

Mindfulness-Based Couple Interventions: A Systematic Literature Review

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Over the past decades, mindfulness-based interventions have been shown to improve individual health and well-being in clinical and nonclinical settings. More recently, secular contemplative trainings were adapted to the couple context as research showed satisfying couple relationships to be one of the strongest predictors of physical and mental health. Mindfulness-based interventions hence seem to be a promising treatment in couple counseling and therapy in both clinical and nonclinical settings. Therefore, we conducted a systematic review to provide an overview of the emerging literature in the field of mindfulness-based interventions for couples and other dyads. Overall, sixteen studies met the inclusion criteria. To summarize the heterogeneous quantitative literature regarding individual outcomes, mindfulness interventions for couples seem to increase mindfulness, self-compassion, well-being, and quality of life. Additionally, we found initial evidence of beneficial effects on relieving psychopathological symptoms and psychobiological stress measures. Measures of relationship quality were the predominant dyadic outcome. Based on these studies, we cautiously conclude that mindfulness trainings can enhance relationship quality. Practitioners should be aware that mindfulness-based interventions for couples can potentially improve the perceived relationship quality between partners and the individual burden. Future studies should expand the field, particularly with regard to other contemplative practices for couples such as compassion interventions.

Keywords: Couples; Mindfulness; Relationship quality; Contemplative practices

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Mindfulness has increasingly gained attention in scientific research and secular practice since the 1970s. Mindfulness can be described as a way of paying attention to a specific object with intention and a kind, accepting and open attitude for the experienced process (Shapiro et al., 2006). It involves an individual will to practice and an open and curious attitude to the experiences of the presence (Shapiro et al., 2006).

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Meditators can practice formally by focusing their attention to a specific object such as the breath or by observing any uprising experience (open monitoring; Lutz et al., 2008). Studies so far have either focused on the immediate state effects of mindfulness in novices and long-term practitioners (Creswell et al., 2014; Lutz et al., 2004) or on the enduring effects and trait characteristics of long-term meditators (Fogarty et al., 2015; Quinn-Nilas, 2020).

In healthy individuals, meta-analyses on secular mindfulness training such as mindfulness-based stress reduction (MBSR; Kabat-Zinn, 2003) have shown medium-sized pooled effects on stress reduction, symptoms of anxiety and depression, and an improvement of quality of life and life satisfaction (Khoury et al., 2015). For different psychiatric disorders, the efficacy of mindfulness-based treatments can be compared to evidence-based treatments (Goldberg et al., 2018). For example, mindfulness-based treatments have reduced disorder-specific symptoms and depression in the case of attention deficit hyperactivity disorder (Poissant et al., 2020). Further, post-traumatic growth has increased due to mindfulness-based treatments (Shiyko et al., 2017).

The Impact of Social Relationships on Health

Beyond individual traits like mindfulness, social relationships are an important determinant of physical and mental health. Positive social interactions have been shown to be vital for survival rates and general health (Ditzen et al., 2019; Holt-Lunstad et al., 2010; Vaillant & Mukamal, 2001). Satisfying couple relationships are one of the most important sources of attachment and social support for adults (Ditzen & Heinrichs, 2014; Frisch et al., 2017). Empirical findings have provided support for an association between relationship quality and the emergence of mental disorders (Robles et al., 2014). For instance, a recent study has shown that couples with depression report lower relationship quality and are less likely to receive social support from their partner compared with nondepressed couples (Warth et al., 2020). A meta-analysis has revealed the effect of relationship quality on psychopathology to be stronger than vice versa, emphasizing the preventive role of healthy relationships (Bodenmann & Randall, 2013). Positive couple interactions have been found to impact biological markers of stress and arousal, which in turn may mediate physical health (Warth et al., 2020). In support of these results, couple therapy has been shown to effectively strengthen emotion regulation and relationship quality in distressed couples and in couples with individual psychopathology (Fischer et al., 2016; Fishbane, 2011; Roesler, 2020).

Mindfulness-Based Interventions in the Social Context

Research has emphasized how positive social interactions and relationship quality are particularly important for physical and psychological health. Nevertheless, the adaptation of mindfulness training for the social context is a recent development (Khoury et al., 2020). These interventions include mindfulness-based parenting and mindfulness-based birthing, mindfulness-based relationship enhancement, and mindfulness in education. These practices aim to enhance relationship quality and satisfaction (Bogels & Emerson, 2019; Carson et al., 2004), mindful communication (Harvey et al., 2019), and dyadic or collective stress coping skills (for an overview: Aguilar-Raab, 2020; Laurent et al., 2016). As the field emerges, it is important to review the results with regard to individual and interpersonal outcome variables. Therefore, the aim of the study was to systematically review the effects of mindfulness-based interventions in couples and other close dyads.

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METHOD

Literature Search and Screening Criteria

In a first step, the scientific literature was identified by a systematic search in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement (Moher et al., 2009). The initial search of a total of four databases (PubMed, Web of Knowledge, Cochrane, and PsycINFO) was conducted in April 2019 and updated in July 2020, screening for all intervention studies investigating mindfulness-based interventions in dyadic constellations (see Appendix S1 for detailed search strategy by database).

The database search revealed 230 studies with an additional 9 records identified by experts in the field and the manual search in journals addressing social contexts (Family Process, Journal of Marital and Family Therapy, Family Therapy, and Journal of Family Issues). After removing duplicates in Rayyan, an open-source software to conduct systematic literature reviews (Ouzzani et al., 2016), 173 studies remained (Figure 1).

Study Selection and Data Extraction

Abstracts were screened independently by three raters (CAR, FW, and AS) according to inclusion and exclusion criteria. Discrepancies in ratings were discussed until a consensus was found. A total of 151 studies were rejected because they met exclusion criteria. The authors of published trial protocols were contacted. Papers were included if full texts were available online or when authors provided them on our request. Eligibility criteria are listed in Table 1.

Studies were excluded if

- (1). They did not study a mindfulness-based intervention
- (2). They were case studies or study protocols only
- (3). They did not address couples, dyads, or at least studied individuals combined with dyadic outcome variables
- (4). They did not assess at least one relational/dyadic outcome variable
- (5). They were not published in English
- (6). Full texts were not published, and the authors did not reply to our request to provide detailed information on their respective study.

Of the 22 selected articles, a further six studies had to be excluded because we could not obtain full-text access (see Figure 1 for details). Data extraction for the remaining 16 studies was performed with a coding schema based on the PICOS criteria, specifying the

Table 1
Eligibility Criteria

Domain	Inclusion Criteria
Patients	Couples or dyads
Interventions	Mindfulness-based intervention
Comparison	No control group; Waiting list; Treatment as usual; Active control group
Outcomes	Relationship satisfaction; relationship quality; sexual satisfaction; intimacy; (emotional) disclosure; empathy; attachment; bonding; closeness; relatedness; belonging; perspective taking; empathic concern; (self)-compassion; mindfulness; quality of life; well-being;
Study design	stress; psychological health; depression; mood; emotion (regulation) Randomized controlled trials; Controlled clinical trials; Pilot studies

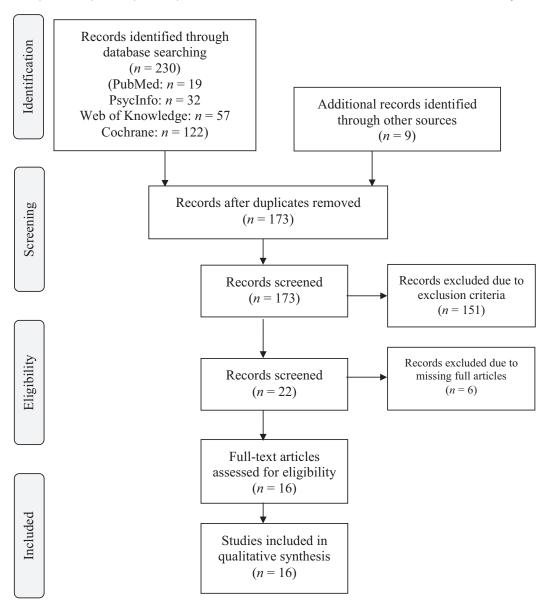


FIGURE 1. Flow chart of study selection using PRISMA criteria (Moher et al., 2009).

studied population, intervention, control groups, and outcomes (Moher et al., 2009). General information on authors, country and year of publication, sample size, publication type, and sample characteristics such as age, gender, diagnosis, and setting was additionally coded. Further, the characteristics of the interventions were evaluated, for example, content, frequency and duration of sessions, and comparison group. Dependent variables, measurement type, measurement points, and results were also recorded. All raters (CAR, FW, AS) evaluated the risk of bias according to the Cochrane manual for clinical studies (Cochrane, 2016). Biases in selection, randomization, performance, detection, attrition, reporting, or other areas were assessed.

RESULTS

Study Characteristics

A total of 16 studies published between 2004 and July 2020 were included in the final systematic review. The studies were conducted in various countries, including the Netherlands, Taiwan, Canada, Iran, and the United States. Overall, a total of 1466 individuals were included in the primary studies, with sample sizes ranging from 13 (Berk et al., 2019) to 320 participants (Kahn et al., 2016). The average age as reported in 14 studies was M=45.92 years (average standard deviation as reported in 12 studies was SD=7.19) years. The majority of studies included married or cohabiting couples. Only three studies included same-sex couples (Gambrel & Piercy, 2015a, 2015b; Kahn et al., 2016; Milbury, Weathers, et al., 2020). One study included not only couples but also dyads that were in daily contact, such as roommates and close friends. In this sample, 37.1% were in a romantic relationship (May et al., 2020). Overall, the average relationship duration was M=12.42 years as reported in six studies (standard deviation reported only in two studies, SD=14.35). Table 2 gives an overview of study characteristics and summarizes the results grouped around individual versus dyadic outcome variables.

With regard to the study design, it is noteworthy that the majority of studies (n = 11) were randomized controlled trials or randomized controlled pilot studies. N = 7 studies included healthy couples. In all other studies, the clinical diagnoses were heterogeneous.

With regard to the interventions, most studies examined group-based interventions and four studies provided the intervention online. MBSR and mindfulness-based relationship enhancement (MBRE) were the most prevalent. Some interventions included psychoeducation (Berk et al., 2019; Birnie et al., 2010; Gambrel & Piercy, 2015a), loving-kindness meditation (Carson et al., 2004; Coatsworth et al., 2010; Gambrel & Piercy, 2015a; Price-Blackshear et al., 2020), and compassion exercises (Berk et al., 2019; Hsiao et al., 2016; Kahn et al., 2016; Milbury, Li, et al., 2020; Milbury, Weathers, et al., 2020; Price-Blackshear et al., 2020). An overview of the content of the interventions is presented in Figure 2.

Effects on Dyadic Outcomes

Relationship satisfaction

Seven studies included measures of relationship satisfaction. As shown in Table 2, the quality of the relationships was measured with different questionnaires that overlap to some extent but not completely. Overall, the majority of studies reported benefits for the participants with regard to the relationship quality or satisfaction. It is noteworthy that only two studies reported a significant increase in relationship quality for both partners after the intervention (Carson et al., 2004; Khaddouma et al., 2017). The benefits also seemed to spill over to nonenrolled partners, but the participating partner seemed to benefit more (Khaddouma et al., 2017). Similarly, other studies reported differential results between partners: Among these, benefits were only reported for veterans (Kahn et al., 2016), women with metabolic syndrome (Monin et al., 2020), and partners of pregnant women (Gambrel & Piercy, 2015a). Only one study reported adverse effects (Price-Blackshear et al., 2020).

Effects on Individual Outcomes

Mindfulness

Eight studies investigated mindfulness as an outcome of the interventions. As shown in Table 2, differential effects between partners emerged: While some studies revealed

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Table 2
Study Characteristics and Main Findings

Relationship	Relationship satisfaction/quality/adj	ality/adjustment			
Study	Participants	Intervention	Control group/ design	Measures	Main findings
Gambrel and Piercy (2015a)	Healthy couples awaiting their first child, $N = 66$ individuals	Mindful transition to parenthood (MTPP), four sessions, 120 minutes, couples in groups	Waitlist/RCT	Couple Satisfaction Index	Marginal increase in partners $(p = .05)$ but not in pregnant women $(p = .51)$
Khaddouma et al. (2017)	Healthy couples, $N = 40$ individuals	MBSR, eight sessions, 150 minutes, one partner participates	No treatment/partners were control group	Couple Satisfaction Index	Increase for both partners $(p < .05)$ but stronger for the enrolled partner compared with the noneurolled partner $(n < .05)$
Monin et al. (2020)	Older couples with metabolic syndrome, $N = 22$ individuals	MBSR, eight sessions, 150 minutes, couples in groups	Waitlist control/pilot RCT study	Relationship Assessment Scale	Stronger increase in women after MBSR compared with women in control group ($p < .01$); men in MBSR versus control group did not significantly differ ($n > .05$)
Kahn et al. (2016)	Veterans post- $9/11$ and partner, $N = 320$ individuals	Mission reconnect (MR), prevention and relationship enhancement (PREP) + MR, web-based for couples, PREP: weekend residential retreat for couples in ground	Waitlist and active control group (PREP)/RCT	Revised Dyadic Adjustment Scale	Stronger increase for veterans in MR + PREP compared with PREP only (p < .01) and compared with waitlist at 16 weeks from baseline (p < .05)
Price-Blackshear et al. (2020)	Young breast cancer survivors and their partners, $N = 77$	Couples mindfulness-based intervention (CMBI), eight sessions, 60-minute, Webbased, both partners participate	Individual mindfulness-based intervention/RCT	Quality of Marriage Index, Dyadic Adjustment Scale	Decrease in relationship quality after CMBI compared with active control group for which no change was reported ($p = .02$), decrease in dyadic adjustment for women after CMBI and no change for their partners, but increase for both partners in active control group ($p < .05$)

Relational outcomes

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Table 2
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Relational outcomes	utcomes					
Relationship	Relationship satisfaction/quality/adjustment	ality/adjustment				
Study	Participants	Intervention	Control g design	group/ Meas	Measures	Main findings
Carson et al. (2004)	Healthy couples, $N = 88$ individuals	Mindfulness-based relationship enhancement (MBRE), eight sessions, 150 minutes, couples in groups	Waitlist/RCT	Qual Mar	Quality of Marriage Index	Stronger increase in MBRE couples compared with waitlist ($p < .001$), increase in relationship happiness in a diary analysis over three days
Gambrel and Piercy (2015b)	Healthy couples awaiting their first child, $N = 26$ individuals	See Gambrel and Piercy (2015a)	No control group/ qualitative study	1	Phenomenological semi-structured interviews	from practice ($p < .01$) Couples reported improvements in their relationships such as being present and connecting deeply with one another
Individual outcomes	utcomes					
Mindfulness						
Study	Participants	Intervention	Control group/ design	Measures	Main f	Main findings
Berk et al. (2019)	Dementia patients and their partners, $N = 14$ individuals	s, s	No control group/ pilot	Five Facet Mindfulness Questionnaire		Increase in partners only (no <i>p</i> -value reported)
Duncan and Bardacke (2010) ^a	Healthy pregnant women, $N = 35$	The minutes, couples in groups Mindfulness-based childbirth and parenting (MBCP), nine sessions, 180 minutes, couples in groups	study No control group/ pilot study	Five Facet Mindfulness Questionnaire	e.	Increase in women ($p < .0001$)

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Table 2 Continued

Mindfulness					
Study	Participants	Intervention	Control group/ design	Measures	Main findings
May et al. $(2020)^{\rm a}$	Couples, novice meditators, $N=70$ individuals	1-hour guided meditation introduction followed by 15-minute audio-guided meditation daily, eight sessions, one partner	Waitlist/ RCT	Five Facet Mindfulness Questionnaire	Higher scores on the mindfulness facets of observing, describing, and nonreactivity to inner experience in the meditating partner (all $p < .01$)
Gambrel and Piercy (2015a) Khaddouma		participates		Five Facet Mindfulness Questionnaire Five Facet	Increase in partners only $(p = .02)$ but not in pregnant women $(p = .89)$ Increase for enrolled persons $(p < .01)$ in
et al. $(2017)^{a}$				Mindfulness Questionnaire	contrast to nonenrolled partners $(p < .001)$
Birnie et al. (2010)	Prostate, breast, colorectal cancer, partner without diagnose, $N = 42$ individuals	MBSR, eight sessions, 90 minutes, both partners participate	No control group	Mindful Attention Awareness Scale	Increase in both partners $(p = .02)$
Milbury, Weathers, et al.	Patients with primary metastatic brain tumors and partners, $N = 70$ individuals	Couple-based mediation (CBM), four sessions, 60 minutes, video-based, both partners participate	Treatment as usual/ pilot RCT	Mindful Attention and Awareness Scale	No group difference post-treatment (no p -value reported)
Monin et al. (2020)				Kentucky Inventory of Mindfulness Skills	Overall increase over time ($p < .001$); no differences between gender and group (both $p > .05$)
Self-compassion Milbury, Weathers, et al. (2020)	sion			Self-Compassion Scale	Increase only in patients in the intervention group $(p = .03)$

Individual outcomes

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Table 2
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Individual outcomes	utcomes					
Mindfulness						
Study	Participants Ir	Intervention	Control group/ design Measures	res	Main findings	SB
Kahn et al. (2016)			Self-Co Scale	Self-Compassion Scale	Stronger increases 16 weeks from waitlist $(p = .05)$ 16 weeks from PREP $(n = .03)$	Stronger increase for MR group at 8 and 16 weeks from baseline compared with a waitlist $(p = .02 \text{ and } p = .003)$ and for MR at PREP $(n = .03)$
Berk et al. (2019)			Self-Co Scale	Self-Compassion Scale	Small increase reported)	Small increase in partners (no p -value reported)
Gambrel and Piercy (2015b)			Phenomenol semi-struct interviews	Phenomenological semi-structured interviews	Pregnant wo reported an and kindnes	Pregnant women and their partners reported an increase in self-compassion and kindness toward themselves
Symptom burden	ırden					
Study	Participants	Intervention	Control group/design	n Measures	es	Main findings
Milbury, Li, et al. (2020)	Patients with metastatic lung cancer and their spousal caregiver, $N=70$ individuals	Couple-based mediation (CBM), four sessions, 60 minutes, video-based, both martness marticinate	Active control group (support group) and treatment as usual (TAT)\(\text{TAT}\)\(\text{TAT}\)\(\text{TAT}\)	0	Senter for Epidemiology Studies	Decrease in patients and partners at three months follow-up compared with TA11 $(n < 0.5)$
Duncan and Bardacke (2010)	TIME THE COLUMN TO THE COLUMN THE COLUMN TO	cont bar aners bar actbace		0	Fortression Scale Senter for Studies	Decrease in women $(p = .016)$
Milbury, Weathers, et al. (2020)				Center for Epidemiology Studies	Studies	Depression decreased marginally in patients $(p = .06)$ but not at all in their
Berk et al. (2019)				Depression A Depression As Stress Scale	Depression Anxiety Stress Scale	Decrease in partners only (no p -value reported)

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Symptom burden	ırden				
Study	Participants	Intervention	Control group/design	Measures	Main findings
Gambrel and Piercy (2015a) Birnie et al. (2010)				Depression Anxiety Stress Scale Profile of Mood States	No reduction in depression in both partners $(p > .05)$ Mood disturbance was reduced for cancer patients and their
Carson et al. (2004)				Brief Symptom Inventory	partners $(p < .05)$ Stronger decrease in MBRE couples at post and follow-up compared with waitlist $(p < + .$
Hsiao et al. (2016)	Breast cancer survivors and partners, $N = 80$ individuals	Mindfulness-based couple support group, eight sessions, 120 minutes,	Active control (individual support program)/RCT	Beck Depression Inventory	.001) Depression decreases in partners only $(p < .001)$
Price- Blackshear et al. (2020)		couples in groups		Patient-Reported Outcomes Measurement Information	Depression was reduced in all participants $(p = .01)$, no group comparison tested
Well-being Carson et al.				System	Increase in individual
(2004) Berk et al. (2019)				Kelaxation Index WHO Quality of Life Assessment	relaxation $(p = .025)$ Increase in partners only (no p -value reported)
(2016)				Short-rolm 12 Health-Related Quality of Life	increase only in partners at two months $(p < .05)$ and 14 months more likely in CSG group $(p < .01)$
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Note. MBSR = mindfulness-based stress reduction. Study characteristics are only described once for each study. In these studies, only one partner practiced mindfulness.

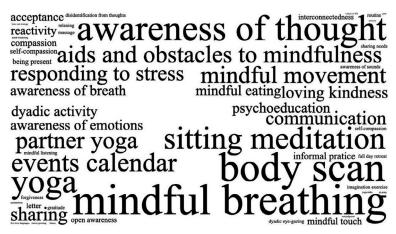


Figure 2. Contents of mindfulness-based interventions for couples. Larger font indicates higher frequency of occurrence of contents in programs.

benefits for both partners (Birnie et al., 2010; Khaddouma et al., 2017), others reported benefits only for one partner (Berk et al., 2019; Gambrel & Piercy, 2015a). If only one partner was enrolled in the intervention, mindfulness increased more notably for them compared with their partners (Khaddouma et al., 2017; May et al., 2020). Similarly, only the meditating partner noted a significant increase in the facets of mindfulness as measured with the FFMQ (May et al., 2020).

Self-compassion

Self-compassion was examined as an outcome variable of mindfulness-based interventions in four studies. Three studies used the Self-Compassion Scale (Neff, 2003). These studies reported benefits compared with control groups (Kahn et al., 2016; Milbury, Weathers, et al., 2020). In a study without control group, an increase was reported only for partners (Berk et al., 2019). Qualitatively, pregnant women and their partners reported an increase in self-compassion and kindness toward themselves (Gambrel & Piercy, 2015b).

Symptom burden

Effects on symptom burden were investigated in nine studies. Most studies examined depressive symptoms. Overall, a decrease over time was shown in at least one partner. Studies reported either benefits for both partners (Birnie et al., 2010; Carson et al., 2004; Milbury, Li, et al., 2020; Price-Blackshear et al., 2020), or only for one partner (Berk et al., 2019; Duncan & Bardacke, 2010; Hsiao et al., 2016; Milbury, Weathers, et al., 2020). No change was found only in one study, which did not examine a clinical sample and reported low statistical power (Gambrel & Piercy, 2015a).

Well-being

Overall, the results of three studies showed an increase in well-being as measured with quality of life and relaxation (Berk et al., 2019; Carson et al., 2004; Hsiao et al., 2016). The results of two studies indicated that only partners but not patients increased in well-being (see Table 2).

Physiological outcomes

Three of the included studies additionally examined psychobiological measures. Results pointed to improvements regarding psychological stress parameters (Hsiao et al., 2016). The positive effects of a laboratory mindfulness induction on salivary cortisol (as an indicator of stress-sensitive activation of the hypothalamic–pituitary–adrenal axis) and alphaamylase levels (as an indicator of activity of the sympathetic branch of the autonomic nervous system) were stronger in people with high dispositional mindfulness (Laurent et al., 2015). However, no beneficial effects were found for biological markers of metabolic syndrome (Monin et al., 2020).

DISCUSSION

This study was aimed at providing a systematic literature review of the current studies investigating the effects of mindfulness-based interventions for couples and dyads on individual and dyadic outcomes. Overall, sixteen studies met the inclusion criteria. With regard to individual outcomes, we can tentatively state that interventions for couples can increase mindfulness, self-compassion, well-being, and quality of life. Additionally, we found initial evidence of beneficial effects on the reduction in psychopathological symptoms and psychobiological stress measures.

Effects on Dyadic Outcomes

Regarding dyadic outcomes, results generally suggest that mindfulness-based interventions in couples can be helpful to increase relationship quality. Only one study reported adverse effects (Price-Blackshear et al., 2020). Although the program was adapted from a previous study (Carson et al., 2004), the results could not be replicated. This underlines that replication studies are important and that potential negative effects of couple mindfulness should be studied (Shonin et al., 2014; Wong et al., 2018).

There was inconsistency in how relationship quality was conceptualized and measured: Some studies measured relationship satisfaction, while others measured relationship quality, relationship happiness, or dyadic adjustment. It should be considered that there are not only similarities but also variations between the applied measures. Most of them are designed for specific circumstances and lack generalizability (Aguilar-Raab et al., 2015). A factorial approach could lead to a more comprehensive questionnaire. Other outcomes with a dyadic focus included intimacy, closeness, acceptance of one's partner, relational well-being, and empathy, but these were only represented in single studies, which is why they were excluded from this review.

Effects on Individual Outcomes

With regard to individual outcomes, studies showed improvements in depressive symptoms, mindfulness, and self-compassion. Investigating individual outcomes in couple interventions is appropriate because self-regulation and emotion regulation are very important for healthy and happy relationships. In close relationships, stress can be buffered by adaptive self-regulation and co-regulation (Williams et al., 2018; Zaki, 2020). More research is needed on the extent to which individual variables mediate the effect of mindfulness practices on relationship quality.

Should both Partners Participate?

It is essential to determine whether it is necessary to include both partners in treatment to ensure ideal outcome. Two studies included only one partner in the program and

found a spillover effect for nonenrolled partners for relationship satisfaction (Khaddouma et al., 2017) and negative affect (May et al., 2020). It is possible that partners benefit when they do not participate, but they might benefit less (Khaddouma et al., 2017). For instance, participating partners even reported a stronger increase in relationship satisfaction than their pregnant female partners in one study (Gambrel & Piercy, 2015a). Unfortunately, the limited number of studies does not allow for the identification of the most effective setting regarding the inclusion of both partners. An empirical comparison should be undertaken in future research.

Does a Diagnosis make a Difference?

The majority of studies were conducted in clinical samples. Three studies pointed to a higher benefit for patients compared with their partners, while two studies reported the opposite. Yet, most studies reported that both partners benefit in at least one outcome. Based on these few studies, we can tentatively conclude that mindfulness-based interventions for couples can also have positive effects for partners without diagnoses. All clinical studies focused on somatic diagnoses and measured comorbid psychological symptoms, but there were no studies that focused on primary mental disorders. Furthermore, only two studies measured depression and anxiety in subclinical samples. Further exploration of this aspect would help to clarify the preventive role of couple mindfulness.

Methodological Challenges

The small number of overall studies indicates how recent the development of contemplative training for dyads is and underlines the need for further research. Some methodological challenges could be met by learning from the shortcomings of previous studies. The majority of studies did not apply dyadic data analysis, which in turn typically leads to biased variances (Kenny et al., 2006). Partner effects can potentially confound results and might have been left undetected, ignoring the unique interdependence of couples. Other methodological shortcomings included the use of nonvalidated questionnaires, the lack of appropriate randomization, and researchers providing the interventions themselves. Further, detection biases were predominant and few of the studies provided enough information to rate attrition biases.

Another challenge is the measurement of mindfulness. Most studies used the FFMQ, while some applied the MAAS to measure mindfulness in participants. These two instruments do not fully overlap, and their content validity is still a subject of discussion. Further, the validity of self-reports can be questioned. The use of cognitive or attentional tests such as counting breaths might be more valid (for further propositions see Davidson & Kaszniak, 2015). Additionally, future research could apply ecological momentary assessments (EMAs), which allows mindfulness to be measured via smartphones in a real-life setting. EMA opens up the opportunity to evaluate mindfulness-based interventions by studying fluctuations of mindfulness in daily life (Shiffman et al., 2008).

Few studies used qualitative methods. However, research in mindfulness would benefit from a mix-method approach (Medeiros et al., 2021). At best, this would allow for both the confirmation of hypotheses and further development of specific questions in a participatory approach, so that the study of contemplative interventions becomes a relational practice (Teeters & Dimidjian, 2019).

Another shortcoming of previous studies concerns diversity in samples. Participants were generally well-educated and in the vast majority of cases identified as white. They were mostly married or cohabiting heterosexual couples. Three studies did not even report sexual orientation in demographics (Hsiao et al., 2016; Milbury, Li, et al., 2020; Price-Blackshear et al., 2020). Studying a more diverse sample would increase generalizability

and reflect the reality of diverse life practices. More studies should include marginalized populations that would in turn particularly benefit from such interventions (Sobczak & West, 2013).

Relevance for Clinical Practice

Practitioners should be aware that mindfulness-based interventions for couples can potentially improve individuals' burden and relationship satisfaction. Clinicians could offer such interventions. To do so, experts in the field advise a considerable amount of personal practice before instructing contemplative practices (Michalak et al., 2019). It remains unclear whether integrating stand-alone mindfulness practices as one ingredient in couple therapy is as effective as offering a fully manualized mindfulness training such as MBRE (Blanck et al., 2018; Mander et al., 2019).

Limitations

The included studies were limited by the abovementioned shortcomings. Furthermore, seven studies had to be excluded because their full-text versions were not available and the authors did not respond to our request. With regard to the small number of studies, the conclusions drawn in this review have to be considered carefully. Generally, interrater agreement in abstract screening was high. However, no quantitative data can be cited to address this matter.

Future Directions

Overall, more (randomized) controlled trials are needed to study the effectiveness and efficacy of mindfulness interventions for couples.

Relational outcome variables

Studies should include more relational outcome variables such as sexual satisfaction, closeness, belonging, empathic concern, dyadic coping, and perspective taking, to list a few search terms that did not yield any results in our review. Studies could also test whether individual aspects such as attachment impact on the effects of mindfulness interventions for couples on relational outcomes (Stevenson et al., 2017, 2019). Mindfulness interventions for couples might also increase acknowledging each other's needs, which could in turn enhance relational outcomes. Furthermore, studies should investigate how mindfulness enhances relational outcomes from the beginning to the end of a partnership.

Relational effects of individual practices

Research is needed on the extent to which mindfulness interventions for individuals improve relationship quality and other interpersonal aspects. Spillover effects have been shown but need to be studied more rigorously. Individual mindfulness training might enhance relationships through individual skills such as emotion regulation (Davila et al., 2017). Additionally, future studies could examine whether individual mindfulness practice leads to prosocial behavior inside and outside of the couple relationship. This would be in line with the theoretical frameworks.

Comparison to evidence-based treatments

Studies of intervening to further couple mindfulness could be compared to the impact of other forms of therapy. Individual mindfulness practices were compared to evidence-based treatments (Goldberg et al., 2018), and similar studies could be conducted for mindfulness interventions for couples. Different settings could be compared including multi-

couple group therapy, since multi-family therapy has been shown to be an effective intervention for families with a shared problem (Lemmens et al., 2009).

Compassion and other contemplative practices

Besides mindfulness, other contemplative practices such as compassion have been recently designed as contemporary forms of secular trainings with a specific relational focus (Aguilar-Raab et al., 2018; CCSCBE, 2019; Collins et al., 2018). Compared with mindfulness, compassion directly emphasizes social interconnectedness and has been shown to further prosocial attitudes and behavior (Gilbert, 2014; Leiberg et al., 2011; Quaglia et al., 2020). Therefore, compassion might in turn be particularly helpful when working with couples and future intervention studies are needed.

CONCLUSION

Despite the abovementioned limitations, we are optimistic about the findings to date that mindfulness interventions for couples can help partners to be more mindful, self-compassionate, feel less stressed, and burdened but rather satisfied with their relationships. In addition, mindfulness trainings for couples might positively influence other dyadic outcomes such as intimacy. Nonetheless, further studies are needed to draw sound conclusions. In any case, it is recommended to include both partners in the intervention in order to achieve a positive effect for both partners.

REFERENCES

- Aguilar-Raab, C. (2020). Mindfulness- & compassion-based interventions in relational contexts. In M. Ochs, M. Borcsa, & J. Schweitzer (Eds.), Systemic research in individual, couple, and family therapy and counseling European Family Therapy Association Series (Vol. 4, PP. 223–247). Springer.
- Aguilar-Raab, C., Grevenstein, D., & Schweitzer, J. (2015). Measuring social relationships in different social systems: The construction and validation of the Evaluation of Social Systems (EVOS) Scale. *PLoS One*, 10(7), e0133442. https://doi.org/10.1371/journal.pone.0133442
- Aguilar-Raab, C., Jarczok, M. N., Warth, M., Stoffel, M., Winter, F., Tieck, M., Berg, J., Negi, L. T., Harrison, T., Pace, T. W. W., & Ditzen, B. (2018). Enhancing Social Interaction in Depression (SIDE study): Protocol of a randomised controlled trial on the effects of a Cognitively Based Compassion Training (CBCT) for couples [Article]. British Medical Journal Open, 8(9), e020448. https://doi.org/10.1136/bmjopen-2017-020448
- Berk, L., Warmenhoven, F., Stiekema, A. P. M., van Oorsouw, K., van Os, J., de Vugt, M., & van Boxtel, M. (2019). Mindfulness-based intervention for people with dementia and their partners: Results of a mixed-methods study. Frontiers in Aging Neuroscience, 11(92), 1–10. https://doi.org/10.3389/fnagi.2019.00092
- Birnie, K., Garland, S. N., & Carlson, L. E. (2010). Psychological benefits for cancer patients and their partners participating in mindfulness-based stress reduction (MBSR). *Psycho-Oncology*, 19(9), 1004–1009. https://doi.org/10.1002/pon.1651
- Blanck, P., Perleth, S., Heidenreich, T., Kröger, P., Ditzen, B., Bents, H., & Mander, J. (2018). Effects of mindfulness exercises as stand-alone intervention on symptoms of anxiety and depression: Systematic review and meta-analysis. *Behaviour Research and Therapy*, 102, 25–35. https://doi.org/10.1016/j.brat.2017.12.002
- Bodenmann, G., & Randall, A. K. (2013). Close relationships in psychiatric disorders. Current Opinion in Psychiatry, 26(5), 464–467. https://doi.org/10.1097/YCO.0b013e3283642de7
- Bogels, S. M., & Emerson, L. M. (2019). The mindful family: A systemic approach to mindfulness, relational functioning, and somatic and mental health. Current Opinion in Psychology, 28, 138–142. https://doi.org/10.1016/j.copsyc.2018.12.001
- Carson, J. W., Carson, K. M., Gil, K. M., & Baucom, D. H. (2004). Mindfulness-based relationship enhancement. Behavior Therapy, 35(3), 471–494. https://doi.org/10.1016/S0005-7894(04)80028-5
- CCSCBE. (2019). SEEL Social, Emotional and Ethical Learning.
- Coatsworth, J. D., Duncan, L. G., Greenberg, M. T., & Nix, R. L. (2010). Changing parent's mindfulness, child management skills and relationship quality with their youth: Results from a randomized pilot intervention trial. *Journal of Child and Family Studies*, 19(2), 203–217. https://doi.org/10.1007/s10826-009-9304-8
- Cochrane. (2016). Bewertung des Biasrisikos (Risiko systematischer Fehler) in klinischen Studien: ein Manual für die Leitlinienerstellung 1.0. In A. d. W. M. F.-I. f. M. Wissensmanagement (Ed.). Deutschland.

- Collins, R. N., Gilligan, L. J., & Poz, R. (2018). The evaluation of a compassion-focused therapy group for couples experiencing a dementia diagnosis. Clinical Gerontologist, 41(5), 474–486. https://doi.org/10.1080/07317115. 2017.1397830
- Creswell, J. D., Pacilio, L. E., Lindsay, E. K., & Brown, K. W. (2014). Brief mindfulness meditation training alters psychological and neuroendocrine responses to social evaluative stress. *Psychoneuroendocrinology*, 44, 1–12. https://doi.org/10.1016/j.psyneuen.2014.02.007
- Davidson, R. J., & Kaszniak, A. W. (2015). Conceptual and methodological issues in research on mindfulness and meditation. American Psychologist, 70(7), 581–592. https://doi.org/10.1037/a0039512
- Davila, J., Mattanah, J., Bhatia, V., Latack, J. A., Feinstein, B. A., Eaton, N. R., Daks, J. S., Kumar, S. A., Lomash, E. F., McCormick, M., & Zhou, J. (2017). Romantic competence, healthy relationship functioning, and well-being in emerging adults. *Personal Relationships*, 24(1), 162–184. https://doi.org/10.1111/pere.12175
- Ditzen, B., Eckstein, M., Fischer, M., & Aguilar-Raab, C. (2019). Partnerschaft und gesundheit. *Psychotherapeut*, 64, 482–488. https://doi.org/10.1007/s00278-019-00379-9
- Ditzen, B., & Heinrichs, M. (2014). Psychobiology of social support: The social dimension of stress buffering. Restorative Neurology and Neuroscience, 32(1), 149–162. https://doi.org/10.3233/rnn-139008
- Duncan, L. G., & Bardacke, N. (2010). Mindfulness-based childbirth and parenting education: Promoting family mindfulness during the perinatal period. *Journal of Child and Family Studies*, 19(2), 190–202. https://doi.org/ 10.1007/s10826-009-9313-7
- Fischer, M. S., Baucom, D. H., & Cohen, M. J. (2016). Cognitive-behavioral couple therapies: Review of the evidence for the treatment of relationship distress, psychopathology, and chronic health conditions. Family Process, 55(3), 423–442. https://doi.org/10.1111/famp.12227
- Fishbane, M. D. (2011). Facilitating relational empowerment in couple therapy. Family Process, 50(3), 337–352. https://doi.org/10.1111/j.1545-5300.2011.01364.x
- Fogarty, F. A., Lu, L. M., Sollers, J. J., Krivoschekov, S. G., Booth, R. J., & Consedine, N. S. (2015). Why it pays to be mindful: Trait mindfulness predicts physiological recovery from emotional stress and greater differentiation among negative emotions. *Mindfulness*, 6(2), 175–185. https://doi.org/10.1007/s12671-013-0242-6
- Frisch, J., Aguilar-Raab, C., Eckstein, M., & Ditzen, B. (2017). Influence of couple interaction on health. Implications for psychotherapy. *Psychotherapeut*, 62, 59–76.
- Gambrel, L. E., & Piercy, F. P. (2015a). Mindfulness-based relationship education for couples expecting their first child—Part 1: A randomized mixed-methods program evaluation. *Journal of Marital and Family Therapy*, 41 (1), 5–24. https://doi.org/10.1111/jmft.12066
- Gambrel, L. E., & Piercy, F. P. (2015b). Mindfulness-based relationship education for couples expecting their first child—Part 2: Phenomenological findings. *Journal of Marital and Family Therapy*, 41(1), 25–41. https://doi.org/10.1111/jmft.12065
- Gilbert, P. (2014). The origins and nature of compassion focused therapy. British Journal of Clinical Psychology, 53(1), 6–41. https://doi.org/10.1111/bjc.12043
- Goldberg, S. B., Tucker, R. P., Greene, P. A., Davidson, R. J., Wampold, B. E., Kearney, D. J., & Simpson, T. L. (2018). Mindfulness-based interventions for psychiatric disorders: A systematic review and meta-analysis. Clinical Psychology Review, 59, 52–60. https://doi.org/10.1016/j.cpr.2017.10.011
- Harvey, J., Crowley, J., & Woszidlo, A. (2019). Mindfulness, Conflict strategy use, and relational satisfaction: A dyadic investigation [journal article]. *Mindfulness*, 10(4), 749–758. https://doi.org/10.1007/s12671-018-1040-y
- Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010). Social relationships and mortality risk: A meta-analytic review. *PLoS Medicine*, 7(7), e1000316. http://www.ncbi.nlm.nih.gov/pubmed/20668659
- Hsiao, F. H., Jow, G. M., Kuo, W. H., Yang, P. S., Lam, H. B., Chang, K. J., Lee, J. J., Huang, C. S., Lai, Y. M., Chen, Y. T., Liu, Y. F., & Chang, C. H. (2016). The long-term effects of mindfulness added to family resilienceoriented couples support group on psychological well-being and cortisol responses in breast cancer survivors and their partners. *Mindfulness*, 7(6), 1365–1376. https://doi.org/10.1007/s12671-016-0578-9
- Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. Clinical Psychology: Science and Practice, 10, 144–156. https://doi.org/10.1093/clipsy.bpg016
- Kahn, J. R., Collinge, W., & Soltysik, R. (2016). Post-9/11 veterans and their partners improve mental health outcomes with a self-directed mobile and Web-based wellness training program: A randomized controlled trial. *Journal of Medical Internet Research*, 18(9), e255. https://doi.org/10.2196/jmir.5800
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). Dyadic data analysis. Guilford Press.
- Khaddouma, A., Coop Gordon, K., & Strand, E. B. (2017). Mindful mates: A pilot study of the relational effects of mindfulness-based stress reduction on participants and their partners. Family Process, 56(3), 636–651. https://doi.org/10.1111/famp.12226
- Khoury, B., Grégoire, S., & Dionne, F. (2020). La dimension interpersonnelle de la pleine conscience. *Annales Médico-psychologiques, Revue Psychiatrique*, 178(3), 239–244. https://doi.org/10.1016/j.amp.2018.10.018

Khoury, B., Sharma, M., Rush, S. E., & Fournier, C. (2015). Mindfulness-based stress reduction for healthy individuals: A meta-analysis. *Journal of Psychosomatic Research*, 78(6), 519–528. https://doi.org/10.1016/j.jpsychores.2015.03.009

- Laurent, H. K., Laurent, S. M., Nelson, B., Wright, D. B., & De Araujo Sanchez, M.-A. (2015). Dispositional mindfulness moderates the effect of a brief mindfulness induction on physiological stress responses. *Mindfulness*, 6 (5), 1192–1200. https://doi.org/10.1007/s12671-014-0377-0
- Laurent, S., Lightcap, A., & Nelson, B., (2016). How situational mindfulness during conflict stress relates to well-being. Mindfulness, 7. https://doi.org/10.1007/s12671-016-0529-5
- Leiberg, S., Klimecki, O., & Singer, T. (2011). Short-term compassion training increases prosocial behavior in a newly developed prosocial game. *PLoS One*, 6, e17798. https://doi.org/10.1371/journal.pone.0017798
- Lemmens, G. M. D., Eisler, I., Buysse, A., Heene, E., & Demyttenaere, K. (2009). The effects on mood of adjunctive single-family and multi-family group therapy in the treatment of hospitalized patients with major depression. *Psychotherapy and Psychosomatics*, 78(2), 98–105. https://doi.org/10.1159/000201935
- Lutz, A., Greischar, L. L., Rawlings, N. B., Ricard, M., & Davidson, R. J. (2004). Long-term meditators self-induce high-amplitude gamma synchrony during mental practice. *Proceedings of the National Academy of Sciences of the United States of America*, 101(46), 16369–16373. https://doi.org/10.1073/pnas.0407401101
- Lutz, A., Slagter, H. A., Dunne, J. D., & Davidson, R. J. (2008). Attention regulation and monitoring in meditation. Trends in Cognitive Sciences, 12(4), 163–169. https://doi.org/10.1016/j.tics.2008.01.005
- Mander, J., Blanck, P., Neubauer, A. B., Kröger, P., Flückiger, C., Lutz, W., Barnow, S., Bents, H., & Heidenreich, T. (2019). Mindfulness and progressive muscle relaxation as standardized session-introduction in individual therapy: A randomized controlled trial. *Journal of Clinical Psychology*, 75(1), 21–45. https://doi.org/10.1002/jclp.22695
- May, C. J., Ostafin, B. D., & Snippe, E. (2020). Mindfulness meditation is associated with decreases in partner negative affect in daily life. European Journal of Social Psychology, 50(1), 35–45. https://doi.org/10.1002/ejsp. 2599
- Medeiros, S., Crempien, C., Vásquez-Rosati, A., Duarte, J., Andreu, C., Langer, I., Ibaceta, M., Silva, R. J., & Cosmelli, S. D. (2021). Assessing subjective processes and vulnerability in mindfulness-based interventions: A Mixed methods exploratory study. Constructivist Foundations, 16(2), 203–220. https://constructivist.info/16/2/203.medeiros
- Michalak, J., Crane, C., Germer, C. K., Gold, E., Heidenreich, T., Mander, J., Meibert, P., & Segal, Z. V. (2019). Principles for a responsible integration of mindfulness in individual therapy. *Mindfulness*, 10(5), 799–811. https://doi.org/10.1007/s12671-019-01142-6
- Milbury, K., Li, Y., Durrani, S., Liao, Z., Tsao, A. S., Carmack, C., Cohen, L., & Bruera, E. (2020). A mindfulness-based intervention as a supportive care strategy for patients with metastatic non-small cell lung cancer and their spouses: Results of a 3-arm pilot randomized controlled trial. *The Oncologist*, 1–11. https://doi.org/10.1634/theoncologist.2020-0125
- Milbury, K., Weathers, S., Durrani, S., Li, Y., Whisenant, M., Li, J., Lim, B., Weinberg, J. S., Kesler, S. R., Cohen, L., & Bruera, E. (2020). Online couple-based meditation intervention for patients with primary or metastatic brain tumors and their partners: Results of a pilot randomized controlled trial. *Journal of Pain and Symptom Management*, 59(6), 1260–1267. https://doi.org/10.1016/j.jpainsymman.2020.02.004
- Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *PLoS Medicine*, 6(7), e1000097. https://doi.org/10.1371/journal.pmed. 1000097
- Monin, J. K., Sperduto, C. M., Manigault, A. W., Dutton, A., Clark, M. S., & Jastreboff, A. M. (2020). Mindfulness-based stress reduction for older couples with metabolic syndrome: A pilot randomized controlled trial. *Mindfulness*, 11, 917–927. https://doi.org/10.1007/s12671-019-01301-9
- Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. Self and Identity, 2(3), 223–250. https://doi.org/10.1080/15298860309027
- Ouzzani, M., Hammady, H., Fedorowicz, Z., & Elmagarmidm, A. (2016). Rayyan- a web and mobile app for systematic reviews. Systematic Reviews, 5(1). https://doi.org/10.1186/s13643-016-0384-4
- Poissant, H., Moreno, A., Potvin, S., & Mendrek, A. (2020). A meta-analysis of mindfulness-based interventions in adults with attention-deficit hyperactivity disorder: Impact on ADHD symptoms, depression, and executive functioning. *Mindfulness*, 11(12), 2669–2681. https://doi.org/10.1007/s12671-020-01458-8
- Price-Blackshear, M. A., Pratscher, S. D., Oyler, D. L., Armer, J. M., Cheng, A.-L., Cheng, M. X., Records, K., Udmuangpia, T., Carson, J. W., & Ann Bettencourt, B. (2020). Online couples mindfulness-based intervention for young breast cancer survivors and their partners: A randomized-control trial. *Journal of Psychosocial Oncology*, 38(5), 592–611. https://doi.org/10.1080/07347332.2020.1778150
- Quaglia, J. T., Soisson, A., & Simmer-Brown, J. (2020). Compassion for self versus other: A critical review of compassion training research. *The Journal of Positive Psychology*, 1–16. https://doi.org/10.1080/17439760.2020. 1805502

- Quinn-Nilas, C. (2020). Self-reported trait mindfulness and couples' relationship satisfaction: A meta-analysis. Mindfulness, 11(4), 835–848. https://doi.org/10.1007/s12671-020-01303-y
- Robles, T. F., Slatcher, R. B., Trombello, J. M., & McGinn, M. M. (2014). Marital quality and health: A meta-analytic review. *Psychological Bulletin*, 140(1), 140–187. https://doi.org/10.1037/a0031859
- Roesler, C. (2020). Effectiveness of couple therapy in practice settings and identification of potential predictors for different outcomes. Family Process, 59(2), 390–408. https://doi.org/10.1111/famp.12443
- Shapiro, S. L., Carlson, L. E., Astin, J. A., & Freedman, B. (2006). Mechanisms of mindfulness. *Journal of Clinical Psychology*, 62(3), 373–386. https://doi.org/10.1002/jclp.20237
- Shiffman, S., Stone, A. A., & Hufford, M. R. (2008). Ecological momentary assessment. *Annual Review of Clinical Psychology*, 4(1), 1–32. https://doi.org/10.1146/annurev.clinpsy.3.022806.091415
- Shiyko, M. P., Hallinan, S., & Naito, T. (2017). Effects of mindfulness training on posttraumatic growth: A systematic review and meta-analysis. *Mindfulness*, 8(4), 848–858. https://doi.org/10.1007/s12671-017-0684-3
- Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014). Are there risks associated with using mindfulness in the treatment of psychopathology? *Clinical Practice*, 11(4), 389–392. http://dx.doi.org/10.2217/cpr.14.23.
- Sobczak, L. R., & West, L. M. (2013). Clinical considerations in using mindfulness- and acceptance-based approaches with diverse populations: Addressing challenges in service delivery in diverse community settings. Cognitive and Behavioral Practice, 20(1), 13–22. https://doi.org/10.1016/j.cbpra.2011.08.005
- Stevenson, J. C., Emerson, L.-M., & Millings, A. (2017). The relationship between adult attachment orientation and mindfulness: A systematic review and meta-analysis. *Mindfulness*, 8(6), 1438–1455. https://doi.org/10.1007/s12671-017-0733-y
- Stevenson, J. C., Millings, A., & Emerson, L.-M. (2019). Psychological well-being and coping: The predictive value of adult attachment, dispositional mindfulness, and emotion regulation. *Mindfulness*, 10(2), 256–271. https://doi.org/10.1007/s12671-018-0970-8
- Teeters, L. A., & Dimidjian, S. (2019). The promise of a participatory approach in clinical psychology. Clinical Psychological Science, 7(1), 60–62. https://doi.org/10.1177/2167702618805082
- Vaillant, G. E., & Mukamal, K. (2001). Successful aging. American Journal of Psychiatry, 158(6), 839–847. https://doi.org/10.1176/appi.ajp.158.6.839
- Warth, M., Stoffel, M., Winter, F., Jarczok, M. N., Aguilar-Raab, C., & Ditzen, B. (2020). Instructed partnership appreciation in depression: Effects on mood, momentary relationship satisfaction, and psychobiological arousal. Frontiers in Psychiatry, 11, 1–16. https://doi.org/10.3389/fpsyt.2020.00701
- Williams, W. C., Morelli, S. A., Ong, D. C., & Zaki, J. (2018). Interpersonal emotion regulation: Implications for affiliation, perceived support, relationships, and well-being. *Journal of Personality and Social Psychology*, 115 (2), 224–254. https://doi.org/10.1037/pspi0000132
- Wong, S. Y. S., Chan, J. Y. C., Zhang, D., Lee, E. K. P., & Tsoi, K. K. F. (2018). The safety of mindfulness-based interventions: A systematic review of randomized controlled trials. *Mindfulness*, 9(5), 1344–1357. https://doi.org/10.1007/s12671-018-0897-0
- Zaki, J. (2020). Integrating empathy and interpersonal emotion regulation. *Annual Review of Psychology*, 71, 517–540. https://doi.org/10.1146/annurev-psych-010419-050830

SUPPORTING INFORMATION

Additional Supporting Information may be found in the online version of this article: **Appendix S1**. Search terms (period April 2019 until July 2020).