Investigating the Developmental Antecedents of Hypermasculinity

Senior Thesis

Presented to

The Faculty of the School of Arts and Sciences
Brandeis University

Undergraduate Program in Psychology
Raymond Knight Ph.D., Advisor

In partial fulfillment of the requirements for the degree of Bachelor of Science

By
Saumya Datta

May 2019

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Saumya Datta

Committee members:

Raymond Knight, Ph.D.
Ellen Wright, Ph.D.
Kevin Nunes, Ph.D.
Introduction

Hypermasculinity is a social construct that has garnered considerable research attention. Hypermasculinity is now understood to be one of the major covariates of sexual assault (Bourg, 2001). Thus, understanding hypermasculinity is particularly important to understanding the dynamics of sexual assault and coercion. Moreover, adolescence is a critical stage in the development of both sexually aggressive behavior and hypermasculinity (e.g. Feiring, Simon, & Cleland, 2009; Hunter, Figeuredo, Malamuth, & Becker, 2003; Johnson & Knight, 2000). Although few studies have investigated the development of hypermasculinity from a young age, identifying its precursors would be important to understanding sexually assaultive behavior in youth. The present study seeks to investigate the salient developmental, behavioral, and cognitive antecedents to hypermasculinity.

Mosher’s Three-Part Definition of Hypermasculinity

Hypermasculinity refers to a cluster of attitudes about masculinity and femininity, such as negative attitudes towards and about women (such as believing women are inherently malicious), believing in common rape myths, participating in excessive risk taking, and defending one’s honor (Mosher & Sirkin, 1984). As a construct, it is defined with three main components: hostility and calloused sex attitudes towards women, seeing danger as exciting, and seeing violence as manly. The construct is most commonly measured using the Hypermasculinity Index (HMI) (Mosher & Sirkin, 1984). It is hypothesized that this attitude cluster is the result of long-standing socialization that encourages men to strive to fulfill cultural expectations of manliness and view women negatively as an outgroup (Peters, Nason, & Turner, 2007). The cultural push towards hypermasculinity also portrays the man as dominant and
superior to women (Mosher & Tomkins, 2010). Hypermasculinity thus reflects negative attitudes towards women and facilitates the structural, physical, and sexual violence against women inherent in traditional gender roles (Byers, 1995).

**The Role of Hypermasculinity in Sexual Assault**

Hypermasculinity has long been explored as a covariate of sexual assault and coercion. Feminist theory inspired the study of the hypothesis that greater adherence to gender role norms and acceptance of violence predicts acceptance of rape myths, a speculation that has generated considerable support (Burt, 1980; Check & Malamuth, 1983; Murnen, Wright, & Kaluzny, 2002; Tyler, Hoit, & Whitbeck, 1998). Hypermasculinity has become a key construct in Neil Malamuth’s confluence model of sexual aggression. Malamuth, Linz, Heavey, Barnes, & Acker (1995) found that when a hostile, dominant, and insecure orientation towards women and sexual callousness converged in an individual, the chances of committing sexual assault increase substantially, corroborating the hypothesis that hypermasculinity plays a particularly important role in sexual assault.

The covariation between hypermasculinity and sexual assault has been so pervasively replicated that hypermasculinity has been proposed to be one of the strongest predictors of sexual assault (Bourg, 2001; Murnen et al., 2002; Peters et al., 2007). Indeed, it has been found that a hypermasculine mentality motivates both convicted and self-identified rapists. Rapists show more hypermasculine mindsets, including greater hostility towards women and obtaining more gratification from controlling women (Lisak & Roth, 1990). Hypermasculinity is clearly a significant factor in understanding of sexual assault and coercion. It also establishes a mindset that increases the possibility that men may misread social cues and interactions. Men who are
high on hypermasculinity are more likely to expect sex, and women who endorse such attitudes are more likely to expect to be coerced into sex after a normal interaction (Bartolucci & Zeichner, 2003).

The concept of hypermasculinity reinforces the idea that men must be aggressive and dominant, whereas women should remain passive across situations. Men that ascribe to hypermasculine beliefs and attitudes traditionally obtain gratification from controlling women (Murnen & Byrne, 1991; Malamuth & Malamuth, 1999; Malamuth & Thornhill, 1994). Indeed, hypermasculine men report low feelings of disgust and aversion to rape scenarios, indicating a desensitization to the issue and a vulnerability to rape myths (Mosher & Anderson, 1986). This endorsement is evident in youth and college populations as well - many high schoolers believe that it is acceptable to force a woman into sex (Goodchilds & Zellman, 1984). These beliefs in college-age males have been found to covary with sexual callousness and assault (Koralewski & Conger, 1992). In the same vein, males who believe in rape myths are more likely to partake sexually coercive behaviors in the future (Hermann & Nunes, 2016; Hermann, Nunes, & Maimone, 2016; Thompson, Koss, Kingree, Goree, & Rice, 2011).

Covariates of Hypermasculinity

Alcohol Abuse and Risk Taking. Both alcohol abuse and risk taking have been found to covary with hypermasculinity. Getting drunk and drinking beer have been strongly associated with masculinity and manliness (Landrine, Bardwell, & Dean, 1988). In a self-report study of 470 young males, hostile masculinity and calloused sex attitudes were correlated with higher alcohol consumption (Abbey, Jacques-Tiura, & LeBreton, 2011). Even within the context of heterosexual dating, where hyperfemininity is described as prescribing to traditional gender
roles that may regulate the rights of a woman in context of her relationship with a man, ascribing to hypermasculine and hyperfeminine constructs may contribute to increased alcohol consumption on the man’s part (Murnen & Byrne, 1991; Ray & Gold, 1995). Mosher and Tomkins described the “ideological script of machismo” in which danger, excitement, and anger are all placed on a pedestal (Mosher & Tomkins, 2010, p. 60). In fact, it has been found that hypermasculinity even correlates with driving that is more aggressive (Krahe & Fenske, 2001). Similarly, Miller defined a “toxic jock identity” in which masculinity and risk-taking attitudes were purported to correlate with increased chances of participating in behaviors that are detrimental to health (Miller, 2010, p. 481). Lastly, hypermasculinity is socially motivated, with peers encouraging dominance views that fit the social standard and in turn increase the prevalence of rape-supporting attitudes (Franklin, Bouffard, & Pratt, 2012).

Abuse and Neglect. Adverse childhood experiences (ACE) may also contribute to hostile affect, criminality, and sexual promiscuity (Khodabandeh, Khalilzadeh, & Hemati, 2018; Malamuth, Sockloskie, Koss, & Tanaka, 1991; Reavis, Looman, Franco, & Rojas, 2013). ACEs may include childhood abuse, witnessing family dysfunction such as parental violence or illness, and witnessing substance abuse (Centers for Disease Control and Prevention [CDC], 2010). ACEs have been found to be linked to hostile aggressive behavior towards one’s partner. For men in particular, post-traumatic stress disorder (PTSD) has been found to mediate the relation between ACE and aggressive behavior, leading to an increase in intimate partner violence (Brown, Perera, Masho, Mezuk, & Cohen, 2015; Swopes, Simonet, Jaffe, Tett, & Davis, 2013). More specifically, witnessing violence at a young age increases hitting behaviors at an older age, whereas experiencing violence at a young age increases strangling behaviors later in life.
Both witnessing and experiencing violence and abuse in childhood increase verbal aggression such as cursing (Pournaghash-Tehrani & Feizabadi, 2009). Experiencing ACEs thus puts an individual at greater risk to be hostile and aggressive later in life.

**The Developmental Antecedents of Hypermasculinity**

Although the attitudes that hypermasculinity comprise are likely developed over time in an individual, little research has explored the developmental antecedents that precede it and the causative connections of its covariates. Callousness and lack of emotion at an early age may lead to antisocial behavior and aggression, two correlates of hypermasculinity, which thus predict sexual coercion (Knight et al., 2011). Previous research suggests that the link between gender role adherence and rape myth beliefs can be seen as early as middle school, with middle school-age boys being indoctrinated by rape myths at a higher rate (Boxley, Lawrance, & Gruchow, 1995). The few studies that have been conducted have been limited in the scope of the specific antecedents they have considered and the specificity of the scales that have been offered to measure these antecedents. For example, Malamuth’s research has contributed substantially to exploring the specific role of hypermasculinity in sexual assault and aggression, but it has contributed little to the extent and role of developmental factors.

Much of the research on hypermasculinity has focused on it specifically as a covariate of sexual assault without exploring the complexity of the components involved in hypermasculinity or its developmental trajectory. Antonia Abbey’s research made extensive contributions to the study of the relation between sexual assault and alcohol abuse but has rarely delved into their antecedents. For instance, Abbey, Wegner, Pierce, and Jacques-Tiura (2011) investigated the effect of alcohol abuse and childhood victimization on the sexual
assault behaviors of adolescents. Abbey also explored the correlation between alcohol abuse and sexual assault in college students, post-juvenile development (Abbey, 2010; Abbey, 2002). Such studies highlight the need for the examination of antecedent life experiences.

Literature regarding the development and formation of hypermasculinity, especially in adolescents, is indeed sparse. As previously mentioned, rape myth acceptance at a young age has been studied as a potential covariate of hypermasculinity, and callous disregard for others has been explored as a stand-alone concept rather than explicitly as a possible component or antecedent of hypermasculinity. Thus, there is much room in the literature to provide a rationally constructed and statistically verified basis for the formation of hypermasculinity over time within an individual.

**Purpose of Study**

The present study seeks to investigate the developmental antecedents of hypermasculinity. Factor analyses and rational scale construction were used to identify and create core latent traits. Path analysis was calculated to link these salient and relevant developmental, cognitive, and behavioral precursors to Mosher’s three-part definition of hypermasculinity. A nomological network of hypermasculinity was constructed to gain a greater understanding of covariates of this important predictor of sexual assault.

Because of the hypothesis that core components of hypermasculinity include negative attitudes towards women, danger-seeking, and machismo, items related to risk taking, hostility towards women, rape myth beliefs, and physical toughness were selected from the Multidimensional Assessment of Sex and Aggression (MASA) and factor analyzed to determine whether we could identify these components of hypermasculinity. Because of the literature on
ACEs and expressive aggression and previous studies of developmental antecedents on this sample (Davis & Knight, 2019), we hypothesized that the core factors of Sexual Abuse, Physical Abuse, and Psychological Abuse would act as developmental antecedents to the mentioned constructs of hypermasculinity. We hypothesized that juvenile Behavioral Disinhibition, Self-Centered Impulsivity, and Hypersexuality would work to mediate the relation between abuse and negative masculinity.

Methods

Sample

The sample consisted of 329 juveniles who had been incarcerated for sexual crimes in Maine, Massachusetts, Minnesota, and Virginia and were administered the MASA. These juveniles all committed their offenses before the age of 18. They had been placed in inpatient treatment centers following their offenses. Those whose response times were too fast, whose Improbability scale indicated random, inattentive responses, or whose Positive Image scale was too high, were excluded (n = 22). After all exclusions were made, a final sample of 307 incarcerated juveniles were selected for the proposed study.

The 307 juveniles selected had been arrested an average of 3.82 times, with the mean age of the first offense being 10.32 years. The mean age of the sample was 16.11 years (SD = 1.69, range = 11 to 22), with only 6% of participants were over the age of 18. All juveniles committed their index offenses before the age of 18. Thus, the sample is considered to be within the developmental period of adolescence. Although the sample consisted predominantly of Caucasians (57.9%), other races were present in the sample, including African Americans (17.8%), Hispanics (6.7%), Asians (4.4%), Native Americans (3.4%), and Other Races (9.8%). This
sample had previously been analyzed to address other issues (Berman & Knight, 2015; Daversa & Knight, 2007; Davis & Knight, 2019; Grabell & Knight, 2009).

Measures

The MASA. The Multidimensional Assessment of Sex and Aggression (the MASA) is a
contingency-based questionnaire that asks respondents about various aspects of their lives,
including developmental history, social and sexual history, attitudes, and behaviors. MASA
items were written at a fourth-grade reading level. It was originally exclusively administered in
paper-and-pencil format until Version 3, the first computerized questionnaire. The
Multidimensional Inventory of Development, Sex, and Aggression (the MIDSA) is the most
recent clinical version of the MASA. The MASA has shown high test-retest reliability across
multiple samples of juveniles and adults with sexual offenses as well as community samples
(MIDSA, 2011; Knight, Prentky, & Cerce, 1994; Knight & Cerce, 1999). The focus for the present
study was on the sections of the MASA that assess developmental antecedents, items
associated with psychopathy, aggression, and problematic sexual thoughts and behaviors, as
well as items measuring aspects of hypermasculinity. Scales that had been derived and verified
for previous studies regarding sexual assault were examined as well (Davis & Knight, 2019).

Data Analysis

The developmental antecedents and nomological network of hypermasculinity are
currently poorly understood and infrequently researched. To fill this gap, we explored in the
present study both the developmental and behavioral antecedents of the construct. The
research involved four steps. First, we explored the components of hypermasculinity with
exploratory factor analyses, generated scales for the resulting factors, and averaged the scales
to create a measure of the construct. Second, we identified cohesive latent developmental measures that focused on experiences with caregivers including physical, sexual, and psychological abuse history. Third, guided by the extant empirical literature, we generated likely traits that could either predate or covary with hypermasculinity. Fourth, we used path analysis to explore the relations among developmental antecedents, the proposed mediating nomological network variables, and hypermasculinity. We discuss each step in turn.

**Measuring and Defining Hypermasculinity.** The MASA asks respondents about several developmental, behavioral, and cognitive areas that are potentially related to the extant definitions of hypermasculinity, as detailed in three components by Mosher and Sirkin (1984). In accordance with Mosher and Sirkin’s initial definition, we rationally identified 23 items that capture various aspects of these three components. To establish the structure of hypermasculinity and extract its core components, a principal axis analysis with OBLIMIN rotation was calculated on the chosen MASA items. These analyses provided insight into which of these components constitute scales that are more cohesive, which in turn served as our dependent variables. The resulting core variables were then interpreted and used as observations of the latent traits of hypermasculinity. All factor analyses were calculated using SPSS.

**Identifying Internally Consistent Latent Developmental Traits.** Our exploratory analysis included salient developmental and cognitive experiences proposed as potential antecedents of hypermasculinity. The MASA has an extensive developmental section that uses contingency-based questioning to gather details about respondents’ early experiences. Previous work with the MASA developmental assessment has yielded four core abuse factors: Physical Abuse,
Psychological Abuse by Female Caregivers, Psychological Abuse by Male Caregivers, and Sexual Abuse (Davis & Knight, 2019). These key factors were used in the present investigation as developmental antecedents.

**Identifying the Nomological Network of Hypermasculinity Covariates.** As we have detailed in the introduction, the covariates of hypermasculinity have been previously explored. Among the candidates for intervening traits and concurrent correlates of hypermasculinity were—excessive risk-taking, alcohol abuse, impulsivity and other aspects of psychopathy (e.g., callousness, Machiavellianism), hypersexuality, and general aggressiveness. Existing MASA scales as well as rational scale construction of MASA items were used to generate three mediating variables, guided by prior factor analytic work on these data (Knight & Sims-Knight, 2003). Scales were constructed by standardizing each item that loaded on the scale and averaging these z scores. Appendix A delineates the items that each latent trait comprised and their respective internal consistencies.

**Generating and Testing a Path Model for the Etiology of Hypermasculinity.** The final set of measures were arranged developmentally into the following three clusters: four exogenous abuse factors, three mediating variables, and one outcome hypermasculinity variable. Path analysis rather than Structural Equation Modeling (SEM) was chosen to analyze these data, because of the low power produced by the sample reduction, largely due to missing variables on male caregivers. The path analysis was conducted using AMOS.

**Results**

**Structure of Hypermasculinity**
We predicted that variables related to callousness towards women, violence, and physical toughness would covary with hypermasculinity and that Behavioral Disinhibition, Self-Centered Impulsivity, and Hypersexuality would mediate the relationship between Hypermasculinity and Abuse (Physical Abuse, Sexual Abuse, Psychological Abuse from a Female Caregiver, and Psychological Abuse from a Male Caregiver). To test this hypothesis, we established a nomological network for the development of hypermasculinity and devised a structure of the construct that related to Mosher and Sirkin’s 1984 three-part definition.

A factor analysis of hypothetically covarying MASA items yielded four core components: Hostility Towards Women, Malicious Intent of Women, Risk Taking, and Physical Toughness/Machismo. These components fit neatly into Mosher and Sirkin’s three-part definition. Strikingly, the “callousness towards women” piece of this definition split off into two separate components, independently encompassing both attitudes towards and beliefs about women (Hostility Towards Women and Malicious Intent of Women, respectively).

A principal axis factor analysis with OBLIMIN rotation was conducted on 23 MASA items. The Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis, KMO = .862. Bartlett’s test of sphericity $\chi^2(253) = 1076.132$, $p = .000$, indicating good reliability of the current factor analysis. A four-factor solution was used, yielding a 34.95% variance and all loadings had absolute values above 0.35. The first factor, explaining 21.2% of variance, was labeled “Hostility Towards Women” due to its relation to rape myths, such as “it’s not that bad to force prostitutes into sex” and “a lot of women who get raped probably have a bad reputation”. The second factor, explaining 8.1% of variance, was labeled “Physical Toughness” due to loading on items such as “any man can take a beating” and “I can hold my own when it
comes to drinking”. The third factor, explaining 3.0% of total variance, was labeled “Risk
Taking” due to its inclusion of danger-related items such as “I like to drive fast, and live on the
edge of danger” and “people tell me I take foolish risk. Finally, the fourth factor accounted for
2.6% of total variance and was labeled “Malicious Intent of Women” due to its subscription to
beliefs that “women enjoy putting men down” and “women would run around on their
boyfriends/husbands if they had the chance”. One item, “It’s natural for men to get into fights”
was eliminated from the analysis because it did not contribute to the overall factor structure
and failed to load with any of the other items. Results of this factor analysis indicated loading
with all three major components of hypermasculinity: callousness towards women (split into
Hostility Towards Women and Malicious Intent of Women), seeing danger as exciting (Risk
Taking), and seeing violence as manly (Physical Toughness).

**Developmental Antecedents and Mediating Covariates as Latent Traits**

Developmental antecedents for our nomological network was comprised of four main
abuse factors: Physical Abuse, Sexual Abuse, Psychological Abuse from a Female Caregiver, and
Psychological Abuse from a Male Caregiver. All four factors had been derived either rationally
or factor-analytically in previous studies using the current database, with high internal
consistencies reported for psychological abuse traits (0.90 and above) (Davis & Knight, 2019).
These same scales were used as our exogenous developmental variables. Mediating covariates
were rationally derived. MASA items were chosen that could potentially covary with both
childhood abuse and hypermasculinity. Items assessing antisociality, psychopathy, aggression,
and sexualization were explored. Many of these items represented behavioral components as
well, in contrast to the strictly experiential and ideological items that were explored in both the developmental abuse factors and hypermasculinity.

Externalizing behaviors and antisociality covaried and yielded a “Behavioral Disinhibition” scale. This included juvenile delinquency, juvenile drug use, and juvenile assaultiveness/impulsivity. Psychopathy encompassed an egocentric and goal-oriented outlook. Thus, items such as impulsivity, conning and superficial charm, and constant anger were grouped together to form “Self-Centered Impulsivity.” Lastly, pre-existing sexuality scales were combined to form the third mediating variable “Hypersexuality” - Sexual Compulsivity, Sexual Preoccupation, and Hypersexuality. These three sets of scales formed our mediating variables.

**Path Analysis**

We calculated a path analysis based on the data of 168 incarcerated juveniles. The dataset was reduced from the original 307 participants due to missing variables on the psychological abuse scales. The resulting path analysis yielded excellent fit, CFI = 0.998 and RMSEA = 0.01. We did not conduct post-hoc modifications due to the good fit of the data to this model. In this model, we see that Self-Centered Impulsivity was the strongest predictor of Hypermasculinity with both direct effects and indirect effects through Hypersexuality as a mediator ($\beta = 0.29, p < .001$ for direct effects; $\beta = 0.164, p = .003$ for indirect effects). Self-Centered Impulsivity also had direct effects on both Behavioral Disinhibition ($\beta = 0.23, p = .002$) and Hypersexuality ($\beta = 0.53, p < .001$).

Sexual Abuse ($\beta = 0.143, p = .002$) and Psychological Abuse from a Female Caregiver ($\beta = 0.116, p = .002$) had significant indirect effects on Hypermasculinity through Self-Centered Impulsivity. Psychological Abuse from a Female Caregiver also predicted Hypermasculinity...
through Hypersexuality. Although Physical Abuse and Psychological Abuse from a Male Caregiver did not serve as predictors of Hypermasculinity, they did covary with the other developmental variables. Physical Abuse covaried with Sexual Abuse ($\beta = 0.23, p = 0.004$) and Psychological Abuse from a Male ($\beta = 0.17, p = 0.032$) and Female Caregiver ($\beta = 0.17, p = 0.028$) significantly. Psychological Abuse from a Male Caregiver had, however, an insignificant covariation with Sexual Abuse ($\beta = 0.12, p = 0.113$). Finally, Sexual Abuse has a direct negative effect on Hypermasculinity ($\beta = -0.24$), in contrast to its positive indirect effect. Sexual Abuse thus likely presents a suppressor effect on Hypermasculinity.

**Discussion**

The present study sought to set up and verify a nomological network of hypermasculinity based on Mosher and Sirkin’s (1984) three-part definition of hypermasculinity. It was hypothesized that MASA items relating to callousness towards women, seeing violence as manly, and seeing danger as exciting would covary and serve as components of hypermasculinity. We further hypothesized that Physical Abuse, Sexual Abuse, Psychological Abuse from a Male Caregiver, and Psychological Abuse from a Female Caregiver would act as developmental antecedents of this construct, and that Self-Centered Impulsivity, Behavioral Disinhibition, and Hypersexuality would mediate the relation between the developmental antecedents and Hypermasculinity. Our etiological model was tested using path analysis, which yielded significant results and a model with excellent fit. This exploratory model informed our understanding of the covariates and antecedents of hypermasculinity.

Our factor analysis of relevant MASA items yielded factors for hypermasculinity that paralleled Mosher & Sirkin’s definition. The three main domains of the definition emerged
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neatly into four core components of the construct; the first domain regarding hostility and calloused sex attitudes towards women split into two core components, Hostility Towards Women and Malicious Intent of Women. Seeing that hypermasculinity is one of the strongest covariates of sexual assault and coercion, it is particularly noteworthy that Hostility Towards Women loads as the first factor in the principal factor analysis. This supports previous research that subscription to rape myths and cognitive distortions about sexual aggression is associated with sexually aggressive behavior (Hermann, Nunes, & Maimone, 2016; Nunes, Hermann, & Ratcliffe, 2013).

Our path analysis showed that Sexual Abuse and Psychological Abuse of a Female Caregiver had the greatest indirect effects on Hypermasculinity. Although Physical Abuse and Psychological Abuse of a Male Caregiver did not predict Hypermasculinity, they did covary with the other developmental antecedents. Strikingly, Sexual Abuse also acts as a suppressor variable, as it has a direct negative effect on Hypermasculinity. All three mediating variables were indeed predictors of Hypermasculinity, with Self-Centered Impulsivity being the strongest predictor. Overall, Self-Centered Impulsivity plays a large role in the development of Hypermasculinity. Our developmental antecedents directly predict it, and it directly predicts our other mediators as well as the final outcome.

The current path analysis displayed Psychological Abuse from a Female Caregiver as a prominent and significant predictor of Hypermasculinity. Psychological Abuse from a Male Caregiver, on the other hand, covaried with relevant development antecedents but was not in itself a direct predictor of Hypermasculinity. These results come in contrast to previous studies on similar populations, in which Psychological Abuse from a Male Caregiver was heavily
associated with Hypersexuality (Davis & Knight, 2019). The strong effect of the motherly figure in this case may explain the resulting callousness towards women that is seen in hypermasculinity. Resentment that implicitly or explicitly builds over time in juveniles may lead to overarching attitudes and behaviors toward women overall. The overall effect of Psychological Abuse on Self-Centered Impulsivity comes, however, as no surprise - previous studies have repeatedly indicated that psychological abuse leads to externalizing behaviors, hostility, and antisociality (Arata, Langhinrichsen-Rohling, Bowers, & O'Brien, 2007; Cecil, Viding, Fearon, Glaser, & McCrory, 2017). Because Self-Centered Impulsivity is built around psychopathic traits and constructs, these results suggest that hypermasculinity may evolve from an inward-looking, self-centered, and single-track mindset that is coupled with inherent hostility or resentment towards motherly figures. This supports previous research that has found a correlation between psychopathic traits and expressive aggression (Robertson & Knight, 2014).

The current study provides a basis for the exploration of the development of hypermasculinity. Future studies may take this inquiry in a number of directions. One limiting factor in the current study was the absence of data about juveniles who lacked male caregivers. The removal of missing variables for this factor resulted in a significantly smaller sample size. Future studies may investigate the full effects of Psychological Abuse from a Male Caregiver in a sample where there is a larger sample for this particular scale. Future studies may also use larger samples that lend themselves to a traditional and more complex structural equation model, further investigating the effects and associations of the presently observed latent traits. To expand on the present model, sexual and non-sexual aggressive behaviors and fantasies
should be explored as outcomes of hypermasculinity. Hypermasculine cognitions may be found to serve as mediating variables between the current developmental antecedents and expressive aggression (Hermann & Nunes, 2016). Similar studies can be conducted on adult samples or in a longitudinal design, to evaluate how changes in certain beliefs may influence coercive behavior (Pettersen et al., 2015). Lastly, a similar analysis may be conducted on members of the LGBTQ+ community to investigate the role of Hypermasculinity in transgender men and homosexual relationships.

The study of the development of hypermasculinity as a predictor of sexual assault and coercion is vital to our understanding of sexually violent behavior in juveniles and young adults. A greater understanding of this construct will allow us to pinpoint major risk factors to sexual violence at a young age and begin to take preventative measures to reduce the rates of sexually malignant behavior amongst youthful populations. Educating these populations about harmful rape myths and cognitive distortions about women’s inherent malice may help to curb the manifestation of hypermasculinity in at risk youth as well. By elucidating the etiology of the greatest covariate of sexual assault and coercion based on Mosher and Sirkin’s three-part definition (1984), the present study served to establish a foundation for our understanding of the development of hypermasculinity. Our findings serve to shed light on the major risk factors of this harmful construct, including the relations of various types of abuse and malignant attitudes and behaviors. Recognizing the key salient experiences that contribute to hypermasculinity contributes substantially to our understanding of sexual assault and coercion.
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### Appendix A – Latent Traits Included in the Nomological Network

#### Developmental Antecedents

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<tr>
<th>Cronbach’s Alpha</th>
<th>PHYSICAL ABUSE</th>
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<tbody>
<tr>
<td>.729</td>
<td>Number of physical abusers</td>
</tr>
<tr>
<td></td>
<td>Maximum severity of physical abuse</td>
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<td></td>
<td>Maximum frequency of physical abuse</td>
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| .764             | SEXUAL ABUSE                                                                   |
|                  | Maximum sexual abuse degree of penetration                                    |
|                  | Number of adult sexual abusers                                                |
|                  | Maximum frequency of sexual abuse across adult sexual abusers                 |
|                  | Maximum sexual abuse force                                                    |

| .540             | PSYCHOLOGICAL ABUSE (FEMALE)                                                  |
|                  | Significant female neglect level                                              |
|                  | Significant female hostile control (emotional abuse)                          |

| .786             | PSYCHOLOGICAL ABUSE (MALE)                                                    |
|                  | Significant male hostile control (emotional abuse)                            |
|                  | Significant male neglect level                                                |
## Mediating Variables

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>BEHAVIORAL DISINHIBITION</th>
<th>.703</th>
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<tbody>
<tr>
<td></td>
<td>Juvenile Drug Factor</td>
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<tr>
<td></td>
<td>Juvenile Delinquency</td>
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<td></td>
<td>Juvenile Assault Impulsivity</td>
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<td>SELF-CENTERED IMPULSIVITY</td>
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<td>Pervasive/Constant Anger</td>
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<td></td>
<td>Conning and Superficial Charm</td>
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<td>HYPERSEXUALITY</td>
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<td>Sexual Compulsivity</td>
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<td>Sexual Preoccupation Factor Scale</td>
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<td></td>
<td>Hypersexuality Rational Scale</td>
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## Hypermasculinity

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>NEGATIVE MASCULINITY</th>
<th>.648</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Risk Taking</td>
<td>.674</td>
</tr>
<tr>
<td></td>
<td>Hostility Towards Women</td>
<td>.839</td>
</tr>
<tr>
<td></td>
<td>Physical Toughness/&quot;Macho&quot; Factor</td>
<td>.578</td>
</tr>
<tr>
<td></td>
<td>Malicious Intent of Women</td>
<td>.596</td>
</tr>
</tbody>
</table>