

MASCULINITY, GENDER STEREOTYPES AND DOCTOR PREFERENCE

by

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## ABSTRACT OF THE THESIS

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When men are forced to choose between a male or female doctor, men overwhelmingly choose the male. Prior research implicates gender beliefs in exacerbating bias against women in many fields, including medicine. The current study explored potential mediators of the association between gender beliefs and (1) male doctor preference and (2) masculine trait preference. Male participants (N = 152) completed an online survey assessing beliefs about masculinity, traditional role beliefs, gender competence stereotypes, medical competence stereotypes, preference for masculine doctor traits, and preference for male doctors. I hypothesized masculinity as a mediator of traditional role beliefs on male doctor preference (model 1) and masculine doctor traits (model 2). In the same model, respectively, I hypothesized competence stereotypes (gender and medical) as mediators of masculinity beliefs on male doctor preference (model 1) and masculine doctor traits (model 2). Results from structural equation modeling suggested medical competence stereotypes mediated the effect of gender beliefs (both traditional

role beliefs and masculinity beliefs) on male doctor preference, but neither gender belief (traditional role beliefs and masculine gender belief) mediated the effect of the other gender belief on male doctor preference (i.e., traditional role beliefs did not mediate masculinity to male preference nor did masculinity mediate traditional role beliefs on male preference). Gender beliefs did not predict gender competence stereotypes and these stereotypes failed to predict male doctor preference. No significant predictors emerged for masculine trait preference. Implications for male doctor preference and men's health are discussed.

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## **Introduction**

Bias against women is present across many fields particularly science and medicine (Coombs & King, 2005; Day, Norcini, Shea, & Benson, 1987; Ellemers, van den Heuvel, de Gilder, Maass, & Bonvini, 2004; Guimond & Roussel, 2001; Moss-Racusin, Dovidio, Brescoll, Graham, & Handelsman, 2012; Nosek, Banaji, & Greenwald, 2002). Prior research demonstrates both masculinity beliefs and traditional role beliefs exacerbate these biases (Connell & Messerschmidt, 2005; Jost & Kay, 2005; Kilianski, 2003; Rudman & Kilianski, 2000; Wade, 2008) which may extend to doctor preference. When forced to choose, men are much more likely to choose a male doctor over a female doctor (Ackerman-Ross & Sochat, 1980; Kerssens, Bensing, & Andela, 1997). Three potential mechanisms may explain men's preference for male doctors: traditional role beliefs, beliefs about masculinity, and gender competence stereotypes. Figure 1 proposes a model in which masculinity beliefs mediate the predicted relationship between traditional role beliefs and male doctor preference. In turn, gender competence stereotypes are expected to mediate the relationship between masculinity beliefs and male doctor preference.

### **Traditional Role Beliefs**

Traditional gender roles begin forming in childhood through a gender role socialization process in which parental views of gender are transferred to children (Eagly, Wood, & Diekmann, 2000; Eccles, Jacobs, & Harold, 1990). Traditional role beliefs refer to prescriptive beliefs about appropriate behavior for men and women and include less progressive attitudes toward women's rights and roles. Traditional role beliefs both originate from and reflect an emphasis on traditional divisions of labor (e.g., men should

be the primary breadwinners and women the primary caretakers in the family: Eagly & Mladinic, 1994; Eagly et al., 2000). Women as doctors do not fit with traditional role beliefs because doctors hold positions of power and authority (Eagly, 1987; Rudman & Kilianski, 2000). When people associate men with positions of high authority and women with positions of low authority, negative attitudes toward women in authority positions follow (Rudman & Kilianski, 2000). In addition, Jost and Kay (2005) found priming individuals with gender stereotypes entrenched in traditional roles (e.g., women are communal) caused increased system justification (i.e., defending the status quo) compared to non-primed participants. Findings from these studies suggest belief in traditional roles should be associated with preference for male doctors in the proposed model because (1) doctors hold positions of power (2) positions of power are associated with men and (3) reminding individuals of gender stereotypes reifies belief in the status quo.

### **Masculinity Beliefs**

Men who endorse traditional gender roles are also likely to hold masculinity beliefs (Thebaud, 2010). Masculinity beliefs refer to beliefs that men should be independent or self-reliant, dominant, non-emotional, and successful (Connell & Messerschmidt, 2005; Thompson & Pleck, 1986). As with traditional role beliefs, masculinity beliefs are entrenched in sexism (Kilianski, 2003). In fact, beliefs that men should never behave in a feminine manner (anti-femininity in men) comprise subscales involved in the measurement of masculinity identity and norms (Mahalik et al., 2003; Thompson & Pleck, 1986). One theory behind the denigration of femininity seen in masculinity beliefs is exclusive masculine identity (see Kilianski, 2003). Exclusive

masculine identity involves assigning feminine traits to one's undesired self (i.e., I do not want to be "x") and exclusively masculine traits to one's ideal self. Killianski (2003) found that men high on exclusive masculine identity showed negative attitudes toward both women and gay men. Likewise Wade (2008) found associations between masculinity, sexism, and likelihood to sexually harass women.

In the hypothesized model, masculinity is proposed as a mediator of the relationship between traditional role beliefs and male doctor preference for two reasons. First, developmentally, traditional role beliefs precede masculinity beliefs (Eagly et al., 2000; Eccles et al., 1990; Fabes, Martin, & Hanish, 2003). Children as young as three (Eagly et al., 2000; Fagot, Leinbach, & Hagan, 1986) recognize gender roles assigned to men and women, whereas concepts involved in masculinity beliefs (e.g., denigrating femininity, status) emerge slightly later in childhood (Martin & Ruble, 2004). Second, hostility toward femininity in men is an essential part of masculinity beliefs (Killianski, 2003; Thompson & Pleck, 1986) that is absent from traditional role beliefs. I hypothesize the denigration of femininity seen in masculinity may exert a stronger influence on male doctor preference compared to traditional role beliefs. I expect masculinity beliefs to be the mediator because they are based upon denigration of femininity rather than the belief that women are simply ill-suited for the position compared to men.

### **Gender Stereotyping**

One aim of this research was to examine the stereotypes that drive male doctor preferences and whether such stereotypes can account for the relationships between traditional role beliefs, masculinity, and doctor preferences (see Figures 1). Women are

stereotyped as care-givers who exude communality and warmth (Prentice & Carranza, 2002; Rudman, Moss-Racusin, Phelan, & Nauts, 2012). While these beliefs hold for women in traditional roles, non-traditional women (e.g., female doctors) are not viewed as positively (see Fiske, Cuddy, Glick, & Xu, 2002; Fiske, Xu, Cuddy, & Glick, 1999). Women who fill non-traditional roles in the workplace or who violate traditional gender roles (e.g., agentic women) face backlash and discrimination (Rudman & Fairchild, 2004; Rudman & Glick, 2001; Rudman et al., 2012). When compared to men, women are perceived as less likely to succeed in male-dominated occupations (Burgess & Borgida, 1999) because they are seen as less competent than men (Fiske et al., 1999; Prentice & Carranza, 2002).

Beliefs about women's incompetence are likely exacerbated in the field of medicine because women are viewed as inferior to men in fields related to math and science (Ellemers et al., 2004; Guimond & Roussel, 2001; Moss-Racusin et al., 2012; Nosek et al., 2002). For example, international faculty members rated female students seeking doctoral degrees in science as less committed to their work compared to their male counterparts, despite the fact that no gender difference emerged in students' self-ratings (Ellemers et al., 2004). Further, when science faculty were randomly assigned to rate an identically described male versus female applicant for a lab manager position, the male applicant was rated as more competent and more hireable; male applicants were offered higher ratings for starting salary and more mentoring opportunities compared with female applicants (Moss-Racusin et al., 2012). During medical residency female residents are rated slightly lower than male residents in medical competence (Day et al., 1987). In a survey of physicians a large portion of doctors (53.6% male and 46.4%

female) admitted gender discrimination in medicine is a continued problem; most female physicians experiencing discrimination reported experiencing discrimination from more than one group of colleagues (e.g., administrators, nurses: Coombs & King, 2005). In sum, gender bias is well-documented in science-related fields and in medicine specifically. The present study explores whether such bias is positively related to masculinity beliefs, and whether it extends to male doctor preferences (i.e., health-related choices).

### **Doctor Preferences**

Masculinity and traditional role beliefs may impact men's health through doctor preference. Specifically, men endorsing masculinity beliefs may view medicine as a career less suited to women than men, and female doctors as less competent than their male colleagues. To my knowledge there is no research investigating the role of masculinity, traditional role beliefs or gender competence in choosing a medical professional. Instead, prior work has focused on gender as a main effect influencing doctor preferences, and the evidence is mixed. The most consistent pattern suggests that women prefer female over male doctors (Ackerman-Ross & Sochat, 1980; Franks & Bertakis, 2003; Schmittdiel, Grumbach, Selby, & Quesenberry, 2000) across multiple ethnic groups (Garcia, Paterniti, Romano, & Kravitz, 2003). Although there is some evidence that males prefer male over female doctors (Fennema, Meyer, & Owen, 1990; Kerssens et al., 1997), other studies find men report no preference for a male or female doctor (Ackerman-Ross & Sochat, 1980; Graffy, 1990; Schmittdiel et al., 2000). Nonetheless, behavioral research shows a compelling pattern of decision making. Despite indicating no explicit preference, only 27 percent of men chose a female doctor when

given the choice between a man or woman (Ackerman-Ross & Sochat, 1980; Graffy, 1990) and Fennema and colleagues (1990) found an even lower percentage of men choosing female doctors (12 percent). Although both genders may show gender-bias when choosing doctors because they feel more comfortable discussing their bodies with same-sexed doctors, there is some evidence that for men, sexism may be involved in the choice. In one study examining gender preference for physicians in multiple medical fields, Kerssens and colleagues (1997) find men prefer male doctors overall, but they especially prefer male doctors in the high-status fields of neurology and surgery. When indicating why they preferred a male or female doctor, men reported believing males are more likely to exhibit technical competence related to medicine (Fennema et al., 1990). These findings suggest choice of a male health professional may be related to competence stereotypes about men and women and therefore, biased.

Interestingly, findings from focus groups indicate that men and women describe stereotypically feminine qualities as important for primary care physicians to possess (Garcia et al., 2003). Although neither study explicitly mentioned femininity, qualities described as important included the ability to listen, be genuine and warm. Interestingly, Schmittiel, Grumbach, Selby and Quesenberry(2000) found that despite men indicating no preference for female or male doctors, of all patient groups (men who saw men, women who saw men, men who saw women and women who saw women) men seeing female doctors reported the largest satisfaction ratings. Ironically, some men may be denying themselves health care from female doctors who provide very satisfactory medical experiences.

## Overview of Present Study

The present study furthers the literature on masculinity and health by examining the relationships between traditional role beliefs, masculinity, and gendered competence stereotypes (e.g., men are more competent than women; male doctors are more competent than female doctors) as predictors of male doctor preference (model 1) and masculine doctor trait preference (model 2: see Figure 1). As shown in Figure 1, the present study tests a multiple mediation model in which masculinity mediates the relationship between traditional role beliefs and male doctor preference (H1). Gender stereotypes suggest women are less competent than men in general and in medicine specifically; therefore, gendered competence stereotypes are expected to mediate the relationship between masculinity and male doctor preference (H2). The same model is tested for masculine doctor trait preferences in which masculinity mediates the relationship between traditional role beliefs and preference for masculine traits in doctors (H3) and gendered competence stereotypes mediate the relationship between masculinity and preference for masculine traits in doctors (H4). Because the traditional role belief system likely encourages the internalization of masculinity among men through gender role socialization processes, the model tests traditional role beliefs as the antecedent of masculinity. Alternatively, masculinity beliefs may encourage changes in traditional role beliefs as males enter adulthood and take on the prescribed gender roles. Thus, an alternative causal model was also tested wherein masculinity precedes traditional role beliefs replacing it as the mediator (that is, traditional role beliefs mediates masculinity on doctor preferences and gendered competence stereotypes mediate traditional role beliefs on doctor preferences; see Figure 1).

## Method

### Participants

Men living in the continental United States who reported English fluency were eligible for participation in this study. All participants were recruited from Mechanical Turk. One hundred and sixty-four individuals consented to participate in the study. Of those, one (0.61%) failed a reading manipulation check (see Oppenheimer, Meyvis, & Davidenko, 2009) in which participants were asked, twice, to select a specific answer (e.g., “Please choose the option “rarely” below”). An additional nine (5.48%) participants dropped out of the survey after completing less than 15 percent of the questions. Two participants dropped out of the survey after completing 50 to 75 percent of the questions, but were missing too many items for scale scores to be computed on multiple variables used in the models. Thus, in total, 12 (7.3%) consenting participants were excluded from analysis leaving a remaining sample of 152 respondents.

Participants ranged in age from 18 to 72 ( $M = 33.93$ ,  $SD = 13.07$ )<sup>1</sup>. Three-quarters ( $n = 111$ , 73%) of the sample identified as White, 15 (9.9%) as Black, 10 (6.6%) as Hispanic or Latino, 12 ( $n = 7.9\%$ ) as Asian and 4 (2.6%) as other (2 Native American, 1 Middle Eastern, 1 Multiracial). Participants rated household income on a 14-point scale ranging from 1 (less than \$15,000) to 14 (greater than \$200,000). Mean household income was 5.40 representing a mean of \$40,000 to 60,000 annually ( $SD = 3.27$ ). The majority of the sample ( $n = 146$ ; 96.1%) identified as heterosexual, 3 (2.0%) as homosexual, 2 (1.3%) as bisexual and 1 (0.7%) as unsure.

## Materials & Procedure

**Procedure.** Mechanical Turk workers responded to an advertisement for a study of perceptions and health for men and were paid \$0.50 in exchange for completing the 20 to 30 minute online survey. After confirming eligibility requirements (male, country of residence, language) and indicating informed consent, participants completed an attention check which asked them to select a specific response (see Oppenheimer et al., 2009). If participants answered the first question incorrectly a message prompted them with the following: “You just answered a question incorrectly. We want to make sure you are reading and paying attention.” A second attention check followed. If they failed the second question the survey ended. Following the reading check participants completed the measures described below in a random order. At the mid-point, participants completed a second attention check identical to the first in format, but asked participants to select a different answer. After answering demographic questions (age, race, income, and sexual orientation), participants received a code which they used to redeem their payment.

**Traditional Role Beliefs.** Questions about traditional role beliefs comprised 20 items from the Gender Role Beliefs Scale developed by Kerr and Holden (1996). Participants rated items on a scale ranging from 1 (strongly agree) to 5 (strongly disagree). Example items included “Swearing and obscenity is more repulsive in the speech of women than men” and “There are some professions and types of businesses that are more suitable for men than women.” Scores ranged from 1.00 to 4.60 ( $M = 2.82$ ,  $SD = 0.62$ ,  $\alpha = 0.89$ ).

**Masculinity Beliefs.** Participants completed two measures of masculinity (Male Role Norms Scale: Thompson & Pleck, 1986; precarious manhood: Vandello, Bosson, Cohen, Burnaford, & Weaver, 2008) described in detail below.<sup>2</sup> All three subscales of the Male Role Norms Scale (see below for details) and precarious manhood were used as indicators on a latent variable of masculinity beliefs using precarious manhood as the marker variable. Though modeling software (Mplus: Muthén & Muthén, 2010) provides significance tests and factor loadings for all latent variables (i.e., a larger constructed variable made up of multiple measurements), I ran an initial principal components analysis to confirm these scales could be combined. The principal components factor analysis yielded a single factor accounting for 71.04% of the variance in masculinity with factors ranging from 0.90 – 0.88.

**Precarious Manhood.** Precarious Manhood included six items adapted from Vandello and colleagues (2008) and implemented successfully in prior research (Kroeper, Sanchez, & Himmelstein, 2014). Possible responses ranged from 1 (strongly disagree) to 5 (strongly agree). An example item was, “It’s fairly easy for a man to lose his status as a man.” Scores ranged from 1.00 to 5.00 ( $M = 2.95$ ,  $SD = 0.81$ ,  $\alpha = 0.79$ ).

**Male Role Norms Scale.** Participants completed 26 items comprising three subscales of the Male Role Norms Scale developed by Thompson and Pleck (1986). Participants rated each item on a scale of 1 (strongly disagree) to 5 (strongly agree). The toughness subscale included eight items (e.g., “When a man is feeling a little pain he should try not to let it show very much”); scores ranged from 1.00 to 5.00 ( $M = 3.09$ ,  $SD = 0.75$ ,  $\alpha = 0.80$ ). The status subscale included 11 items (e.g., “Success in his work has to be man’s central goal in this life”); scores ranged from 1.00 to 5.00 ( $M = 3.37$ ,  $SD =$

0.77,  $\alpha = 0.87$ ). The antifemininity subscale included 7 items (e.g., “It is embarrassing for a man to have a job that is usually filled by a woman”); scores ranged from 1.00 to 4.86 ( $M = 2.63$ ,  $SD = 0.86$ ,  $\alpha = 0.83$ ).

**Gendered Competence Stereotypes.** Gendered competence stereotypes included two measures described in detail below. Given doctor preferences are observed behaviorally when individuals are forced to choose (Ackerman-Ross & Sochat, 1980; Kerssens et al., 1997), both competence measures employed a forced choice scale (i.e., choose women or men, there is no neutral middle point). The first measure concerned general stereotypes related to whether participants believed men or women were more competent. The second measure, medical competence, examined whether participants believed men or women were more competent in medicine specifically. The measures were considered separately because they did not load onto a single latent variable in the model<sup>3</sup>.

General Competence.<sup>4</sup> Participants rated the extent to which traits associated with competence (e.g. “Competent” and “Efficient”) were more typical of women or men on a scale of 1 (more typical of men) to 6 (more typical of women). Items were reverse coded, so higher scores reflected the belief that men are more competent. Competence traits included items from work on stereotype content (Fiske, Cuddy, & Glick, 2007). Principal Component factor analysis reduced competence to four items (clever, competent, intelligent and knowledgeable) loading on a single factor accounting for 57.47 percent of the variance in competence (see Table 1). Factor loadings ranged from 0.66 to 0.87; scores ranged from 2.00 to 6.00 ( $M = 3.60$ ,  $SD = 0.79$ ,  $\alpha = 0.74$ ).

Medical Competence. The second aspect of gendered competence focused on doctor competence using 15 items from Mavis, Vasilenko, Schnuth, Marshall and Jeffs (2005) and Day, Norcini, Shea and Benson (1987). Sample doctor competence skills included “Identifying my medical issue” and “Being an expert in my particular problem.” Participants rated each item on a scale of 1 (female doctors are better at this skill) to 6 (male doctors are better at this skill) with higher scores reflecting belief that men are more competent in medicine. Principal Components Factor analysis using varimax rotation eliminated items loading strongly (i.e. loading at 0.5 or higher, see Tabachnick & Fidell, 2001) on more than one factor and reduced the items to a single factor (see Table 1) explaining 57.74% of the variance in medical competence. The factor comprised four items associated with having a pleasant bedside manner (e.g., “being able to explain medical issues clearly to me”); factor loadings ranged from 0.73 to 0.81; scores ranged from 1.00 to 6.00 ( $M = 3.25$ ,  $SD = 0.90$ ,  $\alpha = 0.75$ ).

**Masculine Doctor Traits.** Participants rated how desirable gender-related traits were in a doctor using a scale of 1 (very undesirable) to 5 (very desirable). The traits consisted of 20 items comprising the masculinity and femininity subscales of the Bem Sex Roles Inventory (BSRI) developed by Bem (1974). Principal Component factor analysis using varimax rotation eliminated items loading strongly (i.e. loading at 0.5 or higher, see Tabachnick & Fidell, 2001) on more than one factor and yielded four factors<sup>5</sup> explaining 54.55% of the variance in desired doctor traits. Only one of the masculinity factors was used in the model, because it was most relevant to the medical context. The factor used in the model included four items (see Table 1) with loadings ranging from 0.63 to 0.84; scores ranged from 1.75 to 5.00 ( $M = 3.99$ ,  $SD = 0.67$ ,  $\alpha = 0.71$ ).

**Male Doctor Preference.** Among other filler items about doctor preferences (e.g., “How important is it for you to have a doctor of your same race?”), gendered doctor preference consisted of two questions assessing the importance and preference of having a male doctor. Items were rated on a scale of 1 (not at all important/ preferable) to 5 (very important/ preferable). Scores on male doctor preference ranged from 1.00 to 5.00 ( $M = 2.47$ ,  $SD = 1.16$ ,  $\alpha = 0.92$ ).

### **Data Analysis**

Given the results of the initial factor analyses, two modified hypothesized models and two alternate models (see Figure 2) were tested. The proposed paths in the model were not changed and the constructs were similar to the proposed model with the following changes. First, precarious manhood and all subscales from the Male Role Norms Scale (toughness, antifemininity, status) served as a single latent masculinity variable. Gendered medical competence and gendered competence did not load highly on a single latent variable of competence. Thus I included each measure of competence (general competence, medical competence) as a separate scaled variable in each model. The alternate models used the same variables, but masculinity and traditional role beliefs changed places (i.e., traditional role beliefs became the mediator in the alternate model). In terms of model fit, following Kline (2011), a good model should meet the following criteria: non-significant chi-square test of model fit, Root Mean Square Error of Approximation (RMSEA) less than or equal to 0.08, a Comparative Fit Index (CFI) greater than or equal to 0.90 and a Tucker Lewis Index (TLI) greater than or equal to 0.90. To determine the best model in each set (hypothesized or alternate) I compared the

Akaike Information Criterion (AIC) and the Bayesian Information Criterion (BIC) for each set of models. The best models had smaller value on both tests.

To test for individual mediators in each model I used the bootstrapping method (Hayes, 2009) by the bootstrapping option in Mplus (Muthén & Muthén, 2010) to generate confidence intervals for each indirect effect in my model.

## Results

Correlations between all variables included in the model may be found in Table 2.

### Male Doctor Preference

**Models.** Both the hypothesized model ( $\chi^2 (17) = 25.14$ , ns; RMSEA = 0.06 (0.00, 0.10); CFI = 0.98; TLI = 0.97) and the alternate model ( $\chi^2 (17) = 26.17$ , ns; RMSEA = 0.06 (0.00, 0.10); CFI = 0.98; TLI = 0.96) fit well to data (see Figure 3) and yielded similar results. In the hypothesized model, as expected, traditional role beliefs predicted masculinity, masculinity predicted medical competence stereotypes and medical competence stereotypes predicted male doctor preference. Unexpectedly, masculinity and traditional role beliefs did not predict general competence stereotypes, and, general competence stereotypes did not directly predict male doctor preference. Paths in the alternate model yielded similar results with masculinity predicting traditional role beliefs, traditional role beliefs predicting medical competence stereotypes and medical competence stereotypes predicting male doctor preference. The relationship between masculinity and medical competence stereotypes ( $\beta = 0.22$ , SE = 0.08,  $p = 0.007$ ) was slightly stronger than the relationship between traditional role beliefs and medical competence stereotypes ( $\beta = 0.19$ , SE = 0.08,  $p = 0.013$ ). The AIC (hypothesized: 2,301.15, alternate: 2,591.90) and BIC (hypothesized: 2,376.58, alternate: 2,673.36) were smaller in the hypothesized model implicating the hypothesized model as the superior model.

**Mediations.** I did not examine general competence stereotypes as a mediator because none of the predicted factors successfully predicted general competence

stereotypes. Using bootstrapping in the full model, the 95 percent confidence interval for masculinity as a mediator included zero (-0.39, 0.59) while the 95 percent confidence interval for medical competence as a mediator did not (0.15, 0.53). These results suggest masculinity is not a mediator between traditional role beliefs and male doctor preference because the confidence interval contains zero suggesting no indirect relationship. Bootstrapping suggests medical competence has a significant indirect effect on male doctor preference.

I conducted two follow-up mediation analyses on the alternate model to determine whether (1) traditional role beliefs mediated the relationship of masculinity on male doctor preference and (2) whether medical competence stereotypes mediated the relationship of traditional role beliefs on male doctor preference. Using bootstrapping in the full model, the 95 percent confidence interval for traditional role beliefs as a mediator included zero (-0.15, 0.84) while the 95 percent confidence interval for medical competence as a mediator did not (0.16, 0.53). Bootstrapping suggests traditional role beliefs is not a mediator but medical competence stereotypes does act as a mediator of the traditional role beliefs on male doctor preference.

### **Masculine Doctor Trait Preference**

**Models.** Neither the hypothesized model ( $\chi^2 (17) = 41.60, p < 0.001; RMSEA = 0.10 (0.06, 0.14); CFI = 0.94; TLI = 0.90$ ) nor the alternate model ( $\chi^2 (17) = 42.61, p < 0.001; RMSEA = 0.10 (0.06, 0.14); CFI = 0.94; TLI = 0.89$ ) fit well to data (see Figure 4). In the hypothesized model traditional role beliefs predicted masculinity and masculinity predicted medical competence. No other paths were significant. The alternate

model yielded similar results with masculinity predicting traditional role beliefs and traditional role beliefs predicting medical competence. No other paths were significant.

**Mediations.** I did not examine potential mediations in either model of masculine doctor traits because none of the hypothesized variables successfully predicted preference for masculine doctor traits.

## Discussion

The current study examined multiple mediation models testing direct and indirect effects of masculinity, traditional role beliefs and gender competence stereotypes on male doctor preference and masculine doctor trait preference. The hypothesized model (i.e., traditional role beliefs precede masculinity) was a better fit to the data compared the alternate model (i.e., masculinity precedes traditional role beliefs). Both the hypothesized and alternative models suggested medical competence stereotypes indirectly affected male doctor preference by encouraging beliefs that men make better doctors. Contrary to hypotheses the hypothesized model did not yield masculinity as a mediator of traditional role beliefs on male doctor preference and the alternate model did not yield traditional role beliefs as a mediator of masculinity on male doctor preference. The proposed models of masculine doctor traits did not fit well to do the data and failed to predict masculine doctor traits successfully.

Prior literature demonstrates gender related health disparities are driven in part by gender differences in lifestyle, risk-taking and care seeking related to healthcare (Addis & Mahalik, 2003; Courtenay, 2000, 2003; Sandman, Simantov, An, Fund, & Harris, 2000). Theorists point to gender role socialization as the driving force behind these differences independent of biology (Addis & Mahalik, 2003; Courtenay, 2000, 2003). Traditional role beliefs are implicated in driving several gender-related health disparities including poor diet, lack of exercise, risk taking (e.g., not wearing a seatbelt), substance use, negative attitudes toward care seeking and delay of care (Eisler, Skidmore, & Ward, 1988; Good, Dell, & Mintz, 1989). Masculinity, like traditional role beliefs, is implicated in driving gender related health disparities and negative overall physical and

psychological health in men (Courtenay, 2000). avoidance of healthcare (Mahalik, Burns, & Syzdek, 2007; Mahalik, Lagan, & Morrison, 2006) and refusal to seek care (Mahalik et al., 2007, 2006; Springer & Mouzon, 2011). Traditional role beliefs and masculinity also act on health by discouraging help-seeking and providing a false sense of normativity in seeking care (Addis & Mahalik, 2003). Men withhold health-related symptoms decrease health-promoting behaviors when they fear disparagement or backlash from their reference group (Addis & Mahalik, 2003; Mahalik et al., 2007).

Prior research suggested women prefer female doctors (Ackerman-Ross & Sochat, 1980; Franks & Bertakis, 2003; Schmittdiel et al., 2000), but men admitted no explicit gender related doctor preference (Ackerman-Ross & Sochat, 1980; Graffy, 1990; Schmittdiel et al., 2000) despite choosing males over females when given an option (Ackerman-Ross & Sochat, 1980; Fennema et al., 1990; Graffy, 1990). Preference for and choice of male doctors increased as a function of field complexity (e.g., neurology, surgery: Kerssens et al., 1997), and technical skills in medicine are assumed to be higher among male doctors compared to female doctors (Fennema et al., 1990). The findings in the present study implicated men preferred male doctors when forced to choose and rated male doctors as more competent than female doctors. The current study extended the literature on masculinity and health by exposing bias in competence stereotypes which then bias medical decision making related to choosing a doctor. The results of this study suggest masculinity and traditional role beliefs may further exacerbate gender related health disparities by encouraging the belief that men are more competent than women at medicine and thus, constraining their doctor choices. Believing men are more competent than women as doctors thus encourages preference for a male doctor. Firstly, this finding

is important as it once again demonstrates that masculinity is an underpinning of sexist stereotypes and bias against women (Kilianski, 2003; Wade, 2008). Secondly, it is unclear whether masculine men are better served by male doctors. If men endorse precarious manhood beliefs, they may be less willing to be forthcoming about their health symptoms because displaying any sign of weakness operates as a threat to masculinity (Vandello et al., 2008). Men endorsing masculinity beliefs may be less willing to appear weak to other members of their in-group (men) than to women, because other men are the gatekeepers of their own perceived “manhood.” Prior research suggests that masculine men report fewer health symptoms compared with women. In general, men report fewer and less intense symptoms compared with women (Addis & Mahalik, 2003; Barsky, Peekna, & Borus, 2001; Courtenay, 2000). Reasons for differences in symptom reporting are often ascribed to gender socialization, symptom labeling, and unwillingness to acknowledge discomfort among men (Barsky et al., 2001). A recent study in our laboratory suggests that highly masculine men underreport their symptoms to male medical students when under duress (Himmelstein & Sanchez, 2014). Thus, these findings may have important implications for doctor-patient communication.

Neither masculinity nor traditional role beliefs was successful at predicting general gender related competence stereotypes, which likewise had no role in predicting male doctor preference. The lack of association between general gender-related competence stereotypes suggests it isn't that masculine men believe women are incompetent, but specifically that masculine men believe men are more competent than women in the medical field. Masculinity did not directly predict male doctor preference, although traditional role beliefs predicted male doctor preference when medical

competence stereotypes were removed from the model. Because gender role belief included questions related to professions, this finding suggests men endorsing traditional role beliefs may believe men are more competent because they don't believe women "belong" in the medical field, at least in the role of doctors.

The data failed to predict masculinity as it related doctor trait preferences although this may have been a function of the way masculine trait preferences were measured. The Bem Sex Roles Inventory does not contain traits related specifically to medicine, so may have failed to tap into a traits related to "masculine doctors." Moreover, the BSRI factor analysis yielded several different unexpected components that suggested that the BSRI may not be a useful barometer of masculinity in the medical context or ideal traits of doctors. Further research is needed to explore traits that might constitute masculinity in medicine before attempting to account for masculinity related doctor trait preferences.

The current research provides several opportunities for expansion. First, it would be useful to examine actual doctor choices in a large scale survey or in a laboratory setting. An useful follow-up study related to doctor preference could involve an experimental study asking participants to choose from a number of profiles of doctors with similar information, but manipulated gender or pictorial representations of gender. Finally, because competence stereotypes drive doctor choice an interesting follow-up study could test whether competence stereotypes can be shifted to change doctor choice or eliminate gender in choosing a physician.

While this study has several strengths it is not without weaknesses. First, though the hypothesis that medical competence would mediate the relationship between gender

beliefs and male doctor preference was supported, the construct comprising medical competence was exploratory. The results are preliminary and should be interpreted with caution until replicated. Second, this study is correlational in nature meaning direction of causality can be hypothesized, but not tested. Though both masculinity and traditional role beliefs positively affected medical competence stereotypes results remain inconclusive as to whether masculinity drives traditional role beliefs or traditional role beliefs drives masculinity. Another limitation of the current study is sampling using Mechanical Turk. Studies (Buhrmester, Kwang, & Gosling, 2011; Paolacci, Chandler, & Ipeirotis, 2010) suggest demographics of participants recruited via Mechanical Turk and other research pools are comparable. Use of Mechanical Turk for this study has several advantages. First, an online survey avoids the possibility that gender of a research assistant administering a similar survey might influence the results related to gender competence stereotypes. Though I could have conducted an online survey via the research pool, using a college sample to examine doctor choice preferences is not ideal because most college students have likely not had the opportunity to choose their doctor. Given the majority of participants in the subject pool at Rutgers are college freshman it is unlikely they have their own health insurance, have experienced multiple doctors or had the opportunity to select a doctor. Using Mechanical Turk in this sample allowed for access to an older sample with experience in the healthcare system. Finally, the results of this study demonstrate bias as a consequence of masculinity beliefs and traditional role beliefs that may be perceived as providing only incremental progress in furthering the literature as this bias has been shown in prior research in other domains (Fiske et al., 2002, 1999; Rudman & Fairchild, 2004; Rudman & Glick, 2001; Rudman et al., 2012);

however, these findings extended prior research by documenting bias in a unique domain that may have deleterious effects on men's health. Future research is needed to examine the downstream consequences of male doctor choice for masculine men.

The current study expanded upon existing literature by demonstrating masculinity and traditional role beliefs indirectly influence male doctor preference by encouraging beliefs that men make more competent doctors. Recent policy changes related to healthcare coverage will likely result in many individuals changing or modifying their health insurance. Changing insurance carriers may force a change in primary care physicians for many individuals. Understanding what goes into choosing a new doctor is useful given the current changes in our healthcare system.

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## Footnotes

<sup>1</sup>A boxplot yielded two outliers related to age (69 and 72 year old participants respectively). Removing those cases did not change the analyses, so the age outliers were included in all analyses.

<sup>2</sup>We also measured agency using the Personal Attributes Questionnaire (PAQ), described below. We excluded the PAQ from analyses for three reasons. First, while all of the masculinity measures were significantly correlated with one another, correlations between the PAQ and other masculinity measures ranged from 0.27 – 0.42. With the exception of two subscales of the Male Role Norms scale (status and antifemininity:  $r(152) = 0.49, p < 0.001$ ) intercorrelations for all other masculinity measures exceeded 0.64. Similarly, the PAQ did not load highly on a latent factor of masculinity ( $\beta = 0.42, p < 0.001$ ); all other masculinity measures loaded at 0.71 or higher. Finally, the PAQ did not correlate with male doctor preference ( $r(125) = 0.03, ns$ ), though all other measure of masculinity did. The personal attributes questionnaire agency subscale included 9 items developed by Helmreich and colleagues (1981). Each item presented two opposing attributes in a bipolar format (e.g., very passive to very active). Participants chose where they fell between each extreme using a five point rating scale. Higher scores indicated greater agency; scores ranged from 1.78 to 4.89 ( $M = 3.44, SD = 0.64, \alpha = 0.78$ ).

<sup>3</sup>The significance test provided by Mplus (Muthén & Muthén, 2010) yielded the following results for general competence and medical competence on a single latent competence factor: general  $\beta = 0.18 (0.16), ns$ ; medical  $\beta = 0.29 (0.24), ns$ .

<sup>4</sup>Participants also rated agentic traits (e.g. “Independent” and “Autonomous”) as measures of general competence. Agentic traits included seven items from the gender Implicit Association Test (Rudman & Kilianski, 2000). A Principal Component factor analysis on agentic and competence traits using varimax rotation eliminated items loading strongly (i.e. loading at 0.5 or higher, see Tabachnick & Fidell, 2001) on more than one factor and reduced the items to two factors accounting for 54.75 percent of the variance incompetence (see Table 1). Items on the first factor comprised agency (individualistic, competitive, independent, self-sufficient, autonomous) and items on the second factor comprised competence (clever, competent, intelligent, knowledgeable). When agency and competence loaded onto a latent variable in the models standardized factor loadings indicated agency ( $\beta = 1.08, SE = 0.30$ ) made a better marker variable than competence ( $\beta = 0.41, SE = 0.13$ ). Given my hypotheses were directly related to competence (belief that men are more competent than women mediates the relationship between masculinity and male doctor preference) and the relatively low latent factor loading, I eliminated agency from the models.

<sup>5</sup>Participants rated how desirable gender-related traits were in a doctor using a scale of 1 (Very undesirable) to 5 (Very desirable). The traits consisted of 20 items comprising the masculinity and femininity subscales of the Bem Sex Roles Inventory (BSRI) developed by Bem (1974). Principal Components Factor analysis using varimax rotation yielded four factors (two masculine and two feminine). In the interest of keeping the models examined to a minimum we chose to examine only one of the factors described in the text. The other three factors were as follows. Two feminine factors emerged (interpersonal skills and non-threatening femininity) explaining 57.84 percent of the variance in femininity and two masculine factors (decisiveness and machismo)

explaining 58.05 percent of the variance in masculinity. Feminine interpersonal skills (e.g., “Compassionate” and “Warm”) included five items with loadings ranging from 0.74 to 0.81; scores ranged from 2.60 to 5.00 ( $M = 4.17$ ,  $SD = 0.65$ ,  $\alpha = 0.84$ ). Non-threatening femininity (e.g., “Yielding” and “Feminine”) included three items with loadings ranging from 0.69 to 0.74; scores ranged from 1.33 to 5.00 ( $M = 2.98$ ,  $SD = 0.71$ ,  $\alpha = 0.51$ ). Masculine machismo (e.g., “Aggressive” and “Dominant”) included five items with loadings ranging from 0.56 to 0.80; scores ranged from 1.00 to 5.00 ( $M = 2.80$ ,  $SD = 0.78$ ,  $\alpha = 0.71$ ). The last factor masculine decisiveness is described in text.

Table 1.

*Factor Analyses*

	Factor Loadings
<b>Competence</b>	
Clever	0.68
Competent	0.66
Intelligent	0.87
Knowledgeable	0.81
<b>Medical Competence</b>	
Listening to me	0.76
Able to explain things clearly to me	0.73
Easy to talk to about my medical problems	0.75
Giving me lots of information about my medical problem	0.81
<b>Masculine Doctor Traits</b>	
Independent	0.79
Analytical	0.66
Makes decisions easily	0.62
Self-sufficient	0.85

Table 2.

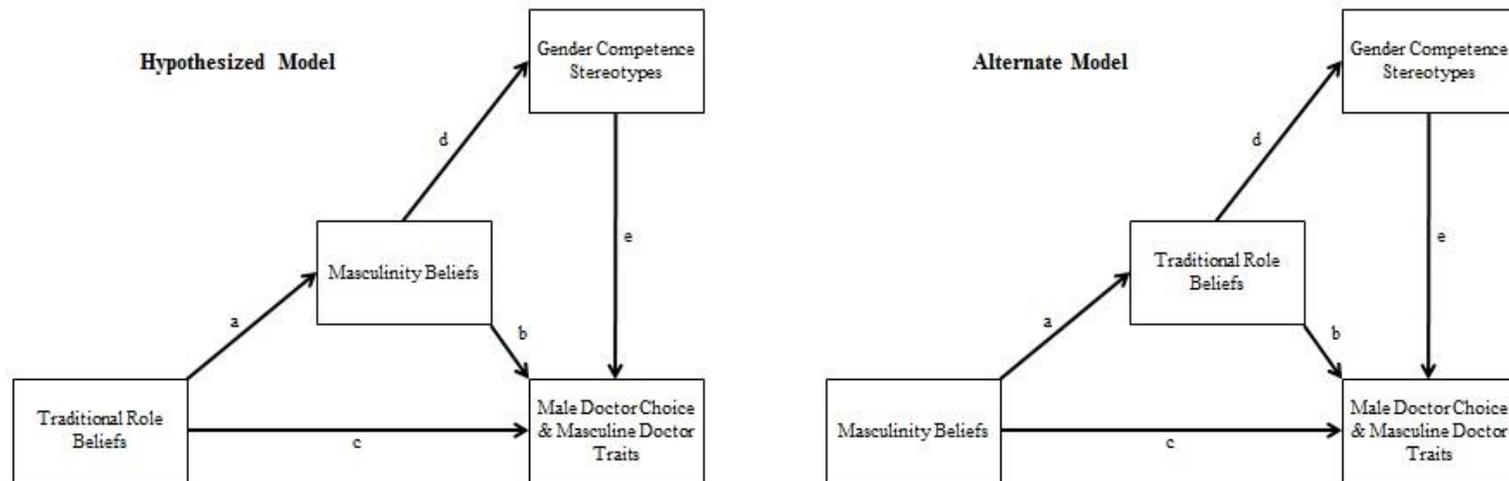
*Correlations of Variables included in the Model*

	1	2	3	4	5	6	7	8
1. Traditional Role Beliefs	-							
2. Precarious Manhood	0.59 <sup>***</sup>	-						
3. MRN Status	0.53 <sup>***</sup>	0.64 <sup>***</sup>	-					
4. MRN Toughness	0.53 <sup>***</sup>	0.69 <sup>***</sup>	0.64 <sup>***</sup>	-				
5. Anti-femininity	0.65 <sup>***</sup>	0.61 <sup>***</sup>	0.49 <sup>***</sup>	0.62 <sup>***</sup>	-			
6. General Competence	0.12	0.06	0.14 <sup>†</sup>	0.08	0.12	-		
7. Medical Competence	0.19 <sup>*</sup>	0.20 <sup>**</sup>	0.10	0.16 <sup>*</sup>	0.19 <sup>*</sup>	0.05	-	
8. Male Doctor Preference	0.30 <sup>***</sup>	0.29 <sup>***</sup>	0.13	0.20 <sup>**</sup>	0.27 <sup>***</sup>	-0.02	0.34 <sup>***</sup>	-
9. Masculine Doctor Trait Preference	-0.04	0.03	0.25 <sup>***</sup>	0.02	-0.09	0.07	-0.02	-0.06

Note.

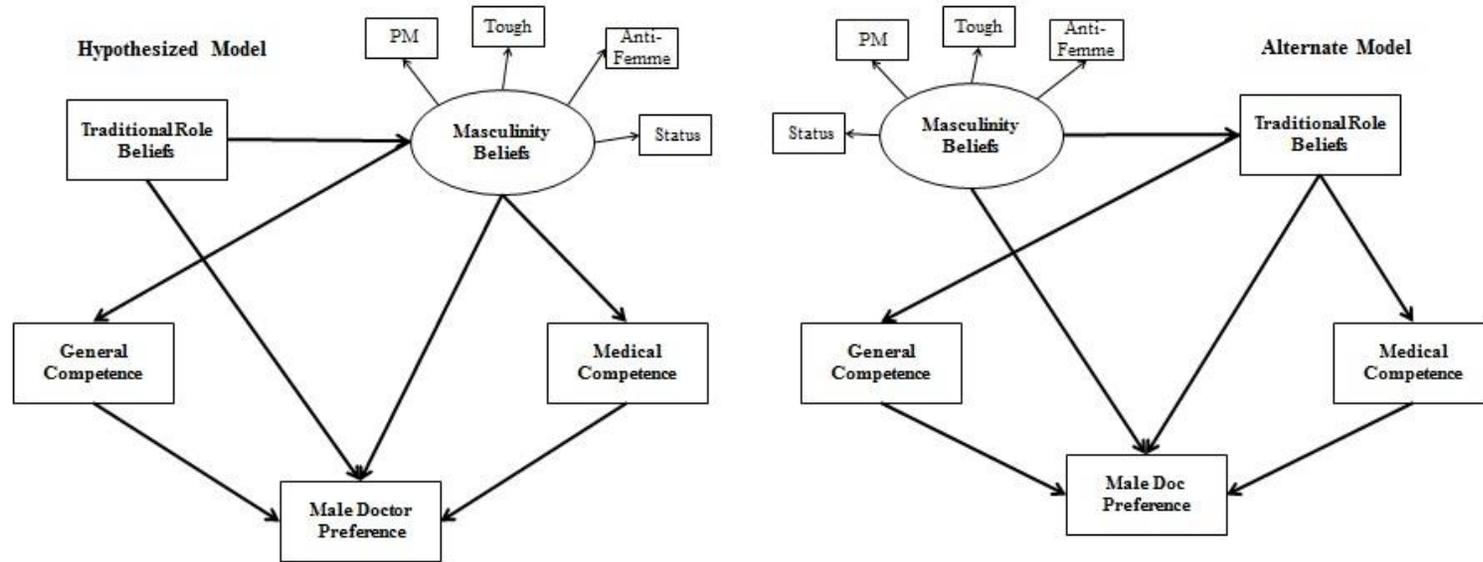
†p = 0.079. \*p < 0.05. \*\*p < 0.01. \*\*\*p < 0.001.

Figure 1.

*Proposed Models*

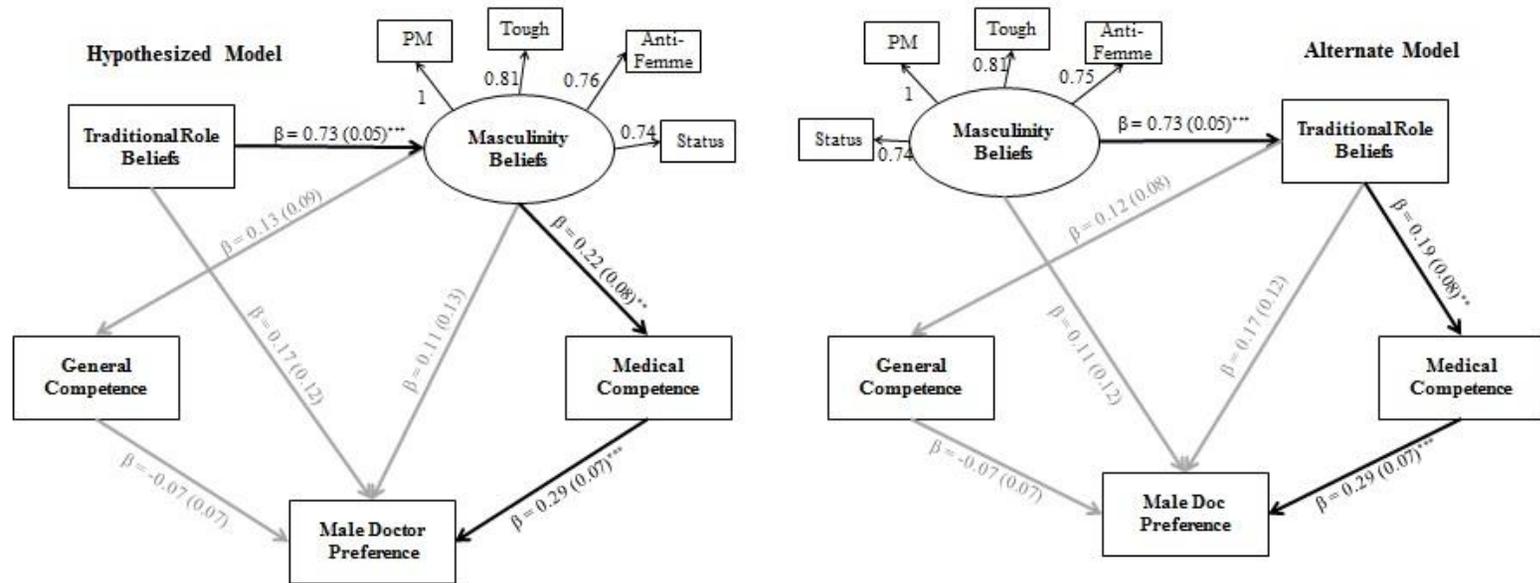
The model on the left is the original hypothesized model in which traditional role beliefs will be associated with greater male doctor preference via masculinity (mediator). Masculinity will be associated with greater male doctor preference via gender competence stereotypes (mediator). The model on the right is the original alternative model in which masculinity will be associated with greater male doctor preference via traditional role beliefs (mediator). Traditional role beliefs will be associated with greater male doctor preference via gender competence stereotypes (mediator).

Figure 2.

*Tested Models*

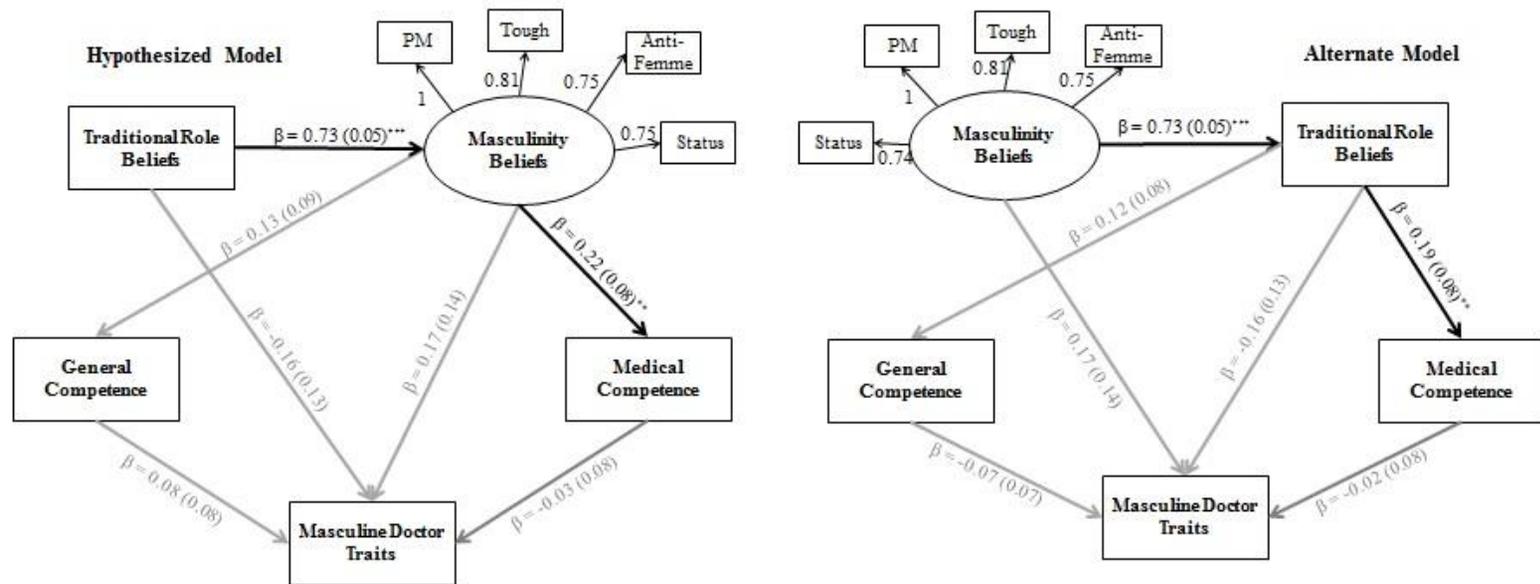
The model on the left is the revised hypothesized model in which traditional role beliefs will be associated with greater male doctor preference via masculinity (mediator). Masculinity will be associated with greater male doctor preference via general competence (mediator) and medical competence (mediator). The model on the right is the original alternative model in which masculinity will be associated with greater male doctor preference via traditional role beliefs (mediator). Traditional role beliefs will be associated with greater male doctor preference via general competence (mediator) and medical competence (mediator).

Figure 3.

*Models of Male Doctor Preference*

Both models fit well to do the data, but the hypothesized model was superior to the alternate model. Both suggest paths from gender-related beliefs (traditional role beliefs & masculinity) to medical competence stereotypes, but the relationship appears stronger for masculinity compared to traditional role beliefs. Medical competence stereotypes (i.e., belief that men make better doctors) successfully predicted male doctor preference, although gender competence (i.e., believing men are more competent than women in general) did not.

Figure 4.

*Models of Masculine Doctor Trait Preference*

Neither model fit well to do the data, but the hypothesized model was superior to the alternate model. Both suggest paths from gender-related beliefs (traditional role beliefs & masculinity) to medical competence stereotypes, but the relationship appears stronger for masculinity compared to traditional role beliefs. Neither medical competence stereotypes (i.e., belief that men make better doctors) nor gender competence (i.e., believing men are more competent than women in general) successfully predicted masculine doctor trait preference.

## Appendix A: Gender Role Beliefs Scale

	Strongly Agree			Undecided			Strongly Disagree		
	1	2	3	4	5	6	7		
It is disrespectful for a man to swear in the presence of a lady.	1	2	3	4	5	6	7		
Women should not expect men to offer them seats on buses.	1	2	3	4	5	6	7		
Homosexual relationships should be as socially accepted as heterosexual relationships.	1	2	3	4	5	6	7		
The initiative in courtship should usually come from the man.	1	2	3	4	5	6	7		
It bothers me more to see a woman who is pushy than a man who is pushy.	1	2	3	4	5	6	7		
When sitting down at the table, proper respect demands that the gentleman hold the lady's chair.	1	2	3	4	5	6	7		
Women should have as much sexual freedom as men	1	2	3	4	5	6	7		
Women should appreciate the protection and support that men have traditionally given them	1	2	3	4	5	6	7		
Women with children should not work outside the home if they don't have to financially.	1	2	3	4	5	6	7		

	Strongly Agree				Undecided		Strongly Disagree	
	1	2	3	4	5	6	7	
I see nothing wrong with a woman who doesn't like to wear skirts or dresses	1	2	3	4	5	6	7	
The husband should be regarded as the legal representative of the family group in all matters of law.	1	2	3	4	5	6	7	
I like women who are outspoken.	1	2	3	4	5	6	7	
Except perhaps in very special circumstances, a gentleman should never allow a lady to pay the taxi, buy the tickets, or pay the check	1	2	3	4	5	6	7	
Some equality in marriage is good, but by and large the husband ought to have the main say-so in family matters.	1	2	3	4	5	6	7	
Men should continue to show courtesies to women such as holding open the door or helping them on with their coats	1	2	3	4	5	6	7	
It is ridiculous for a woman to run a train and for a man to sew	1	2	3	4	5	6	7	
A woman should be as free as a man to propose marriage.	1	2	3	4	5	6	7	

	Strongly		Undecided			Strongly	
	Agree					Disagree	
Women should be concerned with their duties of childrearing and house tending, rather than with desires for professional and business careers.	1	2	3	4	5	6	7
Swearing and obscenity is more repulsive in the speech of women than men	1	2	3	4	5	6	7
There are some professions and types of businesses that are more suitable for men than women.	1	2	3	4	5	6	7

## Appendix B1: Masculinity: Precarious Manhood

	Strongly Disagree		Undecided			Strongly Agree	
	1	2	3	4	5	6	7
It's fairly easy for a man to lose his status as a man.	1	2	3	4	5	6	7
A male's status as a real man sometimes depends on how other people view him.	1	2	3	4	5	6	7
A man needs to prove his masculinity.	1	2	3	4	5	6	7
A boy needs to become a man; it doesn't 'just happen.'	1	2	3	4	5	6	7
The title of 'manhood' needs to be reserved for those who deserve it.	1	2	3	4	5	6	7
You're not a man if you don't like masculine things.	1	2	3	4	5	6	7

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## Appendix B2: Male Role Norms Scale

Please rate the following items from 1 to 5 using the scale below

	1	2	3	4	5
	Disagree	Slightly Disagree	Neither Agree nor disagree	Slightly Agree	Agree
Success in his work has to be man's central goal in this life.	1	2	3	4	5
The best way for a young man to get the respect of other people is to get a job, take it seriously, and do it well.	1	2	3	4	5
A man owes it to his family to work at the best-paying job he can get.	1	2	3	4	5
A man should generally work overtime to make more money whenever he has the chance.	1	2	3	4	5
A man always deserves the respect of his wife and children.	1	2	3	4	5
It is essential for a man to always have the respect and admiration of everyone who knows him.	1	2	3	4	5
A man should never back down in the face of trouble.	1	2	3	4	5
I always like a man who's totally sure of himself.	1	2	3	4	5
A man should always think everything out coolly and logically, and have rational reasons for everything he does.	1	2	3	4	5

Please rate the following items from 1 to 5 using the scale below

1	2	3	4	5
Disagree	Slightly Disagree	Neither Agree nor disagree	Slightly Agree	Agree
A man should always try to project an air of confidence even if he really doesn't feel confident inside.				
1	2	3	4	5
A man must stand on his own two feet and never depend on other people to help him do things.				
1	2	3	4	5
When a man is feeling pain he should not let it show.				
Nobody respects a man very much who frequently talks about his worries, fears, and problems.				
1	2	3	4	5
A good motto for a man would be "When the going gets tough, the tough get going."				
I think a young man should try to become physically tough, even if he's not big.				
1	2	3	4	5
Fists are sometimes the only way to get out of a bad situation.				
A real man enjoys a bit of danger now and then				
1	2	3	4	5
In some kinds of situations a man should be ready to use his fists, even if his wife or his girlfriend would object.				
1	2	3	4	5
A man should always refuse to get into a fight, even if there seems to be no way to avoid it.				

Please rate the following items from 1 to 5 using the scale below

1	2	3	4	5
Disagree	Slightly Disagree	Neither Agree nor disagree	Slightly Agree	Agree
It bothers me when a man does something that I consider "feminine"				
1	2	3	4	5
A man whose hobbies are cooking, sewing, and going to the ballet probably wouldn't appeal to me				
1	2	3	4	5
It is a bit embarrassing for a man to have a job that is usually filled by a woman.				
Unless he was really desperate, I would probably advise a man to keep looking rather than accept a job as a secretary				
1	2	3	4	5
If I heard about a man who was a hairdresser or a gourmet cook, I might wonder how masculine he was.				
I think it's extremely good for a boy to be taught to cook, sew, clean the house, and take care of younger children.				
1	2	3	4	5
I might find it a little silly or embarrassing if a male friend of mine cried over a sad love scene in a movie.				

## Appendix B3: Personal Attributes Questionnaire

The items below inquire about what kind of person you think you are. Each item consists of a PAIR of characteristics, with the letters A-E in between. For example,

Not at all artistic                      A.....B.....C.....D.....E                      Very artistic

Each pair describes contradictory characteristics - that is, you cannot be both at the same time, such as very artistic and not at all artistic. The letters form a scale between the two extremes. You are to choose a letter which describes where YOU fall on the scale. For example, if you think that you have no artistic ability, you would choose A. If you think that you are pretty good, you might choose D. If you are only medium, you might choose C, and so forth.

Not at all independent	A.....B.....C.....D.....E	Very independent
Very passive	A.....B.....C.....D.....E	Very active
Not at all competitive	A.....B.....C.....D.....E	Very competitive
Can make decisions easily	A.....B.....C.....D.....E	Has difficulty making decisions
Gives up very easily	A.....B.....C.....D.....E	Never gives up easily
Not at all self-confident	A.....B.....C.....D.....E	Very self-confident
Feels very inferior	A.....B.....C.....D.....E	Feels very superior
Goes to pieces under pressure	A.....B.....C.....D.....E	Stands up well under pressure
Looks out for self	A.....B.....C.....D.....E	looks out for others

## Appendix C1: Gendered Competence: General Traits

Rate the following traits in terms of their association with men and women.

	More typical of				More typical of	
	Men				women	
Individualistic	1	2	3	4	5	6
Competitive	1	2	3	4	5	6
Independent	1	2	3	4	5	6
Hierarchical	1	2	3	4	5	6
Self-Sufficient	1	2	3	4	5	6
Autonomous	1	2	3	4	5	6
Clever	1	2	3	4	5	6
Competent	1	2	3	4	5	6
Creative	1	2	3	4	5	6
Efficient	1	2	3	4	5	6
Foresighted	1	2	3	4	5	6
Ingenious	1	2	3	4	5	6
Intelligent	1	2	3	4	5	6
Knowledgeable	1	2	3	4	5	6

## Appendix C2: Gendered Competence: Doctor Traits

Which gender do you think would be best at or more competent in the following:

	Female doctors are better at this skill			Male doctors are better at this skill		
Listening to me	1	2	3	4	5	6
Being able to explain medical things clearly to me	1	2	3	4	5	6
Being easy to talk to about medical problems	1	2	3	4	5	6
Being an expert in my medical problem	1	2	3	4	5	6
Giving me lots of information about my medical problem	1	2	3	4	5	6
Taking charge of my health	1	2	3	4	5	6
Being business like and efficient	1	2	3	4	5	6
Being non-emotional	1	2	3	4	5	6
Teaching medical students	1	2	3	4	5	6
Having the most cutting edge medical knowledge	1	2	3	4	5	6
Having good clinical judgment	1	2	3	4	5	6

**Which gender do you think would be best at or more competent in the following:**

	Female doctors are better at this skill			Male doctors are better at this skill		
Giving me a comprehensive physical examination	1	2	3	4	5	6
Providing me medical care	1	2	3	4	5	6
Identifying my medical problem	1	2	3	4	5	6
Being experienced in treating my medical problem	1	2	3	4	5	6

## Appendix D: Desirable Doctor Traits

How desirable or undesirable is it for your doctor to possess the following traits?

	Very undesirable				Very desirable		
Yielding	1	2	3	4	5	6	7
Cheerful	1	2	3	4	5	6	7
Independent	1	2	3	4	5	6	7
Assertive	1	2	3	4	5	6	7
Strong personality	1	2	3	4	5	6	7
Feminine	1	2	3	4	5	6	7
Analytical	1	2	3	4	5	6	7
Sympathetic	1	2	3	4	5	6	7
Sensitive to others needs	1	2	3	4	5	6	7
Understanding	1	2	3	4	5	6	7
Makes decisions easily	1	2	3	4	5	6	7
Compassionate	1	2	3	4	5	6	7
Self-sufficient	1	2	3	4	5	6	7
Dominant	1	2	3	4	5	6	7
Soft spoken	1	2	3	4	5	6	7
Masculine	1	2	3	4	5	6	7
Warm	1	2	3	4	5	6	7
Aggressive	1	2	3	4	5	6	7

How desirable or undesirable is it for your doctor to possess the following traits?

	Very undesirable				Very desirable		
Individualistic	1	2	3	4	5	6	7
Gentle	1	2	3	4	5	6	7

## Appendix E: Gendered Doctor Preference

	Not at all			Very	
	important			important	
How important is it for you to have a female doctor?	1	2	3	4	5
How important is it for you to have a male doctor?	1	2	3	4	5
How important is it for you to have a doctor of your same gender?	1	2	3	4	5
How important is it for you to have a doctor of the opposite gender?	1	2	3	4	5
How important is it for you to have a White doctor?	1	2	3	4	5
How important is it for you to have a Black doctor?	1	2	3	4	5
How important is it for you to have an Asian doctor?	1	2	3	4	5
How important is it for you to have a Hispanic or Latino doctor?	1	2	3	4	5
How important is it for you to have a doctor who shares your race or ethnicity?	1	2	3	4	5
How important is it for you to have a doctor who appears healthy and fit?	1	2	3	4	5