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Trait Mindfulness and Romantic Relationship Satisfaction: A Three-Level Meta-Analysis of Actor and Partner Associations

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Abstract

Objectives

Previous meta-analyses linked trait mindfulness to individuals' own romantic relationship satisfaction, but associations with their partner's satisfaction remain less clear. This meta-analysis synthesized both actor and partner associations and examined potential moderators, including demographic characteristics, relationship duration, and methodological characteristics.

Methods

Six databases (Web of Science, Scopus, APA PsycINFO, PsycARTICLES, PubMed, ProQuest Dissertations and Theses Global) were searched. Separate three-level meta-analytic models synthesized zero-order actor and partner correlations between trait mindfulness and romantic relationship satisfaction, while accounting for dependent effect sizes. Age, gender proportion, marital status, relationship duration, research design, and measurement used were examined as moderators.

Results

This meta-analysis included 36 reports with 40 independent samples and 18,851 participants. Trait mindfulness showed small positive associations with individuals' own relationship satisfaction (r = .206, 95% CI [.168, .244]; 73 effect sizes) and their partner's relationship satisfaction (r = .186, 95% CI [.130, .241]; 27 effect sizes). Effect sizes varied across studies, and the examined moderators did not significantly explain this variation. Sensitivity analyses, including models adjusted for potential publication bias, yielded similar estimates.

Conclusions

By synthesizing both actor and partner associations, our study extends previous meta-analytic work and highlights the importance of considering both partners when studying trait mindfulness in romantic relationships. More longitudinal and dyadic studies are needed to

clarify the direction of these associations and better capture the interdependence between romantic partners.

Keywords: Trait mindfulness; Romantic relationship satisfaction; Cross-partner associations; Three-level meta-analysis

Trait Mindfulness and Romantic Relationship Satisfaction: A Three-Level Meta-Analysis of Actor and Partner Associations

Romantic relationship satisfaction, referring to an individual's overall, subjective evaluation of their romantic relationship (Bühler et al., 2021), is an indicator of relationship quality and has been widely studied in relationship research (Fincham & Rogge, 2010; Fletcher et al., 2000). Its positive association with well-being highlights the importance of understanding the psychological factors contributing to satisfying romantic relationships (Dias Martins et al., 2025; Don & Algoe, 2020). Among these factors, mindfulness has received increasing attention (Karremans et al., 2017). Trait mindfulness, defined as a relatively stable disposition to maintain attentive awareness toward present-moment experiences in a nonjudgmental and accepting manner (Baer et al., 2008; Brown & Ryan, 2003), has been identified as an important correlate of romantic relationship satisfaction. According to the Mindfulness in Relationships, Regulation of Responses (MIRROR) model, mindfulness supports regulation processes and is linked to greater romantic relationship satisfaction (Karremans et al., 2025). Consistent with this theoretical model, trait mindfulness is positively related to individuals' own relationship satisfaction in both cross-sectional (De Cristofaro et al., 2023; Jaurequi, 2025) and longitudinal research (Don & Algoe, 2020; Khaddouma & Gordon, 2018), as well as in meta-analyses (McGill et al., 2016; Quinn-Nilas, 2020).

As romantic relationships are dyadic and interdependent (Kenny et al., 2006), Karremans et al. (2017) suggest that the benefits of trait mindfulness may extend beyond the individual and enhance their partner's relationship satisfaction. Supporting this proposition, a growing number of dyadic studies have examined whether an individual's trait mindfulness is associated with their partner's relationship satisfaction. While several studies reported significant partner associations (Cooper et al., 2024; Morin et al., 2024; Zhou et al., 2022),

others did not find the associations between trait mindfulness and relationship satisfaction between partners (Iida & Shapiro, 2017; Lenger et al., 2017; Rimsky, 2020). These mixed findings highlight the need to synthesize research on cross-partner associations.

Despite a growing interest in dyadic associations (e.g., Montes-Maroto et al., 2018), earlier meta-analyses synthesized individual-level associations between trait mindfulness and one's own relationship satisfaction, overlooking potential cross-partner correlations (McGill et al., 2016; Quinn-Nilas, 2020). More recently, Lam et al. (2026) synthesized cross-partner correlations and estimated actor and partner effects using a meta-analytic actor-partner interdependence model (APIM; Kenny et al., 2006) across multiple forms of mindfulness (e.g., trait, state, and interpersonal mindfulness) and relationship-related outcomes (e.g., relationship and sexual well-being). The present study complements this work by focusing specifically on trait mindfulness and romantic relationship satisfaction, examining associations with both individuals' own and their partner's satisfaction. Synthesizing this literature also requires accounting for the dependence among multiple effect sizes from the same sample. Previous meta-analyses adopted data reduction techniques to handle this dependence. For instance, McGill et al. (2016) combined multiple correlations into a single effect size, and Quinn-Nilas (2020) averaged correlations across time points. Similarly, Lam et al. (2026) aggregated dependent effect sizes within studies. These approaches limit the examination of variation among effect sizes in the same study and may result in information loss and reduced statistical power (López-López et al., 2018; Van den Noortgate et al., 2013). Given that three-level meta-analysis offers an alternative by retaining multiple effect sizes and modeling heterogeneity within and between samples (Fernández-Castilla et al., 2020), it is used to estimate the magnitude and heterogeneity of zero-order actor and partner associations between trait mindfulness and romantic relationship satisfaction.

Potential Moderators

Examining moderators helps clarify the conditions under which trait mindfulness relates to relationship satisfaction (Borenstein et al., 2021; Hansen et al., 2022). Guided by the MIRROR model (Karremans et al., 2025) and prior meta-analytic evidence (Quinn-Nilas, 2020), the current study aims to examine demographic characteristics, relationship duration, and methodological characteristics as potential moderators of this association.

First, the association between mindfulness and relationship satisfaction may vary across demographic characteristics. Although Quinn-Nilas (2020) found that the association was consistent across age, gender, and marital status, some empirical studies suggest possible demographic variation. For example, Lenger et al. (2019) reported a stronger association among older than younger individuals. Findings have also been mixed regarding whether the association is significant for women and men (Roberts et al., 2021; Zhou et al., 2022). Marital status has been identified as a potential moderator (McGill et al., 2016), yet few empirical studies examine its moderating role. Second, relationship duration may moderate the association between trait mindfulness and relationship satisfaction. As couples move from early-stage relationships to longer-term partnerships, the strength of the association may vary (Bühler et al., 2021; Bühler & Orth, 2024). However, research on relationship duration as a moderator remains limited, and Lenger et al. (2019) found no significant moderating effect. To further investigate this association, we examined mean relationship duration as a study-level moderator to assess whether the association differed across samples with shorter versus longer average relationship durations. Finally, measurement and research design may moderate the association. For example, trait mindfulness measures include unidimensional scales such as the Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003) and multifaceted inventories such as the Five Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2006). Romantic relationship satisfaction measures include unidimensional inventories such as the Couples Satisfaction Index (CSI; Funk & Rogge, 2007) or specific subscales of

broader measures such as the satisfaction subscale of the Dyadic Adjustment Scale (DAS; Spanier, 1987). Thus, we examined whether the association varied across measures of trait mindfulness and relationship satisfaction. Additionally, research design may influence estimates, with cross-sectional studies potentially yielding inflated associations compared with longitudinal designs (Podsakoff et al., 2003; Rindfleisch et al., 2008).

The Current Study

The present study aims to provide a comprehensive synthesis of the associations between trait mindfulness and romantic relationship satisfaction. Building on previous meta-analyses, this study extends the literature in several ways. First, we synthesized the overall actor association between individuals' trait mindfulness and their own romantic relationship satisfaction across studies. Based on prior theoretical and meta-analytic evidence (Karremans et al., 2025; McGill et al., 2016; Quinn-Nilas, 2020), we hypothesized a positive association between trait mindfulness and relationship satisfaction. Second, given the dyadic and interdependent nature of romantic relationships (Kenny et al., 2006), we synthesized the association between trait mindfulness and partner's relationship satisfaction among dyadic studies reporting cross-partner correlations. Considering the mixed findings in the literature, we examined this association without specifying an a priori hypothesis, although the MIRROR model suggests that a positive cross-partner association is theoretically plausible (Karremans et al., 2025). Third, three-level meta-analytic models were used to handle the statistical dependence among multiple effect sizes from the same study without requiring them to be aggregated or discarded (e.g., Fernández-Castilla et al., 2020; Shi et al., 2021; Van den Noortgate et al., 2013). In addition, we examined whether demographic characteristics, relationship duration, and methodological characteristics moderate the association between trait mindfulness and romantic relationship satisfaction.

Methods

Transparency and Openness

The present study followed Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines (Page et al., 2021). The meta-analysis protocol was registered through the Open Science Framework (OSF) and can be found at [BLINDED FOR PEER REVIEW]. The data and analysis scripts are available on the OSF: https://osf.io/d3cjs/overview?view_only=3f2c60ef9a4843b381a9cf2448cbbdcc.

Search of Studies

Six electronic databases were searched: Web of Science, Scopus, APA PsycINFO, PsycARTICLES (via EBSCO), PubMed, and ProQuest Dissertations and Theses Global. Of these, gray literature searches were performed in ProQuest Dissertations and Theses Global. Google Scholar was used to retrieve full texts of studies identified through other sources. Studies published from 2015 were considered to focus on the most recent decade of research and reflect recent developments in the field. Two categories of keywords were used, with one category containing keywords about terms related to mindfulness (e.g., mindful*) and the other containing keywords about romantic relationship satisfaction (e.g., relationship satisf* or romantic satisf*) to maximize search sensitivity (see the search strategy in Supplementary Table 1). Databases were searched in August 2025 and updated in May 2026. Forward and backward reference searches were conducted by the first author. For instance, backward reference searches were conducted by manually screening the reference lists of selected publications (e.g., Quinn-Nilas, 2020). Forward citation searches were conducted by screening articles that cited selected publications (e.g., Karremans et al., 2017). After identifying the potentially relevant studies, the search results were uploaded to Rayyan (Ouzzani et al., 2016) for duplicate identification, screening, and study selection.

Inclusion Criteria

Studies were included if they met the following conditions: (a) participants were adults (aged 18 years and older) who were involved in a romantic relationship (e.g., dating, cohabiting, or married); (b) studies used validated measures of trait mindfulness (e.g., validated self-report measures) instead of state mindfulness or mindfulness interventions; (c) studies explicitly assessed relationship satisfaction using a validated measure or a single-item measure, including specific satisfaction subscales from multidimensional inventories (e.g., the satisfaction subscale of DAS; Spanier, 1987). While relationship quality is conceptualized as a multidimensional construct and relationship satisfaction as a specific component (Hassebrauck & Fehr, 2002), empirical measures of these two constructs often overlap (Fincham & Rogge, 2010). In the present analysis, only studies explicitly assessing relationship satisfaction measures were included to maintain conceptual consistency; (d) studies were included if they reported bivariate correlations between the target variables (i.e., trait mindfulness and relationship satisfaction), or if these data were obtained through the corresponding authors; (e) studies were published in English; (f) studies were quantitative, involving cross-sectional and longitudinal data. Studies were excluded if they were qualitative, review-based, or involved an intervention (e.g., mindfulness-based intervention).

Selection Procedure

The initial search identified 1,915 records. After 921 duplicate records were removed, 994 records remained for screening. The first and third authors discussed the inclusion criteria and jointly reviewed 10 studies to ensure a shared understanding. After reaching agreement, they independently conducted the title and abstract screening as well as the full-text review in Rayyan using a blinded procedure. In total, 939 records were excluded during title and abstract screening mainly because they did not involve participants in romantic relationships, did not assess trait mindfulness or relationship satisfaction, or were not cross-sectional or longitudinal observational studies, leaving 55 reports for retrieval. One report

could not be retrieved, and the remaining 54 reports underwent full-text review independently by the first and third authors. Discrepancies were resolved through discussion involving the first, third, and last authors. As a result, 18 articles were excluded for the following reasons: participants were not involved in a romantic relationship ($k = 4$), trait mindfulness was not assessed ($k = 2$), relationship satisfaction was not assessed ($k = 4$), required correlation coefficients were unavailable ($k = 5$; two email addresses were invalid and three authors did not respond), or the study design was ineligible (e.g., qualitative studies, reviews, or intervention studies; $k = 3$). As such, a total of 36 studies were included in the meta-analysis (see Fig. 1). Among these studies, 11 studies provided sufficient information to be included in the partner-effect synthesis[1].

Study Coding

A coding sheet was developed to streamline the sample coding process. The first and second authors independently coded all studies and took notes to document coding decisions that required additional discussion. They subsequently reviewed all coding results and resolved discrepancies through discussion until consensus was reached. When necessary, the last author was consulted to achieve a final agreement.

The following study characteristics were coded: basic study information, including publication status, year of publication, publication type, and study design. Sample characteristics included demographic variables (e.g., age and gender composition), relationship-related variables (e.g., marital status and relationship length), and additional study-relevant characteristics (e.g., mindfulness practice experience). For trait mindfulness and romantic relationship satisfaction, we coded the focal participant group for each effect size (e.g., women, men, or mixed-gender samples) and the measurement instruments used

[1] On the reference list, * indicates studies included in the actor analysis, and † indicates studies included in both the actor and partner analyses. The complete list of included studies is provided in Section 7 of the Supplementary Material.

(e.g., FFMQ, CSI) to facilitate analyses. Reliability indices (Cronbach's alpha or McDonald's omega) were also recorded. Pearson correlation coefficients (*r*) between trait mindfulness and relationship satisfaction were extracted for meta-analytic estimation of effect sizes. Study characteristics were coded as reported or calculated from the available information where possible; otherwise, they were recorded as missing. For example, when a study reported only age ranges without a mean age, mean age was recorded as missing.

The Quality Assessment and Validity Tool for Correlational Studies (Cicolini et al., 2014) was used to assess the quality of each independent sample included in the meta-analysis (see also Wen et al., 2024; Xu et al., 2024). The scale was organized into four domains: study design, sample characteristics, measurement quality, and statistical analysis. Thirteen items assessed features such as prospective design, sample size justification, and appropriate handling of outliers. Each item was scored dichotomously (0 = no, 1 = yes), with one item on internal consistency scored as 0 or 2. Overall study quality was categorized as low (0–4), medium (5–9), or high (10–14). Two reviewers independently rated study quality, and disagreements were resolved through discussion.

Effect Size

Effect sizes (Pearson correlation coefficients, *r*) were extracted for all the included studies. For actor correlations, zero-order correlation coefficients reflecting the association between self-reported trait mindfulness and relationship satisfaction were extracted. For partner correlations in dyadic studies, zero-order cross-partner correlation coefficients reflecting the association between trait mindfulness and the partner's relationship satisfaction were extracted. According to Cohen (1992), effect sizes of 0.1, 0.3, and 0.5 are interpreted as small, medium, and large, respectively. When studies reported multiple trait mindfulness subscales, each correlation with relationship satisfaction was retained as a separate effect-size estimate, with dependencies among effect sizes within the same sample modeled using a

three-level meta-analysis (Fernández-Castilla et al., 2020; Van den Noortgate et al., 2013). All correlation coefficients were first converted from Pearson's *r* to Fisher's *z* to ensure more stable standard error estimation and then were reconverted to Pearson's *r* using established formulas for ease of interpretation (Card, 2012; Field, 2001).

Moderator Variables

We coded three types of moderators: demographic characteristics, relationship duration, and methodological characteristics. Demographic characteristics included mean age, proportion of women, and proportion of married participants. Relationship duration was represented by mean relationship duration. Methodological characteristics included the trait mindfulness measure, relationship satisfaction measure, and research design. Mean age and mean relationship duration were recorded in years, with conversions made where needed. The proportions of women and married participants were expressed as values ranging from 0 to 1. Demographic and relationship variables were treated as continuous moderators, whereas measurement instruments and research design were treated as categorical moderators.

Coding procedures differed for actor and partner associations. For actor associations, demographic characteristics were coded for the participant group from which each effect size was derived. When a subgroup-specific mean age was unavailable, the overall sample mean age was used as a proxy. For partner associations, the mean age of the dyadic sample was coded using the reported overall mean age or, when unavailable, calculated from the separate partner means. The proportion of women was only examined in actor analyses, as this proportion was similar across the dyadic samples contributing partner associations (approximately 50%). Moderator information that could not be extracted or calculated from the available data was coded as missing. For each moderator analysis, effect sizes with missing values for that moderator were excluded in R before model fitting. These effect sizes

were retained in the overall meta-analysis and other moderator analyses for which the required data were available.

Data Analyses

All statistical analyses were conducted in R (version 4.5.1), using the metafor (Viechtbauer, 2010), clubSandwich (Pustejovsky, 2023), and RoBMA (Bartoš et al., 2026) packages.

Meta-analytic Strategy

Separate three-level meta-analytic models were fitted to estimate the pooled actor and partner correlations between trait mindfulness and romantic relationship satisfaction. The models were estimated using restricted maximum likelihood estimation. Moderator analyses were subsequently conducted to examine whether demographic characteristics (i.e., mean age, proportion of women, and proportion of married participants), relationship duration, and methodological characteristics (i.e., trait mindfulness measure, relationship satisfaction measure, and research design) explained variability in the correlations.

Handling Dependency and Heterogeneity

To address statistical dependency among multiple effect sizes extracted from the same study, a three-level meta-analysis was conducted (Assink & Wibbelink, 2016; Fernández-Castilla et al., 2020). Specifically, this technique modeled three sources of variance: sampling variance of the observed effect sizes (Level 1), within-study variance (Level 2), and between-study variance (Level 3; Assink et al., 2015; Cheung, 2014). As multiple effect sizes were extracted from the same sample, their sampling errors may be correlated. To account for this dependency, a working correlation of $\rho = .60$ was specified to construct the sampling variance-covariance matrix, and cluster-robust variance estimation with CR2 small-sample corrections was applied to statistical inference (Hedges et al., 2010; Tipton, 2015). Sensitivity analyses using alternative values of ρ (.30 and .90) were conducted to examine the robustness

of the findings to different assumptions for the sampling correlation. Potential sample overlap was identified between the two reports, although the extent of overlap could not be confirmed. Thus, sensitivity analyses were conducted in which each report was excluded in turn and the models were refitted using the same specifications as the primary analyses. Additionally, statistical heterogeneity was assessed using Cochran's Q test ($p < .10$), the estimated within-sample and between-sample variance components, and 95% prediction intervals. Prediction intervals estimate the expected range of true effects across studies conducted under similar conditions (Higgins et al., 2019; IntHout et al., 2016).

Outlier and Influence Analyses

Two diagnostic indicators were examined: studentized deleted residuals (SDRs), and Cook's distance (CD). An effect size with an absolute SDR greater than 1.96 is considered a statistical outlier (Schäfer et al., 2019; Shi et al., 2021). Additionally, an effect size is considered influential if its CD value exceeds 0.45 (Cook & Weisberg, 1982).

Publication Bias

Potential publication bias was examined using funnel plots and a multilevel extension of Egger's regression test (Egger et al., 1997; Fernández-Castilla et al., 2021). A statistically significant regression slope indicates asymmetry in the funnel plot, which may suggest the presence of publication bias (Assink et al., 2019). The regression was fitted within the three-level meta-analytic model, with the standard error of each effect size included as the predictor. The same sampling variance–covariance structure and cluster-robust inference used in the primary analyses were applied. In addition, multilevel robust Bayesian meta-analysis (RoBMA) was conducted as a sensitivity analysis, with effect sizes clustered within independent samples, to assess the robustness of the pooled estimates across alternative publication-bias models (Bartoš et al., 2026). For publication bias, inclusion Bayes factors (BF_{incl}) greater than 1 favored models with publication bias, whereas values below 1 favored

models without publication bias (Bartoš et al., 2022). Values between 1/3 and 3 were interpreted as weak or inconclusive evidence. Values above 3 indicated at least moderate evidence for the presence of publication bias, whereas values below 1/3 indicated at least moderate evidence for its absence (Bartoš et al., 2026; Dienes, 2014).

Results

Study Characteristics

The summary characteristics of the included independent samples are provided in Table 1. Full references for the included studies are provided in Section 7 of the Supplementary Material (p. 13). A total of 36 reports, comprising 40 independent samples and 100 effect sizes, were included in the current meta-analysis. Specifically, 73 actor effect sizes and 27 partner effect sizes were identified. Of the 40 samples, 34 provided only cross-sectional estimates, four provided only longitudinal estimates, and two provided both cross-sectional and longitudinal estimates. Among the 36 included articles, 33 were published in peer-reviewed journals, and three were unpublished doctoral dissertations.

Participant Characteristics

The total sample included 18,851 individuals, with independent sample sizes ranging from 92 participants (Simou & Moraitou, 2018) to 3,254 participants (Smedley et al., 2021). Regarding participant demographics, the weighted mean age across independent samples was 32.39 years (range = 18.06–51.20 years), and women constituted approximately 58.0% of participants. Racial or ethnic background was reported in 25 independent samples (62.5%). Of these, 24 samples reported the proportion of White or Caucasian participants, with a weighted mean percentage of 63.8% (range = 29.0%–94.0%). Additionally, information on meditation experience was available for 10 of the 40 independent samples (25.0%). However, the types and details reported varied considerably across studies. For example, Rimsky (2020) classified participants into four levels of exposure to meditation: no exposure or

practice (34.5%), some exposure or practice (52.5%), much exposure or practice (10.0%), and formal exposure or practice (3.0%). In contrast, Kappen et al. (2018) used a binary yes/no item, with 84 participants reporting some meditation experience and 106 reporting none. Among the independent samples that reported relationship characteristics (k = 27), participants were mostly married (78.5%). The weighted average relationship length was 9.22 years, with sample means ranging from 0.72 to 25.31 years. Only nine independent samples (22.5%) reported participants' relationship exclusivity, with the proportion of individuals in exclusive or monogamous relationships ranging from 10.0% to 100.0%. Among the samples that reported geographic distribution (87.5%), over half were conducted in the United States (57.1%, k = 20). This was followed by Canada (8.6%, k = 3) and Turkey (8.6%, k = 3). The remaining samples (25.7%, k = 1 for each) were distributed across various countries, including Australia, Germany, Greece, Italy, the Netherlands, Poland, Saudi Arabia, Spain, and the United Kingdom.

Measurement Tools Characteristics

For trait mindfulness, the Five Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2006) and the Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003) were the most frequently used instruments, appearing in 21 and 17 independent samples, respectively. The remaining samples assessed mindfulness using the Present Moment Awareness and Acceptance subscales of the Multidimensional Psychological Flexibility Inventory (MPFI; Rolffs et al., 2018; k = 1) or the Kentucky Inventory of Mindfulness Skills (KIMS; Baer et al., 2004; k = 1). Relationship satisfaction was most frequently assessed using the Couples Satisfaction Index (CSI; Funk & Rogge, 2007), which was adopted in 20 independent samples. The Relationship Assessment Scale (RAS; Hendrick, 1988) was the second most frequently used measure (k = 9), followed by the Dyadic Adjustment Scale (DAS; Spanier, 1987; k = 5). Less frequently used measures included the satisfaction subscale of the

Investment Model Scale (IMS; Rusbult et al., 1998; $k = 2$), single-item indicators of relationship satisfaction ($k = 2$), the general satisfaction with marriage subscale of an Arabic marital satisfaction measure (Almutairi & Meiri, 2024; $k = 1$), and the satisfaction subscale of the Perceived Relationship Quality Components Inventory (Fletcher et al., 2000; $k = 1$).

Quality Assessment

All included independent samples were of medium or high quality, with quality scores ranging from 5 to 12 ($M = 8.40$). Of the 40 independent samples, 32 were rated as medium quality and 8 as high quality. The lowest-scoring criteria were "response rate ≥ 60%", "probability sampling", and "protection of anonymity", whereas most samples met the criteria for reliable and valid measurement. Detailed quality assessment results for included independent samples are presented in Supplementary Table 2.

Actor Effects

Consistent with our hypothesis, the three-level random-effects meta-analysis showed that trait mindfulness was positively associated with individuals' own relationship satisfaction across 73 actor effect sizes from 40 independent samples, $r = .206$, 95% CI [.168, .244], $p < .001$.

Significant heterogeneity was observed across the effect sizes, $Q(72) = 290.72$, $p < .001$. The estimated between-sample variance was .0086 (Level 3) and the within-sample variance was .0037 (Level 2). The 95% prediction interval ranged from −.011 to .405, indicating considerable variability in the actor association across studies. To explore this heterogeneity, moderator analyses were subsequently conducted. The full forest plot for actor associations is presented in Supplementary Fig. 1.

Partner Effects

To evaluate cross-partner associations, a separate three-level random-effects meta-analysis was conducted to estimate the link between trait mindfulness and partner's

relationship satisfaction. Based on 27 partner effect sizes from 11 independent samples, trait mindfulness was positively associated with partner's relationship satisfaction, $r = .186$, 95% CI [.130, .241], $p < .001$.

Significant heterogeneity was observed across partner effect sizes, $Q(26) = 50.04$, $p = .003$. The estimated between-sample variance was .0031 (Level 3), and the within-sample variance was .0007 (Level 2). The 95% prediction interval ranged from .059 to .308, indicating variability in the partner association across studies. Moderator analyses were conducted. The full forest plot for partner associations is presented in Supplementary Fig. 2.

Moderator Analyses

Moderator analyses were conducted to examine whether the actor and partner associations between trait mindfulness and relationship satisfaction varied by demographic characteristics, relationship duration, and methodological characteristics.

As shown in Table 2, mean age, $b = .003$, $SE = .002$, 95% CI [−.001, .008], $p = .143$, the proportion of women, $b = -.021$, $SE = .025$, 95% CI [−.076, .035], $p = .430$, the proportion of married participants, $b = .069$, $SE = .047$, 95% CI [−.033, .171], $p = .166$, and mean relationship duration, $b = .006$, $SE = .004$, 95% CI [−.004, .015], $p = .199$, did not significantly moderate the actor association. Furthermore, the actor association did not vary significantly across trait mindfulness measures, $F(1, 33.53) = 0.397$, $p = .533$, relationship satisfaction measures, $F(4, 1.75) = 1.808$, $p = .408$, or research designs, $F(1, 3.55) = 2.382$, $p = .206$. These findings did not provide evidence that the actor association varied by the examined moderators.

Due to the limited number of independent dyadic samples and concerns about low statistical power when few samples are available (Candel & Turliuc, 2019), the partner moderator analyses were treated as exploratory (see Table 3). Couple-level mean age, $b = .009$, $SE = .004$, 95% CI [−.003, .020], $p = .098$, the proportion of married participants, b

= .092, *SE* = .061, 95% CI [−.068, .251], *p* = .196, and mean relationship duration, *b* = .013, *SE* = .006, 95% CI [−.010, .036], *p* = .150, did not significantly moderate the partner association. Similarly, partner effects did not vary significantly across trait mindfulness measures, $F(1, 4.13) = 1.444$, $p = .294$, relationship satisfaction measures, $F(1, 1.25) = 1.459$, $p = .407$, or research designs, $F(1, 1.63) = 0.012$, $p = .926$.

Sensitivity Analyses and Publication Bias

For the actor effects, three statistical outliers (absolute SDRs > 1.96) were identified. After removing these outliers, the pooled effect size remained similar, $r = .209$, 95% CI [.182, .235], $p < .001$, compared with the original estimate, $r = .206$, 95% CI [.168, .244], $p < .001$. In addition, no influential effect sizes were detected based on Cook's distance (CD > .45), indicating that the actor effects were robust to the exclusion of statistical outliers. Results were also stable across alternative working correlations ($\rho = .30$, .60, and .90); the actor correlation remained $r = .206$, and the conclusions of the moderator analyses were unchanged. Visual inspection of the funnel plot suggested no marked asymmetry for actor associations (Supplementary Fig. 3), and Egger's test was not statistically significant, $p = .258$. The multilevel RoBMA sensitivity analysis yielded a similar positive association, $r = .191$, 95% CrI [.136, .234]. There was weak evidence for publication bias ($BF_{incl} = 2.11$).

For the partner effects, two statistical outliers (absolute SDRs > 1.96) were identified. After excluding these effect sizes, the pooled effect remained similar, $r = .178$, 95% CI [.142, .214], $p < .001$, compared with the original estimate, $r = .186$, 95% CI [.130, .241], $p < .001$. No influential effect sizes were identified based on Cook's distance (CD > .45), supporting the robustness of the partner association. Results were also stable across alternative working correlations ($\rho = .30$, .60, and .90), with correlations ranging from .184 to .187 and no changes in the conclusions of the moderator analyses. Visual inspection of the funnel plot indicated no substantial asymmetry (Supplementary Fig. 4), and Egger's test was

not statistically significant, $p = .263$. The multilevel RoBMA sensitivity analysis yielded a similar positive association, $r = .174$, 95% CrI [.114, .227], with moderate evidence against publication bias ($BF_{incl} = .21$). Excluding each potentially overlapping report in turn yielded estimates close to those from the primary analyses. Actor correlations were .205 in both sensitivity analyses, compared with .206 in the primary analysis; partner correlations ranged from .185 to .191, compared with .186 in the primary analysis. These results suggest that the pooled estimates were not affected by which report was retained.

Discussion

Guided by the MIRROR model (Karremans et al., 2025), the present study used three-level meta-analytic models to synthesize actor and partner associations between trait mindfulness and romantic relationship satisfaction across 36 reports (40 independent samples). Consistent with our hypothesis and previous meta-analyses (McGill et al., 2016; Quinn-Nilas, 2020), trait mindfulness was positively associated with self-perceived relationship satisfaction. We also found a positive association between trait mindfulness and partner's relationship satisfaction. Moderation analyses did not indicate that the actor or partner associations varied significantly as a function of the examined demographic characteristics, relationship duration, or methodological characteristics. Overall, by synthesizing both actor and partner associations, the present study extends previous meta-analytic work and provides a more comprehensive understanding of the association between trait mindfulness and romantic relationship satisfaction.

The pooled actor association was small in magnitude ($r = .206$), extending the previous meta-analytic findings by including more recent studies and retaining multiple dependent effect sizes. The 95% prediction interval suggests that the association may range from near zero to moderately positive in studies similar to those included in this meta-analysis (e.g., Cooper et al., 2024). In line with the MIRROR model (Karremans et al., 2025),

individuals with higher trait mindfulness may be more aware of and open to their thoughts and emotions, thereby responding to relationship experiences with greater acceptance and less reactivity. The awareness and regulatory processes associated with mindfulness may help individuals respond more adaptively in their relationships, contributing to greater relationship satisfaction (Barnes et al., 2007; Morin et al., 2023). Future meta-analyses could examine the mechanisms underlying this association when more relevant studies are available.

Beyond the association with individuals' own relationship satisfaction, our findings revealed a small positive cross-partner association between trait mindfulness and relationship satisfaction (r = .186). The finding supports Karremans et al.'s (2017, 2025) proposition that the benefits of trait mindfulness may extend beyond the individual. From a dyadic perspective, mindful awareness and lower reactivity may be reflected in more supportive and constructive couple interactions (Morin et al., 2024; Perelman et al., 2022; Stanton et al., 2021). These interactions may contribute to a more positive relational climate and higher relationship satisfaction for the partner (Karremans et al., 2017).

Moderation analyses did not identify any significant demographic, relationship-related, or methodological moderators of the pooled actor association. These results align with Quinn-Nilas (2020), which also revealed no significant moderation by age, gender, marital status, or measurement characteristics. Of note, our age analysis compared samples with different mean ages rather than older and younger individuals in the same sample. Thus, individual-level differences may exist despite the null findings (Thompson & Higgins, 2002). In addition, the variation in effect sizes across studies suggests that other factors, such as relationship stress, may help explain the observed heterogeneity (Barnes et al., 2007). The actor association did not differ significantly across measures of trait mindfulness or relationship satisfaction. Yet, some measurement categories included few independent samples, which may limit the power to detect differences among measures (Hedges & Pigott,

2004). As more studies become available, future meta-analyses could examine these potential differences more systematically. Similarly, the comparison between cross-sectional and longitudinal estimates should be treated cautiously, as few longitudinal samples were available. For the cross-partner association, none of the examined moderators were statistically significant. Nevertheless, these analyses were based on only 11 studies and should be considered preliminary. More dyadic studies are needed to identify factors that may strengthen or weaken the association.

Sensitivity analyses supported the stability of the main findings. For both actor and partner associations, the pooled correlations remained similar after outlying effect sizes were removed, and no influential effect sizes were identified based on Cook's distance. The estimates also remained similar under different assumptions about the correlations among dependent effect sizes. Visual inspections of the funnel plots suggested no marked asymmetry, and neither multilevel Egger's test was statistically significant. The RoBMA analyses provided inconclusive evidence regarding publication bias for the actor association and moderate support for models assuming no publication bias for the partner association. For both actor and partner associations, the RoBMA estimates, which combine results from models with and without publication bias adjustment, were similar to the primary estimates.

The present findings align with a recent meta-analysis indicating a small positive effect of mindfulness interventions on relationship satisfaction (Voldstad et al., 2025). Importantly, the capacities associated with mindfulness, such as present-moment awareness, acceptance, and responding with less reactivity (Teper et al., 2013), may inform relationship-focused education and dyadic interventions aimed at enhancing relationship satisfaction.

Limitations and Future Directions

Some limitations of the current meta-analysis should be acknowledged. First, most of the included studies were cross-sectional, which limits conclusions about the temporal

ordering and directionality of the observed associations (Spector, 2019). In addition, the included studies relied on self-report measures, introducing shared method variance particularly for actor associations, in which trait mindfulness and relationship satisfaction were reported by the same participant (Podsakoff et al., 2003). As more longitudinal and multi-method studies become available, future meta-analyses could examine these associations more rigorously.

Second, only 11 studies were available for the synthesis of partner associations. The small number of studies may reduce the statistical power to detect moderator effects and estimate them precisely (Hedges & Pigott, 2004). Moreover, insufficient reporting of the information needed to estimate APIM (Kenny et al., 2006) precluded the synthesis of adjusted partner effects. The partner associations were based on zero-order cross-partner correlations, which do not account for actor associations or other sources of interdependence in couples. Future dyadic studies could report the information needed for APIM-based synthesis. Potential sample overlap between two reports remained unresolved. Although excluding either report had little impact on the pooled actor and partner estimates, these sensitivity analyses do not establish sample independence.

Third, the available evidence was largely limited to Western societies, reflecting the lack of contextual diversity in mindfulness research (Sperling et al., 2025). Specifically, most of the studies were conducted in North America or Europe. Among the studies reporting race or ethnicity, most participants were self-identified as White. This limited diversity leaves open whether the associations between trait mindfulness and romantic relationship satisfaction are similar across cultural contexts. Cultural groups may differ in the expressions of love and care in romantic relationships (Halford et al., 2018). However, whether the association differs across cultural contexts remains unclear. Future studies could recruit more

diverse samples, including participants from underrepresented racial, ethnic, and other marginalized groups, across different contexts.

Finally, the present findings provide limited insight into whether the associations differ across relationship contexts. Among samples reporting marital status, participants were mostly married. Although the proportion of married participants was not a significant moderator, the study-level analysis did not compare married and unmarried participants. Prior research suggests that relationship satisfaction and its correlates may vary across relationship status (Cassepp-Borges et al., 2025; Tai et al., 2014). Future research could examine whether the associations between mindfulness and relationship satisfaction differ across dating, cohabiting, and married relationships. The present synthesis also did not provide estimates for sexual and gender minority participants or couples. Clearer reporting of participants' sexual orientation and gender identity would help future research clarify the associations between trait mindfulness and relationship satisfaction in these populations.

Conclusion

By extending prior meta-analytic work and using three-level meta-analytic models, the present study found small positive actor and cross-partner associations between trait mindfulness and romantic relationship satisfaction. The examined demographic characteristics, relationship duration, and methodological characteristics did not significantly moderate these associations, suggesting that the observed associations were relatively consistent. These findings may have implications for couple-focused interventions aimed at improving relationship satisfaction. Taken together, the present study provides a more comprehensive understanding of the association between trait mindfulness and romantic relationship satisfaction by synthesizing both actor and partner associations.

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Table 1

Summary Characteristics of Included Independent Samples

Study / Independent sample	Publication type	Design	Data type	*N*	Mean Age	Women %	Country	Marriage %	Relationship length M (years)	TM measure	RS measure
Adair et al. (2018)	Journal	Cross-sectional	Individual	254	27	50%	NR	NR	4.215	FFMQ	RAS
Almutairi and Meiri (2024)	Journal	Cross-sectional	Individual	250	NR	100%	Saudi Arabia	100%	NR	FFMQ	MSS
Arpacioglu et al. (2024)	Journal	Cross-sectional	Individual	276	NR	58%	Turkey	62.3%	NR	MAAS	RAS
Bolluk and Çakmak (2024)	Journal	Cross-sectional	Individual	461	34.9	67.5%	Turkey	100%	NR	FFMQ	DAS
Cooper et al. (2024)	Journal	Cross-sectional	Dyadic	1478	37.6	50%	United States	71.6%	NR	FFMQ	CSI
De Cristofaro et al. (2023) Study 3	Journal	Cross-sectional	Individual	836	31.85	66.3%	Italy	NR	9.076	MAAS	DAS
De Cristofaro et al. (2023) Study 4	Journal	Cross-sectional	Individual	301	40.61	71.4%	NR	NR	14.626	MAAS	DAS
Don and Algoe (2020)	Journal	Longitudinal	Individual	160	27.73	50.63%	United States	NR	4.22	MAAS	single-item RS
Du et al. (2025) Study 1	Journal	Cross-sectional	Individual	383	39.25	48.83%	United Kingdom	56.14%	13.88	FFMQ	RAS
Du et al. (2025) Study 3	Journal	Longitudinal	Individual	193	43.52	59.07%	United States	NR	16.72	FFMQ	single-item RS
Echabe-Ecenarro et al. (2023)	Journal	Cross-sectional	Individual	535	33.39	100%	Spain	NR	NR	FFMQ	DAS

Study / Independent sample	Publication type	Design	Data type	*N*	Mean Age	Women %	Country	Marriage %	Relationship length M (years)	TM measure	RS measure
Eyring et al. (2021)	Journal	Cross-sectional	Dyadic	1360 couples	wives: 30.02 husbands: 31.82	50%	United States	100%	NR	MAAS	CSI
Fincham (2022)	Journal	Longitudinal	Individual	104	20.54	93%	United States	NR	1.927	MAAS	CSI
Fitzgerald et al. (2024)	Journal	Cross-sectional	Individual	235	30.43	89.8%	United States	NR	NR	MAAS	CSI
Galloway et al. (2022)	Journal	Cross-sectional	Individual	128	29.7	85.9%	Australia	NR	6.25	FFMQ	RAS
Gesell et al. (2020)	Journal	Cross-sectional	Individual	209	32.2	75.6%	Germany	30.6%	8	MAAS	RAS
Güleç and Bilgin (2024)	Journal	Cross-sectional	Individual	1057	20.75	55.25%	Turkey	NR	NR	MAAS	RAS
Harvey et al. (2019)	Journal	Cross-sectional	Dyadic	169 couples	29.83	50%	NR	24.6%	4.77	MAAS	IMS
Hogan and Gordon (2020)	Journal	Cross-sectional	Dyadic	76 couples	50.5	50%	United States	100%	24.25	MAAS	CSI
Jaurequi (2025)	Journal	Cross-sectional	Dyadic	293 couples	men: 48.25 women: 45.48	50%	United States	79%	19.33	MAAS	CSI
Kappen et al. (2018) Study 1	Journal	Cross-sectional	Individual	190	33.66	50%	United States	44%	8.5	FFMQ	RAS
Kappen et al. (2018) Study 2	Journal	Cross-sectional	Individual	140	35.07	51%	NR	62%	6.34	FFMQ	RAS
Kappen et al. (2018) Study 3	Journal	Cross-sectional	Dyadic	171	49.27	NR	Netherlands	60%	21.43	FFMQ	IMS
Khaddouma et al. (2015a)	Journal	Cross-sectional	Individual	104	18.06	64.4%	United States	NR	0.716	FFMQ	CSI
Khaddouma et al. (2015b)	Journal	Cross-sectional	Individual	322	18.79	76.4%	United States	0%	1.183	FFMQ	CSI

Study / Independent sample	Publication type	Design	Data type	*N*	Mean Age	Women %	Country	Marriage %	Relationship length M (years)	TM measure	RS measure
Khaddouma and Gordon (2018)	Journal	Longitudinal	Dyadic	188 couples	18.77	50%	United States	0%	1.533	FFMQ	CSI
Leavitt et al. (2019)	Journal	Cross-sectional	Individual	194	45.3	50.7%	United States	100%	NR	MAAS	CSI
Leavitt et al. (2023)	Journal	Cross-sectional	Dyadic	169 couples	mothers: 26.14 fathers: 27.92	50%	United States	100%	NR	MAAS	CSI
Lenger et al. (2019)	Journal	Cross-sectional	Individual	320	32.59	48%	United States	43.75%	11.37	MAAS	CSI
Mandal and Lip (2022)	Journal	Cross-sectional	Individual	153	27.71	51.6%	Poland	39.2%	6.25	FFMQ	DAS
Maniaci (2015)	Doctoral Dissertation	Longitudinal	Dyadic	344	28	50%	NR	100%	NR	FFMQ	CSI
Manser (2023)	Doctoral Dissertation	Longitudinal	Individual	150	23.78	50%	United States	2.7%	1.939	FFMQ	CSI
Morin et al. (2023)	Journal	Longitudinal	Dyadic	78 couples	32.06	50%	Canada	24.4%	6.5	FFMQ	CSI
Morin et al. (2024)	Journal	Longitudinal	Dyadic	78 couples	32.06	50%	Canada	24.36%	6.55	MPFI	CSI
Quinn-Nilas and Milhausen (2024)	Journal	Cross-sectional	Individual	640	49.8	52%	Canada	100%	NR	FFMQ	CSI
Rimsky (2020)	Doctoral Dissertation	Longitudinal	Individual	200	22.55	64.5%	United States	8%	2.473	FFMQ	Subscales of PRQC
Roberts et al. (2021)	Journal	Cross-sectional	Dyadic	219 couples	women: 35.90 men：39.05	50%	United States	73.5%	10.92	MAAS	CSI
Schuette et al. (2023)	Journal	Cross-sectional	Individual	457	32.3	100%	United States	NR	NR	FFMQ	CSI
Simou and	Journal	Cross-	Individual	92	51.2	50%	Greece	NR	25.31	KIMS	RAS

Moraitou (2018)		sectional									
Smedley et al. (2021)	Journal	Cross-sectional	Dyadic	1627 couples	women: 30.03 men: 31.82	50%	United States	100%	NR	MAAS	CSI

Note. TM = trait mindfulness; RS = relationship satisfaction; FFMQ = Five Facet Mindfulness Questionnaire; MAAS = Mindful Attention Awareness Scale; KIMS = the Kentucky Inventory of Mindfulness Skills; MPFI = the Present Moment Awareness and Acceptance subscales of the Multidimensional Psychological Flexibility Inventory; CSI = Couples Satisfaction Index; RAS = Relationship Assessment Scale; DAS = Dyadic Adjustment Scale; IMS = the satisfaction subscale of the Investment Model Scale; MSS = the general satisfaction with marriage subscale of the Marital Satisfaction Scale; single-item RS = single-item indicators of relationship satisfaction; PRQC = Perceived Relationship Quality Components Inventory; NR = not reported. *N* refers to the number of participants for individual samples or the number of couples for dyadic samples, as indicated. Marriage % refers to the percentage of participants who were legally married. Study design was determined at the study or independent-sample level, and longitudinal samples could also provide cross-sectional effect-size estimates. Khaddouma et al. (2015a) refers to *Zen and the Art of Dating*, whereas Khaddouma et al. (2015b) refers to *Zen and the Art of Sex*. Potential sample overlap was identified between Morin et al. (2023) and Morin et al. (2024), given their identical sample sizes and mean ages and similar relationship characteristics. The extent of overlap could not be confirmed.

Table 2

Moderator Analyses for the Association between Trait Mindfulness and Individuals' Own Relationship Satisfaction (Actor Effects)

Moderators	*k*	*Estimate* (*b* or *r*)	*SE*	95% CI	Omnibus statistic	*p*
Mean age	71	0.003	0.002	[−0.001, 0.008]	—	.143
Proportion of women	72	−0.021	0.025	[−0.076, 0.035]	—	.430
Proportion of married individuals	49	0.069	0.047	[−0.033, 0.171]	—	.166
Mean relationship duration	49	0.006	0.004	[−0.004, 0.015]	—	.199
Trait mindfulness measure					$F(1, 33.53) = 0.397$	.533
FFMQ	39	0.218	—	[0.174, 0.261]	—	< .001
MAAS	24	0.192	—	[0.113, 0.268]	—	< .001
Relationship satisfaction measure					$F(4, 1.75) = 1.808$	.408
CSI	41	0.221	—	[0.177, 0.264]	—	< .001
DAS	9	0.187	—	[0.139, 0.235]	—	.001
IMS	3	0.110	—	[−0.109, 0.318]	—	.099
One item	2	0.143	—	[−0.644, 0.783]	—	.294
RAS	16	0.179	—	[0.029, 0.321]	—	.025
Research design					$F(1, 3.55) = 2.382$	.206

Cross-sectional	64	0.211	—	[0.172, 0.249]	—	< .001
Longitudinal	9	0.162	—	[0.070, 0.252]	—	.008

Note. *k* = number of effect sizes included in each analysis or, for categorical moderators, in each category. Estimates for continuous moderators are unstandardized meta-regression coefficients (*b*) on Fisher's *z* scale, whereas estimates and confidence intervals for categorical subgroups are pooled Pearson's correlations (*r*). Omnibus tests and confidence intervals are based on cluster-robust inference with small-sample corrections. FFMQ = Five Facet Mindfulness Questionnaire; MAAS = Mindful Attention Awareness Scale; CSI = Couples Satisfaction Index; DAS = Dyadic Adjustment Scale; IMS = Investment Model Scale; RAS = Relationship Assessment Scale. Categories represented by fewer than two independent samples were excluded from categorical moderator analyses. For example, the KIMS and MPFI were excluded in the trait mindfulness measure analysis as each was represented by only one independent sample.

Table 3

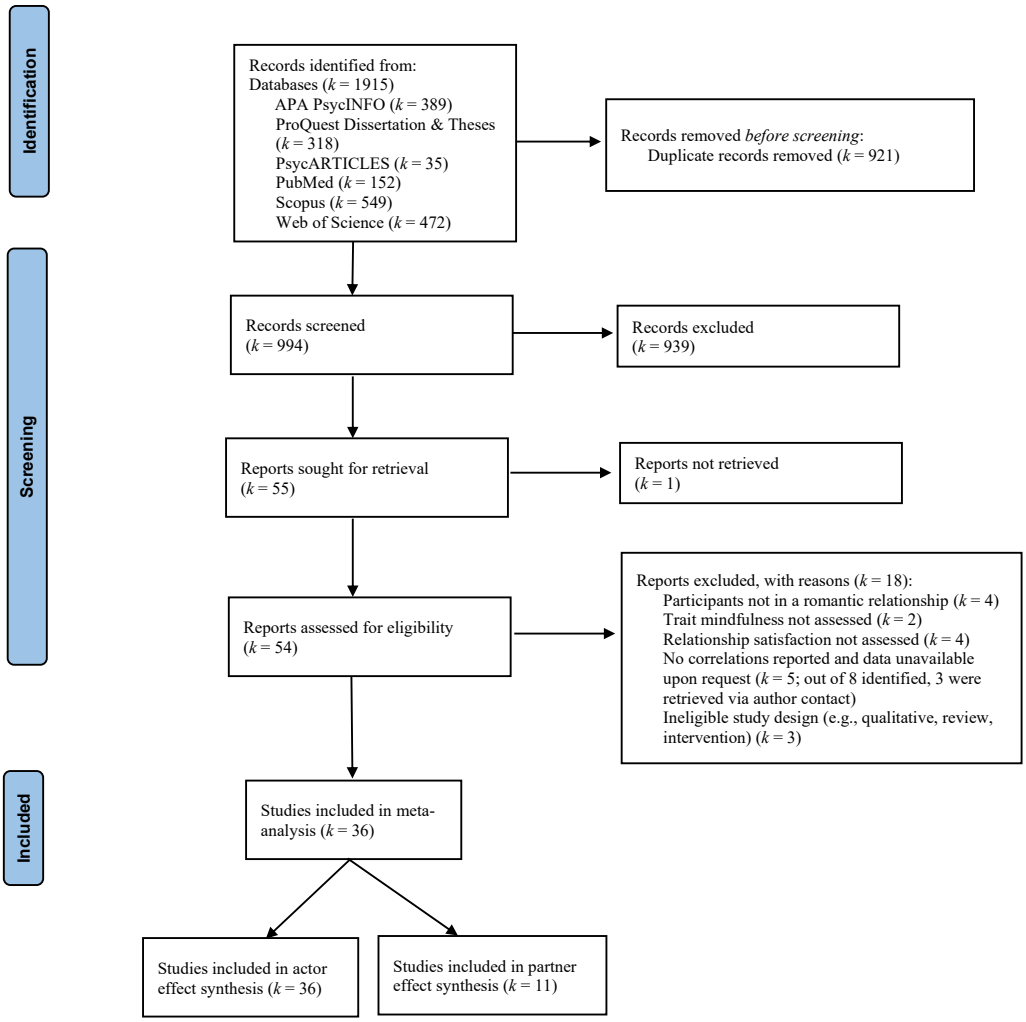
Exploratory Moderator Analyses for the Association between Trait Mindfulness and Relationship Satisfaction (Partner Effects)

Moderators	*k*	*Estimate* (*b* or *r*)	*SE*	95% CI	Omnibus statistic	*p*
Mean age	27	0.009	0.004	[−0.003, 0.020]	—	.098
Proportion of married individuals	27	0.092	0.061	[−0.068, 0.251]	—	.196
Mean relationship duration	19	0.013	0.006	[−0.010, 0.036]	—	.150
Trait mindfulness measure					$F(1, 4.13) = 1.444$	.294
FFMQ	9	0.146	—	[−0.023, 0.307]	—	.067
MAAS	12	0.210	—	[0.121, 0.297]	—	.002
Relationship satisfaction measure					$F(1, 1.25) = 1.459$	.407
CSI	24	0.193	—	[0.128, 0.256]	—	< .001
IMS	3	0.128	—	[−0.440, 0.623]	—	.224
Research design					$F(1, 1.63) = 0.012$	.926
Cross-sectional	21	0.186	—	[0.129, 0.242]	—	< .001
Longitudinal	6	0.188	—	[0.084, 0.288]	—	.014

Note. *k* = number of effect sizes included in each analysis or, for categorical moderators, in each category. Estimates for continuous moderators are unstandardized meta-regression coefficients (*b*) on Fisher's *z* scale, whereas estimates and confidence intervals for categorical subgroups are pooled Pearson's correlations (*r*). Omnibus tests and confidence intervals are based on cluster-robust inference with small-sample corrections. FFMQ = Five Facet Mindfulness Questionnaire; MAAS = Mindful Attention Awareness Scale; CSI = Couples Satisfaction Index; IMS = Investment Model Scale. Categories represented by fewer than two independent samples were excluded from categorical moderator analyses. For example, the MPFI was excluded as it was represented by only one independent sample.

Fig. 1

PRISMA Flow Diagram for Included Studies



Supplementary Files

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- Supplementarymaterial.docx