity and more gender equitable attitudes in the JJS.

Lastly, youth-serving agencies and stakeholders in the juvenile justice system could create safe spaces and opportunities for young men to discuss topics related to being a man and managing sexual expectations and decisions. A safe space may range from a group setting, such as a support group, to more private settings, such as one-on-one therapy or confidential services with a health provider. These opportunities for group discussions may allow young men along with their peers and sexual partners to have more open conversations with a trusted adult and talk more about healthy relationships and safer sex practices.

This broad and collective effort to reach young men involved and those who work closely within the JJS may begin to create opportunity for the emergence of a new culture of masculinity and sexuality within this system. The development of such campaigns and programs may promote healthy masculinity and gender equitable attitudes that are associated with reduced sexual risk behaviors among this high-risk population.

5.8 ACKNOWLEDGEMENTS

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A special thank you to Elizabeth Miller for mentoring and providing the opportunity to incorporate my work into this parent study.

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5.9 TABLES AND FIGURES

Table 6. Characteristics Of Young Men Who Completed Qualitative Interviews

Youth characteristics	Total (n=32) % (n) ^{ab}	Young Men Non JJI (n=21) % (n) ^{ab}	Young Men JJI (n=11) % (n) ^{ab}
Total	100% (32)	67% (21) ^c	34% (11) ^c
Age (years)			
14-15	34% (77)	33% (7)	36% (4)
16-17	44% (175)	48% (10)	36% (4)
18-19	22% (138)	19% (4)	27% (3)
Race			
Black or African American	84% (27)	86%(18)	91% (9)
American Indian or Alaska Native	6% (2)	5% (1)	9% (1)
Multiracial	6% (2)	10% (2)	0% (0)
Other	3% (1)	0% (0)	9% (1)
Program Status			
Intervention - Manhood	69% (22)	67% (14)	73% (8)
Control – Job Skills	31% (10)	33% (7)	27% (3)
Ever had sex			
No	22% (7)	29% (6)	9% (1)
Yes	78% (25)	71% (15)	91% (10)

6.0 DISSERTATION DISCUSSION AND CONCLUSION

6.1 SUMMARY OF FINDINGS

The aim of the first part of dissertation was to evaluate the extent to which masculinity and gender attitudes may contribute to sexual risk behaviors and outcomes among young men in the United States juvenile justice system. Findings from the systematic review showed only one study explored gender attitudes and sexual risk behaviors. This study, by Daniels et. al. only included descriptive statistics about gender attitudes, specifically in the context of violence and sex in a relationship, and sexual risk behaviors, particularly condom use among short-term and long-term partners. The study did not assess any association between gender attitudes and risky sexual behaviors. Based on these limited results, an ad hoc narrative review was completed on the last 3 studies that did not meet the final eligibility criteria. One study was a case report about one young man's experience of fatherhood while in the JJS and the two remaining studies assessed topics of masculinity with associations related to delinquency and sexual violence. Despite the numerous studies focused on masculinity among young men involved in the juvenile justice system, none examined associations between gender attitudes and sexual risk behaviors, demonstrating a significant gap in the literature.

The aim of the second paper in this dissertation was to examine the associations between gender inequitable attitudes and sexual risk behaviors among young men involved in the juvenile

justice system compared to those not involved. Researchers used an existing dataset from the randomized controlled trial titled “Engendering Healthy Masculinities to Prevent Sexual Violence” (PI, Miller). The results from the secondary analysis provided evidence that there was an association between gender attitudes, juvenile justice status, and sexual risk behaviors, and differences in these associations when JJS-involved men were compared to those not involved. Those young men who were juvenile justice-involved had significantly lower gender attitudes scores than those not involved, reflecting lower equitable gender attitudes. There were also differences between the two groups in sexual risk behaviors. Juvenile justice-involved youth were more likely to have multiple sexual partners and have more inconsistent condom use compared to those non-involved. The statistically significant results from the logistic regression models showed more equitable gender attitudes were associated with reduced odds of multiple sexual partners. Those involved in JJS had reduced odds of having sex under the influence of drugs or alcohol and higher odds of having inconsistent condom use. There was also a significant interaction for the model predicting inconsistent condom use. Men who were juvenile justice-involved with having higher gender equitable attitudes had greater odds of inconsistent condom use. These results provide evidence that there are associations for gender attitudes, along with juvenile justice status, with sexual risk behaviors.

The aim of the third paper in this dissertation was to understand how social and cultural factors, including youths’ racial identities and experiences, influence these young men’s perspectives on masculinity, gender attitudes, and sexual risk behaviors. Results from the qualitative interviews point to the importance of sociocultural influences, such as race, social media, and violence, and young men’s social networks in understanding juvenile justice-involved youth’s perceptions about masculinity, gender attitudes, and sexual behavior. The

qualitative data also indicate that young men involved in the juvenile justice system displayed more gender inequitable attitudes, particularly related to dimensions of homophobia and compulsory heterosexuality. When juvenile justice-involved youth shared narratives about their sexual behavior it was frequently in the context of their female sexual partner and related to the sexual experiences of their peer groups.

6.2 DISSERTATION DISCUSSION

This dissertation explored the relationship of masculinity, gender attitudes and sexual risk behaviors among young males involved in the juvenile justice system using gender and power theory, intersectionality, and the social-ecological model. The collective results demonstrate the significance of applying all three frameworks when studying the complex and intersecting topics related to gender, race, and other sociocultural factors that shape masculinity, gender attitudes, and sexual risk behaviors among young men involved in the juvenile justice system. Further, the layering effect of these sociocultural factors potentially influences the associations of masculinity and gender attitudes with sexual risk behaviors.

The systematic literature review allowed researchers to discover there is a gap in the literature since no studies were testing the association of masculinity or gender attitudes with sexual health. Despite the gap in the literature exploring the relationships regarding masculinity and gender attitudes with sexual risk behaviors, related literature points to the importance of studying juvenile justice-involved youth using gender and power theory, intersectionality, and the social-ecological model. Related literature from the global setting supports the approach of using gender and power theory because researchers have found that masculinity norms and

gender inequitable attitudes are modifiable risk factors that can be targeted to reduce sexual risk behaviors and to promote healthy sexuality.^{4,9-12} Gender-based studies have been conducted in the US, though conducted among non-involved juvenile justice youth; these interventions have been found effective to engaging young men to promote more equitable gender attitudes related to safe sex practices.¹⁴⁰{Barker, 2007 #95} In related studies with young men from the juvenile justice system, researchers reiterated the importance of the intersection of young men's gender and race to the development of their self-identities. Researchers highlighted that racial pride was an important asset to young men involved in the juvenile justice system.¹⁸ Further, additional literature supports that juvenile justice-involved youth construct their self-identities through the intersections of racial identities and experiences, social class, delinquency history, and other connections with gang or deviant peer groups.^{16,114} Therefore, intersectionality and the social ecological model are appropriate approaches to understanding these identities and the sociocultural factors that may influence masculinity and gender attitudes related to sexual risk behaviors among juvenile justice-involved youth.

The quantitative analysis shows the importance of considering gender and power theory to assess the associations of gender attitudes and sexual risk behaviors. Based on the results, there is evidence supporting significant associations among gender attitudes and juvenile justice status with sexual risk behaviors. These are critical findings that may inform sexual health programs and interventions to use gender based strategies to promote gender equitable attitudes and address these sexual risk behaviors among juvenile justice-involved youth. Targeting those who work directly and closely with young men involved in the JJS is essential. This includes those within the system such as guards, probation officers, and JJS health care providers, all of whom have close contact with youth. There are also external agencies, such as social and human

services and community programs, where young men are referred or diverted to attend programming or treatment. Understanding the system and who is involved can provide an avenue to inform and train those who work with juvenile justice-involved youth. Often these adults have the potential to serve as role models or informants who can better guide and have discussions with young men about their attitudes and behaviors. Further, leveraging the juvenile justice systems rehabilitative mission and providing more gender based strategies and interventions that could be implemented within the juvenile justice system may have a significant impact on health and social outcomes.

There were also some unexpected findings from the results of the quantitative analysis. The association of those involved in the JJS were less likely to have sex under the influence of any substances is contrary to researcher's original hypothesis and the literature. Researchers discussed the influence of having the sample of young men involved in the JJS coming from the Community Intensive Supervision Program (CISP), which may have reduced young men's opportunities to use drugs or alcohol due to random drug testing. It is also worth considering the CISP programming or exposure in the parent study intervention or control may have positively influenced young men's reduced substance use. However, it is also possible that young men who are JJS-involved would have less sex under the influence than non-involved youth even without the influences of the CISP program. If this is true, it could be a strength to build upon when building interventions to reduce negative sexual health outcomes among this population. This includes young men sharing with their friends or peers how and why they avoid sex while under the influence of drugs or alcohol. By highlighting young men's good decision-making skills, may allow them to further apply these skills to other safe sex practices, such as increasing condom use or getting tested with their sexual partners. Lastly, the paradoxical finding that

young men who are JJS-involved and have higher gender equitable attitudes have more inconsistent condom use needs to be further examined. Though researchers do not know what is driving these associations it may be the case that young men involved are in a more long-term relationship with a female partner and together have made the shared decision to not use condoms or perhaps because she is using contraception and encouraging condom nonuse. More qualitative approaches are needed to further explore the interpersonal contextual factors related to these their sexual networks and relationships and how that shapes their attitudes and behaviors with condoms.

The qualitative study demonstrated the unison of all three frameworks because the interviews specifically addressed topics of gender, race, and the sociocultural factors that shape masculinity, gender attitudes, and sexual risk behaviors among young men involved in the juvenile justice system. Results from the interviews showed young men were simultaneously identifying gender and racial identities when describing topics of masculinity. When young men discussed topics related to sexual behavior more narratives were related to their female sexual partners and their peer groups experiences with sex. Intersectionality was prominent in the study findings since issues of race, gender, and sexuality were intertwining simultaneously to influence young men's masculinities, gender attitudes, and sexual behaviors. There were many other intersecting issues that impact youth involved in the juvenile justice system that were not examined in this dissertation. The juvenile justice literature supports that youth involved in the system have disadvantaged social circumstances, which include having deviant peers,¹²⁸⁻¹³² coming from single-parent households,¹³³ experiencing poverty, having poor educational attainment,¹³⁴⁻¹³⁷ early fatherhood^{138,139} and exposure to child maltreatment, violence, and victimizations.^{20,133} These complex and intersecting issues need to be considered and important

to developing broader approaches, such as structural interventions, to better address other contextual factors that may positively impact young men's lives prior, during and after involvement with the juvenile justice system.

6.3 FUTURE RECOMMENDATIONS

Collectively, these results suggest there are complex and intersecting issues related to gender, race, and other sociocultural factors that shape masculinity, gender attitudes, and sexual risk behaviors among young men involved in the juvenile justice system. This small, yet substantive study lays the foundation for future work. A large-scale study among juvenile justice-involved youth is needed to further assess these associations. Further exploration is also needed to understand who influences young men's gender attitudes and sexual risk behaviors. A comprehensive understanding of these associations and the people who influence these attitudes and behaviors may better inform the development of new approaches and strategies to promote healthy masculinity and sexuality among young men involved in juvenile justice system.

The key sociocultural factors (including race, media, and violence) and social networks (including familial networks, female sexual partners and peer groups) need to be incorporated in existing or new programming and training among those working with and for young men involved in the juvenile justice system. Specifically, it would be important to engage these JJS stakeholders in conversations about the current research findings and how to better develop programs and strategies that address racial identity and social media related to health masculinity. Creating a safe space for young men involved in the JJS to talk more about sexual risk behaviors and inviting their peers and sexual partners to participate in conversations about

healthy relationships and safer sex practices may improve sexual health outcomes. This may provide opportunities for youth driven conversation about relationships and sex and to hear different perspectives about these topics. Specifically, sexual health promotion programs should aim to empower youth to build group support among their peers and to be able to talk honestly and openly about the facilitators and barriers to safe sex practices.

6.4 DISSERTATION CONCLUSION

The findings from this dissertation support the importance of the relationships of masculinity and gender attitudes associated with sexual risk behaviors. Results can inform future research and practical applications in the field. Future research should assess the associations of masculinity, gender attitudes, and sexual risk behaviors using a large-scale study among young men involved in the juvenile justice system. Further, researchers should expand their scope of work to include the examination of these associations to sexual health outcomes, such as pregnancy intentions and transmission of sexually transmitted infections. Practical applications include incorporating masculinity and gender attitudes into more comprehensive sexual health education and training programs.

Broader applications need to be considered to provide more primary prevention approaches prior to young men becoming involved in the juvenile justice system. The juvenile justice system is a large system controlled by local, state, and federal jurisdictions, and there are multiple opportunities for structural interventions, including operational and policy changes. An example of a structural intervention may include training those employed by the JJS, from law enforcement to lawyers and judges, about the impact of masculinity on young men's health. This

includes increasing their knowledge and mindfulness about the effects of gender inequitable attitudes and how they can contribute to creating a culture of masculinity that is less violent and more equitable in the JJS. For policy related changes, researchers need to provide more evidence-based interventions that are gender-based and tailored for juvenile justice-involved youth and can be integrated into new or existing health programs or therapies for young men involved in the JJS. Further, structural interventions can also include efforts prior to young men getting involved in the JJS. For instance working with communities to lower community violence and offering young men opportunities of employment or other extracurricular activities, which may minimizes their time in the streets and lowers their chances of becoming involved with criminal activities. The existing initiative regarding the “School to Prison Pipeline” is a relevant place to collaborate with statewide efforts from the American Civil Liberties Union of Pennsylvania to local level efforts from the Pittsburgh Public Schools and University of Pittsburgh, Center on Race and Social Problems. Establishing collaborative efforts with these partners, particularly at the local level, may be a critical place for working with young men prior to them becoming involved in the JJS. Collaborations among community partners, juvenile justice system stakeholders, academic researchers, and health care professionals, are needed to create these opportunities to develop these types of systems-based approaches to improving the sexual health of this marginalized population. Collective efforts can cultivate policies and systems that support safer communities for young men, particularly young men of color, who are at high risk for involvement in the juvenile justice system and adverse sexual health outcomes. The promotion of healthy masculinity and gender equitable attitudes that are associated with reductions of sexual risk behaviors may help lower these adverse sexual health outcomes.

APPENDIX A: RESEARCH PROTOCOL

Review Protocol for Systematic Review

AIM 1: To assess the relationship between masculinity norms and gender inequitable attitudes and behaviors to sexual risk behaviors and sexual health outcomes among adolescent males in the juvenile justice system in the existing literature on adolescent males in the US juvenile justice system.

1. Review title – Full Explanation Give the working title of the review. This must be in English. Ideally it should state succinctly the interventions or exposures being reviewed and the associated health or social problem being addressed in the review.

The role of masculinity norms and gender equitable attitudes in promoting healthier sexual behaviors and sexual health outcomes among adolescent males involved in the juvenile justice system: a systematic review

2. Original language title – Full Explanation For reviews in languages other than English, this field should be used to enter the title in the language of the review. This will be displayed together with the English language title. - NA

3. Anticipated or actual start date – Full Explanation Give the date when the systematic review commenced, or is expected to commence. – Date is based on second meeting with Barb to review initial review protocol registered on PROSPERO systematic review website

11/15/2016 (initial meeting with Barb was 5/17/16)

4. Anticipated completion date – Full Explanation Give the date by which the review is expected to be completed. Date is based on average one year completion of systematic reviews – this would be for paper 1 and initial research and review through June should provide enough for comps exam.

08/31/2016

5. Stage of review at time of this submission – Full Explanation Indicate the stage of progress of the review by ticking the relevant Started and Completed boxes. Additional information may be added in the free text box provided.

Please note: Reviews that have progressed beyond the point of completing data extraction at the time of initial registration are not eligible for inclusion in PROSPERO. Should evidence of incorrect status and/or completion date being supplied at the time of submission come to light, the content of the PROSPERO record will be removed leaving only the title and named contact details and a statement that inaccuracies in the stage of the review date had been identified.

This field should be updated when any amendments are made to a published record and on completion and publication of the review.

- The review has not yet started
- Review stage
- Started Completed
- Preliminary searches
- Piloting of the study selection process
- Formal screening of search results against eligibility criteria
- Data extraction
- Risk of bias (quality) assessment
- Data analysis

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12. Funding –

Part of doctoral student's scholarly work at the University of Pittsburgh, Graduate School of Public Health, Department of Behavioral and Community Health.

13. Conflict of Interest – None known

14. Collaborators – did not list additional collaborators

15. Review Questions –

How are masculinity norms and gender inequitable attitudes associated with sexual risk behaviors (multiple partners, condom and contraceptive nonuse, and sex under the influence of drugs or alcohol) and sexual health outcomes (specifically STI/STDs including HIV/AIDS), among adolescent males (14-19 years old) from the juvenile justice system?

What specific masculinity norms and gender inequitable attitudes are associated with these sexual risk behaviors and sexual health outcomes among adolescent males from the juvenile justice system?

16. Searches:

The project librarian, who has experience performing systematic review searches, will complete the searches to identify relevant articles in the following electronic databases: PubMed, Ovid PsycINFO, Ebscohost Social Sciences Abstracts-H.W. Wilson, Cochrane Library from Wiley, Ebscohost Criminal Justice Abstracts and ProQuest GenderWatch.

The conceptual structure of the planned search is: (adolescents AND males AND juvenile justice) AND (gender attitudes OR gender norms OR gender and power theory OR masculinity norms) AND (sexual risk behaviors OR sexual health outcomes).

Synonyms for each concept will be identified and tested for inclusion.

The following search concepts and terms will be used:

Adolescent males – boys, young men, youth, teenager, teen

Juvenile justice – juvenile detention center, probation, criminal justice court and system based

Gender and Power Theory – include gender inequity (discrimination on the basis of sex) and power differentials (imbalance of control)

Gender Attitudes – gender inequitable attitudes, attitudes and behaviors about gender roles, violence, power and control

Masculinity norms – masculine, hyper- masculine, normative beliefs about being a man – including descriptive and injunctive norms

Intimate partner violence – physical, sexual, or psychological harm by a current or previous romantic partner or spouse

Sexual risk behaviors – early sexual initiation, multiple partners, and condom and contraceptive nonuse

Sexual health outcomes - sexually transmitted infections/diseases and unintended pregnancy, including male pregnancy intentions

17. URL to search strategy – pending

18. Condition or domain being studied

- The promotion of healthy masculinity norms and gender equitable attitudes association with reductions of sexual risk behaviors to promote healthy sexual behaviors and outcomes

19. Participant/Population

- Inclusion:
 - o Male
 - o Ages 14-19 years old
 - o Part of the juvenile justice system
- Exclusion:
 - o Not Male
 - o Does not include the age range of 14-19 years old
 - o Not part of the juvenile justice system

20. Intervention(s), exposure(s)

- Will include any sexual health education, prevention or intervention program with gendered based approach measuring the variables of interest.

21. Comparator(s)/control

- Not applicable

22. Types of studies to be included

We will include randomised trials to assess the beneficial effects of the treatments, and will supplement these with observational studies (including cohort and case–control studies) for the assessment of harms.

- The studies included were randomized control trials to assess the effects of using gender-based intervention and programming to reduce sexual risk behaviors; along with cohort and observational studies (including prospective case control, cross sectional and mixed methods). We excluded case reports because the aim of the review was assessing the primarily association between masculinity norms/gender attitudes to sexual risk behaviors and sexual health outcomes.

23. Context – Geographic exclusion to the United States, if search is limited then international locations will be considered. The primary restriction for context is studies must include males involved in the juvenile justice system, which include any male placed under

arrest and/or detained, diverted or adjudicated through juvenile corrections or court, and those incarcerated in juvenile correctional/residential facility.

(Source - http://www.ojjdp.gov/ojstatbb/structure_process/case.html)

24. Primary Outcome –

- An assessment of masculinity norms and gender inequitable attitudes association with sexual risk behaviors and sexual health outcomes among adolescent males in the juvenile justice system

25. Secondary Outcome – NONE

26. Data extraction (selection and coding)- Give the procedure for selecting studies for the review and extracting data, including the number of researchers involved and how discrepancies will be resolved. List the data to be extracted

Selecting Studies for Review

Initial searches will be completed by librarian with expertise in systematic reviews. Reviewer 1 will work collaboratively with the librarian to finalize the search strategy and ensure the search concepts and terms in the review protocol is clear. Any additional clarification needed will be communicated during the search process. Once librarian completes the search she will have an additional librarian peer review the search strategy and results.

After search and review by librarians are complete then reviewer 1 and 2 will independently conduct two levels of screening. A pilot of the review form will be done using DistillerSR. The review form will be created by reviewer 1 and then piloted by both reviewers and finalized with senior team member. Once pilot is complete and consensus about the form is reached then initial screening can begin. The initial screening reviewers will review titles and abstracts identify relevant articles using the inclusion and exclusion criteria from the review protocol.

If both reviewers independently agree that the article meets the inclusion criteria, then it will be included in the second screening and read as a full text article. If reviewers disagreed and unable to reach consensus, then senior team member will be consulted to resolve any discrepancies. Once all full text articles are identified for additional review then second screening will parallel the standardized process as described above.

(Source: Page 85 - "3 Standards for Finding and Assessing Individual Studies." Institute of Medicine. Finding What Works in Health Care: Standards for Systematic Reviews. Washington, DC: The National Academies Press, 2011. doi:10.17226/13059.)

Extracting Data

After full text articles have been reviewed to meet the inclusion criteria then data extraction will be recorded and managed using DistillerSR program. The data will include study title, author, year, design, population, setting, sample size, relevant search concepts/terms, results measuring the variables of interest and additional information regarding limitations and bias of the study.

Quality assurance will be completed between the two reviewers and senior team member will be consulted to resolve any discrepancies.

(Source: Umscheid CA. A Primer on Performing Systematic Reviews and Meta-analyses. Clin Infect Dis. 2013 Sep;57(5):725-34. doi: 10.1093/cid/cit333. Epub 2013 May 22.)

27. Risk bias (quality) assessment - State whether and how risk of bias will be assessed, how the quality of individual studies will be assessed, and whether and how this will influence the planned synthesis.

Inclusion of grey literature in the review will reduce the risk of publication bias.

In addition, reviewers will critically assess each study for any risk of bias and will adhere to the predefined review protocol criteria. This includes assessing the relevance of the study's populations and eligibility, interventions and fidelity to implementation, and outcome measurements.

28. Data systematic - Give the planned general approach to be used, for example whether the data to be used will be aggregate or at the level of individual participants, and whether a quantitative or narrative (descriptive) synthesis is planned. Where appropriate a brief outline of analytic approach should be given.

A descriptive narrative will be used to assess the associations found between masculinity norms and gender inequitable attitudes with sexual risk behaviors and sexual health outcomes among

adolescent males in the juvenile justice system. There will be descriptive tables to compare across studies the variables of interest and related outcomes. Lastly, there will also be discussion based on various subgroup analysis itemized in the next section.

29. Analysis of subgroup or subsets - Give any planned exploration of subgroups or subsets within the review. 'None planned' is a valid response if no subgroup analyses are planned.

- Differences among age groups (14-15, 16-17, 18 and older)
- Comparison of domestic and international settings
- Comparison of rural and urban settings

30. Type of review (I selected what is bold)

Diagnostic

Epidemiologic

Intervention

Prevention

Prognostic

Service Delivery

Other

31. Language

English

32. Country

US

33. Other registration details - na

34. Reference or URL for published protocol – na

35. Dissemination plans

Dissemination of findings will take place in peer review journal, conference/symposium presentations, public dissertation defense and related community engaged forums.

36. Keywords

37. Details of any existing review of the topic by the same authors

38. Current review status

39. Any additional information

40. Details of final report/publication

APPENDIX B: SEARCH STRATEGIES

Gender norms in adolescent males in the juvenile justice system and sexual risk behaviors

PI: Catrina Jaime

Search done by: Barb Folb

Search peer review by: Charles Wessel on 11/22/2016

Last update date: 11/22/2016

Contents

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Notes

- Risk behaviors not included in the search, will be found on review.
- One of the main theories on gender norms is often referred to as "gender and power." This phrase is not searchable in PubMed, changed to (gender[tiab] AND power[tiab]), and the ot version of the same
- No explode in the prison and prisoner mesh terms is to leave out Concentration Camps and Prisoners of War. These are the only narrower terms under the broader headings
- Any term that appears as [tiab] but not [ot] was tested and doesn't occur in the ot field
- Intersectionality in the gender norms search is a theory that examines the cumulative effect of multiple demographic, socioeconomic, and personal factors in assessing behavior and risk.

Juvenile Justice System

"Criminal Law"[Mesh]	OR	OR
OR	"Prisons"[Mesh:NoExp]	arrestees[tiab]
"Criminals"[Mesh]	OR	OR
OR	adjudicated[tiab]	convicted[tiab]
"Juvenile	OR	OR
Delinquency"[Mesh]	arrest history[tiab]	correctional facility*[tiab]
OR	OR	OR
"Prisoners"[Mesh:NoExp]	arrested[tiab]	correctional setting*[tiab]

OR
 crime[tiab]
 OR
 crimes[tiab]
 OR
 criminal*[tiab]
 OR
 delinquency[tiab]
 OR
 delinquent[tiab]
 OR
 delinquents[tiab]
 OR
 detain*[tiab]
 OR
 detention[tiab]
 OR
 incarcerate*[tiab]
 OR
 justice system*[tiab]
 OR
 juvenile justice[tiab]
 OR
 legal charge*[tiab]
 OR
 offence*[tiab]
 OR

offended[tiab]
 OR
 offender*[tiab]
 OR
 offense*[tiab]
 OR
 prison*[tiab]
 OR
 adjudicated[ot]
 OR
 arrested[ot]
 OR
 convicted[ot]
 OR
 correctional facility*[ot]
 OR
 correctional setting*[ot]
 OR
 crime[ot]
 OR
 crimes[ot]
 OR
 criminal*[ot]
 OR
 delinquency[ot]
 OR
 delinquent[ot]

OR
 delinquents[ot]
 OR
 detain*[ot]
 OR
 detention[ot]
 OR
 incarcerate*[ot]
 OR
 justice system*[ot]
 OR
 juvenile justice[ot]
 OR
 offence*[ot]
 OR
 offended[ot]
 OR
 offender*[ot]
 OR
 offending[ot]
 OR
 offense*[ot]
 OR
 prison*[ot]

Adolescents

"Adolescent"[mesh]
 OR
 adolescence[tiab]
 OR
 adolescents[tiab]
 OR
 delinquency[tiab]
 OR
 delinquent[tiab]
 OR
 delinquents[tiab]
 OR

juvenile[tiab]
 OR
 juveniles[tiab]
 OR
 teen[tiab]
 OR
 teenager[tiab]
 OR
 teenagers[tiab]
 OR
 teens[tiab]
 OR

youth[tiab]
 OR
 youthful[tiab]
 OR
 youths[tiab]
 OR
 adolescence[ot]
 OR
 adolescents[ot]
 OR
 delinquency[ot]
 OR

delinquent[ot]
OR
delinquents[ot]
OR
juvenile[ot]
OR
juveniles[ot]

OR
teen[ot]
OR
teenager[ot]
OR
teenagers[ot]
OR

teens[ot]
OR
youth[ot]
OR
youthful[ot]
OR
youths[ot]

Gender Norms

"Gender
Identity"[Mesh:NoExp]
OR
"Masculinity"[Mesh]
OR
(gender[tiab] AND
power[tiab])
OR
"gender attitudes"[tiab]
OR
"gender dynamics"[tiab]
OR
"gender equality"[tiab]
OR
"gender equitable"[tiab]
OR
"gender identity"[tiab]
OR
"gender inequitable
attitudes"[tiab]
OR
"gender norms"[tiab]
OR
"gender roles"[tiab]
OR
"gender-based power
dynamics"[tiab]
OR

"Sexual Relationship Power
Scale"[tiab]
OR
gender identities[tiab]
OR
gender identity[tiab]
OR
gender role[tiab]
OR
gender roles[tiab]
OR
Intersectionality[tiab]
OR
"male entitlement"[tiab]
OR
manliness[tiab]
OR
man's role[tiab]
OR
man's roles[tiab]
OR
masculinity[tiab]
OR
men's role[tiab]
OR
men's roles[tiab]
OR
sex role[tiab]
OR

sex roles[tiab]
OR
"Sexual Relationship Power
Scale"[tiab]
OR
"gender attitudes"[ot]
OR
"gender dynamics"[ot]
OR
"gender equality"[ot]
OR
"gender equitable"[ot]
OR
"gender identities"[ot]
OR
"gender identity"[ot]
OR
"gender identity"[ot]
OR
"gender norms"[ot]
OR
"gender role"[ot]
OR
"gender roles"[ot]
OR
"gender roles"[ot]
OR
Intersectionality[ot]
OR

masculinity[ot]
OR
"men's role"[ot]

OR
"men's roles"[ot]
OR

"sex role"[ot]
OR
"sex roles"[ot]

PubMed Search History

Nov 22, 2016

Search	Query	Items found
#32	Search (((("Criminal Law"[Mesh] OR "Criminals"[Mesh] OR "Juvenile Delinquency"[Mesh] OR "Prisoners"[Mesh:NoExp] OR "Prisons"[Mesh:NoExp] OR adjudicated[tiab] OR arrest history[tiab] OR arrested[tiab] OR arrestees[tiab] OR convicted[tiab] OR correctional facility*[tiab] OR correctional setting*[tiab] OR crime[tiab] OR crimes[tiab] OR criminal*[tiab] OR delinquency[tiab] OR delinquent[tiab] OR delinquents[tiab] OR detain*[tiab] OR detention[tiab] OR incarcerate*[tiab] OR justice system*[tiab] OR juvenile justice[tiab] OR legal charge*[tiab] OR offence*[tiab] OR offended[tiab] OR offender*[tiab] OR offense*[tiab] OR prison*[tiab] OR adjudicated[ot] OR arrested[ot] OR convicted[ot] OR correctional facility*[ot] OR correctional setting*[ot] OR crime[ot] OR crimes[ot] OR criminal*[ot] OR delinquency[ot] OR delinquent[ot] OR delinquents[ot] OR detain*[ot] OR detention[ot] OR incarcerate*[ot] OR justice system*[ot] OR juvenile justice[ot] OR offence*[ot] OR offended[ot] OR offender*[ot] OR offending[ot] OR offense*[ot] OR prison*[ot])) AND ("Adolescent"[mesh] OR adolescence[tiab] OR adolescents[tiab] OR delinquency[tiab] OR delinquent[tiab] OR delinquents[tiab] OR juvenile[tiab] OR juveniles[tiab] OR teen[tiab] OR teenager[tiab] OR teenagers[tiab] OR teens[tiab] OR youth[tiab] OR youthful[tiab] OR youths[tiab] OR adolescence[ot] OR adolescents[ot] OR delinquency[ot] OR delinquent[ot] OR delinquents[ot] OR juvenile[ot] OR juveniles[ot] OR teen[ot] OR teenager[ot] OR teenagers[ot] OR teens[ot] OR youth[ot] OR youthful[ot] OR youths[ot])) AND ("Gender Identity"[Mesh:NoExp] OR "Masculinity"[Mesh] OR (gender[tiab] AND power[tiab]) OR "gender attitudes"[tiab] OR "gender dynamics"[tiab] OR "gender equality"[tiab] OR "gender equitable"[tiab] OR "gender identity"[tiab] OR "gender inequitable attitudes"[tiab] OR "gender norms"[tiab] OR "gender roles"[tiab] OR "gender-based power dynamics"[tiab] OR "Sexual Relationship Power Scale"[tiab] OR gender identities[tiab] OR gender identity[tiab] OR gender role[tiab] OR gender roles[tiab] OR Intersectionality[tiab] OR "male entitlement"[tiab] OR manliness[tiab] OR man's role[tiab] OR man's roles[tiab] OR masculinity[tiab] OR men's role[tiab] OR men's roles[tiab] OR sex role[tiab] OR sex roles[tiab] OR "Sexual Relationship Power Scale"[tiab] OR "gender attitudes"[ot] OR "gender dynamics"[ot] OR "gender equality"[ot] OR "gender equitable"[ot] OR "gender identities"[ot] OR "gender identity"[ot] OR "gender identity"[ot] OR "gender norms"[ot] OR "gender role"[ot] OR "gender roles"[ot] OR "gender roles"[ot] OR Intersectionality[ot] OR masculinity[ot] OR "men's role"[ot] OR "men's roles"[ot] OR "sex role"[ot] OR "sex roles"[ot]))	257
#31	Search "Gender Identity"[Mesh:NoExp] OR "Masculinity"[Mesh] OR (gender[tiab] AND power[tiab]) OR "gender attitudes"[tiab] OR "gender dynamics"[tiab] OR "gender equality"[tiab] OR "gender equitable"[tiab] OR "gender identity"[tiab] OR "gender inequitable attitudes"[tiab] OR "gender norms"[tiab] OR "gender roles"[tiab] OR "gender-based power dynamics"[tiab] OR "Sexual Relationship Power Scale"[tiab] OR gender identities[tiab] OR gender identity[tiab] OR gender role[tiab] OR gender roles[tiab] OR Intersectionality[tiab] OR "male entitlement"[tiab] OR manliness[tiab] OR man's role[tiab] OR man's roles[tiab] OR masculinity[tiab] OR men's role[tiab] OR men's roles[tiab] OR sex role[tiab] OR sex roles[tiab] OR "Sexual Relationship Power Scale"[tiab] OR "gender	14969

	attitudes"[ot] OR "gender dynamics"[ot] OR "gender equality"[ot] OR "gender equitable"[ot] OR "gender identities"[ot] OR "gender identity"[ot] OR "gender identity"[ot] OR "gender norms"[ot] OR "gender role"[ot] OR "gender roles"[ot] OR "gender roles"[ot] OR Intersectionality[ot] OR masculinity[ot] OR "men's role"[ot] OR "men's roles"[ot] OR "sex role"[ot] OR "sex roles"[ot] Sort by: Relevance	
#30	Search "Adolescent"[mesh] OR adolescence[tiab] OR adolescents[tiab] OR delinquency[tiab] OR delinquent[tiab] OR delinquents[tiab] OR juvenile[tiab] OR juveniles[tiab] OR teen[tiab] OR teenager[tiab] OR teenagers[tiab] OR teens[tiab] OR youth[tiab] OR youthful[tiab] OR youths[tiab] OR adolescence[ot] OR adolescents[ot] OR delinquency[ot] OR delinquent[ot] OR delinquents[ot] OR juvenile[ot] OR juveniles[ot] OR teen[ot] OR teenager[ot] OR teenagers[ot] OR teens[ot] OR youth[ot] OR youthful[ot] OR youths[ot] Sort by: Relevance	300855
#29	Search "Criminal Law"[Mesh] OR "Criminals"[Mesh] OR "Juvenile Delinquency"[Mesh] OR "Prisoners"[Mesh:NoExp] OR "Prisons"[Mesh:NoExp] OR adjudicated[tiab] OR arrest history[tiab] OR arrested[tiab] OR arrestees[tiab] OR convicted[tiab] OR correctional facility*[tiab] OR correctional setting*[tiab] OR crime[tiab] OR crimes[tiab] OR criminal*[tiab] OR delinquency[tiab] OR delinquent[tiab] OR delinquents[tiab] OR detain*[tiab] OR detention[tiab] OR incarcerate*[tiab] OR justice system*[tiab] OR juvenile justice[tiab] OR legal charge*[tiab] OR offence*[tiab] OR offended[tiab] OR offender*[tiab] OR offense*[tiab] OR prison*[tiab] OR adjudicated[ot] OR arrested[ot] OR convicted[ot] OR correctional facility*[ot] OR correctional setting*[ot] OR crime[ot] OR crimes[ot] OR criminal*[ot] OR delinquency[ot] OR delinquent[ot] OR delinquents[ot] OR detain*[ot] OR detention[ot] OR incarcerate*[ot] OR justice system*[ot] OR juvenile justice[ot] OR offence*[ot] OR offended[ot] OR offender*[ot] OR offending[ot] OR offense*[ot] OR prison*[ot] Sort by: Relevance	73244

□

APPENDIX C: SCREENING FORM

Review Title: The role of masculinity norms and gender equitable attitudes in promoting healthier sexual behaviors and sexual health outcomes among adolescent males in the juvenile justice system: a systematic review

Review Questions:

- How are masculinity norms and gender inequitable attitudes associated with sexual risk behaviors (multiple partners, condom and contraceptive nonuse, and sex under the influence of drugs or alcohol) and sexual health outcomes (specifically STI/STDs including HIV/AIDS), among adolescent males (14-19 years old) from the juvenile justice system?
- What specific masculinity norms and gender inequitable attitudes are associated with these sexual risk behaviors and sexual health outcomes among adolescent males from the juvenile justice system?

Distiller provides numeric identification code

INITIAL REVIEW – Title and Abstract

1. Context (inclusion/exclusion)

- ☐ Have the study participants been involved in the juvenile justice system?

This includes being arrested, in court, on probation, staying in a detention center, residential facility and/or incarcerated under the supervision of the juvenile justice system

- ☐ NO (exclude)
- ☐ YES (include)
- ☐ Can't tell (include)

2. Context (inclusion/exclusion)

- Does the study include males age 14 to 19 years old?

- ☐ NO (exclude)
- ☐ YES (include)
- ☐ Can't tell (include)

3. Condition or domain being studied (inclusion/exclusion)

- Does the study include any of the following topic areas....

- ☐ Association between masculinity norms or gender attitudes to reduce sexual risk behaviors (include)
- ☐ Views or perceptions on masculinity norms/gender attitudes (include)
- ☐ Views or perceptions sexual risk behaviors and/or outcomes (include)

- ☐ Views or perceptions sexual violence and victimization related to sexual risk behaviors and/or outcomes (include)
 - ☐ DOES NOT include anything about masculinity norms, gender attitudes, or sexual risk behaviors and outcomes (exclude)
 - ☐ Can't tell (include)
4. Setting (inclusion/exclusion)
- Does the study take place in the United States?
 - ☐ NO (exclude)
 - ☐ YES (include)
 - ☐ Can't tell (include)

SCREENING FULL ARTICLE REVIEW – Full Text Articles

1. Context (inclusion/exclusion)
- Have the study participants been involved in the juvenile justice system?
- This includes being arrested, in court, on probation, staying in a detention center, residential facility and/or incarcerated under the supervision of the juvenile justice system
- ☐ NO (exclude) PLEASE JUSTIFY REASON (FILL IN)
 - ☐ YES (include) PLEASE JUSTIFY REASON (FILL IN)
 - ☐ Can't tell (neutral) PLEASE JUSTIFY REASON (FILL IN)

2. Context (inclusion/exclusion)

- Does the study include males age 14 to 19 years old?
- ☐ NO – Less than 75% of the study sample is within this age group (exclude) – PLEASE JUSTIFY REASON (FILL IN)
- ☐ YES – Greater than or equal to 75% of the study sample is within this age group (include) PLEASE JUSTIFY REASON (FILL IN)
- ☐ Can't tell (neutral) PLEASE JUSTIFY REASON (FILL IN)

3. Condition or domain being studied (inclusion/exclusion)

- Does the study assess masculinity norms and/or gender attitudes and behaviors?

NOTE below are terms to these key concepts:

Masculinity - traits, attitudes and behaviors generally associated with boys and men

Hyper-masculinity - excessive display of aggression and dominance over others, hyper-sexuality (extreme level or increased libido) and compulsory heterosexuality (the inclination or obligation to follow male and female relationship norms)

Gender attitudes and behaviors – include gender roles (how men and women should act, specific societal norms of what is acceptable and appropriate) and gender equity (the fair and equal treatment and access to resources and opportunities regardless of gender)

- ☐ NO (exclude) PLEASE JUSTIFY REASON (FILL IN)
- ☐ YES (include) PLEASE JUSTIFY REASON (FILL IN)
- ☐ Can't tell (neutral) PLEASE JUSTIFY REASON (FILL IN)

4. Condition or domain being studied (inclusion/exclusion)
- Does the study assess sexual risk behaviors (including as condom use, sex under the influence of drugs/alcohol and number of recent sex partners) and/or sexual health outcomes (including STIs/STD/HIV)?
- ☐ NO (exclude) PLEASE JUSTIFY REASON (FILL IN)
- ☐ YES (include) PLEASE JUSTIFY REASON (FILL IN)
- ☐ Can't tell (neutral) PLEASE JUSTIFY REASON (FILL IN)
5. Intervention(s), exposure(s)
- Does the study measure the association between masculinity norms and/or gender attitudes with sexual risk behaviors and/or sexual health outcomes?

Qualitative - Assessment on the relationships between masculinity norms and/or gender attitudes with sexual risk behaviors and/or sexual health outcomes

Quantitative - Association between masculinity norms and/or gender attitudes and sexual risk (independent variable (x) input) and sexual risk behaviors and/or sexual health outcomes (DEPENDENT variable (y) output)

- ☐ NO (exclude) PLEASE JUSTIFY REASON (FILL IN)
- ☐ YES (include) PLEASE JUSTIFY REASON (FILL IN)
- ☐ Can't tell (neutral) PLEASE JUSTIFY REASON (FILL IN)

6. Setting (inclusion/exclusion)

- Does the study take place in the United States?
 - ☐ NO (exclude) PLEASE JUSTIFY REASON (FILL IN)
 - ☐ YES (include) PLEASE JUSTIFY REASON (FILL IN)
 - ☐ Can't tell (neutral) PLEASE JUSTIFY REASON (FILL IN)

7. Study Design (inclusion/exclusion)

- What is the study design?
 - ☐ Randomized Control Trial (include) PLEASE JUSTIFY REASON (FILL IN)
 - ☐ Cohort/Observational (Prospective) (include) PLEASE JUSTIFY REASON (FILL IN)
 - ☐ Case Control (include) PLEASE JUSTIFY REASON (FILL IN)
 - ☐ Cross Sectional (include) PLEASE JUSTIFY REASON (FILL IN)
 - ☐ Mix Methods (include) PLEASE JUSTIFY REASON (FILL IN)
 - ☐ Meta-Analysis (include) PLEASE JUSTIFY REASON (FILL IN)
 - ☐ Systematic Review (include) PLEASE JUSTIFY REASON (FILL IN)
 - ☐ Case Reports (exclude) PLEASE JUSTIFY REASON (FILL IN)
 - ☐ Can't tell (neutral) PLEASE JUSTIFY REASON (FILL IN)

DATA EXTRACTION – Full Text Articles

1. Research Focus

- What is research question and aims/objectives of the study?

2. Population

- How have they been involved in the juvenile justice system?
 - ☐ Arrested and released (held in temporary detention)
 - ☐ Detained (in detention and/or awaiting court/trial)
 - ☐ Incarcerated long term residential or detention facility
 - ☐ Adjudicated (formally processed through court system and/or served sentence and then released)
 - ☐ Probation under supervision of the court or juvenile justice system
 - ☐ In alternative or community program through referral of court or juvenile justice system
 - ☐ Other – fill in

3. Study Design

- Describe the data collection (e.g. open-ended interviews or baseline and follow up surveys) Please specify cross-sectional or longitudinal data.

4. Population

- What was the sample size?

5. Population

- Describe the base demographics of the sample (list all available demographics from Age and Race/Ethnicity to Parental income etc.) If possible, include what percentage of the participants are 14-19 years old at time of data collection.

6. Sample Population

- Describe how and where the sample was recruited (from probation program or previously incarcerated youth, provide city and state located)

7. Measures

- Describe the sexual risk and/or sexual health outcomes measured? (e.g. number of partners or positive for Chlamydia)

8. Measures

- Describe the masculinity and/or gender attitudes measured? (e.g. aggression or homophobia)

9. Measures

- List the CONCEPT and SCALE/ITEMS used.

10. Analysis

- Describe the analysis completed? (e.g. regression analysis using survey data or qualitative interviews and thematic coding)

11. Risk of Bias

- Describe the potential risk for bias in the study? (e.g. from investigator or collaborators involved to study design etc.)

12. Findings

- Describe the primary study findings? (Include relevant associations between masculinity/gender attitudes with sexual risk behaviors/sexual health outcomes) If possible, include what of the results are explicitly among the 14-19 years old age group.

13. Discussion

- Describe the primary recommendation based on these findings? (Include recommendations for prevention/intervention development or policy change)

APPENDIX D: QUANTITATIVE MEASUREMENT TABLES

Measure	Questions	Responses	Modeled by
Gender-equitable attitudes	<p><i>Please rate the following statements from strongly disagree to strongly agree.</i></p> <ol style="list-style-type: none"> 1. A guy takes responsibility for his actions. 2. A guy never needs to hit another guy to get respect. 3. A girl wearing revealing clothing deserves to have comments made about her. 4. It bothers me when a guy acts like a girl. 5. Guys should sleep with as many girls as possible. 6. If a guy tells people his worries, he will look weak. 7. In a good dating relationship, the guy gets his way most of the time. 8. Guys should only have sex with girls. 9. I can respect a guy who backs down from a fight. 10. I would be friends with a guy who is gay. 11. A guy should share in household chores. 12. If a girl is raped it is often because she did not say "no" clearly enough. 13. Guys put women and children first. 	<p>5-point Likert scale from 'strongly disagree' to 'strongly agree,' modeled as a mean score (<i>higher score = more equitable attitudes</i>)</p>	Mean score
Sexual history	<ol style="list-style-type: none"> 1. Have you ever had sexual contact with someone? (meaning any kind of intimate contact) 2. Have you ever had sexual intercourse, meaning vaginal or anal sex? 	Yes/no	Individual Item

Sexual Risk Behaviors

Lifetime sexual partners	During your life, with how many people have you had sexual intercourse?	Number range 0-999	Individual Item
Condom use	When you had vaginal or anal sex in the past 3 months, how often did you or your partner use a condom?	5-point Likert scale: --Never --Hardly ever --Sometimes --Almost all the time --Every time	Individual Item
Use of alcohol or drugs before sex	When you had vaginal or anal sex in the past 3 months, how often did you drink alcohol or use drugs beforehand?	5-point Likert scale: --Never --Hardly ever --Sometimes --Almost all the time --Every time	Individual Item

Physical and Sexual Abuse Perpetration (IPV/SV)

Lifetime/Recent Intimate Partner Violence (IPV)	<p><i>Have YOU done any of the following to someone you were in a relationship with (like he or she was your partner/girlfriend/boyfriend, you were dating or going out with them) or hooking up with:</i></p> <p>1. ...hit, pushed, slapped, choked or otherwise physically hurt someone you were going out with or hooking up with? (Included are such things as hitting, slamming into something, or injuring with an object or weapon.)</p> <p>1. [if yes] In the past nine months, have you hit, pushed, slapped, choked or otherwise physically hurt someone you were going out with or hooking up with? (Included are such things as hitting, slamming into something, or injuring with an object or weapon.)</p> <p>...used physical force or threats to make</p>	Yes/no to each Modeled as yes to any lifetime (baseline only) and yes to any past 9 months	Combined binary variable IPV/SV
--	---	--	---------------------------------

	<p>someone you were going out with or hooking up with have sex (vaginal, oral, or anal sex) when they didn't want to?</p> <ol style="list-style-type: none"> 1. [if yes] In the past 9 months (since [insert month]), have you used physical force or threats to make someone you were going out with or hooking up with have sex (vaginal, oral, or anal sex) when they didn't want to? <p>...had sex with someone you were going out with or hooking up with when they didn't want to or because you made them feel like they didn't have a choice (even though you did not use physical force or threats)?</p> <ol style="list-style-type: none"> 1. [if yes] In the past 9 months (since [insert month]), have you had sex with someone you were going out with or hooking up with when they didn't want to, or made them feel like they didn't have a choice, even though you did not use physical force or threats? 		
Lifetime/Recent Sexual Violence – non-partner	<p><i>Now think about experiences you may have had with people who you were NOT going out with or hooking up with (this could include strangers, friends, family, or people you don't know well).</i></p> <p><i>Please tell us whether <u>YOU</u> have ever done these things to anyone you were <u>NOT</u> going out or hooking up with:</i></p> <ol style="list-style-type: none"> 1. ...used physical force or threats to make someone you were <u>not</u> going out with or hooking up with have sex (vaginal, oral, or anal sex) with you when they didn't want to? <ol style="list-style-type: none"> 1. if yes] In the past 9 months (since [insert month]), have 	<p>Yes/no to each Modeled as yes to any lifetime (baseline only) and yes to any past 9 months</p>	<p>Combined binary variable IPV/SV</p>

	<p>you ever used physical force or threats to make someone you were NOT going out or hooking up with have sex (vaginal, oral, or anal sex) with you when they didn't want to?</p> <p>2. ...insisted that someone you were <u>not</u> going out with or hooking up with have sex (vaginal, oral, or anal sex) when they didn't want to, without using force or threats?</p> <p>1. [if yes] In the past 9 months (since [insert month]), have you ever insisted that someone you were NOT going out with or hooking up with have sex (vaginal, oral, or anal sex) when they didn't want to, without using force or threats?</p>		
Incapacitated Sex	<p>In the past 9 months since [insert month], have you done something sexual with someone when they were too drunk or high to stop you (this can include kissing, touching, fingering them, or having intercourse)?</p> <p>In the past 9 months since [insert month], have you given someone alcohol or drugs on purpose so you could do something sexual with them (this can include kissing, touching, fingering them, or having intercourse)?</p>	Yes/no	Combined binary variable IPV/SV

APPENDIX E: SUPPLEMENTARY TABLES

Table 7. Characteristics of Young Men Who Have Had Sexual Contact By Juvenile Justice Status

Youth characteristics	Total (n=497) % (n) ^{ac}	Young Men Non JJI (n=421) % (n) ^{ac}	Young Men JJI (n=76) % (n) ^{ac}	Wald Log- Linear Chi- square p-value
Total	100% (497)	85% (421)	15% (76)	
Age (years)				
13-14	24% (120)	27% (112)	11% (8)	*0.0060
15-16	40% (201)	41% (173)	37% (28)	
17-18	31% (155)	28% (118)	49% (37)	
19-20	4% (21)	4% (18)	4% (3)	
Race				
Hispanic	6% (29)	6% (24)	7% (5)	*0.0099
Non-Hispanic White	4% (20)	3% (11)	12% (9)	
Non-Hispanic Black	74% (370)	76% (319)	67% (51)	
Non-Hispanic Multiracial	7% (34)	7% (29)	7% (5)	
Non-Hispanic Other	5% (27)	6% (25)	3% (2)	
School Status				
Currently in school	87% (433)	88% (371)	81% (62)	*0.0087
Not in school – completed high school	4% (19)	4% (15)	5% (4)	
Not in school – did not complete high school	3% (17)	2% (10)	9% (7)	
Parental Education				
Less or equal to high school degree	58% (288)	57% (238)	66% (50)	0.0832
Higher than high school degree	37% (186)	39% (164)	29% (22)	

*Significant p-value <0.05

^aLess than 10% of the sample has missing and therefore does not add up to 100%

^cColumn percentages

^cRow percentages

Abbreviations:

JJI = Juvenile Justice-Involved

Table 8. Associations Between Gender Attitudes and Juvenile Justice Status With Sexual Risk Behaviors of Young Men Who Have Had Sexual Intercourse

Outcomes	Having 4 or more sexual partners		Sex under the influence of alcohol and/or drugs		Inconsistent condom use	
	Unadjusted Odds Ratios (95% CI)	Adjusted Odds Ratios (95% CI)	Unadjusted Odds Ratios (95% CI)	Adjusted Odds Ratios (95% CI)	Unadjusted Odds Ratios (95% CI)	Adjusted Odds Ratios (95% CI)
Model Parameters						
<i>Main effects</i>						
Non-JJI & high gender attitudes	ref	ref	ref	ref	ref	ref
Non-JJI & low gender attitudes	2.363 (1.356, 4.118)*	2.371 (1.166, 4.821) ^a	1.105 (0.640, 1.908)	1.020 (0.508, 2.049)	2.263(1.305, 3.926)^a	1.922 (0.968, 3.816) ^a
JJI & high gender attitudes	3.949 (2.477, 6.295)*	4.221 (2.032, 8.771) ^a	0.491(0.315,0.767)*	0.334 (0.171, 0.654)	3.630(1.803,7.308) ^a	3.340 (1.374 8.117)^a
JJI & low gender attitudes	7.849 (3.699, 16.656)*	7.647 (3.641, 16.059) ^a	1.263 (0.727, 2.195)	1.000 (0.556, 1.800)	3.552(0.842,14.989) ^a	2.932(0.513,16.762)
<i>Covariates</i>						
Age	n/a	1.368 (1.103, 1.698) ^a	n/a	1.514 (1.200,1.910)*	n/a	1.186 (1.010,1.393) ^a
Race						
Non-Hispanic black	n/a	Ref	ref	Ref	ref	Ref
Hispanic		1.593 (0.508, 4.994) ^a		0.611 (0.098, 3.803)		2.927 (0.941, 9.109) ^a
Non-Hispanic white		0.566 (0.140, 2.298) ^a		4.372 (2.223,8.596)*		1.176 (0.287, 4.821) ^a
Non-Hispanic multi-racial		0.663 (0.280, 1.570) ^a		2.212 (1.284,3.811)*		0.896 (0.324, 2.477) ^a
Non-Hispanic other		0.728 (0.279, 1.900) ^a		1.031 (0.404, 2.629)		0.969 (0.348, 2.699) ^a
School status						
Currently enrolled	n/a	Ref	ref	Ref	ref	ref
Not in school – HS degree		-invalid- ^a		2.377 (0.696, 8.120)		3.088(0.756,12.607) ^a
Not in school – No HS degree		0.671 (0.199, 2.261) ^a		1.031 (0.404, 2.629)		1.147 (0.173, 7.592) ^a
Parental education	n/a	0.864 (0.610, 1.223) ^a	n/a	0.992 (0.501, 1.964)	n/a	0.632 (0.408,0.977) ^a
IPV & SV perpetration	n/a	1.919 (0.962 3.830) ^a	n/a	1.981 (1.034,3.795)*	n/a	1.836 (0.945, 3.566) ^a

*Significant p-value <0.05 & ^a Quasi-complete separation and validity of the model fit is questionable and unable to be resolved using backwards elimination

APPENDIX F: INTERVIEW PROTOCOL WITH DEMOGRAPHIC SCREENING

QUESTIONNAIRE AND INTERVIEW GUIDE

Demographic/Screening Questionnaire

Instructions:

Thank you very much for joining us! We would like to ask you a few questions before we begin the interview.

This is completely private, meaning no names are attached. No one will know your answers, so please answer as honestly as you can.

Some of the questions may ask you about things you may not have thought about; just answer as best as you can. You can skip any questions you do not want to answer. You can stop at any time during this survey or the interview.

The first set of questions asks you for initials that will create a 'secret code' for you. This allows us to match responses to surveys you have taken without being able to identify anyone.

We really appreciate you taking the time to answer these questions for us!

Which program did you participate in? (Program participation)

- Manhood 2.0
- Job Skills

How do you describe yourself? Included in the Secret Code Questions

- Male
- Female
- Other

How old are you? (in years)

What is your race?

- American Indian or Alaskan Native
- Asian
- Black or African American
- Native Hawaiian or Other Pacific Islander
- White or Caucasian
- Multi-racial
- Other (Please specify:_____)

Have you been in a dating relationship? (By dating, we mean spending time with someone you are seeing or going out with.

Examples of this might include hanging out at the mall, in the neighborhood, or at home or going somewhere together like the movies, a game, or a party.

It doesn't have to be a formal date or something you planned in advance, and it may be with a small group.

The term "date" includes both one-time dates and time together as part of long term relationships.) (Relationship)

- No
- Yes

Have you had sex (vaginal, oral, or anal sex)? (Sexual health)

- No
- Yes

Have you lost a friend or family member to murder/homicide? (Homicide survivorship)

- No
- Yes

Have you been involved in the juvenile justice system? Meaning, have you been arrested, in court, on probation, or stayed at a juvenile detention center or in jail.

- No
- Yes

Interview Guide

(Interview script – administrative use)

Before Starting Interview - Test, queue and start recorder.

Now that you completed your questionnaire we will now spend the next 30 minutes or so asking you about your experience with the program you participated in and your thoughts and opinions about topics like what it means to be a man, romantic relationships or losing someone in your life. Please remember we are open to hear all your opinions, good or bad, and want you to be honest about your thoughts.

We will audio record our interview because we can't take notes fast enough and the recording allows us to go back and listen to all the important things you said. Please remember that this is confidential, meaning your name is not attached to this in any way, and the audiotape will be destroyed once we are done checking our notes.

The only time we have to stop the interview is if you share that you are going to hurt yourself or someone else, or if you are actively being hurt. Then we are required to report this and make sure you are safe. Otherwise, what is discussed here stays here, and your name will not be connected to any quotes. It is also helpful if you not use names while you talk because that helps protect your and others privacy.

Topics on Masculinity and Sexual Health:

Masculinity

(1) In your own words, what does it mean to be a man?

Probes: How does being a man compare to being a boy? How does being a man compare with being a woman?

Tell me more...can you give me an example...

(2) What influences this meaning of being a man?

Who influences your attitudes and behaviors about being a man?

Probes:

RACE – what race do you identify with? In your own words, what does it mean to be a “black man”? How does this compare to your first definition of being a man?

MEDIA – what do you watch on TV? What social media are you on [Facebook, Instagram, Snapchat, Tweeter, etc]? What other media do you use [Podcast, Youtube, Radio, magazines]? Does any of this media change your thoughts about what it means to be a man? Or a black man?

MUSIC– what music do you listen to? What are some artist you listen to? What are some of your favorite songs? What do their songs talk about? Does any of this music change your thoughts about what it means to be a man? Or a black man?

CULTURE– Do you go to church? What other occasions or holidays do you celebrate? Does any of these events change your thoughts about what it means to be a man? Or a black man?

- (3) Where do you hear or get messages about being a man?

Probes:

PEERS – What messages do you get from your friends or people your age about what it is to be a man?

ADULTS – What messages do you get from the adults or older people what it is to be a man?

RACE – How does race play into these messages about being a man?

MEDIA – How does any of the media we talked about play into these messages about being a man?

- (4) Has your manhood ever been tested? Like someone saying “man up” or “you’re being a pussy”?

Probes:

Who has said this to you? Tell me what happened? How did that make you feel?

Sexual Health

- (1) After you described being a man, tell me your definition of a dating relationship? What is your definition of a sexual relationship? How do these two things compare?

- (2) Can you tell me about your thoughts and feelings about having sex?

Probes:

Have you had sex before?

IF NO, can you tell me why you have decided to wait to have sex?

Who are the people you are attracted to?

If YES, can you tell me more about the people you have sex with?

Who are they?

Probes Man/Race:

How does being a man change how you think or feel about having sex? or not?

How does being a (fill in RACE) change how you think or feel about having sex? or not?

Is there anything else that changes how you think or feel about having sex? or not?

Tell me more, what else can you say about that?

- (3) Who do you talk to about sex? Where do you get information about sex? What do you think about when deciding to have sex? What do you think about when deciding to not have sex?

Probes

How do you feel about using condoms? Birth control?

Who do you think is responsible for having condoms? Having birth control?

Probes Man/Race:

How does being a man change how you think or feel about

- Using condoms? Or not?
- Using birth control? Or not?
- Having more than one partner? Or not?
- Having sex when drinking or using drugs? Or not?

Tell me more, what else can you say about that?

How does being a (fill in RACE) change how you think or feel about

- Using condoms? Or not?
- Using birth control? Or not?
- Having more than one partner? Or not?
- Having sex when drinking or using drugs? Or not?

Tell me more, what else can you say about that?

Is there anything else that changes how you think or feel about these things about sex?

- (4) Can you tell me about how your friends or people your age feels or think about sex? What do you know about their experiences with sex?

Probes:

What have you heard your friends or people your age says or talk about when it comes to sex?

Such as using condoms? Birth control? Having more than one partner? Having sex when drinking or using drugs?

Tell me more, what else can you say about that?

Probes Man/Race:

How do you think being a man changes how your friends or people your age think about these things?

How do you think one's race changes how your friends or people your age think about these things?

Is there anything else that changes how your friends or people your age think or feel about these things about sex?

APPENDIX G: QUALITATIVE CODE BOOK

Step 1: Primary code with sub-codes – Sociocultural

Code	Description
Sociocultural factors and influences	The sociocultural factors and influences and shapes the Perspectives/thoughts and behavior of interviewee
Man	Influence of being a man
Race	Influence of one's racial background or racial context or circumstance
Stereotypes	Influences of other generalizations that is not related to gender or race
Money	Influences of money and related to financial gain
Social Media	Influences of facebook, Instagram or snapchat etc.
Internet	Influences such as non-social media related sites such as google, youtube and other online websites
Music	Influences of music and artists
Violence	Influences of violence and experiences with violence
NewsMedia	Influences of narratives from news media, including magazine, radio and/or television
Religion	Influences of religion/faith
STIs	Influence of getting sexually transmitted infection or disease
Kids_babies	Influence of having children and/or getting a girl pregnant
Other	Influences other than what is listed above
People who are influencers	The people who influences and shapes the Perspectives/thoughts and behavior of interviewee
<ul style="list-style-type: none"> - Female - Male - Other gender 	Specific gender of influencer as identified by the interviewee
<ul style="list-style-type: none"> - Self 	Self or personal influence as identified by the interviewee
<ul style="list-style-type: none"> - Family 	Family members <ul style="list-style-type: none"> - Parents - Caregiver (Non-biological parent. ie. Foster or adopted parent) - Mom - Dad

Code	Description
	<ul style="list-style-type: none"> - Grandparents - Grandma - Grandpa - Aunt - Uncle - Sister - Brother - Cousin - OtherFam
<ul style="list-style-type: none"> - Non-Family 	<p>Non-Family members such as friends/peers or other adults in their social groups or neighborhoods/communities</p> <ul style="list-style-type: none"> - Romantic Partner – dating/having sex with - Friend – closer relationship than with a peer - Peer – same age youth - Neighbor - Teacher - Coach - Mentor – older peer or adult figure - Provider – From a doctor or nurse to a counselor or case manager - OtherNonFam

Step 1: Primary code with sub-codes – Masculinity and Manhood

Code	Description
Definition of a Man	Descriptions traits, attitudes and behaviors generally associated with boys and men.
- Man_Honor	- A man who stands up for what he believes in
- Man_Leader	- A man is a leader, takes charge and stands up for what he believes in
- Man_Provider	- A man is the provider for his family, specifically financially
- Man_Protector	- A man is the protector or defender
- Man_Responsible	- A man is responsible and takes care of his business
- Man_OtherTraits	- Other traits and characteristics that participants provide to describe a man
- Man_Not	- A man is NOT.....(traits and characteristics that participants describe not being a man)
- Comparison to a Man	- Comparison of a man to boy, young man, woman or other <ul style="list-style-type: none"> - Man_Boy - Man_Adol - Man_Woman - Man_Other
Manhood Perspectives	The Perspectives, thoughts, and expectations that shape or reinforce being a man
- Self_Perspective	From “I” or “me” self-point of view
- Others_Perspective	From “they” or “them” point of view of another person or people
- Peer_Perspective	From peer point of view, including same aged youth and friends
Manhood experiences	The behaviors and experiences related to being a man, such as proving one’s manhood or demonstrating being a man to oneself or others
- Self_Behavior	Behaviors and experiences acted by the interviewee
- Others_Behavior	Behaviors and experiences acted by others
- Peer_Behavior	Behaviors and experiences acted by peers, including same aged youth and friends
Key Quote about Manhood	Memorable and valuable quote worth remembering that stood out from the descriptions and narratives of masculinity and manhood

Step 1: Primary code with sub-codes – Interviewee’s and Peers’ Sexual Attitudes and

Behaviors

Code	Description
Definitions of Relationships	Descriptions related to relationships with a romantic/dating or sexual partner. Code “Relationships” if there are overlapping definitions
<ul style="list-style-type: none"> - Dating - Sexual 	
Relationship Perspectives	The Perspectives, thoughts, and expectations that shape or reinforce being in a relationship
- Self_Perspective	From “I” or “me” self-point of view
- Others_Perspective	From “they” or “them” point of view of another person or people
- Peer_Perspective	From peer point of view, including same aged youth and friends
Relationship Experiences	The behaviors and experiences related to being a relationship
- Self_Behavior	Behaviors and experiences acted by the interviewee
- Others_Behavior	Behaviors and experiences acted by others
- Peer_Behavior	Behaviors and experiences acted by peers, including same aged youth and friends
<ul style="list-style-type: none"> - Relationship_Yes - Relationship_No 	<ul style="list-style-type: none"> - Have had a relationship - Have NOT had a relationship
Sexual Perspectives	The Perspectives, thoughts, and expectations that shape or reinforce having sex and/or making sexual decisions
- Self_Perspective	From “I” or “me” self-point of view
- Others_Perspective	From “they” or “them” point of view of another person or people
- Peer_Perspective	From peer point of view, including same aged youth and friends
Sexual Experiences	The behaviors and experiences of the interviewee related to having sex and/or who they have had sex with. This includes description of their sexual protective and risk behaviors
- Self_Behavior	Behaviors and experiences acted by the interviewee
- Others_Behavior	Behaviors and experiences acted by others
- Peer_Behavior	Behaviors and experiences acted by peers, including same aged youth and friends

Code	Description
- Sex_Yes - Sex_No	- Have had sex - Have NOT had sex
- Sexual_Protective	Behaviors related to safe sex practices such as communication or condom use - Condom_USE - Experiences specifically with using condoms
- Sexual_Risks	- Multi_Partners - Having multiple sexual partners - Condom_NON - Not using a condom - Under_Influence - Sex under the influence of drugs or alcohol - Other - Other sexual risk behaviors
Contraceptive Perspectives	The Perspectives/thoughts related to contraception use and preferences
- Self_Perspective	From “I” or “me” self-point of view
- Others_Perspective	From “they” or “them” point of view of another person or people
- Peer_Perspective	From peer point of view, including same aged youth and friends
- Responsible for Condoms	Describes who is responsible for condoms
- Responsible for Birth Control	Describes who is responsible for birth control
Contraceptive Experiences	The behaviors and experiences of the interviewee related to using or not using condoms, birth control or other contraception
- Self_Behavior	Behaviors and experiences acted by the interviewee
- Others_Behavior	Behaviors and experiences acted by others
- Peer_Behavior	Behaviors and experiences acted by peers, including same aged youth and friends
- Contraception_Yes - Contraception_No	- Have used contraception - Have not used contraception
- Birth control	- Experiences specifically related to birth control - Experiences specifically related to pregnancy and birthing outcomes
Information about sexual health	Descriptions regarding who interviewee’s talk about sex with, where do they get information from and their sources

Code	Description
Key Quote about Sex	Memorable and valuable quote worth remembering that stood out from the descriptions and narratives in the sex section

Step 3: Conceptual Frameworks – Theories of gender and power, and intersectionality

Code	Description
Conceptual Framework	The conceptual framework based on terms and definitions from gender and power theory,
- Masculinity	Comprehensive set of traits and characteristics for being a man or boy
- Hyper-masculinity	Excessive display of aggression and dominance over others
- Hyper-sexuality	Extreme level of sexual prowess or increased libido
- Compulsory Heterosexuality	The inclination or obligation to follow male and female relationship norms
- Gender Equity	The fair and equal treatment and access to resources and opportunities regardless of gender
- Gender Inequitable Attitudes and Behaviors	Adherence to toxic and rigid masculinity including attitudes that condone violence against women and adherence to rigid gender roles and homophobic attitudes
- Gender roles	How men and women should act, specific to societal norms of what is accepted and appropriate
- Intersectionality	Overlapping or intersecting points or events with gender, race, class and sexual orientation

BIBLIOGRAPHY

1. Satterwhite CL, Torrone E, Meites E, et al. Sexually transmitted infections among US women and men: prevalence and incidence estimates, 2008. *Sexually transmitted diseases*. 2013;40(3):187-193.
2. Centers for Disease Control and Prevention. *CDC Facsheet: Reported STDs in the United States 2014 National Data for Chlamydia, Gonorrhea, and Syphilis*. Atlanta, GA: National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention;2014.
3. Belenko S, Dembo R, Weiland D, et al. Recently arrested adolescents are at high risk for sexually transmitted diseases. *Sexually transmitted diseases*. 2008;35(8):758-763.
4. Barker G, Ricardo C, Nascimento M. Engaging men and boys in changing gender-based inequity in health: Evidence from programme interventions. Geneva, Switzerland: World Health Organization; 2007.
5. Santana MC, Raj A, Decker MR, La Marche A, Silverman JG. Masculine Gender Roles Associated with Increased Sexual Risk and Intimate Partner Violence Perpetration among Young Adult Men. *Journal of Urban Health : Bulletin of the New York Academy of Medicine*. 2006;83(4):575-585.
6. Courtenay WH. Constructions of masculinity and their influence on men's well-being: a theory of gender and health. *Social science & medicine (1982)*. 2000;50(10):1385-1401.
7. Jewkes R, Sikweyiya Y, Morrell R, Dunkle K. Gender inequitable masculinity and sexual entitlement in rape perpetration South Africa: findings of a cross-sectional study. *PloS one*. 2011;6(12):e29590.
8. McCauley HL, Tancredi DJ, Silverman JG, et al. Gender-Equitable Attitudes, Bystander Behavior, and Recent Abuse Perpetration Against Heterosexual Dating Partners of Male High School Athletes. *American journal of public health*. 2013;103(10):1882-1887.
9. Pulerwitz J, Martin S, Mehta M, et al. *Promoting gender equity for HIV and violence prevention: results from the PEPFAR Male Norms Initiative Evaluation in Ethiopia*. Washington, DC: PATH, EngenderHealth, Miz-Hasab Research Center, Instituto Promundo, Hiwot Ethiopia;2010.
10. Jewkes R, Nduna M, Levin J, et al. Impact of Stepping Stones on incidence of HIV and HSV-2 and sexual behaviour in rural South Africa: cluster randomised controlled trial. *British Medical Journal*. 2008;337(7666).
11. Verma RK, Pulerwitz J, Mahendra V, et al. Challenging and changing gender attitudes among young men in Mumbai, India. *Reproductive health matters*. 2006;14(28):135-143.
12. Kim JC, Watts CH, Hargreaves JR, et al. Understanding the impact of a microfinance-based intervention on women's empowerment and the reduction of intimate partner violence in South Africa. *American journal of public health*. 2007;97(10):1794-1802.
13. West C, Zimmerman DH. Doing gender. 1987;1:125-151.

14. Connell RW, Messerschmidt JW. Hegemonic masculinity: Rethinking the concept. 2005;19:829-859.
15. Newburn T, Stanko EAJdbm, masculinities and crime. . Routledge, London, UK. ISBN 041509321X. *Just boys doing business?: men, masculinities and crime*. London, UK: Routledge; 1994.
16. Shade K, Kools S, Pinderhughes H, Weiss SJ. Adolescent fathers in the justice system: hoping for a boy and making him a man. *Qualitative health research*. 2013;23(4):435-449.
17. Sickmund M, Sladky A, Kang W. Easy Access to Juvenile Court Statistics: 1985-2013. 2015; <http://www.ojjdp.gov/ojstatbb/ezajcs/>. Accessed July 16, 2016.
18. Daniels J, Crum M, Ramaswamy M, Freudenberg N. Creating REAL MEN: description of an intervention to reduce drug use, HIV risk, and rearrest among young men returning to urban communities from jail. *Health promotion practice*. 2011;12(1):44-54.
19. Hockenberry S. *Juveniles in Residential Placement, 2013*. Laurel, MD: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention;2016.
20. Sickmund M, Puzzanchera C, (eds.). *Juvenile Offenders and Victims: 2014 National Report*. Pittsburgh, PA: National Center for Juvenile Justice;2014.
21. U.S. Department of Health and Human Services. Healthy People 2020 - Adolescent Health. <http://www.healthypeople.gov/2020/topics-objectives/topic/Adolescent-Health>.
22. Steinberg L. *Adolescence*. Sixth ed. New York ,NY: McGraw Hill; 2001.
23. Connell RW. *Masculinities*. 2nd ed. Berkeley, CA: University of California Press; 1995.
24. Harris AP. Gender, violence, race, and criminal justice. *Stan. L. Rev*. 1999;52:777.
25. World Health Organization. Gender, equity and human rights. 2017; <http://www.who.int/gender-equity-rights/understanding/gender-definition/en/>. Accessed July, 2017.
26. Lindsey LL. *Gender Roles: A Sociological Perspective*. London and New York: Routledge; 2016.
27. Bancroft J, Vukadinovic Z. Sexual addiction, sexual compulsivity, sexual impulsivity, or what? Toward a theoretical model. *Journal of sex research*. 2004;41(3):225-234.
28. Rich A. *Compulsory heterosexuality and lesbian existence*. London: Onlywomen Press; 1981.
29. Dembo R, Belenko S, Childs K, Greenbaum PE, Wareham J. Gender Differences in Drug Use, Sexually Transmitted Diseases, and Risky Sexual Behavior among Arrested Youths. *Journal of child & adolescent substance abuse*. 2010;19(5):424-446.
30. Teplin LA, Mericle AA, McClelland GM, Abram KM. HIV and AIDS risk behaviors in juvenile detainees: implications for public health policy. *American journal of public health*. 2003;93(6):906-912.
31. Morris RE, Harrison EA, Knox GW, Tromanhauser E, Marquis DK, Watts LL. Health risk behavioral survey from 39 juvenile correctional facilities in the United States. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*. 1995;17(6):334-344.
32. Golzari M, Hunt SJ, Anoshiravani A. The health status of youth in juvenile detention facilities. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*. 2006;38(6):776-782.

33. Mason WA, Zimmerman L, Evans W. Sexual and physical abuse among incarcerated youth: implications for sexual behavior, contraceptive use, and teenage pregnancy. *Child Abuse Negl.* 1998;22(10):987-995.
34. Harwell TS, Trino R, Rudy B, Yorkman S, Gollub EL. Sexual activity, substance use, and HIV/STD knowledge among detained male adolescents with multiple versus first admissions. *Sexually transmitted diseases.* 1999;26(5):265-271.
35. Donenberg GR, Emerson E, Mackesy-Amiti ME, Udell W. HIV-Risk Reduction with Juvenile Offenders on Probation. *Journal of child and family studies.* 2015;24(6):1672-1684.
36. Canterbury RJ, McGarvey EL, Sheldon-Keller AE, Waite D, Reams P, Koopman C. Prevalence of HIV-related risk behaviors and STDs among incarcerated adolescents. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine.* 1995;17(3):173-177.
37. Pack RP, Diclemente RJ, Hook EW, 3rd, Oh MK. High prevalence of asymptomatic STDs in incarcerated minority male youth: a case for screening. *Sexually transmitted diseases.* 2000;27(3):175-177.
38. Mulye TP, Park MJ, Nelson CD, Adams SH, Irwin CE, Jr., Brindis CD. Trends in adolescent and young adult health in the United States. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine.* 2009;45(1):8-24.
39. Panel on High-Risk Youth, Commission on Behavioral and Social Sciences and Education, National Research Council. *Losing generations: Adolescents in high-risk settings.* Washington, DC: National Academies Press; 1993.
40. McNeely C, Blanchard J. *The Teen Years Explained: A Guide to Healthy Adolescent Development.* Baltimore, MD: Johns Hopkins Bloomberg School of Public Health, Center for Adolescent Health; 2009.
41. Centers for Disease Control and Prevention. Adolescent Health. 2014; <http://www.cdc.gov/healthyyouth/adolescenthealth/>.
42. Centers for Disease Control and Prevention. 2014 Sexually transmitted Diseases Surveillance: Table 11B. Chlamydia - Rates of Reported Cases per 100,000 Population by Race/Ethnicity, Age Group, and Sex, United States*, 2014. 2015; <http://www.cdc.gov/std/stats14/tables/11b.htm>. Accessed July, 29, 2016.
43. Centers for Disease Control and Prevention. 2014 Sexually transmitted Diseases Surveillance: STDs in Racial and Ethnic Minorities. 2015; <http://www.cdc.gov/std/stats14/minorities.htm>. Accessed July 29, 2016, 2016.
44. Centers for Disease Control and Prevention. 2014 Sexually Transmitted Disease Surveillance: Table 21. Gonorrhea - Reported Cases and Rates of Reported Cases by Age Group and Sex, United States, 2010-2014. 2015; <http://www.cdc.gov/std/stats14/tables/21.htm>. Accessed July 29, 2016.
45. Centers for Disease Control and Prevention. *Diagnoses of HIV infection among adolescents and young adults in the United States and 6 dependent areas, 2010–2014. HIV Surveillance Supplemental Report 2016; 21 (No.3).* 2014.
46. U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention. Statistical Briefing Book: Juvenile Justice System Structure & process. Case Flow Diagram. http://www.ojjdp.gov/ojstatbb/structure_process/case.html. Accessed July 16, 2016, 2016.

47. Health status of detained and incarcerated youths. Council on Scientific Affairs. *Jama*. 1990;263(7):987-991.
48. Sedlak A, McPherson K. *OJJDP Juvenile Justice Bulletin April 2010: Youth's Needs and Services*. U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention,;2010.
49. Feinstein RA, Lampkin A, Lorish CD, Klerman LV, Maisiak R, Oh MK. Medical status of adolescents at time of admission to a juvenile detention center. *Journal of Adolescent Health*. 1998;22(3):190-196.
50. Morris RE. Health care for incarcerated adolescents: significant needs with considerable obstacles. *The virtual mentor : VM*. 2005;7(3).
51. Hein K, Cohen MI, Litt IF, et al. Juvenile detention: another boundary issue for physicians. *Pediatrics*. 1980;66(2):239-245.
52. Shelton D. Health status of young offenders and their families. *Journal of nursing scholarship : an official publication of Sigma Theta Tau International Honor Society of Nursing / Sigma Theta Tau*. 2000;32(2):173-178.
53. Woolf A, Funk SG. Epidemiology of trauma in a population of incarcerated youth. *Pediatrics*. 1985;75(3):463-468.
54. Health Care for Youth in the Juvenile Justice System. *Pediatrics*. 2011;128(6):1219-1235.
55. Roberts RE, Attkisson CC, Rosenblatt A. Prevalence of psychopathology among children and adolescents. *American journal of Psychiatry*. 1998.
56. Boesky LM. *Juvenile offenders with mental health disorders: Who are they and what do we do with them?* Vol 4: American Correctional Association Lanham, MD; 2002.
57. Teplin LA, Abram KM, McClelland GM, Dulcan MK, Mericle AA. Psychiatric Disorders in Youth in Juvenile Detention. *Archives of general psychiatry*. 2002;59(12):1133-1143.
58. Domalanta DD, Risser WL, Roberts RE, Risser JM. Prevalence of depression and other psychiatric disorders among incarcerated youths. *Journal of the American Academy of Child and Adolescent Psychiatry*. 2003;42(4):477-484.
59. Cauffman E. A statewide screening of mental health symptoms among juvenile offenders in detention. *Journal of the American Academy of Child and Adolescent Psychiatry*. 2004;43(4):430-439.
60. Fazel S, Doll H, Langstrom N. Mental disorders among adolescents in juvenile detention and correctional facilities: a systematic review and metaregression analysis of 25 surveys. *Journal of the American Academy of Child and Adolescent Psychiatry*. 2008;47(9):1010-1019.
61. Joesoef MR, Weinstock HS, Kent CK, et al. Sex and age correlates of Chlamydia prevalence in adolescents and adults entering correctional facilities, 2005: implications for screening policy. *Sexually transmitted diseases*. 2009;36(2 Suppl):S67-71.
62. Kahn RH, Mosure DJ, Blank S, et al. Chlamydia trachomatis and Neisseria gonorrhoeae prevalence and coinfection in adolescents entering selected US juvenile detention centers, 1997-2002. *Sexually transmitted diseases*. 2005;32(4):255-259.
63. Broussard D, Leichliter JS, Evans A, Kee R, Vallury V, McFarlane MM. Screening Adolescents in a Juvenile Detention Center for Gonorrhea and Chlamydia: Prevalence and Reinfection Rates. *The Prison Journal*. 2002;82(1):8-18.

64. Mertz KJ, Voigt RA, Hutchins K, Levine WC. Findings from STD screening of adolescents and adults entering corrections facilities: implications for STD control strategies. *Sexually transmitted diseases*. 2002;29(12):834-839.
65. Risser JM, Risser WL, Geftter LR, Brandstetter DM, Cromwell PF. Implementation of a screening program for chlamydial infection in incarcerated adolescents. *Sexually transmitted diseases*. 2001;28(1):43-46.
66. Oh MK, Cloud GA, Wallace LS, Reynolds J, Sturdevant M, Feinstein RA. Sexual behavior and sexually transmitted diseases among male adolescents in detention. *Sexually transmitted diseases*. 1994;21(3):127-132.
67. Oh MK, Smith KR, O'Cain M, Kilmer D, Johnson J, Hook EW, 3rd. Urine-based screening of adolescents in detention to guide treatment for gonococcal and chlamydial infections. Translating research into intervention. *Archives of pediatrics & adolescent medicine*. 1998;152(1):52-56.
68. Shafer MA, Hilton JF, Ekstrand M, et al. Relationship between drug use and sexual behaviors and the occurrence of sexually transmitted diseases among high-risk male youth. *Sexually transmitted diseases*. 1993;20(6):307-313.
69. Bauer HM, Chartier M, Kessell E, et al. Chlamydia screening of youth and young adults in non-clinical settings throughout California. *Sexually transmitted diseases*. 2004;31(7):409-414.
70. Kouyoumdjian FG, Leto D, John S, Henein H, Bondy S. A systematic review and meta-analysis of the prevalence of chlamydia, gonorrhoea and syphilis in incarcerated persons. *International journal of STD & AIDS*. 2012;23(4):248-254.
71. Hammett TM. Sexually transmitted diseases and incarceration. *Current opinion in infectious diseases*. 2009;22(1):77-81.
72. Robertson AA, Thomas CB, St Lawrence JS, Pack R. Predictors of infection with Chlamydia or gonorrhea in incarcerated adolescents. *Sexually transmitted diseases*. 2005;32(2):115-122.
73. Bronfenbrenner U. Ecological models of human development. *Readings on the development of children*. 2nd ed. New York: Freeman; 1993:37-43.
74. DiClemente RJ, Salazar LF, Crosby RA, Rosenthal SL. Prevention and control of sexually transmitted infections among adolescents: the importance of a socio-ecological perspective--a commentary. *Public health*. 2005;119(9):825-836.
75. Poundstone KE, Strathdee SA, Celentano DD. The social epidemiology of human immunodeficiency virus/acquired immunodeficiency syndrome. *Epidemiologic reviews*. 2004;26:22-35.
76. Haberland NA. The case for addressing gender and power in sexuality and HIV education: a comprehensive review of evaluation studies. *International perspectives on sexual and reproductive health*. 2015;41(1):31-42.
77. Zambrana RE, Cornelius LJ, Boykin SS, Lopez DS. Latinas and HIV/AIDS risk factors: implications for harm reduction strategies. *American journal of public health*. 2004;94(7):1152-1158.
78. Impett EA, Schooler D, Tolman DL. To be seen and not heard: femininity ideology and adolescent girls' sexual health. *Archives of sexual behavior*. 2006;35(2):131-144.
79. Tang CS, Wong CY, Lee AM. Gender-related psychosocial and cultural factors associated with condom use among Chinese married women. *AIDS education and*

- prevention : official publication of the International Society for AIDS Education.* 2001;13(4):329-342.
80. Karim AM, Magnani RJ, Morgan GT, Bond KC. Reproductive health risk and protective factors among unmarried youth in Ghana. *International family planning perspectives.* 2003;29(1):14-24.
 81. Pleck JH, Sonenstein FL, Ku LC. Masculinity Ideology: Its Impact on Adolescent Males' Heterosexual Relationships. *Journal of Social Issues.* 1993;49(3):11-29.
 82. Dunkle KL, Jewkes RK, Brown HC, Gray GE, McIntyre JA, Harlow SD. Gender-based violence, relationship power, and risk of HIV infection in women attending antenatal clinics in South Africa. *Lancet (London, England).* 2004;363(9419):1415-1421.
 83. Raiford JL, Seth P, DiClemente RJ. What girls won't do for love: human immunodeficiency virus/sexually transmitted infections risk among young African-American women driven by a relationship imperative. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine.* 2013;52(5):566-571.
 84. Jewkes RK, Dunkle K, Nduna M, Shai N. Intimate partner violence, relationship power inequity, and incidence of HIV infection in young women in South Africa: a cohort study. *Lancet (London, England).* 2010;376(9734):41-48.
 85. Hess KL, Javanbakht M, Brown JM, Weiss RE, Hsu P, Gorbach PM. Intimate partner violence and sexually transmitted infections among young adult women. *Sexually transmitted diseases.* 2012;39(5):366-371.
 86. Seth P, Raiford JL, Robinson LS, Wingood GM, Diclemente RJ. Intimate partner violence and other partner-related factors: correlates of sexually transmissible infections and risky sexual behaviours among young adult African American women. *Sexual health.* 2010;7(1):25-30.
 87. Silverman JG, Decker MR, Saggurti N, Balaiah D, Raj A. Intimate partner violence and HIV infection among married Indian women. *Jama.* 2008;300(6):703-710.
 88. Kouyoumdjian FG, Calzavara LM, Bondy SJ, et al. Intimate partner violence is associated with incident HIV infection in women in Uganda. *AIDS (London, England).* 2013;27(8):1331-1338.
 89. Miller E, Decker MR, McCauley HL, et al. Pregnancy coercion, intimate partner violence and unintended pregnancy. *Contraception.* 2010;81(4):316-322.
 90. Silverman JG, Raj A, Mucci LA, Hathaway JE. Dating violence against adolescent girls and associated substance use, unhealthy weight control, sexual risk behavior, pregnancy, and suicidality. *Jama.* 2001;286(5):572-579.
 91. Zakar R, Zakar MZ, Mikolajczyk R, Kramer A. Intimate partner violence and its association with women's reproductive health in Pakistan. *International journal of gynaecology and obstetrics: the official organ of the International Federation of Gynaecology and Obstetrics.* 2012;117(1):10-14.
 92. Pallitto CC, Garcia-Moreno C, Jansen HA, Heise L, Ellsberg M, Watts C. Intimate partner violence, abortion, and unintended pregnancy: results from the WHO Multi-country Study on Women's Health and Domestic Violence. *International journal of gynaecology and obstetrics: the official organ of the International Federation of Gynaecology and Obstetrics.* 2013;120(1):3-9.
 93. Choo HY, Ferree MM. Practicing Intersectionality in Sociological Research: A Critical Analysis of Inclusions, Interactions, and Institutions in the Study of Inequalities. *Sociological Theory.* 2010;28(2):129-149.

94. Dill BT, Zambrana RE, (Eds.). *Emerging Intersections: Race, Class, and Gender in Theory, Policy, and Practice*. New Brunswick, N.J: Rutgers University Press; 2009.
95. Crenshaw K. Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color. *Stanford Law Review*. 1991;43(6):1241-1299.
96. McCall L. The complexity of intersectionality. *Signs: Journal of women in culture and society*. 2005;30(3):1771-1800.
97. Shade K, Kools S, Weiss SJ, Pinderhughes H. A conceptual model of incarcerated adolescent fatherhood: adolescent identity development and the concept of intersectionality. *J Child Adolesc Psychiatr Nurs*. 2011;24(2):98-104.
98. Bowleg L. When Black + Lesbian + Woman \neq Black Lesbian Woman: The Methodological Challenges of Qualitative and Quantitative Intersectionality Research. *Sex Roles*. 2008;59(5):312-325.
99. Hankivsky O. Health inequities in Canada: Intersectional frameworks and practices. University of British Columbia Press, Vancouver 2011.
100. Iyer A, Sen G, Östlin P. The intersections of gender and class in health status and health care. *Global Public Health*. 2008;3(SUPPL. 1):13-24.
101. Schulz AJ, Mullings L. Gender, race, class, and health: Intersectional approaches. Jossey Bass, San Francisco 2006.
102. Bronfenbrenner U. The ecology of human development. Cambridge, MA: Harvard University Press; 1979.
103. Nevid JS. *Psychology: concepts and applications*. Fourth ed. Boston, MA: Houghton Mifflin; 2011.
104. Money J, Wiedeking C. Gender Identity/role: Normal differentiation and its transpositions. . *Handbook of human sexuality*. Englewood Cliffs, NJ: Prentice-Hall; 1980:269-284.
105. Bem SL. On the utility of alternative procedures for assessing psychological androgyny. *Journal of consulting and clinical psychology*. 1977;45(2):196.
106. Bem SL. Gender schema theory: A cognitive account of sex typing. *Psychological review*. 1981;88(4):354.
107. Connell RW. *Gender and Power: Society, the Person and Sexual Politics*. Stanford, CA, USA: Stanford University Press; 1987.
108. Mac an Ghaill M. *The making of men*. Buckingham, UK: Open University Press; 1994.
109. Messerschmidt J. *Masculinities and crime: Critique and reconceptualization of the theory*. Lanham, MD: Rowman and Littlefield; 1993.
110. Kimmel MS, Messner M. Introduction. In *Men's Lives*. Boston, MA: Allyn & Bacon. 1995.
111. Goodey J. Boys don't cry: Masculinities, fear of crime, and fearlessness. . *British Journal of Criminology* 1997;37(3):401-418.
112. Fracher J, Kimmel MS. Hard issues and soft spots: Counseling men about sexuality. In *Mens Lives*. Boston, MA: Allyn and Bacon; 1998.
113. Bolton FG, MacEachron AE. Adolescent male sexuality: A developmental perspective. *J. Adolesc. Res*. 1988;3(3-4):259-273.
114. Abrams, Laura S, Anderson N, Ben, Aguilar, Jemel. Constructing masculinities in juvenile corrections. *Men and Masculinities*. 2008;11(1):22-41.
115. Clemmer D. *The prison community*. New Braunfels, TX: Christopher Publishing House; 1940.

116. Lopez VA, Emmer ET. Influences of beliefs and values on male adolescents' decision to commit violent offenses. *Psychology of Men & Masculinity*. 2002;3(1):28-40.
117. Brown A. Masculinity Is Not Pathology: An Exploration of Masculinity Among Juvenile Sexual Abusers and General Delinquents. *Journal of Juvenile Justice*. 2016;5(2):121-133.
118. Bramer WM, Giustini D, de Jonge GB, Holland L, Bekhuis T. De-duplication of database search results for systematic reviews in EndNote. *Journal of the Medical Library Association: JMLA*. 2016;104(3):240.
119. DistillerSR., Evidence Partners. <https://distillercer.com/products/distillersr-systematic-review-software/>.
120. Richer L, Billinghamurst L, Linsdell M. Drugs for the acute treatment of migraine in children and adolescents. *The Cochrane Library*. 2015.
121. Hawton K, Witt K, Taylor Salisbury TL. Interventions for self-harm in children and adolescents. *The Cochrane Library*. 2015.
122. Umscheid CA. A Primer on Performing Systematic Reviews and Meta-analyses. *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*. 2013;57(5):725-734.
123. "3 Standards for Finding and Assessing Individual Studies"" Institute of Medicine. Finding What Works in Health Care: Standards for Systematic Reviews. Washington, DC: The National Academies Press; 2011:85.
124. Effective Public Health Practice Project. Quality assessment tool for quantitative studies. 1998; <http://www.ehphp.ca/tools.html>.
125. Programme CAS. CASP Qualitative Research Checklist. 2017; http://docs.wixstatic.com/ugd/dded87_25658615020e427da194a325e7773d42.pdf.
126. Popay J, Roberts H, Sowden A, et al. Guidance on the conduct of narrative synthesis in systematic reviews. *A product from the ESRC methods programme Version*. 2006;1:b92.
127. Levant RF, Fischer J. The male role norms inventory. *Sexuality-related measures: A compendium*. 1998;2:469-472.
128. McCord J, Conway KP. *Cooffending and Patterns of Juvenile Crime*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice;2005.
129. Warr M. Organization and Instigation in Delinquent Groups. *Criminology*. 1996;34(1):11-37.
130. Wallisch LS. Substance use among youth entering Texas Youth Commission reception facilities in 1989. 1992; <http://www.tcada.state.tx.us/research/criminaljustice/tyc/1989/89tyc2ndrpt.pdf>.
131. Tice PC, Stouthamer-Loeber M, White HR, Loeber R. Illegal acts committed by adolescents under the influence of alcohol and drugs. *Journal of Research in Crime and Delinquency*. 2002;39(2):131-152.
132. Stormshak EA, Comeau CA, Shepard SA. The Relative Contribution of Sibling Deviance and Peer Deviance in the Prediction of Substance Use Across Middle Childhood. *Journal of Abnormal Child Psychology*. 2004;32(6):635-649.
133. Sedlak A, Bruce C. *OJJDP Juvenile Justice Bulletin December 2010: Youth's Characteristics and Backgrounds*. U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention,;2010.
134. Wang X, Blomberg TG, Li SD. Comparison of the Educational Deficiencies of Delinquent and Nondelinquent Students. *Evaluation Review*. 2005;29(4):291-312.

135. Zabel RH, Nigro FA. The Influence of Special Education Experience and Gender of Juvenile Offenders on Academic Achievement Scores in Reading, Language, and Mathematics. *Behavioral Disorders*. 2001;26(2):164-172.
136. Silberberg NE, Silberberg MC. School Achievement and Delinquency. *Review of Educational Research*. 1971;41(1):17-33.
137. Laird AW. A Comprehensive and Innovative Attack of Action Programs for Delinquency Prevention and Classroom Success. Vol 101. Mobile, AL: Project Innovation, Inc; 1980:118.
138. Unruh D, Bullis M, Yovanoff P. Adolescent Fathers Who Are Incarcerated Juvenile Offenders: Explanatory Study of the Co-Occurrence of Two Problem Behaviors. *Journal of child and family studies*. 2004;13(4):405-419.
139. Thornberry TP, Wei EH, Stouthamer-Loeber M, Van Dyke J. *Teenage Fatherhood and Delinquent Behavior*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention;2000.
140. Brindis CD, Barenbaum M, Sanchez-Flores H, McCarter V, Chand R. Let's hear it for the guys: California's male involvement program. *International Journal of Men's Health*. 2005;4(1):29.
141. Raj A, Reed E, Miller E, Decker MR, Rothman EF, Silverman JG. Contexts of condom use and non-condom use among young adolescent male perpetrators of dating violence. *AIDS care*. 2007;19(8):970-973.
142. Fifth Judicial District of Pennsylvania Country of Allegheny. Juvenile Probation: CISP Program. 2016; https://www.alleghenycourts.us/family/juvenile/cisp_program.aspx. Accessed August 4, 2016.
143. Kann L, McManus T, William HA, et al. Youth Risk Behavior Surveillance — United States, 2015. *MMWR Surveill Summ* 2015. Vol 65. Atlanta, GA2015:27-30.
144. Miller E, Tancredi DJ, McCauley HL, et al. "Coaching boys into men": a cluster-randomized controlled trial of a dating violence prevention program. *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*. 2012;51(5):431-438.
145. Pulerwitz J, Barker G. Measuring attitudes toward gender norms among young men in Brazil - Development and psychometric evaluation of the GEM Scale. *Men and Masculinities*. 2008;10(3):322-338.
146. Centers for Disease Control and Prevention. Youth Risk Behavior Survey. 2013, 2015; <http://www.cdc.gov/healthyyouth/data/yrbs/data.htm>.
147. Straus MA, Hamby SL, Boney-McCoy SUE, Sugarman DB. The Revised Conflict Tactics Scales (CTS2). *Journal of Family Issues*. 1996;17(3):283-316.
148. Koss MP, Abbey A, Campbell R, et al. The Sexual Experiences Long Form Perpetration (SES-LFP). 2006; <http://www.midss.org/content/sexual-experiences-long-form-perpetration-ses-lfp>.
149. Jewkes R, Nduna M, Jama-Shai N, Chirwa E, Dunkle K. Understanding the Relationships between Gender Inequitable Behaviours, Childhood Trauma and Socio-Economic Status in Single and Multiple Perpetrator Rape in Rural South Africa: Structural Equation Modelling. *PloS one*. 2016;11(5):e0154903.
150. Ebrahim S, Bowling A. *Handbook of Health Research Methods: Investigation, Measurement and Analysis*. McGraw-Hill Education (UK); 2005.

151. Nanda G. Compendium of Gender Scales. 2011; [https://www.changeprogram.org/content/gender-scales-compendium/pdfs/C-Change Gender Scales Compendium.pdf](https://www.changeprogram.org/content/gender-scales-compendium/pdfs/C-Change%20Gender%20Scales%20Compendium.pdf), 2017.
152. Shade K, Kools S, Pinderhughes H, Weiss SJ. Choosing fatherhood: how teens in the justice system embrace or reject a father identity. *Journal of community health nursing*. 2012;29(2):91-105.
153. Mitchell, Doris, Wilson, Warner. Relationship of father absence to masculinity and popularity of delinquent boys. *Psychological Reports*. 1967;20(3, PT. 2):1173-1174.
154. Munoz-Laboy M, Perry A, Bobet I, et al. The "knucklehead" approach and what matters in terms of health for formerly incarcerated Latino men. *Social science & medicine (1982)*. 2012;74(11):1765-1773.
155. Hall, Ronald E. Cool pose, Black manhood, and juvenile delinquency. *Journal of Human Behavior in the Social Environment*. 2009;19(5):531-539.
156. Guest G, Bunce A, Johnson L. How Many Interviews Are Enough? *Field Methods*. 2006;18(1):59-82.
157. MacQueen K, McLellan E, Kay K, Milstein B. Codebook Development for Team-Based Qualitative Analysis. *Cultural Anthropology Methods*. 1998;10(2):31-36.
158. Allen HE, Latessa EJ, Ponder BS. *Corrections in America: An Introduction*. Pearson; 2015.
159. Nikolajski C, Miller E, McCauley HL, et al. Race and reproductive coercion: a qualitative assessment. *Women's health issues : official publication of the Jacobs Institute of Women's Health*. 2015;25(3):216-223.
160. Pascoe CJ. 'Dude, you're a fag': Adolescent masculinity and the fag discourse. *Sexualities*. 2005;8(3):329-346.