



Linking Ambivalent Sexism to Violence-Against-Women Attitudes and Behaviors: A Three-Level Meta-analytic Review

Brenda C. Gutierrez¹ · Campbell Leaper²

Accepted: 2 August 2023 / Published online: 27 August 2023
© The Author(s) 2023

Abstract

Ambivalent sexism (hostile and benevolent sexism) maintains gender inequalities and has been applied to investigate violence against women (VAW). We conducted a comprehensive three-level meta-analytic review testing ambivalent sexism as predictors of VAW-supportive attitudes and behaviors regarding sexual harassment, sexual assault, and intimate partner violence. Relevant articles published between 1996 and April 2022 were retrieved from the PsycINFO, Pro Quest Dissertations and Theses, Cochrane Database Reviews, ERIC, and Web of Science online databases. A total of 141 reports (with 912 unique effect sizes) met our inclusion criteria (e.g., assessed Glick and Fiske’s 1996 ASI and at least one self-reported measure of VAW-supportive attitudes or men’s VAW perpetration and/or proclivity; VAW was limited to violence against women perpetrated by men). Our review revealed hostile and benevolent sexism, respectively, were associated with greater VAW-supportive attitudes across genders ($r = .47$, 95% CI [.43–.50]; $r = .26$, 95% CI [.23–.29]) and to greater VAW behaviors among men ($r = .23$, 95% CI [.19–.27]; $r = .08$, 95% CI [.04–.12]). Our review also highlighted participant gender, VAW type, and domain of VAW as important moderators. Notably, benevolent sexism was more strongly tied to VAW-supportive attitudes among women ($r = .31$, 95% CI [.27–.35]) than men ($r = .22$, 95% CI [.18–.26]). Overall, the results underscore the importance of addressing hostile and benevolent sexism in future research and interventions on VAW.

Keywords Sexism · Attitudes · Intimate partner violence · Sexual assault · Sexual harassment

✉ Brenda C. Gutierrez
brenda.gutierrez@csulb.edu

✉ Campbell Leaper
cam@ucsc.edu

¹ California State University at Long Beach, Long Beach, CA, USA

² University of California - Santa Cruz, Santa Cruz, CA, USA

Introduction

Men's psychological and physical violence against women (VAW) is a pervasive social and health crisis that spans across nations (World Health Organization [WHO], 2021). According to WHO's (2021) global estimates, approximately 1 in 3 women have experienced physical or sexual violence. Worldwide, men are overwhelmingly the most common perpetrators of VAW (WHO, 2021) and many have approached men's VAW as emanating from patriarchal structures (Hunnicut, 2009; Reed et al., 2010). To understand VAW, researchers have investigated a range of attitudinal and behavioral factors that contribute towards the maintenance of VAW. Based on ambivalent sexism theory (Glick & Fiske, 2001), numerous studies have tested whether individuals' hostile sexism (e.g., misogynistic attitudes) or benevolent sexism (e.g., paternalistic attitudes) predict their attitudes or behaviors regarding men's VAW. The findings in these studies have somewhat varied and have captured a wide range of attitudes and behaviors. To synthesize this work, we conducted a comprehensive meta-analytic review of hostile and benevolent sexist attitudes as predictors of VAW-supportive attitudes among women and men as well as self-reported VAW behaviors among men. Further, we employed a three-level meta-analytic method (Van den Noortgate & Onghena, 2003) to test several moderators including participant gender, type of VAW attitudes or behaviors, methodological factors, and publication characteristics. These moderator analyses may point to directions for future research.

Violence Against Women

Consistent with prior work (e.g., Powell & Webster, 2018), we distinguish between sexual harassment, sexual assault, and intimate partner violence. *Sexual harassment* is defined by unwelcome verbal or physical behaviors based on gender, such as sexually degrading comments (Fitzgerald, 1996). Sexual harassment behaviors may be experienced in several contexts (Fileborn, 2013), such as within workplaces, public spaces (such as public transportation or even just on sidewalks), online spaces, and within romantic relationships. In the current review, we consider sexual harassment behaviors occurring across contexts outside of romantic relationships. Sexually harassing behaviors in relationships (e.g., harassing messages) were considered within the scope of intimate of partner violence (described below). In the US workplace, women's reported rates of sexual harassment ranged from 40 to 75% (McDonald, 2012). Similarly, in the US 65% of women have reported experiencing street sexual harassment (Stop Street Harassment, 2014) and 40% of women have reported experiencing cyber sexual harassment (UC San Diego Center on Gender Equity and Health & Stop Street Harassment, 2019). *Sexual assault* is defined as attempted or completed sexual contact without the person's consent, such as coercing someone to have sex (Koss et al., 2007). In one report, women's sexual assault victimization prevalence was 24% across nations (Dworkin et al., 2017). *Intimate partner violence* (IPV) refers to abusive behaviors occurring in romantic relationship contexts that can be psychological (e.g., insulting a

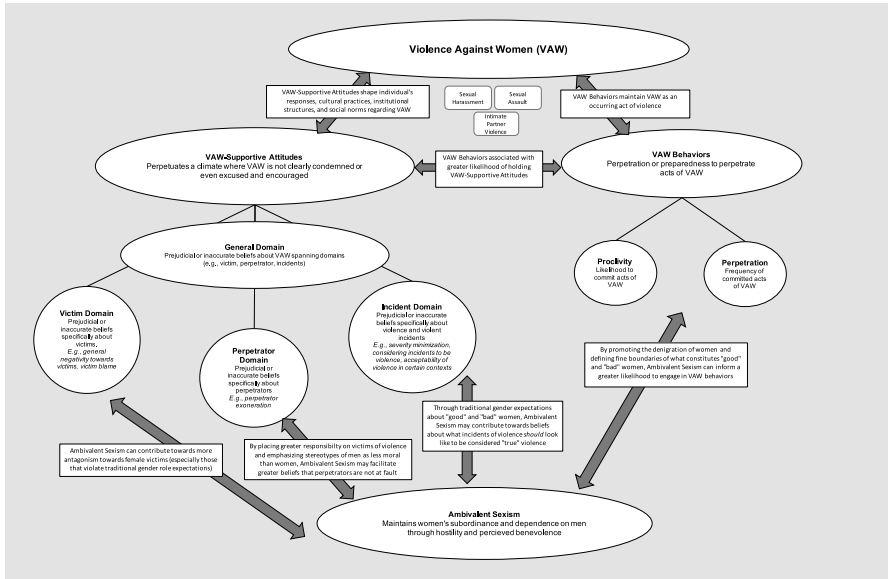


Fig. 1 Model of VAW and VAW-Supportive Attitudes and Behaviors

partner), physical (e.g., choking a partner), or sexual (e.g., forcing a partner to have sex) (Straus et al., 1996). Women’s IPV victimization rates worldwide are generally between 20 and 40% (Alhabib et al., 2010). Notably, these surveys may underestimate rates of VAW given that it is often unreported by victims (Ellsberg & Heise, 2005). Thus, VAW remains a widespread, persistent violation of human rights (WHO, 2021).

VAW-Supportive Attitudes

VAW-supportive attitudes have been identified as a key factor in shaping social norms around VAW. Broadly, these attitudes perpetuate a climate where VAW is not explicitly condemned that informs institutions and individuals (Flood & Pease, 2009; Powell & Webster, 2018; VicHealth, 2014). VAW-supportive attitudes can be represented across domains of violence that can capture attitudes regarding victims, perpetrators, or incidents (see Fig. 1).

Currently, the most common VAW-supportive measures capture components of all domains (general domain) called myth acceptance. Myth acceptance refers to holding inaccurate societal beliefs that justify or rationalize VAW across domains (e.g., Peters, 2008). For example, myth acceptance measures (e.g., Peters, 2008) have assessed views about victims (e.g., victims lie), perpetrators (e.g., perpetrator lost control), and violent incidents (e.g., real violence is rare).

Whereas myth acceptance captures attitudes across domains, other measures of VAW-supportive attitudes specify the domain of violence. Victim-domain measures have focused on attitudes that reflect general unsympathetic views (e.g., denigration) towards victims (e.g., Ward, 1988) or that specifically place blame on victims (e.g., Abrams et al., 2003). Perpetrator-domain measures generally assessed the extent to

which perpetrators should be absolved of responsibility (e.g., Viki et al., 2004). Finally, incident-domain measures assessed an individual's minimization of incident severity (e.g., LeLaurain et al., 2018), or the extent to which they consider certain incidents to be VAW (e.g., Shi & Zheng, 2020), or even the certain contexts in which they consider violence acceptable (e.g., when a partner has lied; Martín-Fernández et al., 2018). Thus, several measures assess VAW support. We considered all VAW-supportive measures that focused on victims, perpetrators, or incidents, or that collapsed across these domains.

Men's Self-reported VAW Behaviors

As reviewed earlier, rates of VAW incidents are alarming. Researchers have operationalized VAW behaviors through the assessment of men's reported *perpetration* of VAW (e.g., Straus et al., 1996) or their self-reported *proclivity* to engage in VAW (e.g., Pryor, 1988). Despite the likely under-reporting of socially unacceptable behaviors, many men have admitted VAW behaviors. For example, 36 to 60% of US men have reported committing at least one act of sexual assault (Widman & Olson, 2013). In another study, 29% of US male college students reported proclivity to commit sexual harassment (Bingham & Bureson, 1996). Thus, both self-reported VAW perpetration and proclivity can be informative of the extent that one contributes to VAW (see Fig. 1). We tested the links between men's hostile and benevolent sexism to their self-reported sexual harassment, sexual assault, and IPV perpetration and proclivity.

Ambivalent Sexism Theory and Links to VAW

VAW is a gender-based crisis. The disproportionate victimization rates among women for sexual harassment, sexual assault, and IPV are not generally observed for other crimes (e.g., robberies) (Hunnicut, 2009; Reed et al., 2010). Further, VAW prevalence is greater in nations where women have a lower status relative to men (Archer, 2006; Yodanis, 2004). Thus, VAW is linked to sexism and patriarchy in society. According to Glick and Fiske's (2001) ambivalent sexism theory, hostile and benevolent sexism are interrelated attitudes that maintain patriarchy (e.g., Becker & Wright, 2011; Brandt, 2011). Whereas hostile sexism is based on misogynistic attitudes inherent in VAW-supportive attitudes, benevolent sexism reflects more covert manifestations of patriarchy and male dominance.

Hostile sexism (HS) encompasses outwardly negative, prejudicial attitudes towards women (Glick & Fiske, 2001). Specifically, HS refers to attitudes that men are deserving of greater power than women due to beliefs that only men are suitable for powerful positions (see Connor et al., 2016; Glick & Fiske, 2001). Further, HS relies on beliefs that women will take men's power with their sexuality and therefore men must control women's sexuality (Connor et al., 2016; Glick & Fiske, 2001). Thus, HS is most obviously related to VAW-supportive attitudes and behaviors through the emphasis on men's dominance and control over women, especially gender-nontraditional women, such as sexually agentic women or feminists (Bosson et al., 2015; Vidal-Fernández & Megías, 2014; Yamawaki et al., 2009).

Indeed, women and men who endorse HS have tended to justify VAW, especially regarding victims that threaten men's power (Yamawaki et al., 2007). Across studies, men have consistently scored higher than women on HS (Glick et al., 2000) and VAW-supportive attitudes (Flood & Pease, 2009). Yet, many women paradoxically internalize HS and VAW-supportive attitudes as they defer to men's power to remain safe from violence (Connor et al., 2016; Glick & Fiske, 2001). Hence, we expected that HS would predict VAW-supportive attitudes among women and men.

Relatedly, *benevolent sexism* (BS) subtly maintains men's dominance (Glick & Fiske, 2001). Specifically, BS encompasses beliefs that women should adhere to traditional gender roles characterized by positive yet low-status traits (e.g., purity, nurturance) that complement men's gender roles (e.g., independence, dominance) and rely on men's protection (Connor et al., 2016; Glick & Fiske, 2001). Thus, although less obvious than HS, BS also contributes to VAW. Specifically, by stipulating who is considered either a good or a bad woman, BS fosters ideas of who deserves to be victimized and in which contexts it is tolerated (Abrams et al., 2003; Loughnan et al., 2013; Masser et al., 2010). BS also allows men's dominance to be expressed in seemingly benevolent ways (e.g., controlling behaviors interpreted as love; Connor et al., 2016; Moya et al., 2007; Nava-Reyes et al., 2018). Thus, BS may contribute to VAW-supportive attitudes and behaviors. However, the links to VAW-supportive attitudes may be stronger among women than men. BS is theorized as the incentive for women to seek men's protection in light of men's hostility (Connor et al., 2016; Expósito et al., 2010; Phelan et al., 2010). Supporting this premise, cross-national studies found women's BS was positively tied to men's HS endorsement (Glick et al., 2000, 2004). Women's greater BS—but not their HS—has predicted women's expectations that a wife threatening her husband's power would be met with IPV (Expósito et al., 2010). As Connor et al. (2016) illustrated, "BS represents the 'carrot' dangled in front of women to motivate them to accept inequality, while HS represents the 'stick' that beats them when they do not" (p. 298). Thus, HS can involve the looming threat of VAW—and BS encourages women's subordination to avoid this threat.

In sum, we predicted HS would be positively associated with VAW-supportive attitudes. We also hypothesized BS would be positively associated with VAW-supportive attitudes; however, we expected associations to BS would be stronger for women than men. Finally, we predicted men's HS and BS would both be positively associated with their self-reported VAW behaviors. Further, in addition to gender, we tested several other potential moderators.

Potential Moderators

When testing links between ambivalent sexism and VAW-supportive attitudes and behaviors, we considered several moderators. First, we tested *participant gender* as a moderator by comparing samples of women and men. As reviewed earlier, we expected BS may be especially linked to VAW outcomes among women.

Second, we tested several facets of VAW as moderators. We separately considered the *types of VAW* (sexual harassment, sexual assault, or intimate partner

violence) as prior research suggests that they may be perceived differently. For instance, many only perceive acts of sexual harassment as VAW if the acts meet a threshold of aggression or occur in certain contexts (e.g., work vs home; Zelin et al., 2022). Individuals are also less likely to condemn acts of VAW when the victim had a closer relationship to the perpetrator (see Gravelin et al., 2019; Persson & Dhingra, 2022), which may result in minimizing the extent to which IPV acts are viewed as VAW. Relatedly, we additionally tested the *types of IPV perpetration* (psychological, physical, sexual, or composite), as more physical forms of IPV may be more strongly condemned than non-physical IPV (Wilson & Smerles, 2020). We also tested the *VAW attitude domain* (victims, perpetrators, or incidents) and *behavior domain* (proclivity or perpetration) to better understand how sexist attitudes are linked to VAW. As ambivalent sexism is especially directed at women (Glick & Fiske, 2001), the links between AS and VAW attitudes may be driven by views about female victims (e.g., blaming victims to exonerate perpetrators). Regarding behaviors, less desirability bias may emerge when reporting the proclivity to engage in socially undesirable behavior (Langhaug et al., 2010). Finally, we explored whether the *time frame of perpetration* (e.g., all your life or the past 6 months) assessed would moderate results. Assessing a wider time frame may capture a more diverse set of individuals, such as those that have engaged in VAW behaviors previously but not recently. Research indicates that those that engage in VAW behaviors, especially at younger ages, do not necessarily become repeat offenders (Johnson et al., 2015).

Third, we examined several methodological moderators. As previous research has observed more progressive attitudes regarding gender among college students (Yoder et al., 2007), we tested whether differing effect sizes may be observed depending on the *type of sample* (college or non-college sample). We also tested whether associations varied based on the *VAW assessment method* (questionnaire inventory or vignette appraisal). Previous research indicates vignettes are a useful methodology for assessing topics that may be subject to social desirability biases, especially related to held values (Erfanian et al., 2019). However, they may capture attitudes towards specific characteristics of VAW, rather than more general assessments of VAW attitudes compared to questionnaire inventories. For instance, a review indicated that victim blaming attitudes were impacted by the extent to which vignettes depicted scenarios that were more or less consistent with rape myths that allow for blame (e.g., victim not drinking alcohol; Hockett et al., 2016). Relatedly, in a prior review of overall sexism and rape myths, the researchers argued that experimental manipulations (often depicted in vignettes) could confound associations—and excluded such studies (Suarez & Gadalla, 2010). However, rather than excluding the studies, we tested *use of an experimental design* as a moderator.

Finally, we considered two publication characteristics. Testing *publication status* (published or unpublished) helps to infer whether there might be a bias toward reporting significant results (e.g., Spruit et al., 2020). *Publication year* is a means to examine if there have been any historical changes in the associations between ambivalent sexism and VAW attitudes and behaviors.

The Present Meta-analysis

Our meta-analysis explores the unique associations of HS and BS to several domains of VAW. As with much research, the links between ambivalent sexism and VAW outcomes have varied across studies in either statistical significance or the magnitude of observed effects. Some notable features of our meta-analysis include its separate examination of different forms and domains of VAW—even when multiple types were included in the same study and its consideration of multiple moderators to inform future theorizing, such as by testing the unique effect sizes based on gender and various methodological factors.

Method

Selection Criteria

We included published research articles and unpublished dissertations appearing between 1996 and April 2022. This range was selected to capture the most up to date research at the time of search since the introduction of the 1996 Ambivalent Sexism Inventory. Study inclusion criteria were that the study must include: (1) quantitative measures of hostile sexism and/or benevolent sexism based on Glick and Fiske's (1996) Ambivalent Sexism Inventory (ASI); (2) at least one quantitative measure of self-reported violence-against-women (VAW) supportive attitudes or men's VAW perpetration and/or proclivity with at least one relevant effect size or enough data to calculate at least one effect size; (3) focus on gender-based violence perpetrated by men towards women; (4) be published in a peer or expert reviewed journal or be an unpublished dissertation; (5) include a sample of adolescent or adult participants. Studies were not restricted by participant gender, nationality, or other additional demographic characteristics (e.g., batterer vs. non-batterer samples). For studies examining an intervention program or other longitudinal design, only baseline/initial data were considered. Studies were not excluded on the basis of language as article translation to English was employed for non-English written papers. Other languages reviewed included Spanish, Turkish, French, German, and Italian. See Table 1 for more details on the inclusion and exclusion criteria.

Search Strategy and Results

The search strategy included searches of the keywords: *ambivalent sexism*, *benevolent sexism*, *hostile sexism*, *ambivalent sexism**, *benevolent sexism**, *hostile sexism**. We used the PsycINFO, Pro Quest Dissertations and Theses, Cochrane Database Reviews, ERIC, and Web of Science online databases excluding books and chapters. Additional articles were sent via email from authors. See Fig. 2 for a PRISMA flow diagram of the screening process (Page et al., 2021). The screening process resulted in a total of 141 reports (131 published articles, 10 dissertations) that yielded 912 effect sizes (478 for hostile sexism, 434 for benevolent sexism). See Supplementary

Table 1 PICOS table of inclusion and exclusion criteria

| PICOS | Inclusion criteria | Exclusion criteria |
|-------------------------------------|--|--|
| Participants | Adolescents or adults at or above the age of 12 | Children 11 years old or younger |
| Intervention (Independent variable) | Quantitative measure of Hostile Sexism using or adapting Glick & Fiske's, 1996 Ambivalent Sexism Inventory Quantitative measure of Benevolent Sexism using or adapting Glick & Fiske's, 1996 Ambivalent Sexism Inventory | Quantitative measures of sexism not using the ambivalent sexism framework described by Glick and Fiske (1996, 2001) Quantitative measures of sexism not using or adapting Glick & Fisk's 1996 Ambivalent Sexism Inventory Qualitative measures of sexism |
| Comparisons | Bivariate correlational effects to at least one of the various VAW outcome measures | |
| Outcomes | Assessed VAW-supportive attitudes or behavior in the domains of sexual harassment, sexual assault, or intimate partner violence Self-reported data Addressed violence towards women perpetrated by men | Did not use self-reported data (e.g., observations) Did not assess an attitudinal or behavioral dimension of VAW support Not specifically about violence against women/gender-based violence (e.g., general aggression) Not focusing on violence directed at women (e.g., collapsing across violence against women and men;) Not focusing on violence perpetrated by men (e.g., partner violence by female perpetrators) |
| Studies | Empirical research published in a peer/expert-reviewed journal Empirical research in unpublished dissertations Any quantitative design with appropriate data (e.g., questionnaire studies, longitudinal studies [T0 data only], intervention studies [baseline data only], cross-sectional studies, mixed-methods with relevant quantitative data) No language restrictions | Was not empirical (e.g., literature reviews) or are systematic reviews Published chapters or textbooks/books |

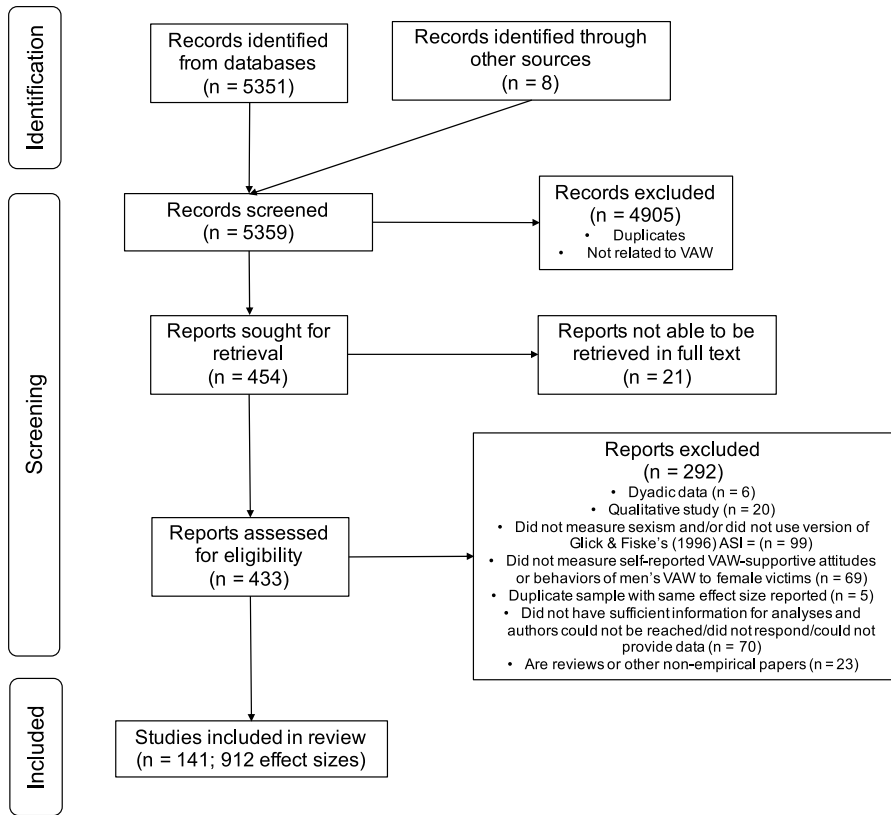


Fig. 2 PRISMA Flow Chart of Screening Procedures Based on PRISMA 2020

Table 1S for a list of included studies. All files and data were independently screened and extracted by the first author. If needed, the first author consulted with the second author regarding screening and data extraction.

Data Extraction

We tested associations between ambivalent sexism and either VAW-supportive attitudes (in women and men) or VAW behaviors (in men). *Hostile sexism* (HS) (e.g., “Women seek to gain power by getting control over men”) and *benevolent sexism* (BS) (e.g., “Women should be cherished and protected by men”) were measured using versions of Glick and Fiske’s (1996) ASI. Correlations between HS and BS and VAW-supportive attitudes or behaviors (described below) were extracted, as well as the corresponding sample size. Correlations were entered such that positive scores indicate that HS or BS was related to greater VAW support or behaviors. Correlation coefficients were collected separately for women and men. Authors of all reports that did not provide correlation coefficients separately by gender were

Table 2 Moderator variables tested

| Moderator variable | Type | Levels (if applicable) | Meta-Analysis |
|-----------------------------------|-------------|---|----------------------|
| Participant gender | Categorical | Women; Men; Mixed Genders | Attitudes |
| VAW characteristics | | | |
| Type of violence | Categorical | Sexual Harassment; Sexual Assault; Intimate Partner Violence | Attitudes; Behaviors |
| Attitude domain | Categorical | General Attitudes; Victims; Perpetrator; Incidents | Attitudes |
| Behavior domain | Categorical | Perpetration; Proclivity | Behaviors |
| Perpetration time frame | Categorical | Perpetration over the past 12 months; Perpetration over the past 6 months; Perpetration over the time of current relationship; Perpetration time-frame unspecified/unclear; Perpetration ever | Behaviors |
| Type of IPV perpetration measured | Categorical | Emotional/Psychological Violence; Physical Violence; Composite Forms of Violence | Behaviors |
| Methodological factors | | | |
| Sample recruitment | Categorical | Non-College Recruited; College Recruited; Mixed Recruitment | Attitudes; Behaviors |
| Attitudinal evaluation method | Categorical | Questionnaire; Scenario | Attitudes; Behaviors |
| Experimental design | Categorical | Not Experimental; Experimental | Attitudes; Behaviors |
| Publication characteristics | | | |
| Publication year | Continuous | n/a | Attitudes; Behaviors |
| Publication status | Categorical | Journal Publication; Unpublished Dissertation | Attitudes; Behaviors |

Table 3 Sample measures representing tested VAW constructs

| Measured construct | Example measure | Example source | Item examples | Rating scale |
|--|--|--------------------------------|--|--|
| <i>VAW-supportive attitudes</i> | | | | |
| <i>General domain</i> | | | | |
| Inimate Partner Violence Myth Acceptance | Domestic Violence Myth Acceptance Scale | Peters (2008) | "Some women unconsciously want their partners to control them." | Rating agreement |
| <i>Victim domain</i> | | | | |
| General Negativity towards Sexual Assault Victims | Attitudes toward Rape Victims Scale | Ward (1988) | "A raped woman is a less desirable woman" | Rating agreement |
| Sexual-Assault-Victim Blame | N/A | Abrams et al. (2003) | After vignette: "How much do you think [victim] should blame herself for what happened?" | Not at all to completely |
| <i>Perpetrator domain</i> | | | | |
| Sexual-Assault-Perpetrator Exoneration | Perpetrator Excuse Measure | Viki et al. (2004) | After vignette: "How much control do you think [perpetrator] had over the situation?" | Not at all to a great extent |
| <i>Incident domain</i> | | | | |
| Inimate Partner Violence Severity Minimization | N/A | LeLaurain et al. (2018) | After vignette: "According to you, if this were the first time the boyfriend slapped his girlfriend, the slap would seem..." | Totally severe to not severe at all, then reverse scored |
| Contexts of Intimate Partner Violence Incident Acceptability | Acceptability of Intimate Partner Violence Against Women scale | Martín-Fernández et al. (2018) | "It is acceptable for a man to hit his partner if she has been unfaithful" | Not acceptable to acceptable |
| Perception of Sexual Harassment Incidents as Violence | N/A | Shi and Zheng (2020) | "Touches me on chest/thigh/buttocks" | Definitely not sexual harassment to definitely sexual harassment |

Table 3 (continued)

| Measured construct | Example measure | Example source | Item examples | Rating scale |
|--|-----------------------------------|----------------------|--|---|
| <i>VAW Behaviors</i> | | | | |
| <i>Proclivity</i> | | | | |
| Sexual Harassment Proclivity | Likelihood to Sexually Harass | Pryor (1988) | “Assuming that you fear no reprisals, would you tell [female name] in private that you will not report her if she will have sex with you?” | <i>Not at all to very likely</i> |
| <i>Perpetration</i> | | | | |
| Intimate Partner Violence Perpetration | Revised Conflicts & Tactics Scale | Straus et al. (1996) | Psychological abuse: “Called the other person a loser, failure, or similar term” Physical abuse: “I pushed or shoved my partner” | <i>Never to more than 20 times in the past year</i> |

All measures for each tested construct by type of violence and domain of violence can be found in Supplementary Table 5S

contacted for that data. When correlation coefficients separately by gender was not provided by authors, correlation coefficients collapsing across mixed genders reported in the reports were collected and inputted as reflecting mixed gender samples. See Supplementary Table 3S and 4S for each extracted correlation. We also extracted moderator information (see Table 2).

VAW-Supportive Attitudes and Behaviors

First, for attitudes, we identified the *type of VAW* (sexual harassment, sexual assault, and intimate partner violence [IPV]). Second, we distinguished among *attitude domains* (general-domain attitudes, attitudes about victims, attitudes about perpetrators, and attitudes about incidents). Table 3 provides representative examples of each type of measure included, and Supplementary Table 5S provides a listing of all included measures.

Two domains of VAW self-reported behaviors were examined: *proclivity* (likelihood of enacting VAW behaviors) and *perpetration* (prior commission of VAW behaviors). We also identified the *type of VAW* (sexual harassment, sexual assault, IPV). For IPV perpetration, we additionally identified the *type of IPV* that the measure assessed (i.e., physical, psychological, sexual, or composite). The *time frame* of perpetration (e.g., last 6 months) was also recorded.

Coding Type and Domain of VAW VAW measure information was coded for the type of VAW and the domain of VAW it assessed. A reliability set ($n=41$) for type and domain of the VAW measure was coded by the first author and a graduate student, $\kappa=0.88-1.00$. Disagreements were determined through consensus discussions. Type and domain were then independently coded. See Supplementary Table 2S for extracted information of each study.

Methodological Factors

Aspects of each study's methods were extracted, specifically: *sample gender* (women only, men only, mixed genders), *sample recruitment type* (college sample, non-college sample, mixed sample), *assessment method* (questionnaire inventory or vignette appraisal), and *experimental design* (whether an experimental manipulation preceded measurement of ASI and VAW).

Additional sample information was extracted but is not reported due to infrequent reporting (e.g., ethnicity, sexual orientation). The ASI version language, number of rating scale points for the ASI and VAW measures, and number of VAW measure items were also extracted but not reported due to limitations in drawing meaningful conclusions from comparisons.

Publication Characteristics The following were recorded about each study: *publication year* and *publication status* (published or unpublished). Journal impact factor was also extracted but not reported due to limitations in this factor as a moderator (e.g., Saginur et al., 2020).

Data Analysis

We calculated a global effect size estimate by combining correlation coefficients between HS or BS to VAW-supportive attitudes and behaviors. Extracted coefficients were recoded as Fisher z-values for analyses and estimates were then transformed back to correlation coefficients for interpretation (Lipsey & Wilson, 2001). Effect sizes were interpreted using Cohen's (1988) guidelines as "small" if $r=0.10$ to 0.29, "medium" if $r=0.30$ to 0.49, and "large" if $r \geq 0.50$.

We employed a three-level meta-analytic approach that accounted for the dependency within effect sizes (Assink & Wibbelink, 2016; Van Den Noortgate & Onghena, 2003). The three-level meta-analytic approach nests effect sizes within studies to account for the hierarchical data structure while maintaining all information and maximizing power (Assink & Wibbelink, 2016). This approach allowed for the inclusion of multiple effect sizes from the same study (e.g., separate effect sizes for women and men, separate effect sizes for multiple VAW measures).

We specifically tested three-level random effects models that accounted for the sampling variance of *individual effect sizes* (level 1), variance of effect sizes *from the same studies* (level 2), and variance of effect sizes *between different studies* (level 3). Likelihood-ratio tests were then used to compare a full model to models excluding level 2 or level 3 variance. This comparison indicates whether there is significant variance present within the two levels (Assink & Wibbelink, 2016). In the event of significant heterogeneity in effect size distribution, relevant moderator analyses were then conducted to explain the variance. All selected moderators were specified a priori. Additionally, if significant variance was indicated, we did not perform statistical tests of publication bias as the homogenous distribution assumption would be violated. Publication bias tests (e.g., Egger's regression) cannot differentiate between heterogeneity and bias (Ioannidis, 2005). Instead, we included publication status as a moderating indicator of publication bias. Further, several extracted effect sizes were presented in correlational matrices that were not the report's central analyses or provided via email by authors of relevant studies, which may minimize some publication bias (Dalton et al., 2012). We also explored the impact of outlier effect sizes by testing overall models both with and without outlier studies (effect sizes ± 2 SD from the average; Higgins et al., 2022). These explored models did not indicate differences; therefore, we therefore do not review them. That is, the tested models described in the Results do not exclude outliers. We conducted all analyses using the metafor R package (Viechtbauer, 2010) and syntax instructions provided by Assink and Wibbelink (2016).

Results

We first tested associations of hostile sexism (HS) and benevolent sexism (BS) to violence-against-women (VAW) supportive attitudes. We then tested associations of men's HS and BS to their self-reported VAW behaviors.

Table 4 Overall Models of Ambivalent Sexism and VAW-Supportive Behaviors and Attitudes

| | <i>k</i> | #ES | <i>r</i> | <i>r</i> 95% CI | $\sigma^2_{level 2}$ | $\sigma^2_{level 3}$ | % Var. Level 1 | % Var. Level 2 | % Var. Level 3 |
|---------------------------------|----------|-----|----------|-----------------|----------------------|----------------------|----------------|----------------|----------------|
| <i>VAW-supportive attitudes</i> | | | | | | | | | |
| Hostile Sexism | 119 | 411 | .468*** | [.434, .501] | 0.025*** | 0.041*** | 6.02 | 35.19 | 58.79 |
| Benevolent Sexism | 111 | 390 | .262*** | [.232, .291] | 0.015*** | 0.019*** | 12.01 | 38.37 | 49.63 |
| <i>VAW behaviors</i> | | | | | | | | | |
| Hostile Sexism | 39 | 67 | .233*** | [.194, .271] | 0.002** | 0.01*** | 22.73 | 12.68 | 64.59 |
| Benevolent Sexism | 28 | 44 | .082*** | [.042, .121] | 0.001 | 0.005 | 50.73 | 6.96 | 39.12 |

p* < .05; **p* < .001

Note. VAW = violence against women; *k* = number of studies; #ES = number of effect sizes; *r* = mean effect size (Pearson *r*); CI = confidence interval; $\sigma^2_{level 2}$ = variance between effect sizes extracted from the same study; $\sigma^2_{level 3}$ = variance between studies; % Var = percentage of variance distributed

Table 5 Significant Moderators of the Associations between Ambivalent Sexism and VAW-Supportive Attitudes

| Moderators | <i>k</i> | #ES | <i>r</i> / <i>B</i> ₀ | #ES | <i>r</i> | 95% CI | <i>t</i> ₀ | <i>t</i> ₀ <i>p</i> | <i>B</i> ₁ | <i>t</i> ₁ | <i>t</i> ₁ <i>p</i> | <i>F</i> (<i>df</i> ₁ , <i>df</i> ₂) |
|---|----------|-----|----------------------------------|-----|--------------|--------|-----------------------|--------------------------------|-----------------------|-----------------------|--------------------------------|--|
| <i>Hostile sexism model</i> | | | | | | | | | | | | |
| <i>VAW characteristics</i> | | | | | | | | | | | | |
| Type of violence*** | | | | | | | | | | | | |
| Sexual Harassment (RC) | 20 | 90 | .414 | a | [.335, .486] | 9.52 | <.001 | .162 | 3.21 | .001 | | <i>F</i> (2, 408) = 16.96, <i>p</i> < .001 |
| Sexual Assault | 69 | 206 | .538 | b | [.501, .574] | 23.25 | <.001 | -.066 | -1.16 | .246 | | |
| Intimate Partner Violence | 37 | 115 | .357 | a | [.299, .414] | 11.06 | <.001 | | | | | |
| <i>Attitude domain***</i> | | | | | | | | | | | | |
| General attitudes (RC) | 89 | 181 | .538 | a | [.507, .567] | 28.02 | <.001 | | | | | <i>F</i> (3, 407) = 36.96, <i>p</i> < .001 |
| Victims | 42 | 100 | .414 | b | [.370, .457] | 16.63 | <.001 | -.160 | -5.83 | <.001 | | |
| Perpetrator | 14 | 31 | .305 | c | [.235, .371] | 8.26 | <.001 | -.285 | -7.51 | <.001 | | |
| Incidents | 25 | 99 | .298 | c | [.243, .352] | 10.09 | <.001 | -.293 | -9.25 | <.001 | | |
| <i>Methodological factors</i> | | | | | | | | | | | | |
| <i>Attitudinal evaluation method***</i> | | | | | | | | | | | | |
| Questionnaire inventory item(s) (RC) | 105 | 249 | .515 | a | [.485, .543] | 27.89 | <.001 | | | | | <i>F</i> (1, 409) = 85.09, <i>p</i> < .001 |
| Vignette/scenario | 35 | 162 | .301 | b | [.250, .351] | 10.85 | <.001 | -.258 | -9.22 | <.001 | | |
| <i>Publication characteristics</i> | | | | | | | | | | | | |
| Publication year* | 119 | 411 | .459 | - | [.424, .492] | 22.70 | <.001 | .009 | 2.22 | .027 | | <i>F</i> (1, 409) = 4.91, <i>p</i> = .027 |
| <i>Benevolent sexism model</i> | | | | | | | | | | | | |
| <i>Gender***</i> | | | | | | | | | | | | |
| Women only (RC) | 62 | 149 | .309 | a | [.271, .346] | 15.03 | <.001 | | | | | <i>F</i> (2, 387) = 14.19, <i>p</i> < .001 |
| Men only | 64 | 145 | .218 | b | [.178, .258] | 10.35 | <.001 | -.097 | -5.32 | <.001 | | |
| Mixed genders | 36 | 96 | .253 | a,b | [.200, .304] | 9.21 | <.001 | -.061 | -1.73 | .084 | | |
| <i>VAW characteristics</i> | | | | | | | | | | | | |
| Type of violence** | | | | | | | | | | | | |
| Sexual harassment (RC) | 19 | 89 | .233 | a,b | [.164, .300] | 6.46 | <.001 | | | | | <i>F</i> (2, 387) = 5.13, <i>p</i> = .006 |
| Sexual assault | 64 | 199 | .300 | b | [.263, .336] | 15.06 | <.001 | .072 | 1.8 | .074 | | |

Table 5 (continued)

| Moderators | <i>k</i> | #ES | <i>r</i> / <i>B</i> ₀ | <i>r</i> 95% CI | <i>t</i> ₀ | <i>t</i> ₀ <i>p</i> | <i>B</i> ₁ | <i>t</i> ₁ | <i>t</i> ₁ <i>p</i> | <i>F</i> (<i>df</i> ₁ , <i>df</i> ₂) |
|--------------------------------------|----------|-----|----------------------------------|-----------------|-----------------------|--------------------------------|-----------------------|-----------------------|--------------------------------|--|
| Intimate partner violence | 34 | 102 | .206 | [.154, .257] | 7.67 | <.001 | -.026 | -0.62 | .537 | <i>F</i> (3, 386) = 11.28, <i>p</i> < .001 |
| Attitude domain*** | | | | | | | | | | |
| General attitudes (RC) | 61 | 167 | .303 | [.270, .335] | 17.42 | <.001 | | | | |
| Victims | 42 | 98 | .237 | [.198, .286] | 10.88 | <.001 | -.070 | -2.9 | .004 | |
| Perpetrator | 13 | 31 | .149 | [.085, .212] | 4.52 | <.001 | -.163 | -4.81 | <.001 | |
| Incidents | 26 | 94 | .185 | [.134, .234] | 7.10 | <.001 | -.126 | -4.46 | <.001 | |
| <i>Methodological factors</i> | | | | | | | | | | |
| Attitudinal evaluation method*** | | | | | | | | | | <i>F</i> (1, 388) = 31.36, <i>p</i> < .001 |
| Questionnaire inventory item(s) (RC) | 97 | 232 | .293 | [.263, .323] | 17.98 | <.001 | | | | |
| Vignette/scenario | 33 | 158 | .164 | [.116, .209] | 6.83 | <.001 | -.138 | -5.6 | <.001 | |
| <i>Publication characteristics</i> | | | | | | | | | | |
| Publication year* | 111 | 390 | .253 | [.223, .284] | 15.83 | <.001 | .006 | 2.01 | .045 | <i>F</i> (1, 388) = 4.04, <i>p</i> = .045 |

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

VAW = Violence against women; RC = reference category; *k* = number of independent studies within row; #ES = number of effect sizes; *r*/*B*₀ = mean effect size/intercept; *t*₀ = difference in mean *r* with zero; *B*₁ = estimated regression coefficient; *t*₁ = difference in *r* with reference category; *F*(*df*₁, *df*₂) = omnibus test. Different subscripts within columns indicate differences at *p* < .05

Ambivalent Sexism and VAW-Supportive Attitudes

Overall Association Models of VAW-Supportive Attitudes

The meta-analysis of HS and VAW-supportive attitudes included 119 studies reporting 411 effect sizes for a total of 99,552 participants. A moderate association ($r=0.47$) was observed between HS and VAW-supportive attitudes (see Table 4). The likelihood-ratio tests indicated significant variance between effect sizes from the same study (level 2) and from different studies (level 3), p 's < 0.001. Sampling variance (level 1) accounted for 6.02% of total effect size variance; variance within studies (level 2) accounted for 35.19% of total effect size variance; and variance between different studies (level 3) accounted for 58.79% of total effect size variance.

The meta-analysis of BS and VAW-supportive attitudes included 111 studies reporting 390 effect sizes for 85,610 participants. A small, significant association ($r=0.26$) was observed between BS and VAW-supportive attitudes (see Table 4). The likelihood-ratio tests indicated there was significant variance between effect sizes from both the same and different studies, p 's < 0.001. Sampling variance accounted for 12.01% of variance, variance within studies accounted for 38.37% of variance, and variance between studies accounted for 49.76% of variance.

Given the heterogeneous effect size distribution in both models, we did not test publication bias regressions. Instead, we conducted moderator analyses to account for heterogeneity.

Moderator Analyses of VAW-Supportive Attitudes

Moderator analyses were conducted for participant gender, VAW characteristics, methodological factors, and publication characteristics. All comparison groups in the moderator analyses consisted of greater than 10 effect sizes ($ns=19$ to 411), consistent with standards for moderator analyses (Higgins et al., 2022). Significant moderator results are presented in Table 5. Results for all tested moderators are presented in Supplementary Table 6S.

Gender The overall association between HS and VAW-supportive attitudes was similar for women and men. However, the association between BS and VAW-supportive attitudes was significantly stronger for women ($r=0.31$) than men ($r=0.22$).

VAW Characteristics Both VAW characteristics (VAW type and domain) were significant moderators. Specifically, although the associations were significant with all types of VAW, HS was more strongly related to attitudes about sexual assault ($r=0.54$) than either sexual harassment ($r=0.41$) or IPV ($r=0.36$). Similarly, BS was more strongly correlated with attitudes about sexual assault ($r=0.30$) than IPV ($r=0.21$), but only marginally compared to sexual harassment ($r=0.23$).

Regarding VAW domains, HS was more strongly associated with general measures of VAW-supportive attitudes ($r=0.54$) than attitudes about victims ($r=0.41$), perpetrators ($r=0.31$), or incidents of VAW ($r=0.30$). Once again, a similar pattern was indicated in the associations of BS to VAW-supportive attitudes by domain. The strongest association was with general measures ($r=0.31$) compared to victims ($r=0.24$),

perpetrators ($r=0.15$), or ($r=0.19$). In addition, both HS and BS were more strongly related to the victim domain than either the perpetrator or the incident domains.

Additional exploratory tests were conducted to consider VAW Type x Domain interactions. These analyses revealed similar patterns as the main effects described (see Supplementary Table 6S).

Methodological Factors In both models, only assessment method moderated associations. Specifically, in both models, effect sizes were stronger with questionnaires (HS: $r=0.51$; BS: $r=0.29$) than with vignettes (HS: $r=0.31$; $r=0.17$). Sample recruitment and use of an experimental design were not significant in either model.

Publication Characteristics More recent publication years were positively related to effect sizes in the HS model ($B=0.01$) and the BS model ($B=0.01$). Publication status was not a significant moderator in either the HS or the BS models.

Multivariate Moderator Model We next tested multivariate models to assess the unique explanation of variance of each significant moderator (see Supplementary Table 7S).

In the HS model, all but one previously significant comparison uniquely explained variance when controlling for other moderators. Specifically, publication year uniquely explained variance when controlling for other moderators, $p=0.014$. Differences between the evaluation methods (questionnaires compared to vignettes) uniquely explained variance, $p<0.001$. Differences between attitudes about sexual assault compared to IPV also uniquely accounted for variance $p<0.001$; however, differences between sexual assault attitudes and sexual harassment attitudes did not emerge, $p=0.099$. Finally, differences between domain-general attitudes and victim-, perpetrator-, and incident-domain attitudes uniquely accounted for variance, $ps<0.05$.

In the BS model, differences between women and men, the evaluation methods, attitudes of sexual assault compared to IPV, and domain-general attitudes and perpetrator-domain attitudes uniquely explained variance, $p<0.01$. Publication year and differences between general- and victim- and incident-domain attitudes were not significant, $ps>0.05$.

Men's Ambivalent Sexism and VAW Behaviors

Overall Association Models

The meta-analysis of HS and VAW behaviors included 39 studies reporting 67 effect sizes for 19,227 participants. A significant association with a small effect size was observed between HS and VAW behaviors ($r=0.23$; see Table 4). The likelihood-ratio tests indicated significant variance in effect sizes from the same study (level 2), $p=0.004$, and from different studies (level 3), $p<0.001$. Sampling variance (level 1) accounted for 22.73% of total variance, variance between effect sizes within studies (level 2) accounted for 12.68% of total variance, and variance between different studies (level 3) accounted for 64.59% of total variance.

For BS and VAW behaviors, the meta-analysis included 28 studies reporting 44 effect sizes for 7,389 participants. In this model, a significant association (yet negligible in magnitude) was observed to VAW behaviors ($r=0.08$; see Table 4). The

Table 6 Significant Moderators of the Associations between Ambivalent Sexism and VAW Behaviors

| Moderators | <i>k</i> | #ES | <i>r</i> / <i>B</i> ₀ | <i>r</i> 95% CI | <i>t</i> ₀ | <i>t</i> ₀ <i>p</i> | <i>B</i> ₁ | <i>t</i> ₁ | <i>t</i> ₁ <i>p</i> | <i>F</i> (<i>df</i> ₁ , <i>df</i> ₂) |
|--------------------------------------|----------|-----|----------------------------------|-----------------|-----------------------|--------------------------------|-----------------------|-----------------------|--------------------------------|--|
| <i>Hostile sexism model</i> | | | | | | | | | | |
| <i>VAW behavior characteristics</i> | | | | | | | | | | |
| Behavior domain*** | | | | | | | | | | |
| Perpetration (RC) | 26 | 45 | .190 ^a | [.151, .228] | 9.53 | <.001 | | | | <i>F</i> (1, 65)=16.716, <i>p</i> <.001 |
| Proclivity | 13 | 22 | .335 ^b | [.276, .390] | 10.80 | <.001 | .156 | 4.09 | <.001 | |
| <i>Methodological factors</i> | | | | | | | | | | |
| Sample recruitment* | | | | | | | | | | |
| Non-college recruited (RC) | 19 | 32 | .201 ^a | [.149, .251] | 7.62 | <.001 | | | | <i>F</i> (1, 64)=3.64, <i>p</i> =.032 |
| College recruited | 16 | 30 | .238 ^a | [.180, .295] | 7.98 | <.001 | .039 | 0.97 | .337 | |
| Mixed recruitment | 4 | 5 | .366 ^b | [.255, .468] | 6.25 | <.001 | .180 | 2.69 | .009 | |
| Self-report method*** | | | | | | | | | | |
| Questionnaire inventory item(s) (RC) | 30 | 51 | .201 ^a | [.165, .236] | 10.99 | <.001 | | | | <i>F</i> (1, 65)=15.90, <i>p</i> <.001 |
| Vignette/scenario | 12 | 16 | .339 ^b | [.278, .397] | 10.43 | <.001 | .150 | 3.99 | <.001 | |
| <i>Benevolent sexism model</i> | | | | | | | | | | |
| <i>VAW behavior characteristics</i> | | | | | | | | | | |
| Behavior domain** | | | | | | | | | | |
| Perpetration (RC) | 17 | 26 | .040 ^a | [.000, .081] | 2.00 | .052 | | | | <i>F</i> (1, 42)=11.07, <i>p</i> =.002 |
| Proclivity | 11 | 18 | .152 ^b | [.098, .205] | 5.60 | <.001 | .113 | 3.33 | .002 | |
| <i>Methodological factors</i> | | | | | | | | | | |
| Self-report method*** | | | | | | | | | | |
| Questionnaire inventory item(s) (RC) | 21 | 31 | .047 ^a | [.008, .086] | 2.46 | .018 | | | | <i>F</i> (1, 42)=12.87, <i>p</i> <.001 |
| Vignette/scenario | 10 | 13 | .174 ^b | [.112, .236] | 5.23 | <.001 | .129 | 3.59 | <.001 | |

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

VAW = Violence against women; RC = reference category; *k* = number of independent studies within row; #ES = number of effect sizes; *r*/*B*₀ = mean effect size/intercept; *t*₀ = difference in mean *r* with zero; *B*₁ = estimated regression coefficient; *t*₁ = difference in *r* with reference category; *F*(*df*₁, *df*₂) = omnibus test. Different subscripts within columns indicate differences at *p*<.05

likelihood ratio tests indicated there was not significant variance between effect sizes from the same studies, $p=0.749$ or from different studies, $p=0.056$. Sampling variance accounted for 50.73% of total variance, variance within studies accounted for 6.96% of variance, and variance between different studies accounted for 39.12% of variance.

As heterogeneous effect size distribution was indicated in the first model and a marginal effect was indicated in the second model, publication bias regressions were not conducted. Instead, we conducted moderator analyses.

Moderator Analyses of VAW Behaviors

Moderator analyses were conducted regarding VAW characteristics, methodological factors, and publication characteristics. For both hostile and benevolent sexism analyses, respectively, some of the comparison groups include fewer than 10 effect sizes, these were specifically: recruitment (non-college $n_s=32$, 21; college $n_s=30$, 19; mixed $n_s=5$, 4), type of IPV (emotional/psychological $n_s=16$, 7; physical violence $n_s=7$, 2; composite forms $n_s=7$, 6), perpetration time frame (past 12 months $n_s=21$, 12; past 6 months $n_s=5$, 1; current relationship $n_s=1$; unspecified/unclear $n_s=11$, 7; ever $n_s=7$, 5), experimental design (no experiment $n_s=58$, 37 experimental $n_s=9$, 7), and publication status (published $n_s=60$, 43; unpublished $n_s=7$, 1). We present these findings with caution in interpretation. In the following analyses, significant moderator results are presented in Table 6. All tested models are presented in Supplementary Table 8S.

VAW Behavior Characteristics The type of VAW (sexual harassment, sexual assault, or IPV) was not a significant moderator in either the model with HS or BS. However, VAW behavior domain (proclivity vs. perpetration) was a significant moderator in both models. The associations with proclivity (HS: $r=0.24$; BS: $r=0.15$) were stronger than with perpetration (HS: $r=0.19$; BS: $r=0.04$). Exploratory analyses of the type of VAW X domain generally revealed stronger associations for types of proclivity than perpetration (see Supplementary Table 7S).

Methodological Factors Of the tested moderators for the HS model, two factors were significant. First, effect sizes were greater in mixed-recruitment samples ($r=0.37$) than either college ($r=0.24$) or non-college ($r=0.20$) samples. This pattern should be interpreted with caution, however, as the mixed-recruitment group was comprised of only 5 effect sizes. Second, effect sizes determined by vignettes ($r=0.34$) were larger than those determined by questionnaire inventories ($r=0.20$).

For the BS model, one study characteristic was significant. Specifically, effect sizes were stronger in studies based on vignettes ($r=0.17$) than those based on questionnaire inventories ($r=0.05$). Use of an experimental design was not significant in either model.

Publication Characteristics Publication status and publication year were not significant moderators in either the HS or the BS models.

Multivariate Moderator Model A multivariate model tested the unique explanation of variance for the significant moderators (see Supplementary Table 9S). In the HS model, sample recruitment type, assessment method, and domain were not significant, $p_s > 0.05$. Thus, overlapping variance across the moderators was

indicated. In the BS model, differences between questionnaires and vignettes uniquely explained variance, $p=0.025$, but differences between proclivity and penetration were no longer significant, $p=0.937$.

Discussion

Our meta-analysis revealed meaningful average effect sizes of hostile sexism (HS) and benevolent sexism (BS) to violence-against-women (VAW)-supportive attitudes and behaviors. The results support the premise that HS and BS contribute towards the maintenance of a climate fostering VAW. Further, we identified several moderators of effects that may provide directions for future work investigating links between sexism and VAW-supportive attitudes and behaviors.

Ambivalent Sexism and VAW-Supportive Attitudes

Global VAW Supportive-Attitudes

As explicated in ambivalent sexism theory, HS maintains men's greater dominance over women, especially women who break traditional gender roles (Connor et al., 2016; also see Vidal-Fernández & Megías, 2014; Yamawaki et al., 2009). Because HS and VAW-supportive attitudes each reflect overt misogyny, the observed association was anticipated. Indeed, we found HS endorsement moderately predicted global VAW-supportive attitudes. VAW-supportive attitudes disavow the seriousness and impact of violence in women's lives and thereby excuse men who perpetuate these behaviors. Furthermore, they serve as warnings to women who violate traditional gender expectations emphasizing their subordination to men while relying on them for safety (Connor et al., 2016; also see Chapeau et al., 2007; Yamawaki et al., 2007). In this manner, HS and VAW-supportive attitudes maintain the status quo.

Studies have generally indicated moderate correlations between HS and BS (Glick et al., 2000, 2004). But many individuals positively evaluate BS while disavowing HS (e.g., Kilianski & Rudman, 1998). Compared to HS, the ideologies underlying BS—such as men protecting women or complementary roles—may not be recognized as perpetuating gender inequalities. Yet, HS and BS are intertwined in the maintenance of men's dominance (see Connor et al., 2016; Jost & Kay, 2005). BS perpetuates women's subordination by defining traditional roles women must fulfill to be considered undeserving of violence (e.g., Masser et al., 2010). Our meta-analyses support these premises as BS was positively linked to VAW-supportive attitudes. In these ways, we see how endorsement of BS could have pernicious repercussions on the likelihood of VAW.

Distinguishing Types and Domains of VAW

When we took the type of VAW into account, the association between HS and VAW-supportive attitudes was strongest with sexual assault. Prior work indicates HS is

often directed at sexualized women due to beliefs that men must control women's sexuality to protect their greater power (e.g., Cikara et al., 2011). HS attitudes may be used to rationalize or to shift the blame of men's sexual violence. Nonetheless, our results indicated that HS was moderately linked to sexual harassment and IPV as well—which supports the interconnections between VAW and misogyny (Hunnicutt, 2009). Relatedly, links between BS and VAW-supportive attitudes were also strongest with sexual assault. Thus, although BS may appear disconnected from violence due to the appearances of care and protection for women (Connor et al., 2016; also see Jost & Kay, 2005; Kilianski & Rudman, 1998), the endorsement of BS, much like HS, is indeed linked to a climate that condones VAW. Oftentimes, sexual harassment and sexual assault are collapsed into a broader category of sexual violence (e.g., Agadullina et al., 2022), however, these patterns point towards understanding the associations of sexism to sexual assault that may be distinct from sexual harassment to more aptly address each type of violence.

The domain of violence (general or victim, perpetrator, or incident specific) also moderated links between ambivalent sexism and VAW-supportive attitudes. Specifically, both HS and BS were most strongly associated with VAW-supportive attitudes measured across domains followed by those specifically about victims. When multiple domains are represented in the assessment (e.g., Peters, 2008), there may be greater opportunity to detect links with sexism.

Ambivalent sexism is based on hostility to nonconforming women (i.e., HS) and acceptance of women who conform to traditional roles (i.e., BS). The focus on women may explain why VAW attitudes about victims were the strongest domain-specific attitude linked to HS and BS. HS is predicated on hostility toward women who threaten the gender-status quo while BS is premised on protecting from violence the women who fulfil traditional gender-role expectations (see Connor et al., 2016; also see Masser et al., 2010; Yamawaki et al., 2007). By extension, both HS and BS may especially contribute to beliefs that denigrate or blame women who are victims of violence. Thus, although HS and BS were linked to VAW-supportive beliefs about perpetrators and incidents, they may be particularly relevant to beliefs about victims.

Gender Considerations in Links to VAW Support

Notably, links between HS and VAW-supportive attitudes were consistent across gender. Although studies have found men are more likely than women to endorse HS (see Glick et al., 2000), many women internalize HS (e.g., Kilianski & Rudman, 1998). By extension, HS were similarly related to VAW-supportive attitudes among women. Given the interrelations between HS and BS, accepting the view that men are dominant goes hand in hand with seeking their protection and endorsing complementary roles (Expósito et al., 2010; Glick et al., 2000). In this insidious manner, internalizing HS attitudes can desensitize many women and men to VAW.

Whereas significant links between BS and VAW-supportive attitudes were indicated for both women and men, the magnitude was notably larger for women than men. The pattern may reflect system-justification processes. That is, because of women's lower power in society, women who endorse BS might have greater need for system

justification (Chapleau & Oswald, 2014; Jost & Kay, 2005). For instance, women who uphold BS beliefs about women's purity and men's protection of gender-conforming (regarded as "good") women may create distance between themselves and potential victimization by placing fault on victims (Joseph et al., 2013). Paradoxically, while one of the perceived benefits of BS is to protect women from violence, BS may further perpetuate the conditions from which women seek protection (Expósito et al., 2010).

Men's Ambivalent Sexism and Self-Reported VAW Behaviors

Our second set of meta-analyses indicated that men's endorsements of HS and BS were each linked to greater self-reported VAW behaviors. Links between men's HS and VAW behaviors were expected given that male dominance is at the core of HS and VAW (Connor et al., 2016; Hunnicutt, 2009). In addition, associations between BS and VAW behaviors were hypothesized due to the power differentials between women and men in heterosexual dating scripts predicated on BS (e.g., Eaton & Matamala, 2014; Paynter & Leaper, 2016); this, BS attitudes may lead some men to feel entitled to commit VAW in the pursuit of heterosexual romantic relationships (Livingston et al., 2004; Thomas & Kitzinger, 1994). In support of our hypotheses, our meta-analyses indicated *both* BS and HS predicted men's VAW behaviors.

Furthermore, our analyses of the domain moderator revealed these links were more readily detected regarding self-reports of proclivity than prior perpetration of VAW. Men's endorsement of HS was linked to both men's proclivity and perpetration, but the association was stronger with proclivity. Men's endorsement of BS was only linked to proclivity. Reporting the inclination to engage in a negative behavior might be subject to less bias than reporting enacted negative behavior (Langhaug et al., 2010). Relatedly, it is worth noting that both VAW perpetration and proclivity may be underreported given the negative nature of these behaviors, which may weaken their effect sizes.

Additional Methodological Considerations

In addition to participant gender and features of VAW measures, we explored other methodological factors and publication characteristics as potential moderators of the associations between ambivalent sexism and VAW-supportive attitudes and behaviors. Notably, the ways that the VAW attitudes were measured affected the effect sizes. Attitudinal links were stronger when the measures used questionnaire inventories than appraisals of vignettes. Because vignettes depict context-specific characteristics (e.g., victim behaviors, incident settings), they may be more susceptible to bias. For instance, vignettes have been differently evaluated depending on the extent to which the vignette depicts a rape-myth consistent or inconsistent scenario (e.g., victim drinking alcohol; Hockett et al., 2016). This premise may also explain the reverse pattern of effect sizes between sexism and VAW behaviors being larger when evaluated by a vignette. The context of a vignette may provide some ambiguity to individuals that reduces potential desirability biases (Erfanian et al., 2019; Langhaug et al., 2010). An alternative explanation, potentially indicated by the

multivariate models, may be that proclivity was more often assessed using vignettes, whereas inventories nearly exclusively measured perpetration. Future research can develop ways to measure perpetration using vignettes to explore this premise.

Links between sexism and VAW-supportive attitudes were also stronger in studies published more recently. Although the endorsement of sexist or VAW attitudes might change over historical time, we had no reason to expect the association between ambivalent sexism and VAW attitudes would change. We speculate this pattern may reflect improvements in methods that better capture associations between sexist attitudes and VAW-supportive attitudes.

Notably, in the attitudinal multivariate model regarding HS, nearly all of the reviewed moderators (i.e., type of VAW, VAW domain, assessment method, number of VAW measure items, publication year) uniquely explained effect size variance. Thus, these may be important moderators for future research to explore to better understand their role in linking HS and VAW. In contrast, the attitudinal multivariate model regarding BS tested these same moderators as well as participant gender and indicated overlapping variance. Specifically, it appeared gender differences, VAW type, and VAW domain were the stronger moderators of the links between BS and VAW-supportive attitudes. Overlapping variance may be attributed to shared characteristics. For instance, domain-specific attitudes (particularly of perpetrator and incidents) were most often assessed by vignettes. Future work can consider domain-specific inventories (e.g., Martín-Fernández et al., 2018) or develop a vignettes-based inventory of several VAW domains (e.g., Pryor, 1998) to further explore these factors. Future research regarding BS and VAW could also center participant gender, VAW type, and VAW domain to further understand these more consistent moderators.

Not surprisingly, we discovered that sexist attitudes predicted VAW-tolerant attitudes and self-reported VAW behaviors (e.g., see Agadullina et al., 2022; Persson & Dhingra, 2022; Suarez & Gadalla, 2010). Since conducting our review, another set of researchers similarly documented significant average effects in the associations of hostile sexism and benevolent sexism to VAW-related outcomes (Agadullina et al., 2022; also see Persson & Dhingra, 2022; Suarez & Gadalla, 2010, for related reviews that were more limited in scope). Our work extends their analyses in four important ways. First, they did not test both the type of VAW (sexual harassment, sexual assault, and IPV) and the domain of violence (general, victim, perpetrator, incident, perpetration, proclivity) as moderators. As previously discussed, we discovered these variables were often significant. Second, we considered several methodological moderators (e.g., assessment method, publication year) that were not considered in prior reviews. Third, our three-level analytic method additionally allowed for the simultaneous inclusion of multiple unique effect sizes reported by individual samples, resulting in a greater pool of effect sizes testing attitudinal support of VAW. Finally, we contacted all authors to request correlations by participant gender when they were not included in their reports; this also provided a larger pool of effect sizes to test participant gender as a moderator. From these comparisons, we discovered a significant gender difference (discussed earlier) in the links between benevolent sexism and VAW-supportive attitudes, which was not previously indicated (likely due to the smaller number of included studies). In sum, our meta-analyses extend prior reviews in several meaningful and revealing ways.

Limitations and Future Directions

The current meta-analytic review presents a synthesis of research testing ambivalent sexism to various VAW-supportive attitudes and behaviors capturing sexual harassment, sexual assault, and IPV. However, in conducting our review, we encountered some limitations in the current research literature. Two notable instances were that we were unable to consider individual characteristics of the samples in more depth. With gender identities, we were limited to samples self-identified as women or men. Also, we could not take into account ethnic/racial or cultural backgrounds as moderators. Some studies reported on individuals with nonbinary gender identities; and several studies were conducted across different racial-ethnic groups and nations in the West and Global South. However, there were insufficient numbers to test these as meaningful moderators. Sexism relies on binary approaches to gender (Glick & Fiske, 2001) and is shaped by culture (Rondon, 2003); similarly, VAW is also affected by cultural practices (e.g., Sabina et al., 2013). Thus, it is important for more studies to be conducted that consider greater diversity in individual and cultural factors in relation to associations between ambivalent sexism and VAW.

An additional limitation is that few studies had examined ambivalent sexism in relation to some types or forms of VAW-supportive attitudes and behaviors. In addition to investigating more forms of VAW-supportive attitudes and behaviors, we recommend that researchers consider different forms of VAW-support among the same persons. In a call to action, García-Moreno et al. (2015) recommended taking a holistic perspective that extends beyond separately examining single forms of violence and instead simultaneously considering a range of VAW. In line with this perspective, our review documented the connections of ambivalent sexism to VAW-supportive attitudes and behaviors across multiple types and domains.

Some of our moderator comparisons of VAW behaviors (but not VAW attitudes) were constrained by the available studies. In some comparisons, there were fewer than the 10 effect sizes that are considered the ideal minimum for moderation comparisons (Higgins et al., 2022). These were particularly for tests of hostile and benevolent sexism, respectively, to recruitment, type of IPV, perpetration time frame, experimental design, and publication status. Of these comparisons, only one of them yielded significant results (e.g., mixed recruitment vs. college and non-college recruitment for HS only). We also note it should be viewed with caution, and we do not highlight it in our discussion.

Lastly, some of the moderators were coded as dichotomous variables (e.g., assessment method [vignette or questionnaire], experimental design [experimental or non-experimental]). This approach may have limited the interpretations that can be drawn these analyses. For instance, vignettes may have differed in the context in which they depicted violence (e.g., depicting myth-consistent or inconsistent scenarios) (e.g., Hockett et al., 2016). Although informative, collapsing across vignettes for an overall effect may overshadow how these effects may look based on specific content. Future work can more specifically explore the impact of the content of vignettes across different domains and types of violence.

Implications and Conclusions

Our meta-analyses highlight ways that HS and BS appear related to VAW-supportive attitudes and behaviors with meaningful effect sizes. Whereas the relations of HS to VAW-supportive attitudes and behaviors may seem obvious, we suspect that associations between BS and VAW-supportive attitudes and behaviors may be surprising to some readers. It is especially notable that the latter set of attitudinal patterns were more strongly seen among women compared to men. Indeed, many women endorse BS beliefs to mitigate potential violence (e.g., Expósito et al., 2010; Fischer, 2006; Glick et al., 2000). Our findings provide further support to the premise in ambivalent sexism theory that the endorsement of BS beliefs maintains the patriarchal system perpetuating gender inequality and gender-based violence (Connor et al., 2016; Glick & Fiske, 2001).

Even outside of the context of heterosexual relationships, BS attitudes and VAW-supportive attitudes may affect how other persons interpret and respond to incidents of VAW. These reactions could have critical consequences when they involve human resources staff, health care workers, law enforcement, or jury deliberations (Flood & Pease, 2009). For example, this was highlighted in a study of mostly male police officers' attitudes in which police officers who scored higher in BS were less likely to feel personal responsibility to act in incidents of IPV (Gracia et al., 2011). Beyond professional roles, BS and VAW-supportive attitudes may affect how friends, relatives, or even bystanders perceive and respond to incidents—such as whether they show empathy to victims or intervene in incidents of VAW (Flood & Pease, 2009). In these contexts, BS may be particularly insidious in undermining the supportive reactions of others.

In conclusion, ambivalent sexism appears related to the maintenance of VAW. It is imperative to address these widely held beliefs as VAW remains a global phenomenon that infringes on human rights and gender equality (WHO, 2021). Indeed, several scholars have called for research and interventions that address attitudes (García-Moreno et al., 2015; Santoro et al., 2018). For example, García-Moreno et al. (2015) decried that “violence against women and girls is not just a story about unhealthy individuals, families, or relationships, but about unhealthy social norms” (p. 3). Our meta-analytic review supports these calls by synthesizing work focused on ambivalent sexism and the maintenance of multiple forms of VAW through supportive attitudes and behaviors. Further, we highlight the need to address specific domains of violence. A concrete step to address HS and BS is through workshops in schools and workplaces aimed at preventing VAW (Santoro et al., 2018). For example, interventions addressing links between ambivalent sexism and VAW have led to decreases in sexism and VAW support (Craig et al., 2006; Kilmartin et al., 2015). Thus, we can alleviate the violence that holds back women, human rights, and social progress.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s12119-023-10127-6>.

Acknowledgements The authors thank Doug Bonett for his generous time and helpful statistical advice. For more information, please contact: Brenda C. Gutierrez, Department of Psychology, California State University at Long Beach, Long Beach, CA USA. Email: brenda.gutierrez@csulb.edu.

Funding The research was supported by a Cota-Robles Graduate Fellowship at the University of California, Santa Cruz to Brenda Gutierrez and by an Academic Senate Faculty Research Grant at the University of California, Santa Cruz to Campbell Leaper.

Declarations

Conflict of interest The authors have no financial or non-financial conflicts of interest.

Ethical Approval The meta-analysis did not require new research and therefore a review from the university's Institutional Review Board was not warranted.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

References

- Abrams, D., Viki, G. T., Masser, B., & Bohner, G. (2003). Perceptions of stranger and acquaintance rape: The role of benevolent and hostile sexism in victim blame and rape proclivity. *Journal of Personality and Social Psychology, 84*(1), 111–125. <https://doi.org/10.1037/0022-3514.84.1.111>
- Agadullina, E., Lovakov, A., Balezina, M., & Gulevich, O. A. (2022). Ambivalent sexism and violence toward women: A meta-analysis. *European Journal of Social Psychology, 52*, 819–859. <https://doi.org/10.1002/ejsp.2855>
- Alhabib, S., Nur, U., & Jones, R. (2010). Domestic violence against women: Systematic review of prevalence studies. *Journal of Family Violence, 25*(4), 369–382. <https://doi.org/10.1007/s10896-009-9298-4>
- Archer, J. (2006). Cross-cultural differences in physical aggression between partners: A social-role analysis. *Personality and Social Psychology Review, 10*(2), 133–153. https://doi.org/10.1207/s15327957papr1002_3
- Assink, M., & Wibbelink, C. J. M. (2016). Fitting three-level meta-analytic models in R: A step-by-step tutorial. *The Quantitative Methods for Psychology, 12*(3), 154–174. <https://doi.org/10.20982/tqmp.12.3.p154>
- Becker, J. C., & Wright, S. C. (2011). Yet another dark side of chivalry: Benevolent sexism undermines and hostile sexism motivates collective action for social change. *Journal of Personality and Social Psychology, 101*(1), 62–77. <https://doi.org/10.1037/a0022615>
- Bingham, S. G., & Burleson, B. R. (1996). The development of a sexual harassment proclivity scale: Construct validation and relationship to communication competence. *Communication Quarterly, 44*(3), 308–325. <https://doi.org/10.1080/01463379609370020>
- Bosson, J. K., Parrott, D. J., Swan, S. C., Kuchynka, S. L., & Schramm, A. T. (2015). A dangerous boomerang: Injunctive norms, hostile sexist attitudes, and male-to-female sexual aggression. *Aggressive Behavior, 41*(6), 580–593. <https://doi.org/10.1002/ab.21597>
- Brandt, M. J. (2011). Sexism and gender inequality across 57 societies. *Psychological Science, 22*(11), 1413–1418. <https://doi.org/10.1177/0956797611420445>

- Chapleau, K. M., & Oswald, D. L. (2014). A system justification view of sexual violence: Legitimizing gender inequality and reduced moral outrage are connected to greater rape myth acceptance. *Journal of Trauma & Dissociation*, 15(2), 204–218. <https://doi.org/10.1080/15299732.2014.867573>
- Chapleau, K. M., Oswald, D. L., & Russell, B. L. (2007). How ambivalent sexism toward women and men supports rape myth acceptance. *Sex Roles*, 57(1–2), 131–136. <https://doi.org/10.1007/s11199-007-9196-2>
- Cikara, M., Eberhardt, J. L., & Fiske, S. T. (2011). From agents to objects: Sexist attitudes and neural responses to sexualized targets. *Journal of Cognitive Neuroscience*, 23(3), 540–551. <https://doi.org/10.1162/jocn.2010.21497>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Erlbaum.
- Connor, R. A., Glick, P., & Fiske, S. T. (2016). Ambivalent sexism in the twenty-first century. In C. G. Sibley & F. K. Barlow (Eds.), *The Cambridge handbook of the psychology of prejudice* (pp. 295–320). Cambridge University Press. <https://doi.org/10.1017/9781316161579.013>
- Craig, M. E., Robyak, J., Torosian, E. J., & Hummer, J. (2006). A study of male veterans' beliefs toward domestic violence in a batterers intervention program. *Journal of Interpersonal Violence*, 21(9), 1111–1128. <https://doi.org/10.1177/0886260506290418>
- Dalton, D. R., Aguinis, H., Dalton, C. M., Bosco, F. A., & Pierce, C. A. (2012). Revisiting the file drawer problem in meta-analysis: An assessment of published and nonpublished correlation matrices. *Personnel Psychology*, 65(2), 221–249. <https://doi.org/10.1111/j.1744-6570.2012.01243.x>
- Dworkin, E. R., Menon, S. V., Bystrynski, J., & Allen, N. E. (2017). Sexual assault victimization and psychopathology: A review and meta-analysis. *Clinical Psychology Review*, 56, 65–81. <https://doi.org/10.1016/j.cpr.2017.06.002>
- Eaton, A. A., & Matamala, A. (2014). The relationship between heteronormative beliefs and verbal sexual coercion in college students. *Archives of Sexual Behavior*, 43(7), 1443–1457. <https://doi.org/10.1007/s10508-014-0284-4>
- Ellsberg, M., & Heise, L. (2005). *Researching violence against women: A practical guide for researchers and activists*. World Health Organization, PATH. <https://www.who.int/reproductivehealth/publications/violence/9241546476/en/>
- Erfanian, F., Latifnejad, R., Robab, H. A., & Noghani Dokht Bahmani, M. (2019). A narrative on using vignettes: Its advantages and drawbacks. *Journal of Midwifery & Reproductive Health*, 8(2), 2134–2145. <https://doi.org/10.22038/jmrh.2020.41650.1472>
- Expósito, F., Herrera, M. C., Moya, M., & Glick, P. (2010). Don't rock the boat: Women's benevolent sexism predicts fears of marital violence. *Psychology of Women Quarterly*, 34(1), 36–42. <https://doi.org/10.1111/j.1471-6402.2009.01539.x>
- Fileborn, B. (2013). *Conceptual understandings and prevalence of sexual harassment and street harassment*. Analysis and Policy Observatory. <https://apo.org.au/sites/default/files/resource-files/2013-07/apo-nid35118.pdf>
- Fischer, A. R. (2006). Women's benevolent sexism as reaction to hostility. *Psychology of Women Quarterly*, 30(4), 410–416. <https://doi.org/10.1111/j.1471-6402.2006.00316.x>
- Fitzgerald, L. F. (1996). Sexual harassment: The definition and measurement of a construct. In M. A. Paludi (Ed.), *Sexual harassment on college campuses: Abusing the ivory power* (pp. 25–47). State University of New York Press.
- Flood, M., & Pease, B. (2009). Factors influencing attitudes to violence against women. *Trauma, Violence, & Abuse*, 10(2), 125–142. <https://doi.org/10.1177/1524838009334131>
- García-Moreno, C., Zimmerman, C., Morris-Gehring, A., Heise, L., Amin, A., Abrahams, N., Montoya, O., Bhate-Deosthali, P., Kilonzo, N., & Watts, C. (2015). Addressing violence against women: A call to action. *The Lancet*, 385(9978), 1685–1695. [https://doi.org/10.1016/S0140-6736\(14\)61830-4](https://doi.org/10.1016/S0140-6736(14)61830-4)
- Glick, P., & Fiske, S. T. (1996). The Ambivalent Sexism Inventory: Differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology*, 70(3), 491–512. <https://doi.org/10.1037/0022-3514.70.3.491>
- Glick, P., & Fiske, S. T. (2001). An ambivalent alliance: Hostile and benevolent sexism as complementary justifications for gender inequality. *American Psychologist*, 56(2), 109–118. <https://doi.org/10.1037/0003-066X.56.2.109>
- Glick, P., Fiske, S. T., Mladinic, A., Saiz, J. L., Abrams, D., Masser, B., & López, W. L. (2000). Beyond prejudice as simple antipathy: Hostile and benevolent sexism across cultures. *Journal of Personality and Social Psychology*, 79(5), 763–775. <https://doi.org/10.1037/0022-3514.79.5.763>
- Glick, P., Lameiras, M., Fiske, S. T., Eckes, T., Masser, B., Volpato, C., Manganelli, A. M., Pek, J. C. X., Huang, L.-I., Sakalli-Ugurlu, N., Castro, Y. R., D'Avila Pereira, M. L., Willemsen, T. M., Brunner,

- A., Six-Materna, I., & Wells, R. (2004). Bad but bold: Ambivalent attitudes toward men predict gender inequality in 16 nations. *Journal of Personality and Social Psychology*, 86(5), 713–728. <https://doi.org/10.1037/0022-3514.86.5.713>
- Gracia, E., García, F., & Lila, M. (2011). Police attitudes toward policing partner violence against women: Do they correspond to different psychosocial profiles? *Journal of Interpersonal Violence*, 26(1), 189–207. <https://doi.org/10.1177/0886260510362892>
- Gravelin, C. R., Biernat, M., & Bucher, C. E. (2019). Blaming the victim of acquaintance rape: Individual, situational, and sociocultural factors. *Frontiers in Psychology*, 9, 22. <https://doi.org/10.3389/fpsyg.2018.02422>
- Higgins, J. P. T., Thomas, J., Chandler, J., Cumpston, M., Li, T., Page, M. J., & Welch, V. A. (Eds.). (2022). *Cochrane Handbook for Systematic Reviews of Interventions version 6.3*. Cochrane. <https://training.cochrane.org/handbook>
- Hockett, J. M., Smith, S. J., Klausing, C. D., & Saucier, D. A. (2016). Rape myth consistency and gender differences in perceiving rape victims: A meta-analysis. *Violence against Women*, 22(2), 139–167. <https://doi.org/10.1177/1077801215607359>
- Hunnicutt, G. (2009). Varieties of patriarchy and violence against women: Resurrecting “patriarchy” as a theoretical tool. *Violence against Women*, 15(5), 553–573. <https://doi.org/10.1177/1077801208331246>
- Ioannidis, J. P. (2005). Differentiating biases from genuine heterogeneity: Distinguishing artifactual from substantive effects. In H. R. Rothstein, A. J. Sutton, & M. Borenstein (Eds.), *Publication bias in meta-analysis: Prevention, assessment and adjustments* (pp. 287–302). Wiley.
- Johnson, W. L., Giordano, P. C., Manning, W. D., & Longmore, M. A. (2015). The age–IPV curve: Changes in the perpetration of intimate partner violence during adolescence and young adulthood. *Journal of Youth and Adolescence*, 44(3), 708–726. <https://doi.org/10.1007/s10964-014-0158-z>
- Joseph, J. S., Gray, M. J., & Mayer, J. (2013). Addressing sexual assault within social systems: System justification as a barrier to college prevention efforts. *Journal of Aggression, Maltreatment & Trauma*, 22(5), 493–509. <https://doi.org/10.1080/10926771.2013.785460>
- Jost, J. T., & Kay, A. C. (2005). Exposure to benevolent sexism and complementary gender stereotypes: Consequences for specific and diffuse forms of system justification. *Journal of Personality and Social Psychology*, 88(3), 498–509.
- Kilianski, S. E., & Rudman, L. A. (1998). Wanting it both ways: Do women approve of benevolent sexism? *Sex Roles*, 39(5–6), 333–352. <https://doi.org/10.1023/A:1018814924402>
- Kilmartin, C., Semelsberger, R., Dye, S., Boggs, E., & Kolar, D. (2015). A behavior intervention to reduce sexism in college men. *Gender Issues*, 32(2), 97–110. <https://doi.org/10.1007/s12147-014-9130-1>
- Koss, M. P., Abbey, A., Campbell, R., Cook, S., Norris, J., Testa, M., & White, J. (2007). Revising the SES: A collaborative process to improve assessment of sexual aggression and victimization. *Psychology of Women Quarterly*, 31(4), 357–370. <https://doi.org/10.1111/j.1471-6402.2007.00385.x>
- Langhaug, L. F., Sherr, L., & Cowan, F. M. (2010). How to improve the validity of sexual behaviour reporting: Systematic review of questionnaire delivery modes in developing countries. *Tropical Medicine and International Health*, 15(3), 362–381. <https://doi.org/10.1111/j.1365-3156.2009.02464.x>
- Lelaurain, S., Fonte, D., Aim, M.-A., Khatmi, N., Decarsin, T., Lo Monaco, G., & Apostolidis, T. (2018). “One doesn’t slap a girl but...” Social representations and conditional logics in legitimization of intimate partner violence. *Sex Roles*, 78(9), 637–652. <https://doi.org/10.1007/s11199-017-0821-4>
- Lipsey, M. W., & Wilson, D. B. (2001). *Practical meta-analysis*. Sage.
- Livingston, J. A., Buddie, A. M., Testa, M., & VanZile-Tamsen, C. (2004). The role of sexual precedence in verbal sexual coercion. *Psychology of Women Quarterly*, 28(4), 287–297. <https://doi.org/10.1111/j.1471-6402.2004.00146.x>
- Loughnan, S., Pina, A., Vasquez, E. A., & Puvia, E. (2013). Sexual objectification increases rape victim blame and decreases perceived suffering. *Psychology of Women Quarterly*, 37(4), 455–461. <https://doi.org/10.1177/0361684313485718>
- Martín-Fernández, M., Gracia, E., Marco, M., Vargas, V., Santirso, F. A., & Lila, M. (2018). Measuring acceptability of intimate partner violence against women: Development and validation of the A-IPVAW scale. *The European Journal of Psychology Applied to Legal Context*, 10, 26–34. <https://doi.org/10.5093/ejpalc2018a3>
- Masser, B., Lee, K., & McKimmie, B. M. (2010). Bad woman, bad victim? Disentangling the effects of victim stereotypicality, gender stereotypicality and benevolent sexism on acquaintance rape victim blame. *Sex Roles*, 62(7–8), 494–504. <https://doi.org/10.1007/s11199-009-9648-y>

- McDonald, P. (2012). Workplace sexual harassment 30 years on: A review of the literature. *International Journal of Management Reviews*, 14(1), 1–17. <https://doi.org/10.1111/j.1468-2370.2011.00300.x>
- Moya, M., Glick, P., Expósito, F., de Lemus, S., & Hart, J. (2007). It's for your own good: Benevolent sexism and women's reactions to protectively justified restrictions. *Personality and Social Psychology Bulletin*, 33(10), 1421–1434. <https://doi.org/10.1177/0146167207304790>
- Nava-Reyes, M., Rojas-Solís, J. L., Greathouse Amador, L. M., & Morales Quintero, L. A. (2018). Gender roles, sexism and myths of romantic love in Mexican adolescents. *Revista Interamericana De Psicología*, 52(1), 102–111.
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffman, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., & Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *PLOS Medicine*, 18(3), e1003583. <https://doi.org/10.1371/journal.pmed.1003583>
- Paynter, A., & Leaper, C. (2016). Heterosexual dating double standards in undergraduate women and men. *Sex Roles*, 75(7–8), 393–406. <https://doi.org/10.1007/s11199-016-0628-8>
- Persson, S., & Dhingra, K. (2022). Attributions of blame in stranger and acquaintance rape: A multi-level meta-analysis and systematic review. *Trauma, Violence, & Abuse*, 23(3), 795–809. <https://doi.org/10.1177/1524838020977146>
- Peters, J. (2008). Measuring myths about domestic violence: Development and initial validation of the Domestic Violence Myth Acceptance Scale. *Journal of Aggression, Maltreatment & Trauma*, 16(1), 1–21. <https://doi.org/10.1080/10926770801917780>
- Phelan, J. E., Sanchez, D. T., & Broccoli, T. L. (2010). The danger in sexism: The links among fear of crime, benevolent sexism, and well-being. *Sex Roles*, 62(1–2), 35–47. <https://doi.org/10.1007/s11199-009-9711-8>
- Powell, A., & Webster, K. (2018). Cultures of gendered violence: An integrative review of measures of attitudinal support for violence against women. *Australian and New Zealand Journal of Criminology*, 51(1), 40–57. <https://doi.org/10.1177/0004865816675669>
- Pryor, J. B. (1998). The Likelihood to Sexually Harass Scale. In C. M. Davis, W. H. Yarber, R. Bauserman, G. Schreer, & S. L. Davis (Eds.), *Sexuality-related measures a compendium* (pp. 295–298). Sage.
- Reed, E., Raj, A., Miller, E., & Silverman, J. G. (2010). Losing the “gender” in gender-based violence: The missteps of research on dating and intimate partner violence. *Violence against Women*, 16(3), 348–354. <https://doi.org/10.1177/1077801209361127>
- Rondon, M. B. (2003). From marianism to terrorism: The many faces of violence against women in Latin America. *Archives of Women's Mental Health*, 6(3), 157–163. <https://doi.org/10.1007/s00737-003-0169-3>
- Sabina, C., Cuevas, C. A., & Schally, J. L. (2013). The effect of immigration and acculturation on victimization among a national sample of Latino women. *Cultural Diversity and Ethnic Minority Psychology*, 19(1), 13–26. <https://doi.org/10.1037/a0030500>
- Sagun, M., Fergusson, D., Zhang, T., Yeates, K., Ramsay, T., Wells, G., & Moher, D. (2020). Journal impact factor, trial effect size, and methodological quality appear scantily related: a systematic review and meta-analysis. *Systematic Reviews*, 9(53). <https://doi.org/10.1186/s13643-020-01305-w>
- Santoro, C., Martínez-Ferrer, B., Gimeno, C., & Musitu, G. (2018). New directions for preventing dating violence in adolescence: The study of gender models. *Frontiers in Psychology*, 9, 1–5. <https://doi.org/10.3389/fpsyg.2018.00946>
- Shi, X., & Zheng, Y. (2020). Perception and tolerance of sexual harassment: An examination of feminist identity, sexism, and gender roles in a sample of Chinese working women. *Psychology of Women Quarterly*, 44(2), 217–233. <https://doi.org/10.1177/0361684320903683>
- Spruit, A., Goos, L., Weenink, N., Rodenburg, R., Niemeyer, H., Stams, G. J., & Colnonesi, C. (2020). The relation between attachment and depression in children and adolescents: A multilevel meta-analysis. *Clinical Child and Family Psychology Review*, 23(1), 54–69. <https://doi.org/10.1007/s10567-019-00299-9>
- Stop Street Harassment. (2014). *Unsafe and harassed in public spaces: A national street harassment report*. <https://stopstreetharassment.org/wp-content/uploads/2012/08/National-Street-Harassment-Report-November-29-20151.pdf>
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The Revised Conflict Tactics Scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues*, 17(3), 283–316. <https://doi.org/10.1177/019251396017003001>

- Suarez, E., & Gadalla, T. M. (2010). Stop blaming the victim: A meta-analysis on rape myths. *Journal of Interpersonal Violence*, 25(11), 2010–2035. <https://doi.org/10.1177/0886260509354503>
- Thomas, A., & Kitinger, C. (1994). “It’s just something that happens”: The invisibility of sexual harassment in the workplace. *Gender, Work & Organization*, 1(3), 151–161. <https://doi.org/10.1111/j.1468-0432.1994.tb00014.x>
- UC San Diego Center on Gender Equity and Health, & Stop Street Harassment (2019). *Measuring #MeToo: A national study on sexual harassment and assault*. <https://stopstreetharassment.org/wp-content/uploads/2012/08/2019-MeToo-National-Sexual-Harassment-and-Assault-Report.pdf>
- Van Den Noortgate, W., & Onghena, P. (2003). Multilevel meta-analysis: A comparison with traditional meta-analytical procedures. *Educational and Psychological Measurement*, 63(5), 765–790. <https://doi.org/10.1177/0013164403251027>
- VicHealth (2014). *Australians’ attitudes to violence against women. Findings from the 2013 national community attitudes towards violence against women survey (NCAS)*. Melbourne: Victorian Health Promotion Foundation. <https://www.vichealth.vic.gov.au/sites/default/files/NCAS-Summary-Final.pdf>
- Vidal-Fernández, A., & Megías, J. L. (2014). Attributions of blame to battered women when they are perceived as feminists or as “difficult to deal with.” *The Spanish Journal of Psychology*, 17, 10. <https://doi.org/10.1017/sjp.2014.26>
- Viechtbauer, W. (2010). Conducting meta-analyses in R with the metafor package. *Journal of Statistical Software*, 36(3), 1–48. <https://doi.org/10.18637/jss.v036.i03>
- Viki, G. T., Abrams, D., & Masser, B. (2004). Evaluating stranger and acquaintance rape: The role of benevolent sexism in perpetrator blame and recommended sentence length. *Law and Human Behavior*, 28(3), 295–303. <https://doi.org/10.1023/B:LAHU.0000029140.72880.69>
- Ward, C. (1988). The Attitudes Toward Rape Victims Scale: Construction, validation, and cross-cultural applicability. *Psychology of Women Quarterly*, 12(2), 127–146. <https://doi.org/10.1111/j.1471-6402.1988.tb00932.x>
- Widman, L., & Olson, M. (2013). On the relationship between automatic attitudes and self-reported sexual assault in men. *Archives of Sexual Behavior*, 42(5), 813–823. <https://doi.org/10.1007/s10508-012-9970-2>
- Wilson, J. M., & Smirles, K. (2020). College students’ perceptions of intimate partner violence: The effects of type of abuse and perpetrator gender. *Journal of Interpersonal Violence*, 37(1–2), 172–194. <https://doi.org/10.1177/0886260520908025>
- World Health Organization. (2021). *Violence against women*. <https://www.who.int/en/news-room/factsheets/detail/violence-against-women>.
- Worthington, R. L., & Whittaker, T. A. (2006). Scale development research: A content analysis and recommendations for best practices. *The Counseling Psychologist*, 34(6), 806–838. <https://doi.org/10.1177/0011000006288127>
- Yamawaki, N., Ostenson, J., & Brown, C. R. (2009). The functions of gender role traditionality, ambivalent sexism, injury, and frequency of assault on domestic violence perception: A study between Japanese and American college students. *Violence against Women*, 15(9), 1126–1142. <https://doi.org/10.1177/1077801209340758>
- Yamawaki, N., Darby, R., & Queiroz, A. (2007). The moderating role of ambivalent sexism: The influence of power status on perception of rape victim and rapist. *The Journal of Social Psychology*, 147(1), 41–56. <https://doi.org/10.3200/SOCP.147.1.41-56>
- Yodanis, C. L. (2004). Gender inequality, violence against women, and fear: A cross-national test of the feminist theory of violence against women. *Journal of Interpersonal Violence*, 19(6), 655–675. <https://doi.org/10.1177/0886260504263868>
- Yoder, J. D., Fischer, A. R., Kahn, A. S., & Groden, J. (2007). Changes in students’ explanations for gender differences after taking a psychology of women class: More constructionist and less essentialist. *Psychology of Women Quarterly*, 31(4), 415–425. <https://doi.org/10.1111/j.1471-6402.2007.00390.x>
- Zelin, A. I., Branda, B., & Tino, R. (2022). How do you define sexual harassment? Why context matters. *Violence Against Women*, 28(14), 3438–3456. <https://doi.org/10.1177/10778012211060862>

Publisher’s Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.