Endorsement of Traditional Masculinity Ideologies is Associated With Differences in Psychotherapy Use Among Heterosexual-Identified but not Non-Heterosexual-Identified Men

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Abstract

Background: Heterosexual-identified men, as compared to non-heterosexual-identified men, are less likely to seek out psychotherapy when experiencing psychological distress. Stronger endorsement of traditional masculinity ideologies (TMI) has been reported to be associated with reduced psychotherapy use among men. However, the relationship between psychotherapy use, TMI, and sexual identity needs to be explored.

Methods: A total of 728 psychologically distressed men (59.9% heterosexual-identified, 40.1% non-heterosexual-identified) from German-speaking parts of Europe completed an online questionnaire asking about current psychotherapy use, endorsement of TMI, experienced gender role conflict, depression symptoms, and externalizing depression symptoms.

Results: In total 34.5% (N = 251) of the men were currently using psychotherapy, of which 47.4% (N = 119) identified as heterosexual and 52.6% (N = 132) as non-heterosexual. Heterosexual-identified men used psychotherapy significantly less than gay- and bisexual-identified men, while showing comparable psychological distress. Additionally, heterosexual-identified men exhibited higher endorsement of TMI across all domains and experienced more masculine gender role conflict, especially in the domains Success, Power, Competition and Restrictive Affectionate Behavior Between Men. In heterosexual- but not non-heterosexual-identified men, stronger endorsement of TMI was associated with reduced psychotherapy use.

Conclusion: Higher endorsement of TMI is linked to reduced psychotherapy use among psychologically distressed heterosexual-identified men. Thus, challenging TMI and advocating for alternative masculinities that include health promoting behavior can especially help heterosexual-identified men.

Key words: Traditional masculinity ideologies (TMI), psychotherapy, psychotherapy use, sexual identity, heterosexual, homosexual, depression, masculine gender role conflict.

Introduction

The endorsement of socialized masculine gender norms and traditional ideologies of how typical men should be, so called traditional masculinity ideologies (TMI), have been associated with low health care utilization among men who experience psychological distress (Addis & Mahalik, 2003; Levant & Powell, 2017; Seidler et al., 2016). However, conceptualization and endorsement of TMI can vary greatly depending on sociocultural factors (Levant, 2011; Levant & Richmond, 2008). Because most research focusing on men and masculinities examined predominantly heterosexual-identified men, the degree to which TMI relate to sexual minority men, who were often excluded from hegemonic conceptions of traditional gender role norms, is less clear (Sánchez, 2015; Sánchez et al., 2010). Nonetheless, associations between conformity to TMI and help-seeking behavior have been found to differ between heterosexual-identified and non-heterosexual-identified men (Vogel et al., 2011) and, for men with diverse sexual identities, different social norms in relation to health behavior have been reported (Jadaszewski & Levant, 2021). Because non-heterosexual-identified men also use mental health care services more often (Bakker et al., 2006; Parent et al., 2018) and are more likely to suffer from mental health disorders compared to heterosexual-identified men (Kelleher, 2009; King et al., 2008; Timmins et al., 2017), it is important to explore how help-seeking behavior is related to TMI and sexual identity among men with diverse sexual identities who suffer from mental health problems.

Traditional Masculinity Ideologies

As proposed by Connell (1995), hegemonic masculinity describes the dominant and "currently most honored way of being a man" (Connell & Messerschmidt, 2005, p. 832). Other masculinities (ideas and beliefs how men are or should be) can exist in certain

contexts and cultures, but are often less valued and attributed with less dominant social positions than the hegemonic masculinity. Following this social constructivist point of view, TMI can be understood as socially and culturally defined ideas about how a hegemonic men should be and behave (Levant, 1996; Pleck, 1995; Thompson et al., 1992).

During their upbringing boys learn TMI by receiving disapproval from parents, peers, teachers or the broader social context, or by being socially sanctioned (e.g., punished) for showing behaviors that are in conflict with TMI. Thus, boys and men adopt and internalize TMI at least partially (Levant, 2011; Pleck, 1995; Rudman & Fairchild, 2004; Vandello & Bosson, 2013). However, strict adherence to TMI entails disadvantageous consequences, if the adherence to TMI restrict men from being able to live to their full potential. Some men may also be afraid of negative social reactions or negative judgments of oneself when not behaving according to TMI, that is, some men might experience gender role conflict (GRC) (O'Neil, 2008; O'Neil et al., 1986, 1995).

Because hegemonic TMI in western culture often depict men as tough, aggressive, self-reliant, and emotionally inexpressive (Addis & Mahalik, 2003; Connell, 1995; Courtenay, 2000), having mental health issues, expressing emotions of vulnerability or worries, or needing another person's help might be situations where some men experience GRC. Accordingly, previous studies found that men with high endorsement of TMI exhibit negative attitudes towards seeking help (Levant, Stefanov, et al., 2013; Wong et al., 2017; Yousaf et al., 2015) including having a low willingness to seek help for mental health problems (Berger et al., 2013). And while higher GRC has been directly linked with a lower willingness to seek help for depression (Cole & Ingram, 2020), most studies suggest associations between GRC and help-seeking to be fully mediated by self-stigma (e.g., Levant et al., 2013; Pederson & Vogel, 2007; Ramaecker & Petrie, 2019).

There are also findings that increased endorsement of specific TMI domains are associated with increased willingness to use health care services. Namely, endorsement of the belief that men need to attain high social status in a group or that men always need to be the best has been shown to be linked to increased use of health care services (McGraw et al., 2021; Sileo & Kershaw, 2020). It seems important to note, that recent reports found no or even beneficiary relations between individual masculine norms and negative mental health outcomes, such as depression symptoms (Lin et al., 2021; Van Doorn et al., 2021). These mixed results further highlight the importance of also analyzing individual TMI domains, rather than just a general TMI which might mask complex relations between TMI and health behavior (Gerdes & Levant, 2018).

However, masculinity is not only linked to help-seeking, but also with the development of depression symptoms. For example, O'Neil's (2008) review of over 230 studies demonstrated consistent associations between the experience of GRC and increased depression symptoms among men.

Depression Among Men

Depressive disorders have affected over 100 million men in the year 2019 (Global Burden of Disease Collaborative Network, 2021), while also being one of the strongest predictors for suicide among men (Yoshimasu et al., 2008). However, men who experience depression use psychotherapy significantly less often than do women (Eggenberger et al., 2021; Rommel et al., 2018; Roxo et al., 2021; Walther & Seidler, 2020).

Formerly, lower prevalence rates for depressive disorders among men as compared to women were thought to underlie this discrepancy in help-seeking (Baxter et al., 2013; Hasin et al., 2018; Salk et al., 2017). However, differences in prevalence rates between

women and men almost completely disappear when alternative symptom presentation for depression is taken into account (Cavanagh et al., 2017; Martin et al., 2013). Because the expression of some symptoms of depression, such as sadness, reduced self-esteem, or self-worth are in conflict with the stoic, strong, invulnerable men described by traditional masculinity ideologies (Addis & Mahalik, 2003; Connell, 1995; Courtenay, 2000), some men tend to engage in avoidant behavior to mask their depression symptoms (Nadeau et al., 2016; Oliffe & Phillips, 2008; Sigmon et al., 2005).

Furthermore, men can often exhibit externalizing depression symptoms such as substance abuse, anger, or risk-taking which are more in line with TMI (Oliffe et al., 2019; Rice et al., 2019). Such externalizing symptoms have been found to be particularly prevalent among men with strong endorsement of TMI (Rice et al., 2013; Walther & Seidler, 2020). As a consequence, depressive disorders may not fully be recognized in men, because externalizing symptoms are not included in the diagnostic criteria for depression and, thus remains underdiagnosed (Fields & Cochran, 2011).

Sexual Identity

Because TMI have been predominantly defined based on late 1960s, western, white, and heterosexual-identified men, endorsement varies depending on sociocultural factors such as age, socioeconomic status, or sexual identity (Levant, 2011; Levant & Richmond, 2008). The focus of previous research on heterosexual-identified men leaves it less clear as to what degree TMI relate to sexual minority men (Sánchez, 2015; Sánchez et al., 2010). Levant & Richmond (2008) found in their review on TMI that gay-identified men usually scored less traditional on the Male Role Norms Inventory (a widely used instrument measuring TMI; Levant et al., 1992; Levant & Fischer, 1998). However, recent findings also

suggest that some gay-identified men may endorse certain masculinity norms, such as "antiefeminacy" (avoidance of all behaviors that can be classified as being feminine) or "hypermasculinity" (expressing and showing a large number of traits and behaviors that are defined to be hegemonic masculine), in a similar or even more pronounced way as do heterosexual-identified men (Lanzieri & Hildebrandt, 2011; Sánchez & Vilain, 2012; Skidmore et al., 2006).

While there is literature documenting an increased use of mental health care among mentally distressed sexual minority men (Bakker et al., 2006; Parent et al., 2018) and higher prevalence rates of mental-health problems (Kelleher, 2009; Timmins et al., 2017), differing results exists in regards to TMI and its association with help-seeking among sexual minority men. Vogel and colleagues (2011) reported an association between conformity to TMI and worse attitudes towards help-seeking for mental health issues among heterosexual-identified men, whereas for gay-identified men, no association was found. Conversely, Jadaszewski & Levant (2021) report that endorsement of TMI similarly predicts heterosexual- as well as gay-identified men's health-behavior. Even though some findings point towards an association between weaker GRC, fewer depression and anxiety symptoms, and a more positive attitude towards seeking psychological help among gay-identified men (Simonsen et al., 2000), these findings do not allow for a conclusion regarding the relationship between psychological help-seeking, TMI, and sexual identity among men with mental health problems.

Aim of the Present Study

To sum up, low health care utilization among men who experience psychological distress has been linked to high endorsement of TMI. Namely, high endorsement of TMI

may hinder men from seeking help. Additionally, concerns of being in accordance to TMI may hinder some men from expressing vulnerable emotions or worries when experiencing mental health problems (Addis & Mahalik, 2003; Courtenay, 2000; O'Neil, 2008; Oliffe & Phillips, 2008; Rochlen et al., 2009). Previous studies reported associations between TMI, GRC, and help-seeking behavior in heterosexual- and non-heterosexual-identified men (Bakker et al., 2006; Parent et al., 2018; Simonsen et al., 2000; Vogel et al., 2011). The current study adds to the existing literature by examining the relation between TMI and current psychotherapy use for men with different sexual identities. Specifically, the present study aims to analyze whether heterosexual-identified men who experience psychological distress are less likely to use psychotherapy and exhibit stronger endorsement of TMI as compared to non-heterosexual-identified men who experience psychological distress. Additionally, the association of TMI with psychotherapy use among heterosexual- and non-heterosexual-identified men who experience psychological distress will be examined. Importantly, only mentally distressed men will be included into the analysis.

Methods

Study Design

The current study used pooled data from two cross-sectional, anonymous online surveys. The first survey collected data on sociodemographic information, mental health, endorsement of TMI, experience of GRC, and questions exclusively addressed to mental health professionals. The second survey collected data on sociodemographic variables, mental health, endorsement of TMI, experience of GRC, and questions regarding the COVID-19 pandemic. Data from these two questionnaires was combined into a single data set

containing only responses to identical questions. Both studies were approved by the local ethics committee of the Faculty of Arts and Social Sciences of the University of Zurich.

For the recruitment process of both studies, informational advertisements were distributed through various social media platforms (such as, paid advertisement on Facebook targeting all German-speaking men), personal contacts, and the studies' website www.andromind.ch. Both studies required potential participants to be over 18 years old and to have sufficient knowledge of the German language, while the second study additionally only surveyed people who identified as men. Participants from both surveys had to digitally give informed consent. The recruitment period of the first study ran from November 2020 to March 2021 and the second study ran from March 2021 to April 2021.

Participants

To obtain a sample comprised of men who experience psychological distress, 3125 participants, out of a combined total of 4212 participants, were excluded for one of the following reasons: missing consent, did not report their gender identity, missing or improbable age specification (e.g., ages such as 199 years), self-reported insufficient German skills, missing or improbable values in the questionnaires required for the study (e.g., values outside the range of the questionnaire), participants who completed the survey multiple times as part of a follow-up (indicated by matching anonymous participant codes), and participants who did not self-report to suffer from psychological distress. A detailed overview of the exclusion process can be found in Figure 1. The final sample consisted of 728 participants who identified as men.

Instruments

Sociodemographic Information

Participants were asked to specify their gender as either woman or man. Further information was obtained on the following demographic variables: participants' age in years, self-identified sexual identity ("heterosexual-identified", "homosexual-identified", "bisexual-identified", "asexual-identified", "other"), relationship status ("single", "in a relationship", "married", "in a registered partnership", "divorced", and "widowed"), and highest educational attainment ("no completed education", "special school", "secondary school", "high school", "basic apprenticeship", "apprenticeship", "university degree", and "others"). Relationship status was aggregated into "single", "in a relationship", and "separated after a permanent relationship" to avoid heteronormative classification. Furthermore, highest educational attainments were aggregated into "no completed education", "secondary education", "tertiary education", and "others" due to country specific school levels.

Outcome: Psychotherapy Use

Participants were further asked whether they were currently receiving psychotherapeutic treatment ("Are you currently receiving psychotherapeutic treatment?"; possible answers being "Yes" or "No"). This item's reliability was assessed by calculating the intra-rater reliability of participants who completed a follow-up as part of the second study, and high reliability over a one-month period was found (Cohen's kappa of $\kappa = .92$). Additionally, convergent validity was established with positive correlations between psychotherapy use and depression symptoms (PHQ-9; point biserial correlation coefficient $r_{pb} = .18, p < .001$) and anxiety symptoms (Generalized Anxiety Disorder – 7; Spitzer et al.,

2006; $r_{pb} = .17$, $p < .001$) in the first study. Similarly, discriminant validity was established with negative correlations between psychotherapy use and self-esteem (Multidimensional Self-Esteem Scale; Schütz & Sellin, 2008; $r_{pb} = -.19$, $p < .001$), optimism (Life Orientation Test – Revised; Glaesmer et al., 2008; $r_{pb} = -.10$, $p = .009$), and resilience (Resilience Scale – 11; Schumacher et al., 2005; $r_{pb} = -.11$, $p = .008$) in the second study.

Mental Health

A series of binary *yes-no* questions were used to get an impression of the participants' general mental health. Participants were asked whether they were currently experiencing psychological distress, whether they were currently taking any psychiatric medication, whether they were currently suffering from a diagnosed acute or chronic mental disorder, and if so, what mental disorder they were diagnosed with ("depression", "other than depression").

Male Role Norms Inventory – Short Form

The Male Role Norms Inventory – Short Form (MRNI-SF; Levant et al., 2013) was used to measure endorsement of traditional masculinity ideologies with seven theoretically derived domains, namely *Negativity Towards Sexual Minorities* (NT), *Restrictive Emotionality* (RE), *Self-reliance through Mechanical Skills* (SR), *Avoidance of Femininity* (AF), *Importance of Sex* (IS), *Dominance* (D), and *Toughness* (T) (Levant et al., 2007; Levant, Hall, et al., 2013). The MRNI-SF consists of 21 items asking about the level of agreement with a statement about traditional masculinity ideology (e.g., "Homosexual couples should never marry"), with response options on a seven-point Likert scale ranging from 1 ("strongly disagree") to 7 ("strongly agree"). The original English version of the MRNI-SF has been previously shown to

possess good reliability with Cronbach's alpha ranging from .79 (T) to .90 (AF) (Levant et al., 2013). The validated German version used in the present study showed acceptable internal consistencies in a sample of German-speaking college students ranging from .74 (T) to .86 (IS), except for RE which showed an unsatisfactory reliability of .64 (Komlenac & Hochleitner, 2021). In the current study, acceptable reliability was found for all dimensions, with Cronbach's alpha ranging from .73 (RE) to .89 (IS).

Gender Role Conflict Scale – Short Form

The Gender Role Conflict Scale – Short Form (GRCS-SF; Wester et al., 2012) measures four distinct patterns of GRC, namely *Success, Power, Competition* (SPC), *Restrictive Emotionality* (RE), *Restrictive Affectionate Behavior Between Men* (RABBM), and *Conflicts Between Work and Leisure - Family Relations* (CBWFR). The GRCS-SF consists of 16 items asking about the level of agreement with a provided statement about experiencing gender role conflict (e.g., "I have difficulty expressing my emotional needs to my partner"), with answers being possible on a six-point Likert scale ranging from 1 ("strongly disagree") to 6 ("strongly agree"). The validated German version of the GRCS-SF used in the current study showed acceptable reliability with McDonald's ω ranging from .68 (CBWFR) to .78 (RABBM) (Komlenac et al., 2018). In the present sample, acceptable reliability coefficients were found with McDonald's ω ranging from .75 (RABBM) to .85 (RE).

Patient Health Questionnaire – 9

The Patient Health Questionnaire – 9 (PHQ-9; Kroenke et al., 2001) consists of nine items assessing depression symptomatology as defined by the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric

Association, 1994). For each item, participants indicate how much they were affected by depressive mood or depressive symptoms in the past two weeks (e.g., "Feeling down, depressed, or hopeless"), with possible responses on a four-point Likert scale ranging from 0 ("not at all") to 3 ("almost every day"). The validated German version of the PHQ-9 used in the current study showed acceptable reliability the German general population with Cronbach's alpha = .87 (Kocalevent et al., 2013). Acceptable reliability was also found in the current study with Cronbach's alpha = .88.

Male Depression Risk Scale – 22

The Male Depression Risk Scale – 22 (MDRS-22; Rice et al., 2013) consists of 22 items assessing externalizing depression symptomatology as one general factor as well as six proposed subdimensions, namely *Emption Suppression* (ES), *Drug Use* (DU), *Alcohol Use* (AU), *Anger and Aggression* (AA), *Somatic Symptoms* (SS), and *Risk Taking* (RT) (Rice et al., 2013, 2019). Participants are asked how often they experienced externalizing symptoms or avoided to express or show depressive feelings to other people (e.g., "I suppressed my negative feelings"), with possible response categories on a seven-point Likert scale ranging from 0 ("not at all [0 days]") to 7 ("almost always [25+ days]"). The validated German version used in the present study showed acceptable reliability in a large German-speaking sample with Guttman's λ_2 ranging from .77 (SS) to .91 (DU), except for the RT subscale which possessed unsatisfactory reliability ($\lambda_2 = .62$) (Walther, Grub, Ehlert, et al., 2021). In the current study, acceptable reliability coefficients were found with Cronbach's alpha ranging from .69 (SS) to .93 (DU), except for the RT subscale which showed unsatisfactory reliability with Cronbach's alpha = .62.

Statistical Analysis

The statistical analysis consisted of the three parts described in the following, using an initial significance level of $\alpha = .05$ for all analyses and subsequently applying a step-down correction for multiple testing using the Holm method to control the family-wise error rate (Holm, 1979). Regarding assumptions for robust statistical inference, approximate normality of the questionnaire scores was assessed visually and homoscedasticity was evaluated with Levene's median-based test for equal variances (Brown & Forsythe, 1974), subsequently applying a Welch-Satterthwaite approximation to the degrees of freedom where heteroscedastic data was present (Welch, 1947). For categorical data, Monte Carlo Simulation was used to approximate the test statistics (Hope, 1968) where the assumptions of the parametric χ^2 -test were not fulfilled (indicated by expected values lower than 5). To ensure that the requirements for robust logistic regression analyses were met, visual inspections of residuals were performed, as well as quantitative assessments of Cook's distances for highly influential points (Cook, 1977) and the generalized variance inflation factor for collinearities (Fox & Monette, 1992).

In a first part of the analysis, the composition of the sample and possible group differences between men currently in psychotherapy and men currently not in psychotherapy as well as between men with different sexual identities were analyzed by calculating descriptive statistics and applying χ^2 -, Wald-, and t -tests. In a second part, associations among the questionnaires measuring endorsement of TMI, GRC, depression symptoms, and externalizing depression symptoms were analyzed by calculating Pearson's correlation coefficient. In a third part, multivariate logistic regression analyses for heterosexual-identified and non-heterosexual-identified men were conducted to further analyze the predictive value of endorsement of TMI, GRC, depression symptoms, and

externalizing depression symptoms for current psychotherapy use. In this third part, participant's age, education, and relationship status were used as covariates to control for possible confounding effects. To obtain standardized regression coefficients, the Agresti method was used by z-standardizing the predictor variables prior to fitting the model (Menard, 2011).

All computations were performed with the statistical software R (Version 4.0.3; R Core Team, 2020) and the packages "psych" (Revelle, 2020; calculation of reliability estimates and effect sizes), "multcomp" (Hothorn et al., 2008; simultaneous tests for general linear hypotheses), "rcompanion" (Mangiafico, 2021; estimation of goodness-of-fit indices in the logistic regression setting), and "ggplot2" (Wickham, 2016; data visualization).

Results

Description of the Sample

As presented in Table 1, the total sample consisted of 728 men who reported to currently suffer from psychological distress. Of those men, 251 were currently using psychotherapeutic treatment (34.5%). The men's age ranged from 18 to 70 years, with a mean age of 29.6 years (SD = 11.6). The majority of the men were currently single (58.7%), finished a secondary education (65.4%), and self-identified as heterosexual (59.9%). About one-eighth of the men self-identified as gay (12.9%), about one-fifth self-identified as bisexual (18.7%), 1.9% self-identified as asexual, and 6.6% did not identify with any of those sexual-identities.

Men who were currently undergoing psychotherapeutic treatment exhibited significantly lower endorsement of TMI, on all subscales, and significantly higher depression symptoms as compared to men currently not in psychotherapy. No significant differences

between men using psychotherapy and men not using psychotherapy were found for GRC and externalizing depression symptoms (Table 2).

As presented in Figure 2, heterosexual-identified men were significantly less likely to use psychotherapy compared to gay- ($z(723) = -4.03, p < .001, OR = 0.39$) and bisexual-identified men ($z(723) = -3.96, p < .001, OR = 0.45$). Heterosexual-identified men showed significantly stronger endorsement of overall TMI as compared to gay- ($t(199) = 6.42, p < .001, d = 0.56$), bisexual- ($t(285) = 6.00, p < .001, d = 0.52$) and other-identified men ($t(101) = 9.03, p < .001, d = 0.79$), as well as significantly stronger endorsement of all TMI domains except for IS, which was similarly endorsed among heterosexual- and gay-identified men ($t(152) = 2.13, p = .847, d = 0.22$), and D, which was similarly endorsed among heterosexual- and bisexual-identified men ($t(264) = 2.59, p = .504, d = 0.23$) (S-Figure 1).

In terms of GRC, heterosexual-identified men reported significantly higher overall GRC as compared to gay-identified men ($t(723) = 3.85, p < .001, d = 0.44$). Additionally, heterosexual-identified men experienced significantly higher GRC in the SPC domain as compared to gay- ($t(723) = 4.34, p < .001, d = 0.49$) and other-identified men ($t(723) = 4.23, p < .001, d = 0.64$), and significantly higher GRC in the RABBM domain as compared to gay- ($t(723) = 4.97, p < .001, d = 0.54$) and bisexual-identified men ($t(723) = 4.80, p < .001, d = 0.46$), while no significant differences were found in any other GRC domains (S-Figure 2). In terms of depression symptoms, heterosexual-identified men had fewer depression symptoms as compared to bisexual-identified men ($t(723) = -3.30, p = .010, d = -0.33$). No significant differences were found regarding externalizing depression symptoms.

Correlational Analysis

As presented in Table 3, endorsement of TMI was not linked with depression symptoms, except for a significant association between stronger endorsement of TMI in the domain T and lower depression symptoms. However, stronger GRC in the domains RE, RABBM, and CBWF was associated with increased depression symptoms. On the other hand, stronger endorsement of TMI in the domains RE, AF, D, and T was linked to increased externalizing depression symptoms and stronger GRC in all domains was also associated with higher externalizing depression symptoms. Lastly, higher depression symptoms went along with higher externalizing depression symptoms.

Logistic Regression Analysis

Binary logistic regression models were fitted to predict men's psychotherapy use with their endorsement of TMI, experience of GRC, depression symptoms, and externalizing depression symptoms (Figure 3, Table 4). Results revealed that stronger endorsement of TMI and higher externalizing depression symptoms were associated with a reduced likelihood to use psychotherapy in the total sample. Higher depression symptoms were associated with an increased likelihood to use psychotherapy in the total sample ($\chi^2(7) = 49.8, p < .001$, Nagelkerke's $R^2 = .09$; AIC = 904.1, BIC = 940.8). This result was especially evident in heterosexual-identified men, where stronger endorsement of TMI was associated with a reduced likelihood to use psychotherapy and higher depression symptoms were linked to an increased likelihood to use psychotherapy ($\chi^2(7) = 32.8, p < .001, R^2 = 0.11$; AIC = 494.3, BIC = 526.9). In the sample of non-heterosexual-identified men, no scales were significantly associated with the likelihood to use psychotherapy ($\chi^2(7) = 7.78, p = .352, R^2 = 0.04$; AIC = 410.3, BIC = 439.7).

The same models were fitted with the individual subscales of the MRNI-SF and the GRCS-SF (S-Table 1). However, due to the large number of strongly correlated predictors, only higher depression symptoms remained as a significant predictor for increased psychotherapy use in the total sample ($\chi^2(16) = 60.2, p < .001, R^2 = .11$; AIC = 911.7, BIC = 989.7) and the sample with heterosexual-identified men ($\chi^2(16) = 42.4, p < .001, R^2 = .13$; AIC = 502.8, BIC = 572.1). No significant predictors were found in the sample of non-heterosexual-identified men ($\chi^2(16) = 15.3, p = .503, R^2 = 0.07$; AIC = 420.8, BIC = 483.3). The Akaike and Bayesian information criterion (Akaike, 1998; Schwarz, 1978) indicated poorer fit of the models with individual subscales compared to the models with a general score in all samples.

Discussion

Summary of Results

In the current sample of 728 men experiencing psychological distress, heterosexual-identified men were using psychotherapy less than half as often as compared to gay- and bisexual-identified men, although exhibiting comparable depression symptomatology. Higher depression symptoms further predicted an increased likelihood to use psychotherapy in the total and the heterosexual-identified sample, while stronger endorsement of TMI was associated with reduced psychotherapy in the total and the heterosexual-identified sample. However, experience of GRC was not associated with men's psychotherapy use. Heterosexual-identified men exhibited overall higher endorsement of TMI and experienced more GRC in the domains RABBM and SPC.

Integration of Findings

Heterosexual-identified men were significantly less likely to seek professional help when experiencing psychological distress as compared to gay- and bisexual-identified men. A possible explanation for these findings may be increased psychological distress among non-heterosexual-identified men as a result of additional minority stress caused by factors such as disapproval of their sexual identity in socially oppressive environments (Kelleher, 2009; King et al., 2008; Timmins et al., 2017). However, the finding that heterosexual-identified men show similar levels of psychological distress as compared to gay-identified men but still use psychotherapy less, implies that other factors might be at play. Concordantly, previous studies reported that increased use of mental health care among mentally distressed sexual minority men persisted even after controlling for factors such as individual health status and confidence in health care (Bakker et al., 2006; Grella et al., 2009; Parent et al., 2018). While higher help-seeking rates among non-heterosexual-identified men may be explained in part by lower personal stigmatization of help-seeking for mental health issues among sexual minorities (Eisenberg et al., 2009), another explanation may lie within differing endorsement of TMI among heterosexual- and non-heterosexual-identified men.

In the current sample, stronger endorsement of TMI was associated with lower psychotherapy use, which is in line with research suggesting endorsement of TMI to hinder men from seeking professional help and expressing feelings of vulnerability because of a fear of being perceived as unmanly or weak (Addis & Mahalik, 2003; Courtenay, 2000; Rochlen et al., 2009; Seidler et al., 2016). Endorsement of TMI was further associated with self-identified sexual identity, with heterosexual-identified men exhibiting stronger endorsement of TMI (overall as well as in all individual domains) as compared to gay- and

bisexual-identified men, except for the domains IS (no difference compared to gay-identified men) and T (no difference compared to bisexual-identified men). On the one hand, this provides further support to previous findings suggesting endorsement of TMI to vary depending on sexual identity, and that heterosexual-identified men typically score more traditional on the MRNI (Levant, 2011; Levant & Richmond, 2008). On the other hand, stronger endorsement of TMI was associated with reduced psychotherapy use among heterosexual-identified men, but not non-heterosexual-identified men, suggesting that endorsement of TMI may be particularly relevant as a barrier to seek professional help for mental health issues among heterosexual-identified men.

Furthermore, stronger endorsement of TMI in the domain T was found to be associated with reduced depression symptoms, while no other associations reached significance. This supports the mixed findings from recent studies showing individual masculinity norms to either not be associated with depression symptoms, act as risk or even as protective factors with regard to psychological distress in men (Gerdes & Levant, 2018; Sileo & Kershaw, 2020; Van Doorn et al., 2021; Wong et al., 2017). However, stronger endorsement of TMI (overall as well as the domains RE, AF, D, and T) was found to be associated with increased externalizing depression symptoms. This is also in line with findings suggesting that prototypical depression measures may not fully recognize depression symptomatology in men, especially those exhibiting strong endorsement of TMI (Fields & Cochran, 2011; Oliffe et al., 2019; Rice et al., 2019), because of fear of being perceived as weak or unmanly (Nadeau et al., 2016; Rice et al., 2013; Rochlen et al., 2009; Seidler et al., 2016; Walther & Seidler, 2020). Since endorsement of TMI as well as externalizing depression symptoms have been linked with increased suicidal ideations and suicide attempts among men (Coleman et al., 2020; Rice et al., 2018; Walther, Grub, Tsar, et

al., 2021) these findings bear great clinical relevance regarding suicide prevention and intervention strategies.

In terms of GRC, the current study found a correlation between elevated GRC and depression symptoms as well as externalizing depression symptoms, concordant with a large body of research highlighting the association between experience of GRC and poorer mental health outcomes (O’Neil, 2008, 2013). However, experience of GRC was not associated with psychotherapy use in the present sample. This suggests that despite the previously reported associations between experience of GRC and lower willingness to seek help (Cole & Ingram, 2020), as well as weaker GRC and more positive attitudes toward seeking psychological help among gay-identified men (Simonsen et al., 2000), GRC may be relevant primarily in terms of attitudes and intentions toward help-seeking, rather than actual help-seeking behavior (Hammer et al., 2018; Pederson & Vogel, 2007; Ramaeker & Petrie, 2019; Vogel et al., 2014). However, these results might also corroborate recent findings suggesting that GRC itself is not directly associated with stigma or help-seeking attitudes, but rather with endorsement of TMI, which is itself associated with self-stigma and help-seeking attitudes (Ramaeker & Petrie, 2019).

Limitations

Results of the current study should be interpreted carefully due to several limitations. A first limitation lies within the composition of the sample. Namely, participants reported a mean age of 29.6 years ($SD = 11.6$), which means that the sample was relatively young with about 73% of the men being between 18-35 years old. This limits the generalizability of findings from this study to older age groups. Additionally, unsatisfactory reliability of the GRC RE subscale was identified in the current sample, which was also

reported in the validation study of the German-language version (Komlenac et al., 2018). Findings and interpretations made in regards to GRC and its individual domains should be interpreted by taking this lack of reliability into account. Lastly, some methodological shortcomings can be pointed out for the consideration of future studies in this area. The binary gender assessment used in the present survey excluded individuals with a non-cis gender identity from participation. In addition, there was no free-text option for participants who reported their sexual identity as "other". Both these factors prevented a more fine-grained analysis and a more inclusive approach toward gender diverse individuals, preventing further valuable insights from being gained.

Conclusion

The present study supports previous research showing that heterosexual-identified men are less likely to use psychotherapy and exhibit stronger endorsement of TMI as compared to gay- and bisexual-identified men (Bakker et al., 2006; Grella et al., 2009; Levant, 2011; Levant & Richmond, 2008; Parent et al., 2018). For the first time endorsement of TMI was linked with psychotherapy use among psychologically distressed men while accounting for diverse self-identified sexual identities. Stronger endorsement of TMI was found to be significantly associated with reduced psychotherapy use among heterosexual-identified men, which was not the case among non-heterosexual-identified men. This supports the idea that endorsement of TMI may be particularly relevant in regards to help-seeking for heterosexual-identified men. Furthermore, positive associations between endorsement of TMI and higher externalizing depression, but not depression symptoms, suggest that depression instruments may not fully recognize depression symptoms among men, particularly among those with strong endorsement of TMI. This bares great clinical

importance because both endorsement of TMI and externalizing depression symptoms have been previously linked with suicidal ideation and suicide attempts (Coleman et al., 2020; Rice et al., 2018; Walther, Grub, Tsar, et al., 2021). Finally, the current study found associations between elevated GRC and increased depression symptoms, but no association between GRC and psychotherapy use, suggesting rather the endorsement of TMI as compared to experience of GRC to pose a barrier in men's help-seeking behavior (Ramaeker & Petrie, 2019).

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Figure 1. Overview of the Exclusion Process

Note. *N* = Number of Participants

Table 1. *Descriptive of the Sample*

Variable	Total (N = 728)	Not in PT (N = 477)	In PT (N = 251)	test statistic (df)	effect size
Age, mean (SD)	29.6 (11.6)	29.9 (11.9)	29.0 (10.9)	0.92 (726)	-0.07
Sexual identity, N (%)				29.30 ^{sim}	0.20***
Heterosexual	436 (59.9)	317 (66.5)	119 (47.4)		
Gay	94 (12.9)	48 (10.1)	46 (18.3)		
Bisexual	136 (18.7)	74 (15.5)	62 (24.7)		
Asexual	14 (1.9)	6 (1.3)	8 (3.2)		
Other	48 (6.6)	32 (6.7)	16 (6.4)		
Relationship status, N (%)				2.31 (2)	0.06
Single	427 (58.7)	279 (58.5)	148 (59.0)		
In a relationship	276 (37.9)	185 (38.8)	91 (36.3)		
Separated after permanent relationship	25 (3.4)	13 (2.7)	12 (4.8)		
Highest completed education, N (%)				5.81 ^{sim}	0.09
None completed	11 (1.5)	9 (1.9)	2 (0.8)		
Secondary education	476 (65.4)	315 (66.0)	161 (64.1)		
Tertiary education	194 (26.6)	129 (27.0)	65 (25.9)		
Others	47 (6.5)	24 (5.0)	23 (9.2)		
Psych. diagnosis [†], N (%)	332 (45.6)	126 (26.4)	206 (82.1)	203.13 (1)	0.53***
Depression diagnosis [†], N (%)	274 (37.6)	102 (21.4)	172 (68.5)	153.72 (1)	0.46***
Other diagnosis [†], N (%)	259 (35.6)	98 (20.5)	161 (64.1)	134.50 (1)	0.43***
Psych. drug intake [†], N (%)	171 (23.5)	57 (11.9)	114 (45.4)	100.65 (1)	0.38***

Note. PT = psychotherapy, N = number of participants, SD = standard deviation, df = degrees of freedom, test-statistic = *t*-score for continuous, χ^2 for categorical variables, effect size = Cohen's *d* for continuous, Cramer's *V* for categorical variables, psych. = psychiatric. *p*-values were adjusted for multiple testing using the Holm method.

[†] Assessed in self-report, ^{sim} obtained using Monte Carlo simulation, *** = *p* < .001

Table 2. Means, Standard Deviations, and Reliability Coefficients for the Questionnaires

Questionnaire	Total (N = 728)	Not in PT (N = 477)	In PT (N = 251)	<i>t</i> (<i>df</i>)	Cohen's <i>d</i>	α	ω
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)				
MRNI-SF^a	43.0 (19.8)	45.6 (20.8)	38.1 (16.5)	5.29 (617)	-0.38***	.94	.95
NT	4.1 (2.8)	4.3 (3.1)	3.6 (2.2)	3.56 (663)	-0.25***	.83	.83
RE	6.4 (3.7)	6.7 (3.8)	5.8 (3.4)	3.22 (726)	-0.25**	.73	.74
SR	10.2 (4.7)	10.8 (4.7)	9.2 (4.6)	4.34 (726)	-0.34***	.88	.89
AF	5.0 (3.6)	5.4 (3.9)	4.4 (2.9)	3.97 (638)	-0.28***	.86	.87
IS	4.8 (3.3)	5.0 (3.4)	4.4 (3.0)	2.62 (560)	-0.20**	.89	.89
D	4.2 (2.9)	4.5 (3.2)	3.8 (2.1)	3.40 (687)	-0.24**	.88	.88
T	8.2 (4.8)	8.9 (4.9)	7.0 (4.3)	5.55 (571)	-0.42***	.82	.83
GRCS-SF^b	48.5 (12.3)	48.6 (12.1)	48.3 (12.8)	0.30 (726)	-0.02	.79	.85
SPC	12.7 (4.8)	12.8 (4.8)	12.5 (4.9)	0.81 (726)	-0.06	.75	.80
RE	13.2 (5.4)	13.2 (5.4)	13.2 (5.5)	-0.06 (726)	0.00	.82	.85
RABBM	8.2 (4.0)	8.2 (4.0)	8.3 (4.0)	-0.31 (726)	0.02	.72	.75
CBWFR	14.4 (5.0)	14.4 (5.0)	14.3 (5.1)	0.26 (726)	-0.02	.73	.80
PHQ-9^c	15.6 (6.6)	14.8 (6.6)	17.0 (6.2)	-4.29 (726)	0.33***	.88	.90
MDRS-22^d	31.5 (19.7)	31.8 (19.3)	30.9 (20.4)	0.58 (726)	-0.05	.87	.90

Note. *PT* = psychotherapy, *M* = mean, *SD* = standard deviation, *df* = degrees of freedom, α = Cronbach's alpha, ω = McDonald's omega. *p*-values were adjusted for multiple testing using the Holm method.

^a MRNI-SF = Male Role Norms Inventory – Short Form (NT = Negativity Towards Sexual Minorities, RE = Restrictive Emotionality, SR = Self-reliance through Mechanical Skills, AF = Avoidance of Femininity, IS = Importance of Sex, D = Dominance, T = Toughness), ^b GRCS-SF = Gender Role Conflict Scale – Short Form (SPC = Success/Power/Competition, RE = Restrictive Emotionality, RABBM = Restrictive Affectionate Behavior Between Men, CBWFR = Conflict Between Work and Family Relations), ^c PHQ-9 = Patient Health Questionnaire – 9, ^d MDRS-22 = Male Depression Risk Scale – 22 (ES = Emotion Suppression, DU = Drug Use, AU = Alcohol Use, AA = Anger and Aggression, SS = Somatic Symptoms, RT = Risk Taking), ** = $p < .01$, *** = $p < .001$

Figure 2. *Psychotherapy Use and Questionnaire Scores for Men with Different Self-Identified Sexual Identities*

Note. *N* = Number of Participants. *p*-values were adjusted for multiple testing using the Holm method.

^a MRNI-SF = Male Role Norms Inventory – Short Form, ^b GRCS-SF = Gender Role Conflict Scale – Short Form, ^c PHQ-9 = Patient Health Questionnaire – 9, ^d MDRS-22 = Male Depression Risk Scale – 22.

* = *p* < .05, ** = *p* < .01, *** = *p* < .001

Table 3. *Pearson's Correlation Coefficients for the Questionnaires*

	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	2	2.1	2.2	2.3	2.4	3	4
1. MRNI-SF^a	–														
1.1 NT	–	–													
1.2 RE	–	.42***	–												
1.3 SR	–	.33***	.45***	–											
1.4 AF	–	.59***	.58***	.41***	–										
1.5 IS	–	.43***	.45***	.39***	.63***	–									
1.6 D	–	.68***	.55***	.37***	.69***	.63***	–								
1.7 T	–	.42***	.66***	.58***	.59***	.53***	.53***	–							
2. GRCS-SF^b	.36***	.20***	.39***	.20***	.33***	.24***	.28***	.29***	–						
2.1 SPC	.38***	.22***	.34***	.23***	.34***	.25***	.31***	.36***	–	–					
2.2 RE	.12*	0	.23***	.05	.11	.07	.08	.09	–	.20***	–				
2.3 RABBM	.35***	.31***	.37***	.18***	.31***	.22***	.28***	.26***	–	.29***	.36***	–			
2.4 CBWF	.10	.02	.08	.09	.10	.09	.08	.06	–	.18***	.13*	.11	–		
3. PHQ-9^c	-.10	-.08	-.04	-.07	-.07	-.10	-.02	-.14**	.25***	.03	.26***	.13**	.19***	–	
4. MDRS-22^d	.16***	.10	.18***	.06	.15**	.08	.18***	.12*	.37***	.21***	.28***	.18***	.24***	.56***	–

Note. *p*-values were adjusted for multiple testing using the Holm method.

^a MRNI-SF = Male Role Norms Inventory – Short Form (NT = Negativity Towards Sexual Minorities, RE = Restrictive Emotionality, SR = Self-reliance through Mechanical Skills, AF = Avoidance of Femininity, IS = Importance of Sex, D = Dominance, T = Toughness), ^b GRCS-SF = Gender Role Conflict Scale – Short Form (SPC = Success/Power/Competition, RE = Restrictive Emotionality, RABBM Restrictive Affectionate Behavior Between Men, CBWFR = Conflict Between Work and Family Relations), ^c PHQ-9 = Patient Health Questionnaire – 9, ^d MDRS-22 = Male Depression Risk Scale – 22, * = *p* < .05, ** = *p* < .01, *** = *p* < .001

Figure 3. Standardized Odds Ratios for Psychotherapy Use, Questionnaire Scores, and Covariates

Note. OR = odds ratio. *p*-values were adjusted for multiple testing using the Holm-Bonferroni method.

^a MRNI-SF = Male Role Norms Inventory – Short Form, ^b GRCS-SF = Gender Role Conflict Scale – Short Form, ^c PHQ-9 = Patient Health Questionnaire – 9, ^d MDRS-22 = Male Depression Risk Scale – 22.

* = *p* < .05, ** = *p* < .01, *** = *p* < .001

Table 4. Summary of Logistic Regression Models predicting Psychotherapy Use

A) Total Sample					
Predictor	Beta ¹ (SE)	OR ¹ (95% CI)	OR _{raw}	p	p (corr.)
MRNI-SF ^a	-0.40 (0.10)	0.67 (0.55 - 0.82)	0.98	<.001***	<.001***
GRCS-SF ^b	0.07 (0.09)	1.07 (0.89 - 1.29)	1.01	.449	1
PHQ-9 ^c	0.48 (0.10)	1.61 (1.31 - 1.98)	1.07	<.001***	<.001***
MDRS-22 ^d	-0.28 (0.11)	0.75 (0.61 - 0.93)	0.99	.009**	.047*
Age	-0.01 (0.10)	0.99 (0.82 - 1.20)	1.00	.920	1
Education	0.10 (0.08)	1.10 (0.94 - 1.31)	1.06	.232	.929
Relationship status	0.03 (0.09)	1.03 (0.86 - 1.23)	1.03	.771	1
B) Heterosexual-Identified Men					
Predictor	Beta ¹ (SE)	OR ¹ (95% CI)	OR _{raw}	p	p (corr.)
MRNI-SF ^a	-0.39 (0.13)	0.68 (0.52 - 0.87)	0.98	.003**	.017*
GRCS-SF ^b	0.21 (0.14)	1.23 (0.94 - 1.61)	1.02	.124	.376
PHQ-9 ^c	0.54 (0.15)	1.72 (1.29 - 2.30)	1.09	<.001***	.002**
MDRS-22 ^d	-0.32 (0.15)	0.72 (0.54 - 0.95)	0.98	.026*	.131
Age	0.02 (0.13)	1.02 (0.78 - 1.31)	1.00	.897	1
Education	0.22 (0.13)	1.24 (0.97 - 1.62)	1.14	.094	.376
Relationship status	0.04 (0.12)	1.04 (0.81 - 1.31)	1.04	.768	1
C) Non-Heterosexual-Identified Men					
Predictor	Beta ¹ (SE)	OR ¹ (95% CI)	OR _{raw}	p	p (corr.)
MRNI-SF ^a	-0.22 (0.18)	0.80 (0.56 - 1.12)	0.99	.209	1
GRCS-SF ^b	-0.00 (0.13)	1.00 (0.77 - 1.30)	1.00	.989	1
PHQ-9 ^c	0.33 (0.16)	1.39 (1.02 - 1.89)	1.05	.036*	.249
MDRS-22 ^d	-0.21 (0.17)	0.81 (0.58 - 1.13)	0.99	.221	1
Age	-0.04 (0.15)	0.96 (0.71 - 1.28)	1.00	.779	1
Education	0.04 (0.11)	1.04 (0.83 - 1.31)	1.02	.725	1
Relationship status	0.00 (0.15)	1.00 (0.75 - 1.35)	1.01	.971	1

Note. Beta = estimated regression coefficient, SE = standard error, OR = odds ratio, CI = confidence interval, p = p-value, corr. = adjusted using the Holm-Bonferroni method, OR_{raw} = unstandardized odds ratio.

¹ = coefficients were standardized using the Agresti method.

^a MRNI-SF = Male Role Norms Inventory – Short Form, ^b GRCS-SF = Gender Role Conflict Scale – Short Form, ^c PHQ-9 = Patient Health Questionnaire – 9, ^d MDRS-22 = Male Depression Risk Scale – 22.

* = p < .05, ** = p < .01, *** = p < .001

Differential Endorsement of Traditional Masculinity Ideologies is Associated With Differences in Psychotherapy Use Among Heterosexual-identified but not Non-Heterosexual-identified Men

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Supplementary Material

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S-Figure 1. Mean Scores on MRNI-SF Subscales Among Men With Different Sexual Identities

Note. *N* = Number of Participants. *p*-values were adjusted for multiple testing using the Holm method.

^a MRNI-SF = Male Role Norms Inventory – Short Form (NT = Negativity Towards Sexual Minorities, RE = Restrictive Emotionality, SR = Self-Reliance through Mechanical Skills, AF = Avoidance of Femininity, IS = Importance of Sex, D = Dominance, T = Toughness)

* = *p* < .05, ** = *p* < .01, *** = *p* < .001

S-Figure 2. Mean Scores on GRCS-SF Subscales Among Men With Different Sexual Identities

Note. *N* = Number of Participants. *p*-values were adjusted for multiple testing using the Holm method.

^b GRCS-SF = Gender Role Conflict Scale – Short Form (SPC = Success, Power, Competition, RE = Restrictive Emotionality, RABBM = Restrictive Affectionate Behavior Between Men, CBWFR = Conflicts Between Work and Leisure - Family Relations), *** = *p* < .001

S-Table 1. Summary of Logistic Regression Models Predicting Psychotherapy Use With Subscales Among Men

	Total Sample		Heterosexual-Identified		Non-Heterosexual-Identified	
Predictor	Beta ¹ (SE)	OR ¹ (95% CI)	Beta ¹ (SE)	OR ¹ (95% CI)	Beta ¹ (SE)	OR ¹ (95% CI)
MRNI-SF^a						
NT	-0.16 (0.14)	0.85 (0.64 - 1.12)	-0.13 (0.16)	0.88 (0.63 - 1.19)	-0.28 (0.34)	0.75 (0.36 - 1.41)
RE	0.07 (0.12)	1.07 (0.84 - 1.37)	-0.07 (0.16)	0.93 (0.67 - 1.28)	0.33 (0.22)	1.39 (0.91 - 2.16)
SR	-0.17 (0.10)	0.84 (0.69 - 1.03)	-0.19 (0.15)	0.83 (0.62 - 1.10)	-0.15 (0.15)	0.86 (0.64 - 1.15)
AF	-0.12 (0.14)	0.89 (0.67 - 1.18)	0.06 (0.18)	1.06 (0.75 - 1.49)	-0.36 (0.29)	0.70 (0.39 - 1.21)
IS	0.14 (0.13)	1.15 (0.89 - 1.47)	-0.01 (0.17)	0.98 (0.70 - 1.36)	0.31 (0.22)	1.37 (0.89 - 2.14)
D	-0.00 (0.16)	1.00 (0.72 - 1.35)	0.02 (0.20)	1.02 (0.69 - 1.50)	-0.09 (0.28)	0.92 (0.51 - 1.60)
T	-0.32 (0.14)	0.73 (0.56 - 0.94)	-0.28 (0.18)	0.75 (0.53 - 1.06)	-0.22 (0.25)	0.80 (0.49 - 1.29)
GRCS-SF^b						
SPC	0.09 (0.10)	1.09 (0.90 - 1.33)	0.21 (0.14)	1.23 (0.94 - 1.63)	0.04 (0.15)	1.04 (0.78 - 1.38)
RE	-0.08 (0.09)	0.92 (0.77 - 1.10)	-0.05 (0.13)	0.95 (0.73 - 1.23)	-0.11 (0.14)	0.90 (0.68 - 1.18)
RABBM	0.15 (0.10)	1.17 (0.96 - 1.41)	0.26 (0.13)	1.30 (1.01 - 1.66)	0.04 (0.17)	1.04 (0.74 - 1.47)
CBWFR	-0.05 (0.09)	0.95 (0.80 - 1.13)	-0.08 (0.12)	0.92 (0.73 - 1.17)	-0.00 (0.14)	1.00 (0.76 - 1.30)
PHQ-9^c	0.47 (0.11)	1.60*** (1.30 - 1.98)	0.53 (0.15)	1.71** (1.27 - 2.30)	0.36 (0.16)	1.44 (1.05 - 1.99)
MDRS-22^d	-0.27 (0.11)	0.76 (0.61 - 0.94)	-0.31 (0.15)	0.73 (0.54 - 0.97)	-0.23 (0.18)	0.79 (0.56 - 1.12)
Age	-0.05 (0.10)	0.95 (0.78 - 1.16)	-0.00 (0.15)	1.00 (0.74 - 1.32)	-0.08 (0.16)	0.92 (0.67 - 1.25)
Education	0.10 (0.09)	1.10 (0.94 - 1.31)	0.19 (0.13)	1.21 (0.94 - 1.58)	0.04 (0.12)	1.05 (0.83 - 1.32)
Relationship status	0.02 (0.09)	1.02 (0.85 - 1.23)	0.06 (0.12)	1.06 (0.83 - 1.35)	-0.01 (0.15)	0.99 (0.72 - 1.34)
Omnibus statistics						
	$\chi^2(16) = 60.2, p < .001, R^2 = 0.11$ AIC = 911.7, BIC = 989.7		$\chi^2(16) = 42.4, p < .001, R^2 = 0.13$ AIC = 502.8, BIC = 572.1		$\chi^2(16) = 15.3, p = .503, R^2 = 0.07$ AIC = 420.8, BIC = 483.3	

Note. Beta = estimated regression coefficient, SE = standard error, OR = odds ratio, CI = confidence interval, *p*-values were adjusted using the Holm-Bonferroni method. ¹ = coefficients were standardized using the Agresti method.

^a MRNI-SF = Male Role Norms Inventory – Short Form (NT = Negativity Towards Sexual Minorities, RE = Restrictive Emotionality, SR = Self-reliance through Mechanical Skills, AF = Avoidance of Femininity, IS = Importance of Sex, D = Dominance, T = Toughness), ^b GRCS-SF = Gender Role Conflict Scale – Short Form (SPC = Success/Power/Competition, RE = Restrictive Emotionality, RABBM Restrictive Affectionate Behavior Between Men, CBWFR = Conflict Between Work and Family Relations), ^c PHQ-9 = Patient Health Questionnaire – 9, ^d MDRS-22 = Male Depression Risk Scale – 22; ** = *p* < .01, *** = *p* < .001