

Linking Big Five Personality Traits to Sexuality and Sexual Health: A Meta-Analytic Review

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This meta-analytic review addresses whether the major dimensions of trait personality relate to components of human sexuality. A comprehensive literature search identified 137 studies that met inclusion criteria (761 effect sizes; total $n = 420,595$). Pooled mean effects were computed using inverse-variance weighted random effects meta-analysis. Mean effect sizes from 100 separate meta-analyses provided evidence that personality relates to theoretically predicted components of sexuality and sexual health. Neuroticism was positively related to sexual dissatisfaction ($r_+ = .18$), negative emotions ($r_+ = .42$), and symptoms of sexual dysfunction ($r_+ = .16$). Extraversion was positively related to sexual activity ($r_+ = .17$) and risky sexual behavior ($r_+ = .18$), and negatively related to symptoms of sexual dysfunction ($r_+ = -.17$). Openness was positively related to homosexual orientation ($r_+ = .16$) and liberal attitudes toward sex ($r_+ = .19$). Agreeableness and conscientiousness were negatively related to sexually aggressive behavior ($r_+ = -.20$; $r_+ = -.14$) and sexual infidelity ($r_+ = -.18$; $r_+ = -.17$). Less robust evidence indicated that extraversion related negatively, and neuroticism positively, to child sexual abuse, and that openness related negatively to homophobic attitudes. Random effects meta-regression identified age, gender, and study quality as important moderators of pooled mean effects. These findings might be of interest to health care professionals developing health care services that aim to promote sexually healthy societies.

Public Significance Statement

Personality traits are important for sexuality and sexual health. Personality traits related to lifetime sexual partners, involvement in casual sex, infidelity, sexual orientation, homophobic attitudes, symptoms of sexual dysfunction, sexual risk taking, sexual harassment, and sexually aggressive behavior.

Keywords: erectile dysfunction, homophobia, reproductive health, sexual harassment, sexual assault

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Improving sexual and reproductive health remains a public health priority across the globe (World Health Organization, 2016). Sexual activity and fulfilment is associated with well-being, relationship satisfaction, and reduced risk of chronic disease (Field et al., 2013; Glasier, Gülmezoglu, Schmid, Moreno, & Van Look, 2006) and unsafe sex is listed among the top 10 most important risk factors leading to disease, disability, or death in both the world's poorest and developed countries (Ezzati, Lopez, Rodgers, Vander Hoorn, & Murray, 2002). Sexual health refers to a state of physical, emotional, and social well-being in relation to sexuality, and is not merely the absence of disease, dysfunction or infirmity (World Health Organization, 2006). The term sexuality broadly

refers to outcomes related to sexual thoughts, desires, attitudes, values, relationships, roles, and behaviors that underpin sexual health (World Health Organization, 2006). The determinants of sexual health outcomes are thought to include individual, interpersonal, and environmental factors (Marston & King, 2006) including trait personality (Buss, 1985; Eysenck, 1976). However, a comprehensive research synthesis of personality and sexuality is noticeably absent from the literature. This meta-analytic review sought to determine whether the major dimensions of trait personality relate to components of human sexuality.

We conducted a series of meta-analyses of empirical research testing associations between the big five personality dimensions and facets of sexuality and sexual health. We also considered whether gender and age moderated these associations, as well as methodological differences in measurement and estimated risk of bias in study results. The results of this meta-analysis have implications for theoretical advancement in sexual health psychology and personality science, and can be used to provide an empirical basis for subsequent research on mechanisms linking personality to sexual and reproductive clinical health outcomes. Moreover, the

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findings might be used to improve prognostic capabilities that could be extremely valuable to health care professionals working with high-risk clients (e.g., adolescents from low-socioeconomic backgrounds), and might go some way toward improving health care services that aim to promote sexually healthy societies.

Framework for Personality

The current meta-analysis is framed within in the five-factor model of trait personality (Digman, 1990; McCrae & John, 1992). This model emerged from a series of investigations into the natural language (Goldberg, 1993; John, Naumann, & Soto, 2008) and considers that global personality is best captured through the assessment of five broad trait dimensions: neuroticism, extraversion, openness (sometimes known as intellect or imagination), agreeableness, and conscientiousness. The emergence of these trait dimensions is robust, appearing in both adolescent and adult samples (Caspi, Roberts, & Shiner, 2005), self-report and informant ratings (Mõttus, Allik, & Realo, 2017), and across a variety of languages and cultures (Allik et al., 2017). Using this framework, studies have found that both genetic and environmental factors are important for personality development (De Moor et al., 2012; Specht, Egloff, & Schmukle, 2011) and that these traits are susceptible to change over the adult life span (Donnellan, Hill, & Roberts, 2015; Roberts, Walton, & Viechtbauer, 2006).

The five factor model was chosen as a basis for the current meta-analysis as these dimensions are thought to capture the most basic and general aspects of thought, feeling, and behavior upon which persons are typically perceived to differ (John et al., 2008). These dimensions have also featured most prominently in sexual health psychology research. Although not without its critics (Block, 2010; Eysenck, 1992), the five factor model has become one of the most widely accepted models of personality trait structure (John et al., 2008; McCrae & Costa, 2008). These dimensions are important for life outcomes including academic and occupational success, subjective well-being, mental health, chronic illness, and early mortality (Barrick & Mount, 1991; Jokela et al., 2013; Kotov, Gamez, Schmidt, & Watson, 2010; Poropat, 2009; Steel, Schmidt, & Shultz, 2008).

Previous Meta-Analyses

Previous meta-analyses have explored how some of these traits relate to sexuality and sexual health. A meta-analysis of personality and sexual risk taking (Hoyle, Fejfar, & Miller, 2000) found that unprotected sex had medium associations with neuroticism ($k = 2$, $r_+ = .20$), agreeableness ($k = 2$, $r_+ = -.23$), and conscientiousness ($k = 2$, $r_+ = -.26$), and trivial associations with extraversion ($k = 2$, $r_+ = -.09$) and openness ($k = 2$, $r_+ = -.01$). The meta-analysis also explored sexual history and found that number of lifetime sexual partners had small associations with neuroticism ($k = 3$, $r_+ = .11$) and agreeableness ($k = 3$, $r_+ = -.16$), and trivial associations with extraversion ($k = 3$, $r_+ = .01$), openness ($k = 3$, $r_+ = -.06$), and conscientiousness ($k = 3$, $r_+ = -.08$). A subsequent meta-analysis explored conscientiousness-related traits (e.g., sensation seeking, psychotism, disinhibition) and found that sexual risk taking had a small negative correlation with conscientiousness ($r_+ = -.13$, 95% CI $[-.15, -.11]$) in 25 adult samples (Bogg & Roberts, 2004). There

were no moderation effects by age or type of sexual risk-taking behavior. The meta-analysis also explored sexual aggression and found that conscientiousness-related traits had a negative association with sexually aggressive behavior in four adult samples ($r_+ = -.17$, 95% CI $[-.23, -.12]$).

The relationship between sexual orientation and personality has also been explored using meta-analysis (Lippa, 2005). Using data from eight samples (of the authors' previous work), associations were explored separately for male and female samples. In male samples, homosexual orientation had medium-large effect size correlations with neuroticism ($r_+ = .20$, 95% CI $[.03, .37]$), openness ($r_+ = .42$, 95% CI $[.25, .59]$), agreeableness ($r_+ = .22$, 95% CI $[.05, .39]$), and conscientiousness ($r_+ = .35$, 95% CI $[.18, .52]$), and a trivial effect size correlation with extraversion ($r_+ = .08$, 95% CI $[-.09, .25]$). In female samples, homosexual orientation had medium-large effect size correlations with neuroticism ($r_+ = -.30$, 95% CI $[-.51, -.08]$), openness ($r_+ = .47$, 95% CI $[.26, .69]$), and conscientiousness ($r_+ = -.05$, 95% CI $[-.16, .26]$), and trivial effect size correlations with extraversion ($r_+ = -.04$, 95% CI $[-.19, .23]$) and agreeableness ($r_+ = .01$, 95% CI $[-.20, .23]$). Overall, the data was suggestive of gender moderations for neuroticism, agreeableness, and conscientiousness, but established openness as most strongly connected to sexual orientation (Lippa, 2005).

In addition, a meta-analysis of sexual risk taking among people living with HIV did not identify any research assessing the big five dimensions of personality (Shuper, Joharchi, & Rehm, 2014). As far as we are aware, no other meta-analytic reviews of personality and sexuality have been published. The current meta-analysis builds on this foundation of research by reexamining associations explored in previous meta-analyses updated to include new studies, testing individual differences as potential moderating factors, and extending the focus from sexual risk taking, sexually aggressive behavior, and sexual orientation, to all facets of sexuality, and sexual and reproductive health.

Facets of Human Sexuality

Sexuality is multifaceted and not all components have been explored in relation to personality. We provide a brief overview of those facets that feature in this meta-analytic review. *Sexual activity* has been assessed in a number of ways, and measurements include number of lifetime sexual partners, age of first sexual encounter, and frequency of sexual intercourse with current sexual partner. Sexual activity is common in both younger and older adults (Beckman, Waern, Gustafson, & Skoog, 2008) with people's first sexual encounter occurring at around 17 years of age (Mercer et al., 2013). Longitudinal research shows that number of lifetime sexual partners is higher among men ($M = 14$, median = 6) than women ($M = 7$, median = 4) and these estimates have remained consistent over the last 30 years (Mercer et al., 2013). Researchers have also explored *casual sex* (sometimes termed "sociosexuality") and *sexual infidelity* (sometimes termed "relationship exclusivity"). Men have more positive attitudes toward casual, low-investment sex than women, and report higher levels of casual sex across cultures (Rammsayer, Borter, & Troche, 2017; Schmitt, 2005). It is estimated that 2%–4% of spouses engage in sexual infidelity in a given year, and conservative estimates suggest that infidelity occurs in 15%–25% of all marriages (Fincham

& May, 2017; Labrecque & Whisman, 2017). Rates of infidelity have remained relatively stable over time, but appear to be increasing among older men, and this is thought to reflect increased access to medications that combat age-related sexual dysfunction (Fincham & May, 2017).

Sexual dysfunction refers to frequent and persistent problems with normal sexual functioning and includes problems such as maintaining an erection, difficulty reaching orgasm and premature ejaculation (among men), and arousal problems, pain or discomfort during sexual activity, and difficulty reaching orgasm (among women). Sexual dysfunction tends to increase with age (Nicolosi et al., 2004), is common among men and women (Beckman et al., 2008), and is associated with negative outcomes such as depression and relationship dissatisfaction (Mitchell et al., 2013; Shamloul & Ghanem, 2013). *Sexual desire* (sometimes termed “sex drive”) refers to the level of interest or motivation for sexual activity. Sexual desire discrepancy is the most common sexual complaint among women and is an important determinant of relationship conflict and relationship duration (Mark & Lasslo, 2018). *Hypersexual behavior* (sometimes termed “sexual compulsivity”) refers to exaggerated frequency or focus on sexual behavior, often perceived to be outside the direct control of the individual, that leads to significant distress or impairment in interpersonal domains of functioning (Johnson, Knight, & Alderman, 2006; Reid, Stein, & Carpenter, 2011).

Sexual attitudes have changed in western culture over the past 30 years—most notably attitudes toward same sex couples and premarital sex (Twenge, Sherman, & Wells, 2015)—and there is now greater acceptance of diversity in sexual practices in general (Mercer et al., 2013). Most assessments of sexual attitude can be classified on a common continuum from more conservative attitudes toward sex (e.g., “sex before marriage is wrong”) to more liberal attitudes toward sex (e.g., “sex before marriage is not wrong”). More conservative attitudes toward sexual practices—and homophobic attitudes in particular—are associated with negative outcomes including discrimination (Ozeren, 2014). *Sexual orientation* (a person’s sexual identity in relation to the gender to which they are attracted) is a product of genetic and environmental influences (Jannini, Blanchard, Camperio-Ciani, & Bancroft, 2010; Sanders et al., 2015) and has also changed somewhat over the last 30 years—the proportion of men and women reporting ever having experienced genital contact with a person of the same sex having increased during this time (Mercer et al., 2013).

Risky sexual behavior is a key factor leading to disease, disability, and death (Ezzati et al., 2002). In 2015, an estimated 2.1 million people became infected with HIV (World Health Organization, 2016) and condoms have been established as an effective method of HIV prevention (Foss, Hossain, Vickerman, & Watts, 2007). There has been an increase in condom use in both poor and developed countries that coincides with a decrease in sexually transmitted infections (STI; Gouws, 2010). *Sexual aggression* includes behaviors such as sexual harassment, sexual coercion, and sexual assault. Sexually aggressive acts are largely committed by men (Barth et al., 2016) and are common worldwide (Abrahams et al., 2014). Indeed, the percentage of women worldwide having ever experienced nonpartner sexual violence was 7.2% in 2010 (Abrahams et al., 2014). Sexual assault is prevalent in environments such as university campuses (Fedina, Holmes, & Backes, 2017) and the military (Barth et al., 2016), and it is in these

contexts that sexual assault often goes unreported (Mengeling, Booth, Torner, & Sadler, 2014). The prevalence of *child sexual abuse* (often termed “child molestation”) is similar to sexual violence estimates for adults (Barth, Bermetz, Heim, Trelle, & Tonia, 2013) and can have devastating short- and long-term consequences including depression, anxiety, and suicidal behavior (Devries et al., 2014; Lindert et al., 2014).

Is Personality Important for Sexuality and Sexual Health?

Personality can be predicted to relate to facets of sexuality based on standard conceptualizations of trait dimensions. People who score high on extraversion are characterized as being more sociable, talkative, assertive, and active (Wilt & Revelle, 2017). Because these characteristics are important in sexual attraction (Buss, 1989), we can predict that extraversion will be important for behavioral components of sexuality including sexual activity, involvement in casual sex, sexual infidelity, and risky sexual behavior. Individuals who score high on neuroticism tend to be more anxious, angry, and insecure, whereas those who score low on neuroticism tend to be calm, poised, and emotionally stable (see Tackett & Lahey, 2017). Neuroticism has a strong connection to negative affect (Steel et al., 2008) and therefore we can predict that neuroticism will be important for aspects of sexuality that have an affective component including sexual satisfaction and other emotional responses to sexual activity (e.g., sexual anxiety, infidelity guilt).

Individuals who score high on openness value intellectual and emotional autonomy, acceptance and cultivation of diversity (Roccas, Sagiv, Schwartz, & Knafo, 2002; Sutin, 2017), and therefore openness should manifest as most important for facets related to sexual autonomy including sexual orientation and sexual attitudes (including homophobic attitudes). Individuals who score high on agreeableness are characterized as being good-natured, compliant, modest, gentle, and cooperative (Graziano & Tobin, 2017), and those who score high on conscientiousness are characterized as being self-controlled, responsible, orderly, hardworking, and rule abiding (Roberts, Lejuez, Krueger, Richards, & Hill, 2014). Because these dimensions are important for altruism and the welfare of others, agreeableness and conscientiousness should emerge as most important for sexually aggressive behaviors including sexual coercion, sexual harassment, and sexual assault. In addition, individuals who score high on agreeableness and conscientiousness tend to endorse traditional values (Roccas et al., 2002) meaning these dimensions might also be important for involvement in casual sex, sexual risk taking, and sexual infidelity.

Previous nonsystematic review articles also provide some explicit predictions for personality and sexual health that have not been explored in meta-analysis. Researchers have predicted that extraversion should have a negative association with sexual violence against children (Okami & Goldberg, 1992) and a positive association with exposure to STIs (Pinkerton & Abramson, 1995). The connection between extraversion and STIs is straightforward—if extraverted individuals engage in more casual and risky sexual behavior then this will naturally put them at greater risk of exposure to STIs (Pinkerton & Abramson, 1995). The connection between introversion and child sexual abuse is less easy to explain and theoretical arguments for the connection are somewhat unclear

(see Okami & Goldberg, 1992). The most compelling suggestion might be that both introversion and sexual offending co-occur in response to environmental factors. That is, environmental factors that lead to child sexual offending (e.g., a history of personal sexual abuse) are also those that drive personality change toward introversion (see Jespersen, Lalumière, & Seto, 2009; Roy, 2002).

In addition to extraversion, researchers have also predicted that neuroticism might be important for sexual infidelity (Josephs & Shimberg, 2010). Individuals high in neuroticism tend to have more insecure attachment styles (Jenkins-Guarnieri, Wright, & Johnson, 2013) and individuals with fearful and preoccupied styles of attachment tend to report feelings of neglect or rejection from the primary relationship and a desire for closeness as reasons for seeking an extradyadic relationship (Josephs & Shimberg, 2010).

The Present Meta-Analytic Review

Improving sexual health requires an understanding of the complex factors that shape human sexual behavior. The aim of this study was to conduct a meta-analysis to determine whether personality traits relate to facets of sexuality and sexual health. Moreover, we aimed to (a) calculate more accurate effect sizes estimates for associations explored in previous meta-analyses (Bogg & Roberts, 2004; Hoyle et al., 2000) by including studies published after the publication of those meta-analyses; (b) extend the focus from sexual risk taking, sexually aggressive behavior, and sexual orientation, to all components of human sexuality; and (c) test individual differences (age, gender) that might moderate the magnitude of observed associations. The results of this meta-analysis could have value for theoretical advancement in sexual health psychology and personality science, in terms of furthering understanding of individual difference factors that govern sexual behavior in humans. Considering the importance of sexual behavior for quality of life (Field et al., 2013) and chronic illness (Ezzati et al., 2002), findings from this meta-analysis might also have implications for professional practice in terms of developing targeted interventions that incorporate individual differences.

Method

This meta-analysis was prepared in accordance with the PRISMA statement (Moher, Liberati, Tetzlaff, & Altman, 2009) and the meta-analysis reporting standards (American Psychological Association, 2010).

Eligibility Criteria

Studies were eligible for inclusion if the following criteria were met: (a) the study included a measure of sexuality or sexual health that is sufficiently well defined to be considered consistent with definitions of sexuality and sexual health provided by the World Health Organization (2006); and (b) the study used a measure of personality that was consistent with personality trait theory (i.e., captures cross-situational consistency) and assessed at least one of the following traits: neuroticism, extraversion, openness, agreeableness, or conscientiousness.

Search Strategy

We conducted a systematic search of 10 electronic databases covering all years up to the search date (initially conducted in

December 2016 and updated in December 2017). The databases searched were: Web of Science; PubMed; Science Direct; Scopus; PsycINFO, PsycARTICLES, MEDLINE, CINAHL and ERIC via EBSCO; and ProQuest. The search terms were developed by two researchers and were based on search terms used in previous meta-analytic reviews of sexual health (e.g., Abrahams et al., 2014; Marston & King, 2006) and personality (e.g., Allen, Walter, & McDermott, 2017; Kotov et al., 2010). The search terms used were: personality (or extravert*/or extover*/or introvert*/or intraver*/or neurotic*/or "emotional stability"/or openness/or agreeable*/or conscientious*/or "big five"/or "five factor"/or trait) AND sexual* (or masturbate*/or orgasm/or "sex drive"/or homosexual*/or homophob*/or erectile/or "child molest"/or rape/or paedophil*/or infidelity/or "relationship exclusivity.") An example of the full search strategy is reported in the [online Supplementary File S1](#). A single researcher screened the titles, keywords, and abstracts of each study for eligibility (see the [online Supplementary File S2](#) for details of search engine hits). If a study appeared to meet eligibility criteria, or if the relevance of the study was uncertain, full texts were obtained.

Introduction sections and reference lists of identified studies were manually searched for further relevant articles by two researchers (using a snowball search strategy). Titles of all articles published in *Archives of Sexual Behavior*, *International Journal of Sexual Health*, *The Journal of Sex Research*, and *The Journal of Sexual Medicine* were also screened by a single researcher for further relevant studies. Full texts of all identified studies were then independently assessed for inclusion by two researchers. [Figure 1](#) summarizes the screening procedure. A total of 7,561 records were identified through electronic database and manual searches. After title, keyword, and abstract screening, the full texts of 206 studies were obtained. The main reasons for exclusion were an unclear measure of personality, sexuality, or sexual health, unclear analyses, or review article with no empirical tests (see the [online Supplementary File S3](#) for details). In total, 136 studies were eligible for inclusion.

For identified studies, e-mail addresses were extracted for 72 authors. Authors were contacted and requests were made for any additional unpublished work that had explored associations between personality and sexuality, and sexual and reproductive health. In total, 15 e-mails were undeliverable (e-mail addresses had expired) and 20 e-mail responses were received from contacted authors. One author provided information from an unpublished doctoral dissertation resulting in a final sample size of 137 studies. All other authors indicated that they had no unpublished research on the topic area.

Data Extraction and Risk of Bias

Data extraction was performed independently by two researchers. Based on the Cochrane Collaboration "checklist of items to consider in data collection or data extraction" (Higgins & Green, 2011), information extracted from each study included: the study design, total sample size, nation where the study was completed, age and gender of participants, effect size estimates, and other information used to assess risk of bias (see the [online Supplementary File S4](#)). The Newcastle-Ottawa scale (Wells et al., 2009) was used to assess risk of bias (see the [online Supplementary File S5](#) for risk of bias computation table). The scale is designed for

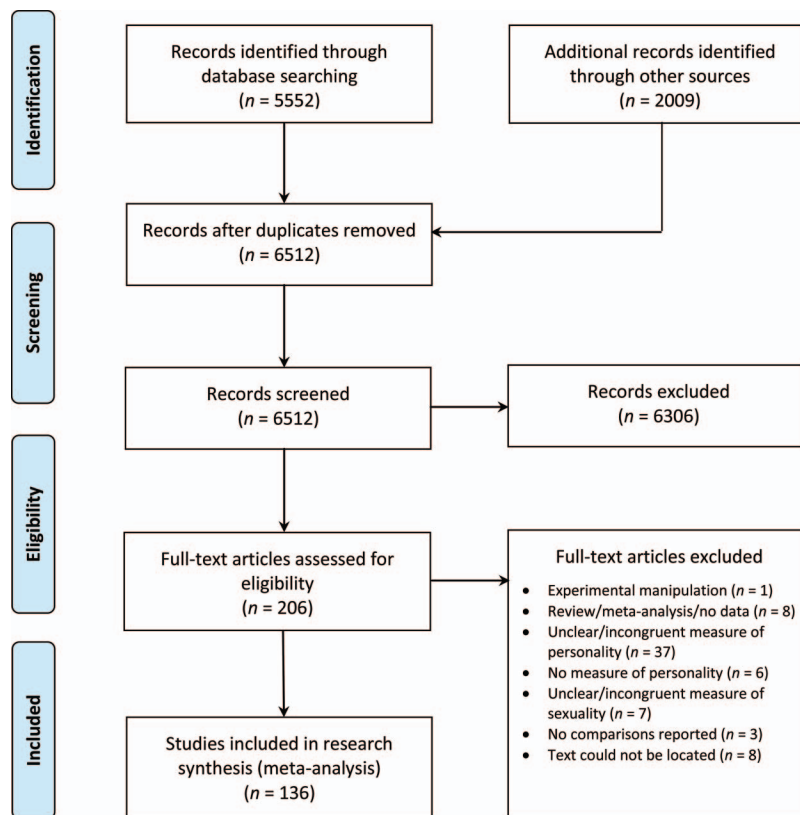


Figure 1. Flow diagram for database search and record screening. See the online article for the color version of this figure.

nonexperimental studies and includes eight items (scored on a 2- or 3-point scale) that measure aspects of study quality including sample selection, comparability, and outcomes. Studies scoring between 0 and 6 were coded as having high risk of bias in the results and those scoring between 7 and 9 were coded as having low risk of bias in the results. Interrater reliability between the two researchers extracting data was high at $r = .99$.

Data Analysis

We selected Pearson's r as our effect size index as the majority of studies included in this meta-analysis used continuous measures and r was the most common statistic reported. Calculation of the pooled mean effect size (r_+) was conducted using inverse-variance weighted random effects meta-analysis. The inverse-variance method, in which each included effect size is given a weight equal to the inverse of its variance, allows more weight to be given to more precise studies (Borenstein, Hedges, Higgins, & Rothstein, 2009). Effect sizes were taken directly from the published studies or were converted to r prior to analyses using standard formulae (Borenstein et al., 2009). In instances where a study reported standardized regression coefficients but not correlation coefficients, r was imputed using the following formula: $r = 98\beta + .05\lambda$, where λ is an indicator variable that equals 1 when β is non-negative and 0 when β is negative (Peterson & Brown, 2005). Coefficients were not corrected for control variables and a full list

of control variables within studies is available in the [online Supplementary File S6](#).

In instances where a study reported a nonsignificant association but did not report an effect size, the pooled mean effect was explored both with the study excluded and with an effect size of zero imputed (a sensitivity analysis) to check on the robustness of results (Pigott, 1994). In instances where a significant effect was reported, but no computable effect size was presented (and authors were uncontactable), data were first explored with the study excluded and sensitivity analyses were also computed with the pooled mean effect imputed for the study (Pigott, 1994). Some studies reported multiple effect sizes for a facet of sexual health (e.g., emotions separated as sexual guilt and sexual anxiety). In such instances, effect sizes were averaged within studies resulting in one effect size (per personality trait) for each sample. Some studies also provided multiple effect sizes for conceptually similar facets (e.g., number of lifetime sexual partners and a subjective rating of sexual experience as measures of sexual activity). In these instances, the more objective effect size estimate (lifetime sexual partners) was selected as more accurately capturing the construct of interest.

We estimated statistical significance and magnitude of heterogeneity across studies using the I^2 and Q statistics (Higgins, Thompson, Deeks, & Altman, 2003). A statistically significant Q statistic indicates meaningful heterogeneity. Examination of funnel

plots and rank correlations (Begg & Mazumdar, 1994) were used to search for evidence of publication bias. The potential impact of publication bias was assessed using the trim and fill procedure (Duval & Tweedie, 2000). To test for the impact of moderating variables, we employed a protocol for random effects metaregression (Borenstein et al., 2009) in which the correlation between each personality trait and facet of sexuality was set as the criterion variable and the moderating variable as the predictor, with studies being weighted by their inverse variance weights. Moderator effects were explored for age, gender, study quality, and subfacet where appropriate. Subfacet and study quality were entered as categorical data. For gender, we entered the percentage of men in each sample as an integer variable, with the exception of sexual orientation and sexual dysfunction where gender was fixed across studies and entered as a categorical variable.

Regression models were tested using maximum likelihood estimation. Moderator terms were explored in combination (forced entry regression) and followed-up by testing each moderator independently. Missing data for moderator terms (usually mean age of the sample) were handled through listwise deletion for simple metaregression and multiple metaregression models. Correlation matrices of regression coefficients were explored for high covariance between moderators. When moderators were highly confounded we present findings from the multiple moderator models. Data analyses were computed using Comprehensive Meta-Analysis 3.0 statistical software (Borenstein, Hedges, Higgins, & Rothstein, 2014). Consistent with contemporary guidelines for effect size interpretation in individual differences research (Gignac & Szodorai, 2016), an effect was considered trivial at $< .11$, small at $.11$ to $.18$, medium at $.19$ to $.29$, and large at $> .29$.

Results

Overview of Studies

The characteristics of included studies are summarized in Table 1. The 137 studies included 761 effect sizes. There were 127 cross-sectional studies and 10 prospective studies, and a total of 420,595 participants. Samples were from North America ($n = 66$), Europe ($n = 50$), Asia ($n = 9$), Australasia ($n = 5$), Nigeria ($n = 2$), and multicontinental ($n = 5$). Most studies used young and middle age adult samples (age 17–55 years; grand mean age = 28.21 years, $SD = 10.14$), with few studies on adolescents under 17 ($n = 3$) or adults over 55 ($n = 1$). The overall balance of male to female participants was 56.1% male. Risk of bias scores ranged from 3 to 9 ($M = 6.54$, $SD = 1.29$), with 63 studies (46%) classified as low risk (≥ 7). Facets extracted for analysis were: sexual activity (subfacets: lifetime sexual partners, casual sex), sexual infidelity, sexual orientation, sexual satisfaction, sexual emotion, sexual cognition, sexual attitudes (subfacet: homophobic attitudes), sexual dysfunction, sexual desire, hypersexual behavior, risky sexual behavior, sexually transmitted infections, sexual aggression (subfacets: sexual harassment, sexual coercion, sexual assault), and child sexual abuse. Table 2 summarizes main findings. A more detailed version of Table 2 (including number of pooled participants within analyses and heterogeneity estimates) is reported in the online Supplementary File S7. Individual study effect size estimates are available in the online Supplementary File S8 and Forest plots for all meta-analyses are available in the online Supplementary File S9.

Sexual Activity

Extraversion showed the strongest connection to sexual activity as hypothesized ($k = 24$, $r_+ = .17$, $p < .001$), with trivial to small significant associations observed for agreeableness ($k = 19$, $r_+ = -.10$, $p < .001$) and conscientiousness ($k = 19$, $r_+ = -.05$, $p = .001$). Sensitivity analyses, involving the imputation of one additional effect for extraversion and neuroticism, produced identical results. There was little evidence of publication bias. Rank correlation tests were all nonsignificant but the trim and fill procedure suggested that three to six effects be filled. The impact of this imputation appeared minimal in all cases: neuroticism ($r_+ = -.00$, 95% CI $[-.03, .02]$), extraversion ($r_+ = .12$, 95% CI $[.07, .17]$), openness ($r_+ = .06$, 95% CI $[.02, .09]$), and conscientiousness ($r_+ = -.04$, 95% CI $[-.07, -.01]$).

There was significant heterogeneity for all associations, supporting the use of metaregression to search for potential moderators. Age, gender, study quality, and measure of sexual activity were entered as predictors. There was a significant regression model for openness, $\chi^2(5) = 73.70$, $p < .001$, $R^2 = 1.00$, with a significant regression coefficient observed for sample age ($b = .003$, 95% CI $[.001, .004]$). There was also a significant regression model for conscientiousness, $\chi^2(5) = 14.97$, $p = .011$, $R^2 = .80$, again with a significant regression coefficient for age ($b = .002$, 95% CI $[.001, .004]$). The positive coefficients indicate that the negative association between conscientiousness and sexual activity was stronger in samples comprising younger persons, and that the positive association between openness and sexual activity was stronger in samples comprising older persons. Findings for casual sex and lifetime sexual partners were also tested independently in order to compare findings to previous meta-analyses (see Table 2).

Sexual Infidelity

Agreeableness ($k = 10$, $r_+ = -.18$, $p < .001$) and conscientiousness ($k = 11$, $r_+ = -.17$, $p < .001$) had the strongest associations with sexual infidelity as hypothesized. Extraversion also showed a significant, albeit trivial, positive effect ($k = 11$, $r_+ = .09$, $p < .001$). Sensitivity analysis, involving the imputation of one additional effect for extraversion and openness, produced identical results. There was some evidence of publication bias in the results. The trim and fill procedure indicating that two to four effects be filled for neuroticism, extraversion, and conscientiousness. The effect of these imputations was minimal for extraversion ($r_+ = .06$, 95% CI $[.02, .10]$) and conscientiousness ($r_+ = -.19$, 95% CI $[-.23, -.15]$), but suggested a potential positive association between neuroticism and infidelity might have been missed due to publication bias (three effects imputed, $r_+ = .10$, 95% CI $[.03, .17]$).

Age, gender, and study quality were tested as moderators in metaregression. There was a significant regression model for neuroticism, $\chi^2(3) = 31.71$, $p < .001$, $R^2 = .53$, with a significant regression coefficient for sample age ($b = .011$, 95% CI $[.001, .022]$), and for conscientiousness, $\chi^2(3) = 10.35$, $p = .016$, $R^2 = .92$, with a significant regression coefficient for risk of bias ($b = .16$, 95% CI $[.04, .29]$). The positive regression coefficients indicate that the association between neuroticism and sexual infidelity increased as the sample age increased, and that the negative association between conscientiousness and sexual infidelity was stronger among studies coded as being of lower quality ($k = 6$,

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Table 1
Characteristics of Included Studies

Study	N	Study design	Nation	Gender (% male)	Age		Sexuality	Personality	Risk of bias
					Range	M (SD)			
Afolabi and Adesina (2011)	215	Cross-sectional	Nigeria	Both (63%)	17–31		Risky sexual behavior (unspecified)	A, N	5
Agnew, Thompson, Smith, Gramzow, and Currey (1993)	288	Cross-sectional	U.S.	Both (50%)	17–24		Sexual attitudes (homophobia)	O, A	5
Allen and Desille (2017)	5,745	Cross-sectional	United Kingdom	Both (44%)	50–100	65.6 (8.3)	Sexual attitudes; Sexual desire (sex drive); Sexual activity (lifetime sexual partners); Sexual partners; Sexual emotion (sexual satisfaction); Sexual dysfunction; Sexual orientation	O, C, E, A, N	9
Andersen and Cyranowski (1995)	172	Cross-sectional	U.S.	Female			Sexual activity (lifetime sexual partners); Sexual desire (sex drive)	O, C, E, A, N	4
Baams, Overbeek, Dubas, and van Aken (2014)	407	Prospective	Netherlands	Both (47%)	13–16	14.5 (.6)	Sexual activity (casual sex); Risky sexual behavior (combined)	O, C, E, A, N	7
Baams et al. (2015)	1,230	Prospective	Netherlands	Both (45%)		13.9 (1.1)	Sexual activity (sexual experience)	O, C, E, A, N	8
Barnes, Malamuth, and Check (1984)	307	Cross-sectional	Canada	Male		19	Sexual activity; Sexual coercion; Child sexual abuse (pedophilia); Sexual orientation	E, N	7
Barta and Kiene (2005)	432	Cross-sectional	U.S.	Both (27%)		19	Sexual infidelity	O, C, E, A, N	7
Beard, Belsey, Lal, Lewis, and Greer (1974)	360	Cross-sectional	United Kingdom	Female			Risky sexual behavior (contraception use); Unwanted pregnancy	E, N	6
Becerra-Garcia et al. (2012)	1,440	Cross-sectional	Spain and United Kingdom	Male			Child sexual abuse (child molestation)	O, C, E, A, N	7
Becerra-Garcia et al. (2013)	112	Cross-sectional	Spain and United Kingdom	Male	22–73	44.8 (11.1)	Child sexual abuse (child molestation)	O, C, E, A, N	8
Bobkowski, Shafer, and Ortiz (2016)	265	Cross-sectional	U.S.	Both (44%)		13.9 (.7)	Sexual emotion (sexual self-concept)	E	8
Bogaert, Ashton, and Lee (2017)	96,381	Cross-sectional	Multiregional	Both (51%)		37.1 (14.0)	Sexual orientation	O, C, E, A, N	9
Boillat, Deuring et al. (2017)	61	Cross-sectional	Switzerland	Male	18–55		Child sexual offending	O, C, E, A, N	6
Boillat, Schwab et al. (2017)	63	Cross-sectional	Switzerland	Male	18–55		Child sexual offending	N	6

(table continues)

Table 1 (continued)

Study	N	Study design	Nation	Gender (% male)	Age		Sexuality	Personality	Risk of bias
					Range	M (SD)			
Bourdage, Lee, Ashton, and Pery (2007)	230	Cross-sectional	Canada	Both (47%)	19–52	22.5 (3.9)	Sexual orientation; Sexual infidelity (relationship exclusivity); Casual sex (sociosexuality)	O, C, E, A, N	6
Bozkurt et al. (2006)	160	Cross-sectional	Turkey	Male	25–69	25.3 (5.1)	Sexual orientation	E, N	7
Burri, Spector, and Rahman (2013)	90	Cross-sectional	United Kingdom	Female	25–69	55	Sexual satisfaction; Sexual dysfunction (combined)	O, C, E, A, N	8
Buss (1991)	214	Cross-sectional	U.S.	Both (50%)	17–41	26	Sexual aggression	O, C, E, A, N	5
Buss and Shackelford (1997)	214	Cross-sectional	U.S.	Both (50%)	17–41	26	Sexual infidelity	O, C, E, A, N	6
Carvalho and Nobre (2013)	91	Cross-sectional	Portugal	Male	18–58		Child sexual abuse (child molestation); Sexual aggression	O, C, E, A, N	8
Carvalho, Lemos, and Nobre (2017)	164	Cross-sectional	Portugal	Both (23%)	18–46		Sexual aggression (asexual orientation)	O, C, E, A, N	7
Carvalho, Verissimo, and Nobre (2015)	189	Cross-sectional	Multiregional	Female	18–83	36.4 (16.1)	Persistent genital arousal	O, C, E, A, N	7
Clemens, Atkin, and Krishnan (2015)	678	Cross-sectional	U.S.	Both (51%)	18–30		Sexual orientation	O, C, E, A, N	8
Cooper, Agocha, and Sheldon (2000)	1,666	Prospective	U.S.	Both (47%)	17–26	21.4	Risky sexual behavior (condom use)	E, N	9
Costa, Fagan, Piedmont, Ponticas, and Wise (1992)	454	Cross-sectional	U.S.	Both (64%)	17–71	40	Sexual attitudes; Sexual desire; Sexual emotion (negative emotions combined)	O, C, E, A, N	5
Crisp et al. (2013)	50	Cross-sectional	U.S.	Female	18–79	39.7 (12.7)	Sexual dysfunction (multiple)	O, C, E, A, N	4
Crisp, Vaccaro, Fellner, Kleeman, and Pauls (2015)	526	Cross-sectional	U.S.	Female	18–79	43.0 (10.4)	Sexual dysfunction (multiple)	O, C, E, A, N	6
Cullen, Wright, and Alessandri (2002)	123	Cross-sectional	U.S.	Both (37%)	17–55	22.2 (5.8)	Sexual attitudes (homophobia)	O, E, N	6
Daspe et al. (2015)	539	Cross-sectional	Canada	Both (50%)	22–70	41	Sexual satisfaction	N	8
Daspe et al. (2016)	573	Cross-sectional	Canada	Both (50%)	18–47	29	Sexual coercion	N	8
Davis, Shaver, and Vernon (2004)	1,999	Cross-sectional	U.S.	Both (38%)	15–78	25.3	Sexual desire (sexual motivation)	N	9
Dennison, Stough, and Birgden (2001)	64	Cross-sectional	Australia	Male	17–55	47 (9.9)	Child sexual abuse	O, C, E, A, N	5
Dinić and Knežević (2009)	233	Cross-sectional	Serbia	Both (43%)	17–65	29.3 (8.8)	Sexual satisfaction	E, N	7
Donnellan, Conger, and Bryant (2004)	418	Prospective	U.S.	Both (50%)	30–69	39	Sexual satisfaction	O, C, E, A, N	8
Edwin (2017)	300	Cross-sectional	Nigeria	Both (44%)	16–77	41.9 (13.8)	Sexual satisfaction	O, C, E, A, N	6
Egan, Kavanagh, and Blair (2005)	200	Cross-sectional	United Kingdom	Male	16–77		Child sexual abuse (attitudes)	O, C, E, A, N	7
Ekehammar and Akrami (2003)	156	Cross-sectional	Sweden	Both (51%)	18–57	23.8	Sexual attitudes (homophobia)	O, C, E, A, N	6

Table 1 (continued)

Study	N	Study design	Nation	Gender (% male)	Age		Sexuality	Personality	Risk of bias
					Range	M (SD)			
Ekehammar, Akrami, Gylje, and Zakrisson (2004)	183	Cross-sectional	Sweden	Both (47%)		22.9	Sexual attitudes (homophobia)	O, C, E, A, N	6
Eysenck (1972)	802	Cross-sectional	United Kingdom	Both (53%)	17–24		Sexual behaviors (various)	E, N	8
Fagan et al. (1991)	102	Cross-sectional	U.S.	Male		36.7	Sexual dysfunction (combined)	O, C, E, A, N	7
Farley and Davis (1980)	102	Cross-sectional	U.S.	Both (50%)			Sexual satisfaction	E, N	5
Fernandez and Castro (2003)	255	Cross-sectional	Spain	Both (23%)		21.4 (3.9)	Sexual attitudes	O, C, E, A, N	6
Firoozi, Azmoude, and Asgharipour (2016)	127	Cross-sectional	Iran	Female		27.4 (6.2)	Sexual emotion (sexual self-esteem)	O, C, E, A, N	5
Fisher and McNulty (2008)	72	Prospective	U.S.	Both (50%)		24	Sexual satisfaction	N	6
Fontaine (1994)	74	Cross-sectional	United Kingdom	Male	18–35	21.2 (2.5)	Risky sexual behavior (combined)	E, N	5
Forbes and Adams-Curtis (2001)	146	Cross-sectional	U.S.	Both (45%)	17–19		Sexual coercion	O, C, E, A, N	6
Fulford, Catterall, Hoinville, Lim, and Wilson (1983)	180	Cross-sectional	United Kingdom	Male			Sexually transmitted infections	E, N	4
Gibson, Thompson, and O'Sullivan (2016)	474	Cross-sectional	U.S.	Both (44%)		23.2 (2.2)	Sexual infidelity	O, C, E, A, N	5
Gingrich and Campbell (1995)	96	Cross-sectional	U.S.	Male	24–72	36.5	Child sexual abuse (pedophilia); Rape	E, N	4
Goldenberg, Pyszczynski, McCoy, Greenberg, and Solomon (1999)	73	Cross-sectional	U.S.	Both (21%)	19–45	24.7 (6.3)	Sexual desire (appeal of sex)	N	6
Gosselin, Wilson, and Barrett (1991)	87	Cross-sectional	United Kingdom	Female			Sexual activity; Sexual cognition (sexual fantasies)	E, N	5
Greaves, Barlow, Huang, Stronge, and Sibley (2017)	14,227	Cross-sectional	New Zealand	Both (39%)	18–94	47.0 (13.9)	Sexual orientation	O, C, E, A, N	9
Gudjonsson and Sigurdsson (2000)	91	Cross-sectional	Iceland	Male	15–53		Child sexual abuse (child molestation); Rape	E, N	6
Gute and Eshbaugh (2008)	247	Cross-sectional	U.S.	Both (22%)		19.4 (1.7)	Sexual activity (casual sex)	O, C, E, A, N	6
Hald and Malamuth (2015)	200	Cross-sectional	Denmark	Both (50%)	18–30		Sexual violence (attitudes towards violence)	A	6
Harris, Yulis, and Lacoste (1980)	200	Cross-sectional	Canada	Both (50%)	18–25	20.4 (1.5)	Sexual dysfunction (multiple)	E	6
Harris, Cherkas, Kato, Heiman, and Spector (2008)	2,632	Cross-sectional	United Kingdom	Female	18–78	51 (12.0)	Sexual dysfunction (frequency of orgasm)	O, C, E, A, N	9

(table continues)

Table 1 (continued)

Study	N	Study design	Nation	Gender (% male)	Age		Sexuality	Personality	Risk of bias
					Range	M (SD)			
Hart (1973)	488	Cross-sectional	Vietnam	Male			Sexual activity (age of first sexual encounter); Sexual emotion (sexual guilt)	E, N	7
Hartmann, Heiser, Ruffer-Hesse, and Kloth (2002)	146	Cross-sectional	Germany	Female	17–64	40.6	Sexual desire (sexual interest)	O, C, E, A, N	3
Hawley and Hensley (2009)	231	Cross-sectional	U.S.	Both (51%)		19.7 (1.8)	Sexual cognition (sexual fantasies)	N	6
Heaven, Fitzpatrick, Craig, Kelly, and Sebar (2000)	123	Cross-sectional	Australia	Both (41%)		21.0 (5.7)	Sexual satisfaction; Sexual emotion (multiple)	O, C, E, A, N	6
Hornsveld and De Kruyk (2005)	174	Cross-sectional	Netherlands	Male	16–76		Sexual violence	O, C, E, A, N	8
Hudek-Knezevic et al. (2007)	422	Cross-sectional	Croatia	Both (48%)	17–38	21.0 (2.2)	Risky sexual behavior (multiple)	O, C, E, A, N	7
Ingledew and Ferguson (2007)	285	Cross-sectional	United Kingdom	Both (45%)	18–21	18.9 (1.0)	Risky sexual behavior (various)	O, C, E, A, N	6
Kalina et al. (2009)	882	Cross-sectional	Slovakia	Both (43%)	19–23	20.5 (1.4)	Risky sexual behavior (various)	E, N	6
Kennedy, Dickens, Eisfeld, and Bagby (1999)	134	Cross-sectional	Canada	Both (41%)		38.8 (11.5)	Sexual dysfunction (arousal and orgasm)	O, C, E, A, N	5
Krings and Facchin (2009)	110	Cross-sectional	Switzerland	Male			Sexual harassment	C, A, N	6
Kumar and Agarwal (1989)	93	Cross-sectional	India	Both (43%)	16–45		Sexual dysfunction (multiple); Sexual satisfaction	E, N	6
Kurpisz (2016)	200	Cross-sectional	Poland	Male	18–65		Sexual dysfunction (erectile dysfunction)	O, C, E, A, N	5
Kurpisz et al. (2016)	97	Cross-sectional	Poland	Male	19–39	29.3 (5.8)	Sexual activity (multiple); Risky sexual behavior (coitus interruptus); Sexual satisfaction; Sexual dysfunction (multiple)	O, C, E, A, N	5
Lam and Chan (2007)	229	Cross-sectional	Hong-Kong	Male	18–25	21.5 (1.8)	Sexual harassment	O	6
Lee, Gizzarone, and Ashton (2003)	150	Cross-sectional	Australia	Male		23.1 (9.0)	Sexual harassment	O, C, E, A, N	6
Leeners, Hengartner, Rössler, Ajdacic-Gross, and Angst (2014)	299	Prospective	Switzerland	Female	30–50		Sexual dysfunction (frequency of orgasm)	O, E	8
Lippa (2005)	7,651	Meta-analysis	U.S.	Both (48%)			Sexual orientation	O, C, E, A, N	8
Lippa (2008)	205,818	Cross-sectional	Multiregional	Both (55%)			Sexual orientation	E, A, N	8
Lodi-Smith, Shepard, and Wagner (2014)	595	Cross-sectional	U.S.	Both (41%)	18–59	23.7 (5.9)	Sexually deviant behavior	O, C, E, A, N	8

Table 1 (continued)

Study	N	Study design	Nation	Gender (% male)	Age		Sexuality	Personality	Risk of bias
					Range	M (SD)			
Mayfield (2001)	241	Cross-sectional	U.S.	Male	18–66	33.9 (9.6)	Sexual attitudes (towards homosexuality)	E, N	7
McCown (1991, Study 2)	86	Cross-sectional	U.S.	Male			Risky sexual behavior (multiple)	E, N	4
McCown (1993)	109	Cross-sectional	U.S.	Male		34 (12.2)	Risky sexual behavior (multiple)	E, N	5
McNulty, Wenner, and Fisher (2016)	207	Prospective	U.S.	Both (50%)		24 (4)	Sexual satisfaction; Sexual activity (frequency of sexual intercourse)	N	8
Ménard et al. (2010)	426	Cross-sectional	U.S.	Both (35%)		20.3 (2.2)	Sexual harassment; Sexual coercion	O, C, E, A, N	7
Meston and Buss (2007)	1,549	Cross-sectional	U.S.	Both (32%)	16–42		Sexual desire (sexual motivation)	O, C, E, A, N	6
Miller et al. (2004)	481	Cross-sectional	U.S.	Both (50%)		21	Risky sexual behavior (sex without condom); Number of sexual partners	O, C, E, A, N	8
Miller, Wagner, and Hunt (2012)	117	Cross-sectional	U.S.	Both (11%)		20.7 (4.4)	Sexual attitudes (homophobia)	O, C, E, A, N	5
Miri, AlifBesharat, Asadi, and Shahyad (2011)	140	Cross-sectional	Iran	Both (50%)		35 (9.1)	Sexual desire (sex drive)	O, C, E, A, N	5
Moore et al. (2017)	970	Cross-sectional	U.S.	Both (34%)		20.9 (.8)	Risky sexual behavior (multiple)	E	8
Mörtus et al. (2012)	2,110	Cross-sectional	Estonia	Both (44%)	19–89	45.8 (17.0)	Sexually transmitted infections (various)	O, C, E, A, N	8
Mouilso and Calhoun (2012)	235	Cross-sectional	U.S.	Male		19.5 (1.8)	Sexual assault	O, C, E, A, N	6
Moyano and Sierra (2013)	1,500	Cross-sectional	Spain	Both (43%)	18–72		Sexual cognition (sexual fantasies)	O, E, N	8
Moylett and Hughes (2017)	749	Cross-sectional	Ireland	Female	18–25	20.2 (1.8)	Sexual activity (frequency of sexual intercourse)	O, C, E, A, N	8
Muram, Rosenthal, Tolley, Peeler, and Dorko (1991)	153	Cross-sectional	U.S.	Female	16–18		Sexual attitudes (premarital sex)	E, N	6
Nettle (2005)	545	Cross-sectional	United Kingdom	Both (37%)	18–78	39.5 (10.6)	Sexual desire; Sexual activity (lifetime sexual partners); Sexual infidelity	E	7
Olmstead, Pasley, and Fincham (2013)	412	Cross-sectional	U.S.	Male	18–25	19.4 (1.3)	Casual sex	O, C, E, A, N	7
Orzeck and Lung (2005)	208	Cross-sectional	U.S.	Both (50%)	18–25	20.5	Sexual infidelity	O, C, E, A, N	7
Osborn, Hawton, and Gath (1988)	436	Cross-sectional	United Kingdom	Female	35–59		Sexual dysfunction (combined)	N	6
Peitl et al. (2009)	300	Cross-sectional	Croatia	Male			Sexual dysfunction (combined); Sexual desire	O, C, E, A, N	6

(table continues)

Table 1 (continued)

Study	N	Study design	Nation	Gender (% male)	Age		Sexuality	Personality	Risk of bias
					Range	M (SD)			
Peixoto and Nobre (2016)	285	Cross-sectional	Portugal	Both (50%)			Sexual orientation; Sexual dysfunction (multiple)	O, C, E, A, N	7
Peixoto and Nobre (2017)	1,121	Cross-sectional	Portugal	Female	18–62	24.2 (7.2)	Sexual attitudes	E, N	8
Pham et al. (2015)	346	Cross-sectional	U.S.	Male			Sexual behavior (various)	O, C, E, A, N	7
Pinto, Carvalho, and Nobre (2013)	152	Cross-sectional	Portugal	Male	18–33	22 (2.6)	Hypersexual behavior (compulsive behavior)	O, C, E, A, N	6
Puckett, Newcomb, Garofalo, and Mustanski (2016)	450	Prospective	U.S.	Male		18.9 (1.3)	Sexual attitudes (internalized homophobia)	N	8
Quinta Gomes and Nobre (2011)	205	Cross-sectional	Portugal	Male	18–72	35	Sexual dysfunction (multiple)	O, C, E, A, N	6
Raynor and Levine (2009)	583	Cross-sectional	U.S.	Both (26%)			Risky sexual behavior (condom use)	O, C, E, A, N	7
Reid, Carpenter, Spackman, and Willes (2008)	120	Cross-sectional	U.S.	Both (97%)	18–58		Hypersexual behavior	N	6
Reid, Stein, and Carpenter (2011)	95	Cross-sectional	U.S.	Male	19–54	31.8 (8.3)	Hypersexual behavior	N	6
Rettenberger, Klein, and Briken (2016)	1,749	Cross-sectional	Germany	Both (43%)	18–62	24.4 (4.4)	Hypersexual behavior	O, C, E, A, N	6
Ruiz-Palomino, Ballester-Amal, and Gil-Llario (2017)	408	Cross-sectional	Spain	Both (41%)		20.7 (2.2)	Risky sexual behavior (condom use)	O, C, E, A, N	8
Schenk and Pfrang (1986)	498	Cross-sectional	Germany	Male			Lifetime sexual partners	E, N	6
Schmitt (2004)	16,362	Cross-sectional	Multiregional	Both (42%)			Casual sex (sexual promiscuity); Sexual infidelity	O, C, E, A, N	8
Schmitt (2006)	12,550	Cross-sectional	Multiregional	Both (42%)			Sexual orientation; Sexual attitudes (sociosexuality)	O, C, E, A, N	8
Schmitt and Buss (2000)	367	Cross-sectional	U.S.	Both (41%)		23.0 (5.1)	Sexual infidelity (relationship exclusivity); Sexual desire (erotophilic disposition); Sexual orientation; Sexual activity (sexual restraint)	O, C, E, A, N	7
Segraves and Segraves (1986)	31	Cross-sectional	U.S.	Male	32–73		Sexual dysfunction (erectile dysfunction)	E, N	5
Shackelford, Besser, and Goetz (2008)	214	Cross-sectional	U.S.	Both (50%)		26	Sexual infidelity	C	6

Table 1 (continued)

Study	N	Study design	Nation	Gender (% male)	Age		Sexuality	Personality	Risk of bias
					Range	M (SD)			
Shafer (2001)	187	Cross-sectional	U.S.	Both (37%)			Sexual satisfaction; Sexual attitudes (towards masturbation); Sexual emotion (sexual anxiety); Sexual desire (sexual motivation)	O, C, E, A, N	6
Silvaggi et al. (2017)	207	Cross-sectional	Italy	Male	18–70	39.9 (11.5)	Sexual dysfunction	E, N	5
Smith and Brown (1998)	304	Cross-sectional	U.S.	Both (40%)		20.0 (3.4)	Risky sexual behavior (condom use)	E	5
Smith, Neziek, Webster, and Paddock (2007)	118	Cross-sectional	U.S.	Both (33%)			Sexual infidelity (relationship exclusivity) Sexual orientation Sexual desire (erotophilic disposition) Sexual activity (sexual restraint); Sexual emotion (sexual guilt)	O, C, E, A, N	6
Strand, Wise, Fagan, and Schmidt (2002)	120	Cross-sectional	U.S.	Male		47.8 (13.3)	Sexual dysfunction (erectile dysfunction)	O, C, E, A, N	6
Trobst, Herbst, Masters, and Costa (2002)	201	Cross-sectional	U.S.	Both (44%)	18–62	29.8	Risky sexual behavior (multiple); Sexually transmitted infections	O, C, E, A, N	5
Turchik, Garske, Probst, and Irvin (2010)	310	Cross-sectional	U.S.	Both (28%)	18–23	19.0 (1.0)	Risky sexual behavior (various); Sexual desire (sexual excitation)	O, C, E, A, N	7
van Leeuwen and Mace (2016)	2,877	Prospective	U.S.	Both (43%)		17.8 (.4)	Sexual activity	O, C, E, A, N	9
Voller and Long (2010)	521	Cross-sectional	U.S.	Male	18–55	20.2 (2.8)	Sexual assault; Rape	O, C, E, A, N	6
Vollrath, Knoch, and Cassano (1999)	683	Cross-sectional	Switzerland	Both (47%)		24.8 (3.5)	Risky sexual behavior (multiple)	O, C, E, A, N	7
Waite, Iveniuk, Laumann, and McClintock (2017)	953	Cross-sectional	U.S.	Both (50%)	36–99		Sexual activity (frequency of sex)	O, C, E, A, N	8
Walton, Cantor, and Lykins (2017)	510	Cross-sectional	U.S.	Both (52%)		33 (12)	Hypersexual behavior	O, C, E, A, N	8
Wells and Schofield (1972)	141	Cross-sectional	United Kingdom	Male		26 (10)	Sexual orientation	E, N	5

(table continues)

Table 1 (continued)

Study	N	Study design	Nation	Gender (% male)	Age		Sexuality	Personality	Risk of bias
					Range	M (SD)			
Whisman, Gordon, and Chatav (2007)	2,291	Cross-sectional	U.S.	Both (45%)	15–54	37.1 (8.6)	Sexual infidelity	N	8
Williams, Cooper, Howell, Yuille, and Paulhus (2009)	88	Cross-sectional	U.S.	Male		20.4 (3.0)	Sexual assault; Child sexual abuse (pedophilia); Sexual cognition (sexual fantasies)	O, C, E, A, N	6
Wilson and Cox (1983)	77	Cross-sectional	United Kingdom	Male	20–60		Child sexual abuse (pedophilia)	E, N	5
Wismeijer and van Assen (2013)	1,571	Cross-sectional	Netherlands	Both			Sexual behavior (various)	O, C, E, A, N	8
Wrench and McCroskey (2003)	188	Cross-sectional	U.S.	Both (56%)		22.2	Sexual attitudes (homophobia)	E, N	5
Wright and Reise (1997)	350	Cross-sectional	U.S.	Both (48%)		20.3 (4.0)	Casual sex (sociosexuality); Sexual attitudes (pornography and masturbation)	O, C, E, A, N	7
Zheng, Goldberg et al. (2008)	1,070	Cross-sectional	China	Both	13–46	23.4 (4)	Sexual orientation	O, C, E, A, N	7
Zheng, Lippa et al. (2011)	995	Cross-sectional	China	Both	16–46	23.5 (4)	Sexual orientation	O, C, E, A, N	7
Zheng, Hart et al. (2012)	220	Cross-sectional	China	Male	18–46	23.5 (4.7)	Sexual behavior (various)	O, C, E, A, N	6
Zietsch, Verweij, Bailey, Wright, and Martin (2010)	4,797	Cross-sectional	Australia	Both		30 (8)	Risky sexual behavior (multiple)	E, N	8

Note. O = openness to experience; C = conscientiousness; E = extraversion; A = agreeableness; N = neuroticism.

Table 2
Random-Effects Mean Associations for Personality and Components of Sexuality

Facet	Neuroticism		Extraversion		Openness		Agreeableness		Conscientiousness	
	k	r ₊ [95% CI]	k	r ₊ [95% CI]	k	r ₊ [95% CI]	k	r ₊ [95% CI]	k	r ₊ [95% CI]
Sexual activity (combined)	23	.01 [-0.02, .04]	24	.17 [.12, .23] ^{***}	19	.04 [.00, .08] ^c	19	-.10 [-.15, -.06] ^{***}	19	-.05 [-.08, -.02] ^{c***}
Lifetime sexual partners	6	.05 [.02, .07] ^{***}	8	.22 [.12, .31] ^{***}	5	.15 [.12, .17] ^{***}	5	-.05 [-.11, .01]	5	-.01 [-.05, .03]
Casual sex	6	.00 [-.07, .06]	6	.14 [.05, .22] ^{**}	6	.03 [-.01, .06]	6	-.19 [-.28, -.09] ^{***}	6	-.05 [-.07, -.04] ^{***}
Sexual infidelity	11	.05 [-.02, .13] ^c	11	.09 [.05, .13] ^{***}	9	.03 [-.02, .08]	10	-.18 [-.22, -.14] ^{***}	11	-.17 [-.21, -.14] ^{c***}
Sexual orientation	25	.07 [-.03, .17] ^b	24	-.03 [-.08, .03]	19	.16 [.11, .21] ^{***}	22	.01 [-.09, .11]	20	.02 [-.03, .07]
Sexual orientation—men	13	.15 [.09, .22] ^{***}	12	.00 [-.02, .02]	8	.18 [.09, .26] ^{***}	10	.05 [-.11, .21]	8	.05 [-.03, .12]
Sexual orientation—women	9	-.05 [-.10, -.00] [*]	9	-.06 [-.14, .02]	8	.13 [.03, .24] [*]	9	-.02 [-.09, .05]	9	.01 [-.07, .10]
Sexual satisfaction	15	-.18 [-.21, -.15] ^{***}	10	.13 [.08, .18] ^{***}	9	.12 [.08, .16] ^{***}	9	.11 [.07, .14] ^{***}	9	.10 [.05, .14] ^{***}
Negative emotion	5	.42 [.22, .60] ^{***}	7	-.22 [-.31, -.12] ^{***}	6	.04 [-.11, .19]	5	-.16 [-.34, .03]	6	-.10 [-.26, .06]
Sexual cognition	5	.13 [.05, .20] ^{**}	3	.10 [.03, .16] ^{**}	2	.24 [.19, .30] ^{***}	1	-.06 [-.27, .15]	1	-.15 [-.35, .06]
Sexual attitudes (combined)	10	-.07 [-.15, .01]	10	.01 [-.06, .08]	14	.19 [.14, .25] ^{c***}	6	-.06 [-.13, .02] ^c	5	-.06 [-.09, -.02] ^{**}
Homophobic attitudes	4	.13 [-.11, .36]	3	-.14 [-.28, -.01] [*]	5	-.23 [-.37, -.09] ^{***}	2	-.03 [-.17, .12]	1	.12 [-.03, .26]
Sexual dysfunction	16	.16 [.11, .21] ^{c***}	19	-.17 [-.21, -.13] ^{***}	14	-.12 [-.18, -.06] ^{***}	13	-.04 [-.07, -.02] ^{**}	13	-.12 [-.16, -.08] ^{***}
Male sexual dysfunction	10	.15 [.07, .24] ^{***}	11	-.15 [-.18, -.12] ^{***}	8	-.14 [-.20, -.07] ^{***}	8	-.03 [-.07, .02]	8	-.11 [-.18, -.04] ^{**}
Female sexual dysfunction	6	.17 [.09, .25] ^{***}	8	-.22 [-.29, -.14] ^{***}	6	-.10 [-.21, .01]	5	-.05 [-.08, -.03] ^{***}	5	-.12 [-.15, -.08] ^{***}
Sexual desire	12	-.01 [-.07, .04]	12	.14 [.07, .21] ^{c***}	11	.13 [.07, .19] ^{***}	11	-.08 [-.15, -.02] ^{c**}	11	-.02 [-.09, .05] ^c
Hypersexual behavior	5	.30 [.14, .44] ^{***}	3	.01 [-.11, .13]	3	.02 [-.06, .09]	3	-.18 [-.33, -.03] ^{**}	3	-.08 [-.24, .09]
Risky sexual behavior	20	.05 [.00, .10] ^c	19	.18 [.13, .23] ^{***}	11	.05 [.00, .09] [*]	13	-.11 [-.18, -.03] ^{**}	12	-.07 [-.14, .01] ^c
Sexually transmitted infections	3	.20 [.01, .37] ^{**}	2	.02 [-.04, .09]	1	.02 [-.02, .06]	2	-.14 [-.25, -.03] ^{**}	2	-.16 [-.37, .07]
Sexual aggression (combined)	12	.10 [.04, .17] ^{d**}	10	.04 [-.07, .13] ^c	9	-.05 [-.09, -.01] [*]	10	-.20 [-.30, -.10] ^{***}	9	-.14 [-.21, -.06] ^{d**}
Sexual violence against children	4	.24 [.03, .44] ^{**}	3	-.26 [-.38, -.14] ^{***}	1	-.14 [-.37, .11]	1	.18 [-.07, .41]	1	-.31 [-.52, -.07] ^{f*}
Sexual violence (adult vs. child) ^a	2	.22 [-.01, .42]	2	-.14 [-.31, .04]	1	-.28 [-.46, -.08] ^{**}	1	.00 [-.21, .21]	1	.00 [-.21, .21]

Note. A more detailed version of this table, including number of pooled participants and heterogeneity estimates, can be found in the online Supplementary File S7. k = number of effect sizes included in the analysis; CI = confidence interval; r₊ = random effects average correlation.

^a Compared personality of convicted rapists to personality of convicted child sex offenders. ^b Effect size moderated by gender. ^c Effect size moderated by age. ^d Effect size moderated by type. ^e Effect size moderated by study quality. ^f Attenuated to nonsignificant in sensitivity analysis.

* p < .05. ** p < .01. *** p < .001.

$r_+ = -.19$, 95% CI $[-.22, -.17]$) than those coded as being of higher quality ($k = 5$, $r_+ = -.11$, 95% CI $[-.18, -.04]$).

Sexual Orientation

Openness had the strongest association with sexual orientation as hypothesized ($k = 19$, $r_+ = .16$, $p < .001$)—the positive coefficient indicating that higher levels of openness were associated with a greater likelihood of reported homosexual orientation. Other dimensions were unrelated to sexual orientation for the full sample. Sensitivity analysis, involving the imputation of one to two additional effects produced identical results. Rank correlation tests were nonsignificant for all dimensions and the trim and fill procedure suggested that up to five effects be filled with no meaningful change to results.

Gender and study quality were explored as potential moderators (information on age was missing from most samples). There was a significant regression model for neuroticism, $\chi^2(2) = 7.29$, $p = .026$, $R^2 = .27$, with a significant regression coefficient observed for gender ($b = -.19$, 95% CI $[-.33, -.05]$) indicating that the association between sexual orientation and neuroticism differed between men and women. In order to compare findings to previous meta-analyses, effects for all dimensions separated by gender are presented in Table 2. Openness had a small positive association with homosexual orientation for both men ($k = 8$, $r_+ = .18$, $p < .001$) and women ($k = 8$, $r_+ = .13$, $p = .018$). Neuroticism had a small positive association with homosexual orientation for men ($k = 13$, $r_+ = .15$, $p < .001$), and a trivial negative association with homosexual orientation for women ($k = 9$, $r_+ = -.05$, $p = .048$). Other dimensions were unrelated to sexual orientation for both men and women.

Sexual Satisfaction

Satisfaction with sexual activity had a negative association with neuroticism as hypothesized ($k = 15$, $r_+ = -.18$, $p < .001$). Extraversion ($k = 10$, $r_+ = .13$, $p < .001$), openness ($k = 9$, $r_+ = .12$, $p < .001$), agreeableness ($k = 9$, $r_+ = .11$, $p < .001$), and conscientiousness ($k = 9$, $r_+ = .10$, $p < .001$) also showed small positive associations with sexual satisfaction. Sensitivity analysis, involving the imputation of one to two additional effects for each dimension, produced identical results. Rank correlation tests were nonsignificant, but the trim and fill procedure suggested that between one and three effects be filled for neuroticism ($r_+ = -.16$, 95% CI $[-.19, -.12]$), extraversion ($r_+ = .14$, 95% CI $[.08, .19]$), openness ($r_+ = .13$, 95% CI $[.08, .17]$) and agreeableness ($r_+ = .11$, 95% CI $[.07, .16]$), with no meaningful change to pooled mean effects. Examination of the Q and I^2 statistics indicated no significant heterogeneity.

Emotion and Cognition

Emotional experiences other than satisfaction were combined to provide an estimate of negative emotional experiences. Neuroticism had a large positive association with negative emotional experiences as hypothesized ($k = 5$, $r_+ = .42$, $p < .001$). Extraversion also showed a medium negative association ($k = 7$, $r_+ = -.21$, $p < .001$). Sensitivity analyses, involving the imputation of one to two effects produced similar findings, albeit with

smaller effects (neuroticism, $r_+ = .37$, $p < .001$; extraversion, $r_+ = -.19$, $p < .001$). There was no evidence for publication bias with nonsignificant rank correlation tests and no change to results using the trim and fill procedure. Sexual cognition (sexual fantasies) was also measured in a small number of studies. The sexual cognitions assessed tended to relate to dominant and deviant behaviors (e.g., forceful submission). Openness ($k = 2$, $r_+ = .24$, $p < .001$), neuroticism ($k = 5$, $r_+ = .13$, $p < .001$), and extraversion ($k = 3$, $r_+ = .10$, $p = .006$), showed positive associations with frequency of sexual cognitions.

Sexual Attitudes

Sexual attitudes were classified from liberal to conservative. Openness had the strongest connection to sexual attitudes as hypothesized ($k = 14$, $r_+ = .19$, $p < .001$)—the positive coefficient indicating that higher levels of openness were associated with more liberal attitudes toward sexual practices. There was also a significant, albeit trivial, effect for conscientiousness ($k = 5$, $r_+ = -.06$, $p = .001$). Sensitivity analyses, involving imputation of up to three effects, produced identical results. For neuroticism and conscientiousness, there was some evidence of publication bias using the trim and fill procedure. The effect of these imputations was minimal for conscientiousness (two effects imputed, $r_+ = -.05$, 95% CI $[-.08, -.02]$), but suggested a potential negative association between neuroticism and liberal attitudes toward sex might have been missed due to publication bias (one effect imputed, $r_+ = -.09$, 95% CI $[-.17, -.01]$).

Both openness ($b = -.28$, 95% CI $[.45, -.10]$) and agreeableness ($b = -.18$, 95% CI $[-.26, -.10]$) were moderated by study quality. Openness showed a larger positive association in low quality studies ($k = 8$, $r_+ = .26$, 95% CI $[.15, .36]$) than in high quality studies ($k = 6$, $r_+ = .10$, 95% CI $[.07, .14]$), whereas agreeableness showed a nonsignificant association in low quality studies ($k = 3$, $r_+ = .06$, 95% CI $[-.04, .15]$) and a negative association in high quality studies ($k = 3$, $r_+ = -.13$, 95% CI $[-.18, -.08]$), indicating that (among better quality studies) high levels of agreeableness were associated with more conservative attitudes toward sex. There was no moderation for measurement of sexual attitude, but we provide independent effect sizes for homophobic attitudes in Table 2. There were significant negative effects for openness ($k = 5$, $r_+ = -.23$, $p < .001$) and extraversion ($k = 3$, $r_+ = -.14$, $p = .042$) indicating that higher openness and extraversion were associated with lower levels of homophobia. However, sensitivity analysis, involving imputation of three effects for extraversion, resulted in the pooled mean effect being attenuated to nonsignificant ($k = 6$, $r_+ = -.08$, $p = .112$).

Sexual Dysfunction

Sexual dysfunction showed small-medium effect size correlations with neuroticism ($k = 16$, $r_+ = .16$, $p < .001$), extraversion ($k = 19$, $r_+ = -.17$, $p < .001$), openness ($k = 14$, $r_+ = -.12$, $p < .001$), and conscientiousness ($k = 13$, $r_+ = -.12$, $p < .001$), and a trivial effect size correlation with agreeableness ($k = 13$, $r_+ = -.04$, $p = .001$). Sensitivity analysis involving imputation of one to two additional effects produced identical results. There was no evidence of publication bias. Rank correlation tests were all nonsignificant, and the trim and fill procedure suggested that one

to three effects be filled with findings remaining unchanged. There was significant heterogeneity for all associations except for agreeableness. Age, gender, and study quality were explored as potential moderators. There was a significant regression model for neuroticism, $\chi^2(3) = 56.38$, $p < .001$, $R^2 = 1.00$, with a significant coefficient for sample age ($b = -.008$, 95% CI $[-.011, -.005]$) demonstrating that the positive association between neuroticism and sexual dysfunction decreased as the mean sample age increased.

Sexual Desire

Higher levels of extraversion ($k = 12$, $r_+ = .14$, $p < .001$) and openness ($k = 11$, $r_+ = .13$, $p < .001$) were associated with greater desire and motivation for sexual activity. There was also a trivial negative effect for agreeableness ($k = 11$, $r_+ = -.08$, $p = .018$). Sensitivity analyses involving the imputation of one effect for each dimension produced identical results. Rank correlation tests were nonsignificant, and the trim and fill procedure recommended that zero to two effects be filled with no meaningful change to results.

There was a significant regression model for extraversion, $\chi^2(3) = 35.66$, $p < .001$, $R^2 = 1.00$, with a significant coefficient for sample age ($b = -.003$, 95% CI $[-.005, -.002]$) showing that the positive association between extraversion and sexual desire decreased as the sample age increased. There was also a significant regression model for agreeableness, $\chi^2(3) = 33.83$, $p < .001$, $R^2 = 1.00$, with significant coefficients for age ($b = .005$, 95% CI $[.003, .007]$) and study quality ($b = -.19$, 95% CI $[-.29, -.10]$). Moderator correlations showed that age and study quality were highly confounded ($r = .43$). When these moderators were tested separately, there was a significant effect for sample age ($b = .004$, 95% CI $[.000, .007]$, $R^2 = .48$) but not study quality ($b = -.020$, 95% CI $[-.181, .142]$, $R^2 = .01$). The regression model for conscientiousness was also significant, $\chi^2(3) = 34.28$, $p < .001$, $R^2 = 1.00$, with a significant coefficient observed for sample age ($b = .005$, 95% CI $[.003, .007]$). The positive coefficients show that the negative association between agreeableness and sexual desire, and between conscientiousness and sexual desire, decreased as the mean sample age increased.

Hypersexual Behavior

A small number of studies also explored hypersexual behavior (exaggerated sexual desire). In contrast to findings for sexual desire, hypersexual behavior was unrelated to extraversion and openness. Rather, people reporting symptoms of hypersexual behavior had higher levels of neuroticism ($k = 5$, $r_+ = .30$, $p < .001$) and lower levels of agreeableness ($k = 3$, $r_+ = -.18$, $p = .021$).

Risky Sexual Behavior

Sexual risk taking was assessed in most studies as condom use, contraception use, or as a combination of risk behaviors. Casual sex was not included as risky sexual behavior and is included in the section on sexual activity. Extraversion was most strongly connected to sexual risk taking as hypothesized ($k = 19$, $r_+ = .18$, $p < .001$). Agreeableness also showed a small negative association ($k = 13$, $r_+ = -.11$, $p = .005$). Sensitivity analysis, involving

imputation of up to three effects, produced a similar pattern of results. The trim and fill procedure suggested some level of publication bias in the results for neuroticism (two effects imputed, $r_+ = .07$, 95% CI $[.02, .12]$) indicating that a positive association might have been missed due to publication bias.

Age, gender, and study quality were explored as potential moderators. There was a significant regression model for neuroticism, $\chi^2(3) = 14.39$, $p = .002$, $R^2 = .68$, with a significant effect for study quality ($b = -.13$, 95% CI $[-.23, -.02]$) demonstrating that the positive association between neuroticism and sexual risk taking was evident in poorer quality studies ($k = 9$, $r_+ = .15$, 95% CI $[.02, .27]$), but not better quality studies ($k = 11$, $r_+ = -.01$, 95% CI $[-.06, .04]$). There was also a significant regression model for conscientiousness, $\chi^2(3) = 32.82$, $p < .001$, $R^2 = .94$, with significant coefficients for age ($b = -.017$, 95% CI $[-.028, -.006]$) and study quality ($b = .165$, 95% CI $[.054, .277]$). These effects demonstrate a negative association between conscientiousness and sexual risk taking in low quality studies ($k = 3$, $r_+ = -.26$, 95% CI $[-.34, -.17]$) but not high quality studies ($k = 9$, $r_+ = -.01$, 95% CI $[-.08, .06]$), and that the negative association between conscientiousness and sexual risk taking decreased as the sample age decreased (the negative association was more prevalent among older adults). Because these two moderator terms were confounded ($r = .40$) it is unknown whether the age moderation represents a real effect or is a reflection of older sample studies being of poorer quality.

Sexually Transmitted Infections

The relationship between personality and contraction of STIs has also been explored in a small number of studies. Contraction of STIs was related to higher neuroticism ($k = 3$, $r_+ = .20$, $p = .037$) and lower agreeableness ($k = 2$, $r_+ = -.14$, $p = .015$). Other dimensions were unrelated to contraction of STIs.

Sexual Aggression

Sexual aggression was assessed as a combination of measures for sexual harassment, sexual coercion, sexual assault, and rape. Agreeableness ($k = 10$, $r_+ = -.20$, $p < .001$) and conscientiousness ($k = 9$, $r_+ = -.14$, $p < .001$) had negative associations with sexual aggression as hypothesized. Significant, albeit trivial, effect sizes were also observed for neuroticism ($k = 12$, $r_+ = .10$, $p = .002$) and openness ($k = 9$, $r_+ = -.05$, $p = .031$). There was no evidence of publication bias. The trim and fill procedure suggested that two to three effects be filled with findings remaining unchanged.

Age, study quality, and type of sexually aggressive behavior were tested as potential moderators. Type of aggressive act was dummy-coded as (a) sexual assault/rape, (b) sexual coercion, (c) sexual harassment, or (d) unspecified sexual aggression. For neuroticism, there was a significant regression model for aggressive act, $\chi^2(3) = 13.15$, $p < .001$, $R^2 = .89$, with a significant difference between sexual assault and sexual coercion ($b = .12$, 95% CI $[.01, .23]$), and between sexual assault and sexual harassment ($b = .21$, 95% CI $[.09, .32]$). This effect demonstrated that neuroticism was positively associated with sexual harassment ($k = 3$, $r_+ = .21$, 95% CI $[.13, .29]$) and sexual coercion ($k = 2$, $r_+ = .14$, 95% CI $[.06, .21]$), but was unrelated to sexual assault ($k = 4$,

$r_+ = -.02$, 95% CI $[-.16, .13]$). There was also a significant regression model for extraversion, $\chi^2(5) = 12.29$, $p = .031$, $R^2 = .68$, with a significant coefficient for age ($b = .022$, 95% CI $[.006, .038]$) demonstrating that the positive association between extraversion and sexual aggression increased as the sample age increased. For conscientiousness, there was also a significant regression model for aggressive act, $\chi^2(3) = 9.09$, $p = .028$, $R^2 = .97$, with a significant difference between sexual assault and sexual harassment ($b = -.155$, 95% CI $[-.259, -.052]$). This moderation effect demonstrated that conscientiousness had a negative association with sexual harassment ($k = 3$, $r_+ = -.23$, 95% CI $[-.30, -.15]$) but was unrelated to sexual assault ($k = 3$, $r_+ = -.08$, 95% CI $[-.22, .06]$).

Sexual Violence Against Children

A small amount of research has compared men convicted of child sex offenses to normative scores for men. Male perpetrators of sexual violence against children had lower levels of extraversion than normative scores as hypothesized ($k = 3$, $r_+ = -.26$, $p < .001$). Male perpetrators of sexual violence against children also showed higher levels of neuroticism ($k = 4$, $r_+ = .24$, $p = .028$). Sensitivity analyses, involving imputation of one effect for extraversion ($k = 4$, $r_+ = -.21$, $p = .008$) and one effect for neuroticism ($k = 5$, $r_+ = .24$, $p = .007$), produced similar findings. Research has also compared men convicted of child sex offenses to non-normative samples. Two small sample studies compared men convicted of sexual violence against children to men convicted of sexual violence against women, with no significant difference between the two sexually violent groups.

Discussion

This meta-analysis sought to determine whether the big five personality dimensions relate to facets of sexuality and sexual health. Important findings, in terms of the largest effects detected, were that neuroticism was positively related to negative affective experiences including sexual dissatisfaction; extraversion was positively related to sexual activity and sexual risk taking, and was inversely related to symptoms of sexual dysfunction; openness was positively related to facets of sexual autonomy including sexual orientation and liberal attitudes toward sexual practices; and agreeableness and conscientiousness were inversely related to sexual aggression and sexual infidelity. Notable moderation effects were that a positive association between neuroticism and sexual infidelity became stronger as the sample became older, and that neuroticism was positively related to homosexual orientation among men but negatively related to homosexual orientation among women. A positive association between extraversion and sexual desire also became weaker as the sample became older, and a positive association between extraversion and sexual aggression became stronger as the sample became older. Taken together, findings are in general agreement with study predictions, and demonstrate that the big five dimensions of trait personality are related to sexual function, cognition, affect, and behavior.

Main Findings

The finding that higher levels of extraversion were associated with greater reported sexual activity, including casual and non-

committed sex, supports original predictions regarding the sexual behaviors that manifest through high levels of extraversion (Eysenck, 1976). Lower agreeableness and conscientiousness were also associated with greater sexual activity (particularly among younger persons) and casual sex in particular. That extraverted people are more sexually active is perhaps unsurprising given that extraverted people have greater motivation for social contact and are characterized by greater excitation and lower inhibition (Wilt & Revelle, 2017). However, individuals scoring high on agreeableness and conscientiousness are also more risk averse with low behavioral inhibition (Graziano & Tobin, 2017) and this might explain why casual sex in particular was associated with low levels of agreeableness and (to a lesser extent) conscientiousness. A previous meta-analysis explored personality and sexual activity, and found that neuroticism and agreeableness had small associations with number of sexual partners (Hoyle et al., 2000). Our findings conflict with those of Hoyle et al. (2000) and show that number of lifetime sexual partners was unrelated to neuroticism and agreeableness. Rather, number of lifetime sexual partners had a medium positive association with extraversion and a small positive association with openness.

Sexual infidelity is common in relationships (Fincham & May, 2017) and was found to have small-medium negative associations with agreeableness and conscientiousness. That these dimensions were most important for sexual infidelity was hypothesized as individuals scoring high on these dimensions are characterized as possessing self-control, responsibility, and traditional values (Roberts, Chernyshenko, Stark, & Goldberg, 2005; Roccas et al., 2002). Infidelity is also a product of opportunity (Atkins, Baucom, & Jacobson, 2001) and therefore might be more prevalent in impulsive persons. Because impulsivity is captured somewhat in facets of neuroticism and extraversion (see, e.g., Sutin et al., 2012), this might explain why extraversion showed a significant, albeit trivial, positive association. Previous work had also hypothesized a positive association between neuroticism and sexual infidelity (Josephs & Shimberg, 2010) that did not emerge in main findings. However, there was an indication from the trim and fill procedure that this null effect might be a result of publication bias, and an age-moderated effect did emerge in which neuroticism was positively associated with sexual infidelity but only among older persons. We can speculate that as people become older an increased opportunity for infidelity (Atkins et al., 2001) means that neuroticism becomes a more formidable factor in governing this sexual behavior.

For both men and women, people identifying as homosexual reported higher levels of openness compared to those identifying as heterosexual. This finding is consistent with hypotheses and a previous meta-analysis of personality and sexual orientation (Lippa, 2005). However, a notable difference from Lippa (2005) was that extraversion, agreeableness, and conscientiousness were unrelated to sexual orientation for both men and women. There was, however, a gender moderated effect for neuroticism in which neuroticism was higher among homosexual men than heterosexual men, but lower among homosexual women than heterosexual women. Previous research on gender differences has found that neuroticism shows the largest difference between genders with women consistently scoring higher than men across cultures (Schmitt, Realo, Voracek, & Allik, 2008). That homosexual men tend to score higher on neuroticism than heterosexual men, and

homosexual women lower on neuroticism than heterosexual women, might therefore be a manifestation of the finding that homosexual individuals often engage in cross-sex-typed behaviors during their formative years (Bailey & Zucker, 1995).

Personality traits were also important for the emotional experience of sexual activity. Consistent with hypotheses, neuroticism showed the strongest (positive) association with both sexual dissatisfaction and negative emotional experiences. This finding is consistent with research outside the domain of sexual behavior that has reported a large positive association between neuroticism and negative affect, and a medium negative association between neuroticism and positive affect (Steel et al., 2008). We also found that extraversion had small to medium negative associations with sexual dissatisfaction (and other negative emotions), and that openness, agreeableness, and conscientiousness had small negative associations with sexual dissatisfaction. These findings are also consistent with those reported in other domains (Steel et al., 2008) and demonstrate that all five dimensions of personality are related to the emotional experience of sexual activity.

Over the last 30 years sexual attitudes have changed to become more liberal with a greater acceptance of same sex couples and premarital sex in western societies (Twenge et al., 2015). However, sexual attitudes are variable and were associated with trait personality. Consistent with the hypothesis that openness should govern beliefs regarding sexual autonomy, we found that high levels of openness were associated with more liberal attitudes toward sex and lower levels of homophobia. These associations make intuitive sense given that openness represents the extent to which people are open to new and alternative ways of thinking (Sutin, 2017). Other dimensions of personality were unrelated to sexual attitudes. However, a moderation effect for agreeableness showed that agreeable individuals tended to have more conservative attitudes toward sex but only in higher quality studies. This finding might be explained by the tendency for individuals high in agreeableness to endorse traditional values (Roccas et al., 2002). In addition, one study explored neuroticism and internalized homophobia in homosexual men (Puckett, Newcomb, Garofalo, & Mustanski, 2016) and found that higher neuroticism was associated with more negative attitudes toward homosexuality (e.g., a greater desire to be heterosexual). This intriguing result could not be incorporated into main analyses and requires further investigation.

Sexual dysfunction is highly prevalent among both men and women with symptoms tending to increase throughout the adult life span (McCool et al., 2016; Shamloul & Ghanem, 2013). For both men and women, we found that sexual dysfunction was positively related to neuroticism, and negatively related to extraversion, openness, and conscientiousness. Researchers have rarely speculated on the processes that connect personality to sexual dysfunction (see, e.g., Crisp et al., 2013, 2015; Leeners, Hengartner, Rössler, Ajdacic-Gross, & Angst, 2014), but the associations detected here seem to reflect the relative effect sizes connecting these dimensions to health-related lifestyle factors such as physical activity, diet, and alcohol intake (Hakulinen, Elovainio, et al., 2015; Hakulinen, Hintsanen, et al., 2015; Wilson & Dishman, 2015). It is possible that personality relates to sexual dysfunction because of the health choices made by people with particular personality traits. There were not enough effect sizes available to explore discrete symptoms (e.g., erectile dysfunction vs. premature ejacula-

tion) but there was an age-moderated effect for neuroticism in which neuroticism was more strongly related to sexual dysfunction among older persons. That neuroticism becomes a stronger predictor of sexual dysfunction among older adults might be expected given that symptoms of sexual dysfunction tend to increase with age (Nicolosi et al., 2004).

The finding that extraversion was the dimension most strongly related to sexual risk taking is consistent with hypotheses and a previous meta-analysis (Hoyle et al., 2000). We also hypothesized that agreeableness and conscientiousness would be important for sexual risk taking given that these dimensions relate to the endorsement of traditional values (Roccas et al., 2002). This hypothesis was also supported as agreeableness had a small negative association with sexual risk taking, and an age-moderated effect showed that conscientiousness had a negative association with sexual risk taking among younger persons. These findings offer partial support for a previous meta-analysis that found a negative association between conscientiousness and sexual risk taking (Bogg & Roberts, 2004). That a conscientiousness main effect did not emerge in the current meta-analysis might reflect differences in inclusion criteria. In Bogg and Roberts (2004), casual sex and number of sexual partners were included as measures of sexual risk taking (but were explored separately here), and traits that relate to conscientiousness (e.g., sensation seeking) were combined with measures of conscientiousness (but were excluded from the current meta-analysis). Indeed, only one of the 25 studies in Bogg and Roberts (2004) met inclusion criteria for the current meta-analysis. Nevertheless, findings offered some support for conscientiousness being related to sexual risk taking among younger persons. It should be noted however that this age-moderation effect was confounded with a moderation effect for study quality, meaning that we cannot be certain that the age moderation effect is not a reflection of older sample studies being of poorer quality.

Previous narrative reviews have also hypothesized that extraversion should be most important for contraction of STIs and unwanted pregnancy given that extraversion relates to sexual risk taking (Pinkerton & Abramson, 1995). This hypothesis was not supported. Combined effects from two to three studies showed that extraversion and conscientiousness were unrelated to contraction of STIs, but that neuroticism had a positive association and agreeableness had a negative association. These findings should be interpreted with caution given the small number of pooled participants and the extreme confidence intervals for mean effects. In addition, only a single study assessed neuroticism and extraversion in a sample of women undergoing termination of pregnancy (Beard, Belsey, Lal, Lewis, & Greer, 1974) and found that women with unwanted pregnancies had higher levels of neuroticism compared with population norms (with no difference for extraversion). More research is required before accurate effect size estimates can be obtained for associations between trait dimensions and contraction of STIs (and unwanted pregnancy).

Research on personality and sexual aggression has been conducted exclusively in male samples and this is unsurprising given that sexually aggressive acts are largely committed by men (Barth et al., 2016). Our findings showed that agreeableness and conscientiousness had negative associations with sexual aggression, and this is consistent with hypotheses and a previous meta-analysis of sexual aggression and conscientiousness (Bogg & Roberts, 2004).

An age-moderated effect also showed that extraversion had a positive association with sexual aggression among older men. The effect for extraversion might also have been hypothesized given that extraversion is associated with dominance, assertive behavior and high testosterone levels (Alvergne, Jokela, Faurie, & Lummaa, 2010). There were notable differences among the various sexually aggressive behaviors as personality appeared to be less important for acts of sexual violence (sexual assault and rape). Neuroticism had a positive association with sexual coercion and sexual harassment, and conscientiousness had a negative association with sexual harassment, but these dimensions were unrelated to convictions for sexual violence against adults. We can speculate that these dimensions are less important for sexual violence as sexual violence is a more high-risk behavior, possibly requiring more extreme environmental pressures, meaning personality becomes a less formidable factor in governing this behavior.

In terms of sexual violence against children, the prediction that pedophiles are more introverted than population norms (Okami & Goldberg, 1992) was supported. However, with only four effect sizes available, and a small number of pooled participants, this finding must be interpreted with some caution. Neuroticism also showed a significant positive effect, with perpetrators of sexual violence against children showing higher levels of neuroticism compared to population norms. This finding must also be interpreted with caution given the small number of pooled participants. One limitation of this area of research is that theorists have rarely provided meaningful hypotheses for why introversion should be associated with sexual violence against children. We speculated that the association might emerge because sexually abusive behavior and introverted personality traits could co-occur in response to the same environmental pressures (e.g., personal experience of sexual abuse). If this hypothesis is correct, then the association should only emerge among child abusers who were sexually abused as children. Future research is needed to test the potential moderating role of personality in the association between personal sexual abuse and sexual abusing.

Limitations

There are a number of limitations that readers must consider when interpreting findings from this meta-analysis. First, some populations were not well represented in the overall sample. Research from outside of North America and Europe was sparse, and was notably absent from sub-Saharan Africa where HIV rates are among the highest in the world (Ezzati et al., 2002). Cultural differences in sexual behaviors could have an impact on the magnitude of associations identified. For example, alcohol is an important correlate of sexual risk taking (Scott-Sheldon et al., 2016), and alcohol use differs considerably across world regions (Rehm et al., 2009) being noticeably lower in Asia compared with North America and Europe (see Rehm et al., 2009). Research on personality and sexuality in adolescents and older adults was also extremely rare. These populations are of interest because adolescence is a critical time for change in sexual attitudes and behavior (Mercer et al., 2013) and older adults have increasing expectations of sexual fulfillment (Beckman et al., 2008). Although we were able to explore age as a potential moderator for some associations, the age range represented in the sample was often from early adulthood to middle adulthood. Therefore, findings from this

meta-analysis should be considered a reflection of sampled participants that might not necessarily transfer across world regions or age groups.

Second, there were an insufficient number of prospective studies to explore study design as a moderator, meaning no information could be extracted that might offer some clues toward causal inference. For some outcomes (e.g., sexual violence against children) there were also an insufficient number of studies to test for moderation effects, and in cases where moderators could be explored the sample had low statistical power. In other words, failure to detect a moderator in metaregression could mean that there is no effect to be found, but could also mean that the analysis had insufficient power to detect even a large effect (Borenstein et al., 2009). Third, because of an insufficient number of studies, it was often necessary to combine facets of sexuality that might be better explored as separate entities. For instance, we included a measure of negative emotion that combined assessments of postsex guilt, sexual infidelity guilt, sexual anxiety, and sexual self-concept. There is always a risk in meta-analysis of combining apples and oranges, and with more research it might be possible to explore these facets of emotion separately in future meta-analyses.

A fourth limitation is that even after inclusion of moderator terms in regression models, there was often much remaining unexplained variance. In particular, heterogeneity for associations between personality and sexual orientation remained high even after controlling for gender and study quality. This suggests that other unknown factors (e.g., education and lifestyle) might act as important moderators and would be useful to explore in future research. Fifth, all studies have used self-report assessments that are open to response distortion in the form of social desirability bias and this might have attenuated some effects. This is particularly pertinent to facets of sexuality that have implications for relationships (e.g., sexual infidelity). Emphasizing confidentiality to participants is likely to reduce this social desirability bias in part, but is unlikely to attenuate the effect in full. There is no good method to avoid this problem in subsequent research (i.e., no objective way to measure sexual infidelity) and readers should be mindful that real-world associations might be somewhat stronger than those reported in the current meta-analysis.

Sixth, some studies reported effect sizes for coefficients adjusted for various control variables. As there were an insufficient number of studies to explore adjusted coefficients in separate analyses, adjusted and nonadjusted effect sizes were combined. Nevertheless, as most studies reported zero-order correlations, the pooled mean effects reported here should be considered largely independent of other confounding factors. Finally, a variety of assessments were used to measure personality traits with (assumed) varying levels of reliability. Cohen (1988) describes how if two perfectly measured constructs are expected to correlate at .25, but the actual measurement of each correlates with its pure construct at .63 (reliability estimate), then the observed correlation between the two measures will be reduced to .10. There are strong arguments against using coefficient alpha as an indicator of measurement reliability (McNeish, 2017), and rather than correcting for internal consistency in multiitem measures, we assessed general risk of bias in study results that we explored as a moderator. However, we were unable to correct for measurement inaccuracy associated with situational factors as most research had assessed personality at a single time-point. Findings from this meta-analysis

might therefore have underestimated the magnitude of some associations and future research would do well to report test–retest reliability of personality measures.

Implications

The results of this meta-analysis have implications for theoretical advancement in sexual health psychology and personality science. Notably, we have identified associations that are societally relevant including an association between personality and homophobia, and between personality and sexual dysfunction, that have not been tested in previous meta-analyses. We also update results presented in previous meta-analysis that highlight the importance of personality for sexual orientation, sexual risk taking, and sexually aggressive behavior. Our results can directly inform theories of individual differences. Theorists have argued that individual differences in extraversion are central to understanding sexual behaviors including mating strategies (Buss & Greiling, 1999; Nettle, 2006). Our findings strongly suggest that components of personality other than extraversion are also relevant to sexual behavior.

The findings of this meta-analysis might be used to help formulate an integrative theoretical framework of personality and human sexuality. Evolutionary models of personality variation predict that high levels of extraversion result in more sexual partners and a greater likelihood of sexual infidelity (Buss & Greiling, 1999; Nettle, 2006). The findings of this meta-analysis indicate that extraversion is most important for behavioral outcomes (including lifetime sexual partners and sexual infidelity), neuroticism is most important for affective outcomes (e.g., sexual satisfaction and negative emotions), openness is most important for sexual autonomy outcomes (e.g., sexual attitudes and values), and agreeableness and conscientiousness are most important for interpersonal sexual outcomes (e.g., sexual coercion and sexual harassment). It appears that the five factor model is a useful framework in which to investigate human sexuality in its entirety.

In addition to theoretical value, the findings of this meta-analysis might be of interest to clinicians interested in helping people attain better sexual and reproductive health. For example, health care professionals might use this information as a method to help identify individuals that might benefit greatest from sexual health interventions. To explain, when implementing an intervention to promote sexual health (e.g., awareness of sexual risk taking) a useful target population might be individuals with personality traits that place them at greater risk of sexual risk taking. An understanding of personality might also be useful for patients in therapeutic sessions for understanding their own dispositions and how they might contribute to sexual health issues. For example, sexual desire discrepancy is the most common sexual complaint among women and is known to contribute to relationship conflict and relationship duration (Mark & Lasslo, 2018). An understanding of personality variation and its connection to sexual desire might be beneficial to couples experiencing sexual difficulties related to desire discrepancy.

The findings of this meta-analysis might even be of value to rare but extremely important outcomes including sexual violence. Psychoeducational programs for the prevention of sexual violence perpetration tend to focus on increasing knowledge or changing attitudes, but the success of these programs is somewhat limited

(DeGue et al., 2014). More research is needed into the efficacy of these programs and one component that might be trialed is increasing knowledge of personality theory within the context of evolutionary psychology. A better understanding of the relationships between personality and sexually aggressive behaviors might go some way toward increasing self-awareness and preventing sexual violence. However, more research is required in order to narrow these application possibilities and develop evidence-based interventions.

Future Research

The results of our meta-analysis highlight a number of directions future research might take in order to advance theoretical understanding of personality and human sexuality. We briefly discuss eight potential avenues for future research inquiry:

1. Researchers should adopt a developmental perspective to understand how personality stability and change relate to stability and change in sexual function, attitudes, and behavior across the life span. In the current meta-analysis, prospective studies of personality and sexuality were rare ($k = 10$) and in each case personality was explored in relation to change in sexuality over time. Researchers have yet to explore how change in personality might relate to change in sexual behavior or whether sexual behavior might contribute in some way to personality development. Environmental factors have an important role in personality development (Briley & Tucker-Drob, 2014; Specht et al., 2011) and the corresponsive principle (Roberts, Wood, & Caspi, 2008) considers that the effect of life experience on personality development is to deepen the traits that led people to those experiences. This suggests that the relationship between personality and sexuality is likely to be bidirectional in nature. More prospective research can help to provide a more complete understanding of how these variables interconnect over the life course.
2. Tied into the point above, there is a need to explore associations in underrepresented samples including adolescents and older adults. Adolescence represents a critical time for change in sexual behavior (Wellings et al., 2001) and is also when personality is most unstable (Roberts et al., 2006). People become sexually active at around age 17 years (Mercer et al., 2013) and patterns of personality change before and after becoming sexually active is an important direction for future research. Sexual desire and sexual activity are also common among older adults (Beckman et al., 2008) and older adults are at greatest risk of sexual dysfunction (Nicolosi et al., 2004). Only one study was identified that explored personality and sexuality in adults over age 55 (Allen & Desille, 2017). More research is required into these underrepresented samples to more accurately establish the importance of personality for sexual functioning and behavior within populations.
3. Future research might also look to explore narrow trait facets alongside overarching trait dimensions. The hier-

archical structure to trait personality has been incorporated into several assessments (Costa & McCrae, 2017; Soto & John, 2017) in which the five trait dimensions are separated into 15 or 30 narrower trait facets. Personality facets have been found to predict behavior to a greater extent than broad trait dimensions (Paunonen, Haddock, Forsterling, & Keinonen, 2003) and can help to establish more explicitly the components of personality that are most important for sexuality and sexual health.

4. It is also important to explore in greater detail the behavioral and physiological outcomes of sexual health. For instance, how personality relates to behavioral responses to sexual infidelity guilt or postsex regret remains untested. Outcomes such as contraction of STIs and incidence of pregnancy have also received little empirical attention, and how these outcomes relate to personality in underrepresented samples such as adolescents would be particularly valuable to clinicians working with youths. Researchers might also consider the interconnections between sexual health outcomes. For instance, extraversion was related to sexual risk taking but was unrelated to contraction of STIs. As sexual risk taking and incidence of STIs are conceptually related, similar associations might have been expected and this requires further investigation.
5. Tied into the point above, there needs to be a greater focus on mediation processes in the relationship between personality and sexuality. For example, personality is important for health-related lifestyle factors such as physical activity, cigarette smoking, and alcohol involvement (Hakulinen, Elovainio, et al., 2015; Hakulinen, Hintanen, et al., 2015), and these lifestyle factors are also important for sexual dysfunction (Allen & Walter, 2018). Whether personality relates to sexual dysfunction through these health-related lifestyle factors remains untested. Future research is needed to explore the processes through which personality relates to sexual dysfunction and other components of sexual and reproductive health.
6. Research is also needed to further understand the importance of personality in sexually aggressive behaviors including child sexual abuse. As it stands, whether personality change is simply a byproduct of environmental influences on sexual violence, or whether personality directly relates to sexual violence, is unknown. Prison-based research would be particularly beneficial. Much of the research on convicted prisoners was published many decades ago and was classified as having high risk of bias in the results. High powered prospective studies, alongside mixed-method studies that qualitatively establish prisoner background, would be a useful approach to research progression.
7. There is also a need to move away from a person-centered approach to consider the personality traits of partners in romantic dyads. Research has long established that similarity is important in attraction and mate selec-

tion (Buss, 1985; Montoya, Horton, & Kirchner, 2008) and research on the big five traits has found that personality similarity is important for marital satisfaction (Decuyper, De Bolle, & De Fruyt, 2012; Shiota & Levenson, 2007) and relationship stability (Cuperman & Ickes, 2009). The importance of personality similarity for sexual behavior in romantic dyads is largely untested. Because personality similarity is important for communication (Selfhout, Denissen, Branje, & Meeus, 2009), researchers have proposed that communication is likely to be a key factor connecting personality similarity to sexual satisfaction (Allen & Desille, 2017). Communication is likely to have an important role in many aspects of sexual health including sexual dysfunction, and further research into personality, communication, and sexual health outcomes is needed to assist couples experiencing sexual difficulties.

8. The last recommendation is for theoretical advancement. Evolutionary models of personality variation in humans (Buss & Greiling, 1999; Nettle, 2006) predict that extraversion has adaptive value that manifests in more sexual partners and a greater likelihood of sexual infidelity. Building on these models, it might be possible to advance theory within the context of the five factor model to offer more explicit predictions about how the five dimensions of personality relate to components of sexuality, and sexual and reproductive health. As good theory development is grounded in research, it is hoped that the results of this meta-analysis might contribute to theoretical advancement.

Conclusion

Improving sexual health requires an understanding of the complex factors that shape human sexual behavior. This meta-analysis provides evidence that the major dimensions of trait personality relate to multiple components of sexual function, cognition, affect, and behavior. Neuroticism was positively related to negative emotions, sexual dissatisfaction, sexual dysfunction, and (in men) homosexual orientation; extraversion was positively related to sexual activity, sexual risk taking, sexual desire (among younger adults), and sexual aggression (among older adults), and was negatively related to sexual dysfunction and sexual violence against children; openness was positively related to homosexual orientation and liberal attitudes toward sex, and was negatively related to sexual dysfunction and homophobia; and agreeableness and conscientiousness were negatively related to sexual activity, sexual aggression, and sexual infidelity. In short, these findings provide new and updated information on the psychological underpinnings of human sexuality that should be of interest to health care professionals. Our meta-analysis represents a useful step in research progression and we encourage continued research (particularly in understudied populations) using prospective designs and natural experimental methods, as a means toward improving health care services and promoting sexually healthy societies.

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Call for Nominations

The Publications and Communications (P&C) Board of the American Psychological Association has opened nominations for the editorships of *Behavioral Neuroscience*, *Journal of Applied Psychology*, *Journal of Educational Psychology*, *Journal of Personality and Social Psychology: Interpersonal Relations and Group Processes*, *Psychological Bulletin*, and *Psychology of Addictive Behaviors*. Rebecca D. Burwell, PhD, Gilad Chen, PhD, Stephen E. Graham, EdD, Kerry Kawakami, PhD, Dolores Albarracín, PhD, and Nancy M. Petty, PhD, are the incumbent editors.

Candidates should be members of APA and should be available to start receiving manuscripts in early 2020 to prepare for issues published in 2021. Please note that the P&C Board encourages participation by members of underrepresented groups in the publication process and would particularly welcome such nominees. Self-nominations are also encouraged.

Search chairs have been appointed as follows:

- *Behavioral Neuroscience*, Chair: Stephen M. Rao, PhD
- *Journal of Applied Psychology*, Chair: James C. Quick, PhD
- *Journal of Educational Psychology*, Chair: Pamela Reid, PhD
- *Journal of Personality and Social Psychology: Interpersonal Relations and Group Processes*, Chair: Richard Petty, PhD
- *Psychological Bulletin*, Chair: Stevan E. Hobfoll, PhD
- *Psychology of Addictive Behaviors*, Chair: Mark B. Sobell, PhD

Nominate candidates through APA's Editor Search website (<https://editorsearch.apa.org>).

Prepared statements of one page or less in support of a nominee can also be submitted by e-mail to Rose Sokol-Chang, PhD, Journals Publisher.

Deadline for accepting nominations is Monday, January 7, 2019, after which phase one vetting will begin.