

A Latent Class Analysis of Heterosexual Young Men's Masculinities

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Abstract Parallel bodies of research have described the diverse and complex ways that men understand and construct their masculine identities (often termed “masculinities”) and, separately, how adherence to traditional notions of masculinity places men at risk for negative sexual and health outcomes. The goal of this analysis was to bring together these two streams of inquiry. Using data from a national, online sample of 555 heterosexually active young men, we employed latent class analysis (LCA) to detect patterns of masculine identities based on men’s endorsement of behavioral and attitudinal indicators of “dominant” masculinity, including sexual attitudes and behaviors. LCA identified four conceptually distinct masculine identity profiles. Two groups, termed the Normative and Normative/Male Activities groups, respectively, constituted 88 % of the sample and were characterized by low levels of adherence to attitudes, sexual scripts, and behaviors consistent with “dominant” masculinity, but differed in their levels of engagement in male-oriented activities (e.g., sports teams). Only eight percent of the sample comprised a masculinity profile consistent with “traditional” ideas about masculinity; this group was labeled Misogynistic because of high levels of sexual assault and violence toward female partners. The remaining four percent constituted a Sex-Focused group, characterized by high numbers of sexual partners, but relatively low endorsement of other indicators of traditional masculinity. Follow-up analyses showed a small

number of differences across groups on sexual and substance use health indicators. Findings have implications for sexual and behavioral health interventions and suggest that very few young men embody or endorse rigidly traditional forms of masculinity.

Keywords Masculinities · Sexual health · Gender roles · Violence against women · Latent class analysis

Introduction

There has long been an interdisciplinary consensus that “masculinity” is not a fixed identity or prescribed set of roles, but a socially constructed aspect of identity that is developed in relation to norms and expectations within particular cultural and historical contexts, resulting in multiple and diverse masculine identities (often termed “masculinities”) (Connell, 2005). Given this, considerable scholarship has described the varied ways that men and boys understand their own masculinity. Coupled with evidence that men’s ideas about masculinity are strongly related to their health and sexual behaviors, masculinity has become a central construct in the conceptualization of health promotion initiatives (Dworkin, Fullilove, & Peacock, 2009; Evans, Frank, Oliffe, & Gergory, 2011). To date, efforts to theorize and describe different masculinities have been largely and appropriately conceptual and/or qualitative, and have been tied to specific geographic or cultural contexts. The purpose of this study was to augment the growing literature on masculinities with a person-centered, quantitative exploration of masculinity across a much larger context—young men in the U.S.—to examine whether patterns of masculine identities can be identified, as well as linked to sexual and relationship behaviors and consequences, in a way that is informative for health-related prevention and intervention work.

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Theoretical Perspectives on Masculinity and Gender

Gender theorists posit that masculine identities are multiple, constructed, and reflect varying ideas about ways to “be male,” but also suggest that cultures elevate sets of preferred gender norms and behaviors (Addis & Cohane, 2005; Connell, 2005). The diversity of masculine identities is therefore organized hierarchically with a particular form of masculinity idealized as more desirable and powerful. Although men may have ideas about their masculine identity other than the “ideal,” these ideas are defined primarily in relation to particular desired notions of masculinity, often termed “hegemonic” or “dominant” (e.g., Connell, 2005).

Notions of “dominant” masculinity in Western contexts, including the U.S., involve projecting strength, independence, invulnerability, constrained emotionality, and rejecting the “feminine” (for review, see Addis & Cohane, 2005; Thompson & Pleck, 1995; Vandello & Bosson, 2013). Sexual prowess and the appearance of being sexually experienced are also features of idealized masculinity (Bowleg et al., 2011; Mahalik et al., 2003), as is being in control in intimate relationships with women (for review, see Jewkes, Flood, & Lang, 2015). For example, endorsement of traditional or stereotypical notions of masculinity is associated with sexual behaviors such as higher numbers of sexual partners (O’Sullivan, Hoffman, Harrison, & Dolezal, 2006). Similarly, a strong endorsement of dominant masculine traits is consistently associated with the use of controlling and physically and sexually abusive behaviors with female romantic partners (Flood & Pease, 2009; Reidy, Burke, Gentile, & Zeichner, 2014). Opportunities for performing or normalizing these dominant notions of being male may be provided through membership in male-oriented groups such as fraternities or athletic teams, which have also been implicated in perpetuating hegemonic masculine norms and support for violence against women (Murnen & Kohlman, 2007). Given that both theory and empirical evidence suggest that these interrelated factors (perceived gender norms, sexual and relationship behaviors, and male social affiliations) together comprise masculine identities, efforts to describe masculinities may be maximally useful by including all of these indicators—an approach we adopt in these analyses.

Patterns of Masculinities

Given increasing recognition of the existence of multiple masculinities, scholarship has increasingly investigated various patterns of ways in which men and boys construct gender identities. This work has been heavily influenced by Connell (2005), who suggests that while only a small subset of men in a given context may have access to or achieve the “ideal” form of masculinity, the ideal serves as a standard against which men define their own masculine identities. Connell suggests four broad masculinities (dominant, complicit, subordinate, and marginalized) as a framework for describing more specific masculine identities. These exist

in a tiered relationship with the dominant ideal. As such, complicit masculinities can be thought of as identities that draw or benefit from hegemonic norms without fully achieving the pure “dominant” ideal, where subordinate and marginalized identities are those which are less valued (such as being non-white, gay or “feminine”) and structurally excluded, respectively.

This notion of types of masculinity organized around a dominant ideal has been upheld in qualitative examinations of masculine identities in particular contexts. For example, Pascoe (2003) found that among adolescent boys in two high schools, dominant notions of masculinity were defined around being a “jock” and portraying dominance and sexual prowess. While few young men were able to fully embody the “jock” identity, boys redefined characteristics of being a jock in order to project other types of gender identity that were still “recognizably masculine.” Similar descriptions of patterns of masculinities exist for a range of male groups such as youth in the UK (Martino, 1999) and queer-identified straight men in the U.S. (Heasley, 2005).

Other scholarship has challenged the idea that there is a single desirable form of masculine identity in a culture. Rather, there may be patterns of masculinity that are valued in local contexts even when they do not embrace dominant notions of male identity. For example, in an ethnographic study of members of one college fraternity, Anderson (2008) described a dominant form of masculinity termed “inclusive,” based on acceptance of emotional expression and on rejection of heterosexism and misogyny. On a larger scale, evidence suggests that young adults are heterogeneous with respect to their identities and ideas about the meaning of adulthood (Arnett, 2003), and that millennial young men may be more rejecting of some aspects of masculinity such as homophobia (McCormack, 2012) and dominance in romantic relationships (Doull, Oliffe, Knight, & Shoveller, 2013; Masters, Casey, Morrison, & Wells, 2013) than their older peers. Still, in an explication of a theory of gender and health, Courtenay (2000) argued that while some U.S. men may construct identities that stand in contrast to “hegemonic” masculinity, dominant notions of masculinity are an “ubiquitous aspect of North American life,” with which men must contend, rendering it an enduring yardstick against which ideas about masculinity can be understood.

Health-Related Correlates of Masculine Identities

Understanding men’s relationship to dominant notions of masculinity is also important because of increasing evidence linking health and sexual risks to ascribing to a traditional masculine ideal. Irrespective of masculine ideology, U.S. men tend to die earlier, enact fewer health-related protective behaviors, and suffer from higher rates of chronic disease than women (for review, see Courtenay, 2000). More recently, associations have been documented between endorsing traditional notions of masculinity and particular risks, including elevated problems associated with alcohol use among college-age men (Liu & Iwamoto,

2007; Locke & Mahalik, 2005), increased risk of exposure to sexually transmitted infections (STIs) or unwanted pregnancy through engaging in unprotected sex among young urban men (Santana, Raj, Decker, LaMarche, & Silverman, 2006), and decreased general levels of health-promoting behavior, including sexual safety, among urban African-American men (Wade, 2008).

Documenting patterns of masculinity therefore carries benefits beyond purely descriptive aims, and holds the potential to inform the way we approach sexual and health behavior interventions with men. To date, however, studies of the relationship between masculinities and longer term health and safety outcomes have largely been variable-centered (i.e., showing the general relationship between “endorsement of traditional masculinity” and health or sexual risk variables). Examining associations in this way may obscure heterogeneity embedded in this link and the potential that men might combine different aspects of masculinity in ways that uniquely elevate or buffer sexual and health risk. It is also unclear whether only some aspects of dominant masculinity increase health and sexual risks. Expanding the use of person-centered analyses of how masculine identity indicators coalesce into particular constellations holds the potential to both extend previous qualitative typologies of masculine identities, and to understand more nuanced ways in which these identities are associated with longer term health-related outcomes.

Masculinities and Social Position

Social locators such as race/ethnicity, socioeconomic status, and age are also related to the way that men understand their gender identity. While gender theorists note that many of the markers of “dominant” masculinity are similar across contexts, they are not identical (Evans et al., 2011) and even within similar constructions of dominant masculinity, men may choose different means to prove or enact their masculine identity (Courtenay, 2000). Also, based on race, ethnicity, and class, many men are structurally excluded from equal access to economic or political avenues for achieving economic security or may be subjected to violence—experiences which stand at odds with notions of “dominant masculinity” and which Connell would term “marginalized” masculine experiences. Men may react by defining themselves in opposition to dominant notions of masculinity or by relying on other avenues for proving masculinity, such as relationships with women (Barker, 2005; Dworkin et al., 2009). For example, participants in a qualitative study of urban African-American adolescents (Kerrigan et al., 2007) generally described identifying with “dominant” aspects of masculinity such as toughness and sexual prowess. However, given structural exclusion and safety risks in their environments, these youth reported upholding a masculine identity among peers by maintaining an appearance of being sexually experienced and a façade of “being unbreakable.” These findings are consistent with typological theorizing related to masculinities, which suggest that social position is inex-

tricably linked to men’s access to achieving traditional masculinities (Connell, 2005).

Summary and Aims

In summary, masculinities research has produced a strong conceptual and qualitative but largely localized literature describing multi-faceted patterns of masculinity with implications for how men understand their own identities. In parallel, a growing quantitative, variable-centered evidence base has emerged that links poor health, sexual, and substance abuse-related outcomes to individual men’s adherence to traditional ideas about masculinity. The goals of this study were to extend this knowledge by conducting a person-centered analysis to identify patterns of masculine identities and then to compare people with different patterns on dimensions of social position such as age, socioeconomic status, and race/ethnicity, as well as on health and sexual outcomes. Specifically, we employed latent class analysis (LCA) to identify patterns of masculine identities among young heterosexual men, then contrasted men exhibiting each pattern across a handful of health and safety-related variables, including sexual risk outcomes and substance use. While quantitative methods such as LCA are not traditionally paired with analyses influenced by a social constructivist perspective on gender, this method allows us to detect patterns in the ways that men identify with different aspects of culturally ascribed masculinity. Further, the use of this approach in a large, national sample of young men from the U.S. builds on qualitative work in more bounded geographic or institutional contexts to examine whether previously identified, local masculinities may be reflected in the ways that diverse young men are constructing their identity in the broader context of the U.S. as a whole. This could signal, for example, whether the less stereotypical masculinities detected in some local contexts are indeed emerging among young men in the U.S. on a larger scale, and whether these are linked with reduced long-term health and sexual risk, or whether hegemonic ideals still drive most men’s enactment of gender identity. Importantly, an LCA approach examines these questions without imposing a priori assumptions on what the emerging patterns of masculinity are or should be.

Method

Participants

Data used in this analysis were based on 555 heterosexually active male participants recruited for a larger online study investigating factors influencing men’s sexual beliefs and behavior. We programmed the online survey using Illume software, a product of the survey company DatStat, Inc., which hosted the survey on secure servers. The University of Washington Institutional Review Board approved all procedures. We placed

online advertisements on Facebook and Craigslist which invited men to “share [their] views” for a “web survey on relationships with women.” To increase initially slower recruitment among African American, Asian American, and Latino participants, we also targeted Craigslist ads for one week at a time to 14 specific cities/regions in the U.S., in which the census reflects larger concentrations of these racial groups. URL links in the ads took interested individuals to a screening survey. Eligible and consenting individuals were then entered into the survey. Recruitment occurred in the Winter and Spring of 2011.

Eligibility criteria were being 18–25 years old, male, currently living in the U.S., having lived in the U.S. during adolescence, having been physically intimate with a woman (defined as touching below the waist or having oral, vaginal, or anal sex), and being interested in having sex with a woman in the future. To obtain a sample balanced among five racial/ethnic categories, we programmed quotas such that participants from each racial/ethnic group were ineligible once a sufficient number of surveys from each group had been completed. The five categories were African American, Asian American, European American/white, Latino, and Multiracial or “other.” To increase data integrity, we programmed survey screening so that the survey would become inaccessible to someone using the same IP address and already identified as ineligible.

A total of 662 men began the survey. We excluded 14 cases during data cleaning because of nonsensical response patterns. We also excluded 93 cases because they completed less than 25 % of the survey. These 93 men did not differ significantly from the 555 men retained in our analysis sample in terms of age, race/ethnicity, education, or income. Participants in the final sample were 19.8 % African-American men, 19.1 % Asian American, 20.9 % European American/white, 21.8 % Latino, and 18.4 % Multiracial or “other.” The mean age of the sample was 20.6 years (*SD*, 2.1). Among participants, 7 % currently had less than a high school education, 26 % had completed high school or obtained their GED, 47 % had some college or technical training (but no degree), 6 % had a community college or Associates degree, and 14 % had obtained at least a Bachelor’s degree. The majority (63 %) had personal incomes under \$12,000 per year. Although characterizations of socioeconomic status are difficult for this age group, approximately 56 % of the sample was enrolled either part- or full-time in some form of undergraduate education at the time of the survey. This is higher than the 39 % of 18- to 24-year-old men in the U.S. enrolled in college during 2011 (U.S. Department of Education, 2014).

Measures

Included measures fell into three categories described in turn below: indicators of masculine identities used to identify identity classes; health and sexual risk-related outcomes of masculine identities; and demographic/social position indicators. For the first of these categories, we included indicators of masculine

identities identified in the extant literature described in the Introduction, including gender- and sex-related beliefs, sexual and relationship behavior including aggression toward women, and membership in male social groups.

Gender-Related Attitudes

We used 8 items from the Adolescent Masculinity Ideology in Relationships Scale (AMIRS; Chu, Porche, & Tolman, 2005) to measure beliefs regarding male gender roles, such as “Guys should not let it show when their feelings are hurt” and “I think it is important for a guy to act like he is sexually active even if he is not.” This well-established scale was selected because of its developmental relevance to the emerging adults in our sample (e.g., the scale does not include items regarding gender expectations in marriage), as well as its focus on assessing internalized injunctive masculine norms. Response options ranged from 0 (strongly disagree) to 4 (strongly agree). Higher scores indicated a more traditional gender ideology. The scale score was calculated as a mean; alpha was .70. Six items from Lonsway and Fitzgerald’s (1995) Hostility toward Women Scale were used to assess attitudes toward women. The measure included items like “I think that most women would lie just to get ahead” and used identical response options as the AMIRS. Higher scores represented greater animosity toward women. The scale score was calculated as a mean; alpha was .63.

Violence Against Women

Men’s use of violence against women was measured with two indices. Intimate partner violence (IPV) was assessed with items from the Revised Conflict Tactics Scale (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). Five items captured the use of physical IPV against a partner in the past year (ranging from behaviors such as grabbing or pushing to sending a partner to a doctor because of injuries). Three items adapted from the CTS2 and used in our previous research (Beadnell et al., 2008) captured controlling IPV behaviors such as preventing a partner from attending work or school, and controlling what a partner does or who she sees. Response options on all CTS items ranged from 0 (never) to 5 (more than 10 times). Participants could also indicate that they had used the behavior with a former partner, but not with the most recent partner; those who did so were recoded as using the corresponding behavior once, as those using abuse with a former partner could not indicate the frequency of that behavior (Straus et al., 1996). Mean frequency scores across the physical and controlling IPV items, respectively, were then calculated. Next, lifetime perpetration of sexual violence was measured with seven items from the Sexual Experiences Survey (Koss, Gidycz, & Wisniewski, 1987). These behaviorally specific questions assessed whether participants had ever (yes or no) forced sexual contact by using continual force or arguments, attempted to force sex by using force or alcohol/drugs, or forced sexual

intercourse by using physical force, continual arguments and pressure, or by using alcohol/drugs. We also included a single item from questions participants received about their most recent sexual partner, assessing whether they had ever pressured her into having sex when she did not want to. Overall, sexual assault perpetration was calculated as the sum of “yesses” on the eight items, and ranged from 0 to 8.

Ideas About Sex

We measured men’s sexual sensation seeking with six questions from Kalichman and Rompa’s (1995) Sexual Sensation Seeking Scale. The measure included items like “I like wild ‘uninhibited’ sexual encounters.” Response options ranged from 0 (not at all like me) to 3 (very much like me), and higher scores represented more sensation seeking. The scale score was calculated as a mean; alpha was .81. Next, men’s endorsement of three different sexual scripts (men’s ideas about how sexual relationships and encounters are or should be) was assessed with measures we developed in previous research (Morrison et al., 2015). All scores were computed as means. Items measuring the Traditional Masculinity Sexual Script assessed the extent to which men endorsed sexual scenarios involving multiple, casual, recreational sexual experiences with multiple partners as 0 (not at all desirable) to 4 (very desirable). Scores based on eight items had an alpha of .83. The second scale measured endorsement of scenarios depicting a Sex Positive Woman Sexual Script, and assessed the degree to which men endorsed a desire for female partners who openly expressed sexual desire toward men. These three items used the same response options described above and had an alpha of .78. Finally, the third scale assessed men’s endorsement of the Monogamy and Emotion Sexual Script (alpha = .63, four items), for which higher scores corresponded to a desire for sex in an intimate, committed relational context and negative judgments of other types of more casual sex. Response options ranged from 0 (strongly disagree) to 4 (strongly agree) for items such as “Sex is better if it is in a relationship that includes love.”

Sexual Behavior

We measured lifetime number of sex partners and one-night stands by asking “How many women have you had sexual intercourse with...in your lifetime” and “on one and only one occasion?” Men answered each question with a number. We recoded five cases who reported over 100 lifetime partners into a “100 or more” category; we did the same with four cases who reported over 40 one-time-only partners, coding this category as “40 or more.” Pornography use and paying for sexual services were measured with items that began “Thinking about last year, how often did you...” and continued “look at sexually explicit or erotic materials such as websites, videos, photos, or magazines” and “pay for sexual services such as stripping, peep shows, lap dances, oral sex, or intercourse?” Response options

ranged from 0 (never) to 5 (every day or almost every day). We recoded both variables to manage distributional sparseness. Pornography use was recoded as 0 (once a month or less), 1 (2–3 times a month), 2 (once or twice a week), and 3 (every day or almost every day). We recoded paying for sexual services dichotomously as 0 (never) and 1 (one or more times).

Male Activity Participation

We measured men’s participation in male group activities by asking “How many years have you been involved in a...computer or gaming group/fraternity/high school or college sports team/intramural or other organized sports team?” Response options were recoded into 0 (no) and 1 (yes). We also computed a sum of activities participated in which ranged from 0 to 4.

Sexual Risk and Health-Related Outcomes

The remaining measures were used to assess masculinity identity profiles’ differential association with longer term sexual and health outcomes. STI history was measured with a single item phrased as “How many times have you been told by a doctor or other health care provider that you had a sexually transmitted disease or infection (STD or STI)? STDs include infections such as gonorrhea, chlamydia, NGU, herpes, warts, and trichomonas.” Response options were 0 (never) to 5 (5 or more). We also asked “How many times have you gotten a woman pregnant?” Men answered with a number, and we recoded two cases who reported causing over five pregnancies into a “5 or more” category. Although causing pregnancies is not necessarily a negative or undesired outcome in general, for this sample of 18- to 25-year-old men, fatherhood was largely not an immediately desired status; in measures of pregnancy motivation, 87 % of the sample reported that pregnancy was never or rarely a motivation for sex, and only .9 % reported a current intention to cause a pregnancy. Finally, substance use problems were assessed with the 10-item Short Inventory of Problems-Alcohol and Drugs (SIP-AD; Hagman et al., 2009). This index asked whether participants had ever (no or yes) experienced a range of problems because of substance use and was then scored as 0 (1 or fewer problems) or 1 (2 or more problems).

Demographics

Age was measured in years. Because SES and income are confounded with a number of variables for this developmental group (including college enrollment status and living with parents) and therefore difficult to measure, we used mother’s education level as a proxy for socioeconomic status based on guidance from Entwistle and Aston (1994). Response options to “What is the highest education your mother (or the person who raised you) received?” ranged from 0 (Grade 8 or less) to 7 (graduate or

professional degree). To assess race/ethnicity, men were first asked, “What is your racial background? Check all that apply to you” with options of “African-American, Black, or African,” “American Indian, Native American, or Alaskan Native,” “Asian, Asian-American,” “Latino, Hispanic,” “Pacific Islander” “White, Caucasian, European,” and “Other: [fill in the blank].” We then asked men who chose more than one category, “Of the race and ethnic groups you have selected, which do you consider your primary racial or ethnic identity?” We recoded to create five categories: African American, Asian American, European American/white, Latino/Hispanic, and Multiracial or “other.”

Analytic Approach

We used mixture modeling to identify how young men’s attitudes and behavior combined to form different styles of masculinity. Mixture modeling can help researchers avoid the imposition of a priori assumptions inherent in other typologizing methods (Beadnell et al., 2005; Lanza & Collins, 2008). LCA is a mixture modeling approach that identifies relatively homogeneous subgroups of individuals within larger, heterogeneous samples. Referred to as “classes,” each group has a unique profile based on responses to a set of indicator variables. Because it focuses on types of people, specifically on how multiple factors combine to describe complex factors such as the enactment of masculinity, LCA is considered a “person-centered” rather than a “variable-centered” approach.

We used LCA with Mplus 7.0 software to identify classes. We based the classes on 18 indicators, each of which we chose because of its correspondence to theorized elements of “dominant” masculinity summarized in the “introduction” and “measures” sections. These indicators are shown in Table 2. A Chi-square test of the assumption that data were MCAR (missing completely at random) suggested that MAR (missing at random) was the best characterization of missing data patterns (Schafer & Graham, 2002). Under this condition, unbiased LCA models can still be estimated using full information maximum likelihood, standard with Mplus (Asparouhov, 2013). We estimated models iteratively, specifying an increased number of classes. We then compared models to identify the best solution using criteria recommended by Múthen and Múthen (2000). These criteria included classification quality (entropy), likelihood ratio tests, fit to the data as reflected by Bayesian and Akaike Information Criteria values (BIC and AIC), and classes’ interpretability and theoretical meaningfulness.

Following the LCA, we used Wald Chi-square tests of equality to examine whether and how class membership was associated with demographic variables. We also compared class membership on specific health and sexual safety variables that were linked to or can result from masculine attitudes and behaviors used as class indicators. These included being diagnosed with an STI, causing pregnancies, and problems resulting from substance use.

Results

Latent Class Analyses

Table 1 shows the fit statistics for the two, three, four, and five class LCA solutions. We chose the 4-class model as the best solution. It showed smaller BIC and AIC values, acceptable classification quality, a statistically significant BLRT test, and informative theoretical meaningfulness. While fit was further improved for the 5-class solution, this model identified one class size so small that meaningful interpretation and additional analyses were not possible.

Masculinity Profile Classes

Table 2 provides details on the response patterns of the four latent class groups and of the sample as a whole. The majority of men clustered in two groups (35 and 53 % of the sample, respectively). These groups were similar to each other in many ways, with some specific areas in which they differed. Because of their similarities, and the fact that together they made up 88 % of the sample, we named these the “Normative Masculinity” groups. Their endorsement of traditional masculinity and their hostility toward women were low to moderate. Neither group reported committing a great deal of physical IPV, using many controlling behaviors with partners, or perpetrating many types of sexual assault, if any. Both classes had levels of sexual sensation seeking that were average compared to the overall sample, lower desirability of a traditionally masculine sexual script, and higher desirability of the sex positive woman and monogamy and emotion scripts. These men’s mean numbers of both lifetime sexual partners and lifetime one-night stands were slightly below the full sample average. Both groups were unlikely to have paid for sexual services.

The Normative groups differed in some specific ways. Most noticeable was that the larger of the two groups was more likely to participate in male group activities. Hence, we named them the Normative Masculinity/Male Activities group. Higher proportions of this group had participated in a combination of activities sometimes considered of particular interest to men. These included formal and intramural sports teams. Many also participated in a computer or gaming group. On the other hand, very low proportions of Normative men participated in any of these activities. While not many Normative/Male Activities men (22 %) had been fraternity members, practically none of the Normative men had. Finally, more Normative than Normative/Male Activities men used pornography daily.

The third latent class group, a relatively small proportion of the sample (8 %), had high endorsement of rigidly traditional notions of masculinity and high hostility toward women. They also reported committing far more physical IPV, control IPV, and sexual assault than any other group and, for these reasons, we characterized this group’s masculinity as Misogynistic. Sexual

Table 1 Comparing the fit of LCA models ($n = 555$)

Model	AIC	BIC	Entropy	Class sizes	BLRT
2-class	23869	24098	.99	23, 532	$p < .001$
3-class	23247	23567	.92	201, 331, 23	$p < .001$
4-class	22799	23210	.93	197, 293, 44, 21	$p < .001$
5-class	22519	23020	.93	290, 188, 8, 46, 23	$p < .001$

AIC Akaike information criterion, BIC Bayesian information criterion, BLRT bootstrapped likelihood ratio test

Table 2 Masculinity profiles among heterosexually active young men ($n = 555$)

Latent class indicators	Latent class group				Full sample ($n = 555$) $M (SD)$
	Normative ($n = 197$) $M (SD)$	Norm/male activities ($n = 293$) $M (SD)$	Misogynistic ($n = 44$) $M (SD)$	Sex focused ($n = 21$) $M (SD)$	
Masculinity Ideology (0–4)	1.36 (.69)	1.45 (.62)	2.01 (.76)	1.66 (.51)	1.47 (.62)
Hostility toward Women (0–4)	1.89 (.63)	1.91 (.67)	2.40 (.67)	1.97 (.51)	1.94 (.62)
Physical IPV (0–4)	.22 (.52)	.16 (.48)	2.55 (1.90)	.35 (.67)	.33 (.73)
Control IPV (0–5)	1.35 (1.67)	1.39 (1.45)	2.52 (2.45)	1.00 (1.37)	1.38 (1.23)
Sexual assault (sum types committed 0–8)	.59 (1.38)	.48 (1.23)	2.62 (3.71)	.70 (1.19)	.69 (1.33)
Sexual sensation seeking (0–3)	1.43 (.86)	1.39 (.74)	1.95 (1.02)	1.69 (.61)	1.46 (.74)
Sexual scripts (0–4)					
Traditional masculinity	1.30 (.95)	1.31 (.84)	2.14 (.89)	1.50 (.88)	1.38 (.71)
Sex positive woman	2.74 (1.09)	2.78 (.92)	2.55 (1.23)	2.90 (.90)	2.74 (.91)
Monogamy and emotion	2.74 (.94)	2.85 (.77)	1.92 (.82)	2.37 (1.0)	2.71 (.78)
Lifetime no. of sex partners (0–100)	8.31 (17.18)	7.55 (14.86)	15.53 (17.51)	52.00 (29.54)	9.95 (17.0)
Lifetime no. of one-night stands (0–40)	1.76 (2.65)	1.83 (2.65)	4.15 (6.28)	28.31 (9.48)	2.97 (6.12)
Number of male group activities (0–4)	.62 (.64)	2.53 (.80)	3.07 (1.72)	2.09 (1.0)	1.87 (1.16)
	Proportions				
Male group activities					
Member of gaming group	.23	.61	.81	.39	.48
Fraternity member	.01	.22	.58	.19	.17
Sports team	.26	.92	.86	.81	.67
Intramural sports	.15	.79	.84	.70	.56
Pornography use					
Once a month or less	.19	.21	.24	.10	.20
2–3 times a month	.20	.23	.16	.23	.21
1 or 2 times a week	.30	.38	.18	.19	.33
Every day	.31	.18	.42	.47	.26
Paid for sexual services					
No	.88	.85	.57	.73	.83
Yes	.12	.15	.43	.27	.17

sensation seeking levels were high in this group. Misogynistic men reported the highest support for a traditionally masculine sexual script and the lowest support for the monogamy and emotion script of any men in the sample. These men's mean numbers of both lifetime sexual partners and lifetime one-night stands were higher than those of men in the two Normative groups, and they were more likely than men in any other group to have paid for sexual services. Many of them were also daily

pornography users (although frequent use of pornography was common across this sample). Regarding male group involvement, Misogynistic men participated in organized sports teams, informal sports, and computer or gaming groups at higher levels than men in most other groups, and their fraternity membership proportion (58%) was the highest of any group.

We named the fourth group, the smallest identified at 4% of the sample, Sex Focused. These men's endorsement of

traditional masculinity ideology and their hostility toward women were low to moderate, similar to those of the sample average. Committing IPV, using controlling behaviors with partners, or perpetrating sexual assault was low in this group. In contrast, sexual sensation seeking levels were high. Sex-Focused men reported low desirability of a traditionally masculine sexual script, high desirability of a sex positive woman script, and moderate desirability of a monogamy and emotion script. Their mean numbers of lifetime sexual partners, lifetime one-night stands, and rates of pornography use were the highest of any group; these were the group's primary defining features. Sex-Focused men had higher rates than Normative groups of paying for sexual services, but were less likely to have done so than Misogynistic men. Sex-Focused men participated in computer or gaming groups and were involved with fraternities at fairly typical rates for the sample. Sex-Focused men's participation in both high school or college sports teams and informal, intramural sports teams was quite high.

Associates of Class Membership

Classes were compared on factors related to unprotected sexual activity (i.e., STI and pregnancy), and substance use and demographic variables. Results are shown in Tables 3 and 4. Given the overall sample and the individual class sizes, there was power to detect significant omnibus tests for relatively small effects (Cohen's $f = .17$ for continuous and $w = .15$ for dichotomous variables). Power for pairwise comparisons ranged from being able to detect large effects when comparing the two smallest classes (Cohen's $f = .75$, $w = .40$) to small effects when comparing the two largest classes (Cohen's $f = .26$, $w = .15$) (Cohen, 1988). Results suggest that although Misogynistic men reported STI diagnoses rates at four times that of the Normative groups, this did not achieve statistical significance. Men in the Misogynistic group were significantly more likely to have made a woman pregnant than men in the two Normative groups; there was no significant difference between Misogynistic and Sex-Focused

men on this outcome. No significant differences emerged among groups relative to substance abuse problems.

Regarding their demographic characteristics, men in the Sex-Focused masculinity group were older, on average, than men in the Normative/Male Activities group. There were no significant age differences among the other groups. Normative/Male Activities men had significantly higher socioeconomic statuses (operationalized using their mothers' education levels) than did Normative men, and there were no significant differences in SES among men in other groups. There were some significant differences among masculinity profile groups in terms of the distribution within them of men from different racial/ethnic categories (Table 4). Five racial/ethnic groups were represented in the sample in approximately equal proportions (from 18.4 to 21.8 %), so if there was no association between masculinity class membership and race/ethnicity, we would expect to see roughly the same distribution of men of each race/ethnicity within each class group. In two cases, however, we saw significantly different proportions. Asian-American men were significantly over-represented (43 %) in the Misogynistic group, and significantly under-represented (1 %) in the Sex-Focused group, compared to each of the other three groups. Latino men were under-represented in the Misogynistic group (8 %) compared to the Normative (24 %) and Normative/Male Activities (28 %) groups.

Discussion

The goals of our study were to identify patterns of masculine identities and to examine whether and how men grouped by their masculinity patterns differed across outcomes and demographic characteristics. We identified four distinct patterns. Most men fell into one of two groups we termed "Normative," characterized by low endorsement of traditional masculinity, relationship violence, and sexual risk behaviors, but distinguished from each other by participation in male-oriented activities.

Table 3 Masculinity class profile groups compared on sex-related outcomes, substance use, age, and socioeconomic status

	Class group				Omnibus χ^2 ($df = 3$)
	Normative ($n = 197$) M (SD)	Norm/male activities ($n = 293$) M (SD)	Misogynistic ($n = 44$) M (SD)	Sex focused ($n = 21$) M (SD)	
STD diagnosis (0–5)	.09 (.41)	.06 (.39)	.25 (.90)	.23 (.60)	3.29
Made someone pregnant (0–5)	.34 ^a (.91)	.24 ^b (.82)	1.09 ^{a,b} (1.81)	.53 (.97)	11.17*
Substance use problems (0–1)	.42 (.51)	.43 (.51)	.52 (.53)	.66 (.48)	6.13
Age (years)	20.57 (2.06)	20.44 ^a (2.12)	20.98 (1.82)	21.80 ^a (2.11)	10.74*
SES: Mother's education (0–7)	3.43 ^a (2.30)	4.16 ^a (2.29)	3.57 (2.22)	3.88 (2.25)	8.41*

Where the omnibus test is significant, means in the same row that share the same superscript are significantly different between class groups based on sequential Holm–Bonferroni-corrected pairwise tests (corrected $p < .05$). Although the omnibus tests for binge drinking was significant, the corrected pairwise tests were not

* $p < .05$

Table 4 Masculinity class profile groups compared on proportion of members from each racial/ethnic category

Racial/ethnic category	Full sample (<i>n</i> = 555)	Class group			Omnibus χ^2 (<i>df</i> = 3)	
		Normative (<i>n</i> = 197) Proportion	Norm/male activities (<i>n</i> = 293)	Misogynistic (<i>n</i> = 44)		Sex focused (<i>n</i> = 21)
African American	.20	.19	.20	.22	.29	1.07
Asian American	.19	.15 ^{a,b}	.20 ^{d,e}	.43 ^{a,c,d}	.01 ^{b,c,e}	67.25***
Latino	.22	.24 ^a	.23 ^b	.08 ^{a,b}	.19	10.22*
White	.21	.21	.22	.11	.24	4.60
Multiracial/“other”	.18	.22	.16	.16	.28	2.51

Where the omnibus test is significant, means in the same row that share the same superscript are significantly different between class groups based on sequential Holm–Bonferroni-corrected pairwise tests (corrected $p < .05$). Column percents do not always add to 1.00 due to rounding

*** $p < .001$; ** $p < .01$; * $p < .05$

Many fewer men comprised the Misogynistic group (higher in traditional masculinity, hostility toward women, relationship aggression, sexual coercion, and sexual risk taking) or the Sex-Focused group (higher numbers of sexual partners but without high levels of aggression or traditional ideas about gender).

The relative size of the Normative and Normative/Male Activities groups is an important finding; men in these groups reported patterns of attitudes and behaviors that were inconsistent with or incomplete versions of “dominant” notions of masculinity. Their mean scores on the AMIRS and Hostility Toward Women scales corresponded to the “disagree” valence of these measures. These groups reported fewer lifetime sex partners, lower rates of transactional sex, and less violence than the sample average. Thus, most men in this sample did not adhere to all indicators of dominant masculinity; moreover, “normative” masculinity in this sample was more egalitarian and monogamy-oriented than hegemonic conceptualizations of masculinity would predict. In a limited way (particularly one group’s participation in male activities), this is consistent with Connell’s (2005) notion of “complicit” masculinity or the strategic borrowing of some, but not all, aspects of hegemonic masculinity, and upholds the idea that a pure hegemonic ideal is obtained (or desired) by very few men. At the same time, the rejection of most markers of traditional masculinity in these groups may not rise to the level of a “complicit” approach to manhood. Instead, these groups may reflect a wider emergence of more “inclusive,” egalitarian forms of masculinity (Anderson, 2008) previously identified through qualitative research, perhaps attributable to more heterogeneous and gender-equitable notions of gender identity emerging with this cohort of millennial young men.

Further, along with the Sex-Focused group, the Normative groups suggest that endorsing one or some aspects of “dominant” masculinity does not equate to an endorsement of this form of masculinity as a whole or its concordant risks. For example, men in the Normative/Male Activities group had high rates of gaming group membership and sports involvement,

but did not strongly endorse other aspects of traditional masculinity. Similarly, men in the Sex-Focused group did not employ coercive or disrespectful means to access sex; they fell into the “disagree” valence of the AMIRS and Hostility Toward Women scale, with low levels of abusive or controlling behavior in relationships. These findings further contradict the notion that embodying some aspects of traditional masculinity necessarily constitutes a “complicit” masculinity or inevitably generates risk. Additionally, the same indicators of masculinity clustered differentially with “risky” masculinity across different identify profiles. For example, high numbers of sexual partners coincided with endorsement of traditional masculine sexual scripts and the use of violence in the Misogynistic group, but not in the Sex-Focused group. Behaviors associated with traditional masculinity may not be equally problematic or hold the same risk across all men. Men pursue sexual encounters and relationships with a range of goals with different subsequent implications for their health and relationship quality. Although engaging in elements of stereotypical ways of being male can represent a “complicit” or even “hegemonic” approach to being male on a theoretical level, it may not reflect the intention or identity of individual men who enact them.

The disproportionate size of the two Normative groups also holds intervention implications. Previous research suggests that even relatively non-traditional men may overestimate the extent to which other men endorse more dominant conceptualizations of masculinity, and perceive that Misogynistic masculinity is normative. Fabiano, Perkins, Berkowitz, Linkenbach, and Stark (2003) found that college-age men significantly underestimated the extent to which their peers value consent in sexual relationships or would intervene in a peer’s sexual mistreatment of a woman—perceptions which constrained their own intervening behavior. It may be that although a non-dominant masculinity is normative, men still hold inaccurate pictures of what “most men” are like. Social norms interventions in which accurate normative information is provided have been

applied successfully to behaviors such as binge drinking on college campuses (DeJong et al., 2006) and willingness to intercede in male peers' disrespectful behavior (Fabiano et al., 2003). Assuring Normative groups that their more gender-equitable approach to masculinity is reflective of the majority of men may increase their confidence in their own masculine identity and empower them to interrupt the non-normative behavior of Misogynistic men.

Although small, the Misogynistic group warrants particular attention. This group scored higher on the AMIRS and Hostility Toward Women items than the other groups, in ranges that correspond to the “agree” valence. They reported high rates of violence; their frequency of using physical abuse with female partners was twice as high or more than other groups and they reported committing at least two different kinds of sexual assault on average. Echoing past research, this suggests that a relatively small group of men are responsible for the most serious forms of sexual violence against women (e.g., White & Smith, 2004). The co-occurring aggressive behavior and antagonistic gender ideology in this group supports the need for tailored interventions that address notions of masculinity based in hostility toward women. De-coupling ideas about appropriate masculinity from expectations of dominance over women is an aspect of “gender transformative” interventions, which aim to broaden participants' notions of healthy masculinity. The World Health Organization (2007) recently concluded that a “gender-transformative” approach is a critical element of effective HIV prevention and violence prevention programs; such an approach may be especially relevant to men in the misogynistic group. Given the violence and sexual health risk associated with this group, it is crucial to better understand potential antecedents and early modifiable risk factors associated with this masculinity profile.

Finally, the overall patterns detected here underscore the need to reevaluate what is constructed as “dominant” masculinity and how it is related to observed enactments of masculine identities. In this sample, most attitudes and behaviors historically associated with dominant masculinity were relatively *non-normative*. As in many other examinations of masculinity (for review, see Courtenay, 2000), and consistent with gender theory (e.g., Connell, 2005), we relied on indicators of traditional or hegemonic masculinity for understanding the patterns of ways that men actualize their masculine identities. In future research, it is important to add a broader spectrum of attitudes and behaviors to understand how men define themselves as men, such as attitudes related to fatherhood, friendship, gender equity, health issues, and cultural factors.

Masculinity Profiles, Sexual and Substance Use Indicators, and Demographic Factors

The second goal of this analysis was to examine whether patterns of masculine identities mapped onto substance abuse and sexual risk outcomes. Men in the Misogynistic group were

more likely than men in the two Normative groups to have caused a pregnancy (an outcome reported as generally undesirable among participants), and reported STI diagnoses at 3–4 times the rate of the Normative groups, although this difference was not statistically significant. Substance use problems did not vary across these groups. As a whole, these findings provide preliminary, but mixed evidence that particular “types” of masculinity are associated with greater risk for sexual behavior-related outcomes. Sex-related risks may be most relevant at this age; costs of substance use or other health behaviors may not have had time to manifest. There were also limited health-related measures in the larger study from which data were drawn. While limited evidence of health-related associates of masculinity profiles were documented here, the aforementioned social norms-based and gender-transformative interventions are relevant to addressing men's sexual risk behaviors and outcomes; these interventions could work to both highlight the normativity of respectful and sexually safe approaches to sexual relationships and to challenge links between notions of masculinity and behaviors that increase exposure to STIs.

A final aim of this analysis was to examine whether social locators, including age, race/ethnicity, and socioeconomic status, were differentially distributed across masculine identity patterns. Limited differences were found; these included a slightly higher average age among the Sex-Focused group and higher maternal educational achievement among the Normative/Male Activities groups. Minimal differences were found across racial groups, suggesting that the factors used in these analyses as indicators of masculinity may be relevant reference points across racially and economically diverse populations.

There were two exceptions to this low level of difference across racial groups. Latino men were under-represented in the Misogynistic group, while Asian-American men were over-represented in this group and virtually absent from the Sex-Focused group. This latter finding is consistent with previous research suggesting that college-age Asian-American men report more “traditional” gender role beliefs and rape-supportive attitudes than white college men (Koo et al., 2012), which Koo et al. suggest may reflect underlying patriarchal values across diversity in Asian and Asian-American ethnic and cultural groups. Asian and Asian-American men are often under-represented in masculinities research (Liu & Iwamoto, 2007); the clustering of a small proportion of Asian-identified men in this high-risk masculinity group suggests the importance of ensuring that Asian-American men are included in future research. The heterogeneity among Asian Americans in this sample (which likely included men of Chinese, Japanese, Korean, South Asian, and Pacific Island descent) mandates caution in attributing “cultural” explanations. At a minimum, the findings reinforce the importance of understanding masculine identities with an intersectional approach that includes race and class, and the need to include culturally relevant indicators of masculinity. Identifying context or culture-specific indicators or moderators of gender identity remains an

important dimension of future research and of understanding both masculine identity profiles and their relationship to health and sexual behaviors.

Limitations

Limitations involved sample characteristics and available measures. This study included only internet users. Although the vast majority of young men are regular internet users (Pew Internet & American Life Project, 2013), and Facebook membership mirrors the racial/ethnic composition of the U.S. population (Chang, Rosenn, Backstrom, & Marlow, 2010), findings may not be generalizable to all young men. The small number of health-related items available circumscribed the extent to which it was possible to examine a range of health outcomes, and the relatively small size of two of the masculinity profiles may have reduced statistical power to detect between-class differences on these outcomes. Additionally, the items from the Hostility Toward Women and Monogamy and Emotion scales performed poorly in this sample with Cronbach's alphas under .70, and although the AMIRS scale was chosen for its developmental relevance to the young men in this sample, it has not yet been widely used outside of adolescent populations. As noted above, future research should include an expanded array of indicators of both masculine identities, and health- and sex-related outcomes.

Conclusions

These findings extend previous efforts to theorize and describe different masculinities, which have been mostly qualitative and conceptual, with a person-centered, quantitative exploration. The patterns of masculinity identified here support the notion that very few young men in the U.S. embody (or strive to embody) a purely traditional masculine ideal, and suggest that conceptualizations of more inclusive, egalitarian forms of masculinity previously surfaced in local contexts may be more broadly applicable. At the same time, identity types did evidence clear differences around the use of violence, demanding continued interventive attention to severing links between some notions of masculinity and the use of aggression, particularly toward women. Such work holds promise for understanding and influencing the development of masculinities that support health and well-being among both men and women.

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