The Impact of Mindfulness Meditation Programs on Performance-Related Outcomes

Appendixes G–L

KIMBERLY A. HEPNER, ERIKA LITVIN BLOOM, SYDNE NEWBERRY, JESSICA L. SOUSA, KAREN CHAN OSILLA, MARIKA BOOTH, ARMENDA BIALAS, CAROLYN M. RUTTER

Prepared for the United States Army
Approved for public release; distribution unlimited

For more information on this publication, visit **www.rand.org/t/RRA1522-1**.

Published by the RAND Corporation, Santa Monica, Calif.

About These Appendixes

This document presents Appendixes G–L of the report *The Impact of Mindfulness Meditation Programs on Performance-Related Outcomes: Implications for the U.S. Army* (available at www.rand.org/t/RRA1522-1). The report provides an overview of the purpose of mindfulness meditation programs, an overview of the methods used to conduct a systematic review and meta-analyses of the literature on these programs, a summary of the findings, and recommendations for the U.S. Army to inform its decisionmaking regarding the implementation of such programs to support readiness and resilience among soldiers and their families.

The systematic literature review identified studies of mindfulness meditation programs that addressed one or more of 13 outcomes that are relevant to soldier performance: attention/concentration; decisionmaking; emotion regulation; impulse control/impulsivity; and work-related absenteeism, accidents, communication skills, interpersonal conflict, morale, productivity, social support, teamwork, and turnover. This document supplements the main report and the first five appendixes with additional details:

- Appendix G presents the full details of the literature search strategy, including databases searched, search terms, and time periods covered.
- Appendix H presents a complete evidence table for the 106 studies included in the systematic review.
- Appendix I catalogs the outcome measures and tracks the number of studies that used each measure.
- Appendix J provides a detailed assessment of the quality of each included study.
- Appendix K presents results of the authors' analysis to detect publication bias, which did not indicate evidence of publication bias in the studies included in the systematic review.
- Appendix L includes technical details of the supplemental meta-analysis of data presented in an existing systematic review of the effect of mindfulness meditation on stress.

This report is sponsored by U.S. Army G-1, Personnel. This research was conducted within RAND Arroyo Center's Personnel, Training, and Health Program. RAND Arroyo Center, part of the RAND Corporation, is a federally funded research and development center (FFRDC) sponsored by the United States Army.

RAND operates under a "Federal-Wide Assurance" (FWA00003425) and complies with the *Code of Federal Regulations for the Protection of Human Subjects Under United States Law* (45 CFR 46), also known as "the Common Rule," as well as with the implementation guidance set forth in Department of Defense (DoD) Instruction 3216.02. As applicable, this compliance includes reviews and approvals by RAND's Institutional Review Board (the Human Subjects Protection Committee) and by the U.S. Army. The views of sources utilized in this study are solely their own and do not represent the official policy or position of DoD or the U.S. Government.

Contents

About These Appendixes iii
Figure and Tables vii

APPENDIX G
Search Strategies 1

APPENDIX H
Evidence Table of Studies Included in the Systematic Review 11

APPENDIX I
Outcome Measures in Included Studies 191

APPENDIX J
Individual Study Quality 193

APPENDIX K
Assessment of Publication Bias 205

APPENDIX L
Technical Details on Modifications to the Meta-Analysis of the Effect of Mindfulness Meditation on Stress 213

Abbreviations 217
References 219

Figure and Tables

Figure

L.1. Estimates of the Effect of Mindfulness Meditation on Stress 214

Tables

H.1 Evidence Table of Studies Included in the Systematic Review..... 11
I.1. Measures Used to Assess Outcomes Evaluated in Included Studies..... 191
J.1. Study Quality of Each Randomized Controlled Trial Included in the Systematic Review 195
J.2. Study Quality of Each Non-Randomized Study Included in the Systematic Review..... 203
K.1. Publication Bias: Attention Outcomes..... 206
K.2. Publication Bias: Emotion Regulation, Impulsivity, and Work-Related Outcomes 209

APPENDIX G

Search Strategies

In this appendix, we provide the search strategy implemented for each database included in our systematic review.

Allied and Complementary Medicine Database (AMED) (Dialog)

PERIOD COVERED
2000 to August 30, 2020

LANGUAGE
English

SEARCH STRATEGY
Mindful* OR mbsr OR mbct OR m-bct OR meditat* OR Vipassana OR sapatthana OR anapanasa OR Zen OR Pranayama OR Sudarshan OR Kriya OR Zazen OR Shambhala OR buddis* OR "loving kindness"
AND
((work* OR employ* OR job OR occupation*) AND (morale OR teamwork OR "team work" OR "social support*" OR "communication skill*" OR "skilled communication*" OR "interpersonal conflict*" OR accident*)) OR (safety OR error* OR injur* OR retain* OR retention OR attention OR concentra* or "self control" OR inhibit* OR cognition OR "cognitive abilit*" OR "cognitive function*" OR "cognitive resilienc*" OR productiv* OR efficien* OR "decision making" OR "emotion regulation*" OR "emotion self regulation*" OR "regulating emotion*" OR impuls* OR absentee* OR turnover)
AND
(random* OR rct OR rcts OR "Randomized Controlled Trials" OR "Randomized Clinical Trials" OR "controlled study" OR "single arm" OR "prospective cohort" OR "cohort study" OR "cohort comparison" OR "Cohort Analysis" OR "pre-post" OR "pre/post" OR "before/after" OR "before-after" OR "comparative study" OR "systematic review" OR meta-analy* OR metaanaly*)

Business Source Complete (EBSCO Platform)

PERIOD COVERED
2000 to August 26, 2020

LANGUAGE
English

SEARCH STRATEGY

(TI (Mindful* OR mbsr OR mbct OR m-bct OR meditat* OR Vipassana OR satipatthana OR anapanasati OR Zen OR Pranayama OR Sudarshan OR Kriya OR Zazen OR Shambhala OR buddis* OR "loving kindness") OR AB(Mindful* OR mbsr OR mbct OR m-bct OR meditat* OR Vipassana OR satipatthana OR anapanasati OR Zen OR Pranayama OR Sudarshan OR Kriya OR Zazen OR Shambhala OR buddis* OR "loving kindness")
AND
(DE "Decision Making" OR DE "personnel changes" OR DE "personnel management" OR DE "Job Absenteeism" OR DE "work-related injuries")
OR
((TI (work* OR employ* OR job OR occupation*) OR AB (work* OR employ* OR job OR occupation*)) AND (TI (morale OR "teamwork" OR "team work" OR "social support*" OR "communication skill*" OR "skilled communication*" OR "interpersonal conflict*" OR accident*) OR AB (morale OR "teamwork" OR "team work" OR "social support*" OR "communication skill*" OR "skilled communication*" OR "interpersonal conflict*" OR accident*)))
OR
((TI (work* OR employ* OR job OR occupation*) OR AB (work* OR employ* OR job OR occupation*)) AND (DE "INTERPERSONAL communication")
OR
TI (safety OR error* OR injur* OR retain* OR retention OR attention OR concentrat* OR "self-control" OR inhibit* OR cognition OR "cognitive abilit*" OR "cognitive function*" OR "cognitive resilienc*" OR productiv* OR efficien* OR "decision making" OR "emotion regulation*" OR "emotion self-regulation*" OR "emotional regulation*" OR "emotional self-regulation*" OR "regulating emotion*" OR impuls* OR absentee* OR turnover) OR AB(safety OR error* OR injur* OR retain* OR retention OR attention OR concentrat* OR "self-control" OR inhibit* OR cognition OR "cognitive abilit*" OR "cognitive function*" OR "cognitive resilienc*" OR productiv* OR efficien* OR "decision making" OR "emotion regulation*" OR "emotion self-regulation*" OR "emotional regulation*" OR "emotional self-regulation*" OR "regulating emotion*" OR impuls* OR absentee* OR turnover)
AND
random* OR rct OR rcts OR DE "Randomized Controlled Trials" OR DE "Randomized Clinical Trials" OR "controlled study" OR "single arm" OR "prospective cohort" OR "cohort study" OR "cohort comparison" OR DE "Cohort Analysis" OR "pre-post" OR "pre/post" OR "before/after" OR "before-after" OR "comparative study" OR "systematic review" OR meta-analy* OR metaanaly* OR (assign* AND group*) OR ((cohort* OR participant*) AND recruit*)

Cochrane Central Register of Controlled Trials (CENTRAL) (Wiley Platform)

PERIOD COVERED

2000 to August 28, 2020

LANGUAGE

English

SEARCH STRATEGY
(Mindful* OR mbsr OR mbct OR m-bct OR meditat* OR Vipassana OR sapatthana OR anapanasa OR Zen OR Pranayama OR Sudarshan OR Kriya OR Zazen OR Shambhala OR buddis* OR "loving kindness"):ti,ab OR [mh Mindfulness] OR [mh Meditation]
AND
((work* OR employ* OR job OR occupation*):ti,ab OR ([mh Workplace] OR [mh Employment]))
AND ((morale OR teamwork OR "team work" OR "social support*" OR "communication skill*" OR "skilled communication*" OR "interpersonal conflict*" OR accident*):ti,ab OR [mh Morale] OR [mh "Social Support"] OR [mh Communication])
OR
(safety OR error* OR injur* OR retain* OR retention OR attention OR concentra* or "self control" OR inhibit* OR cognition OR "cognitive abilit*" OR "cognitive function*" OR "cognitive resilienc*" OR productiv* OR efficien* OR "decision making" OR "emotion regulation*" OR "emotion self regulation*" OR "regulating emotion*" OR impuls* OR absentee* OR turnover):ti,ab OR [mh "Attention"] OR [mh "Personnel Turnover"] OR [mh "Efficiency"] OR [mh "Decision Making"] OR [mh "Emotional Regulation"] OR [mh "Impulsive Behavior"] OR [mh "Absenteeism"] OR MeSH descriptor: [Accidents, Occupational] explode all trees
AND
(random* OR rct OR rcts OR "Randomized Controlled Trials" OR "Randomized Clinical Trials" OR "controlled study" OR "single arm" OR "prospective cohort" OR "cohort study" OR "cohort comparison" OR "Cohort Analysis" OR "pre-post" OR "pre/post" OR "before/after" OR "before-after" OR "comparative study" OR "systematic review" OR meta-analy* OR metaanaly*) OR ((assign*):ti,ab AND (group*):ti,ab) OR ((cohort* OR participant*):ti,ab AND (recruit*):ti,ab) OR [mh "cohort studies"] OR [mh "Randomized Controlled Trials as Topic"]

Cochrane Database of Systematic Reviews (Wiley Platform)

PERIOD COVERED
2000 to August 28, 2020

LANGUAGE
English

SEARCH STRATEGY
(Mindful* OR mbsr OR mbct OR m-bct OR meditat* OR Vipassana OR sapatthana OR anapanasa OR Zen OR Pranayama OR Sudarshan OR Kriya OR Zazen OR Shambhala OR buddis* OR "loving kindness"):ti,ab OR [mh Mindfulness] OR [mh Meditation]
AND
((work* OR employ* OR job OR occupation*):ti,ab OR ([mh Workplace] OR [mh Employment]))
AND ((morale OR teamwork OR "team work" OR "social support*" OR "communication skill*" OR "skilled communication*" OR "interpersonal conflict*" OR accident*):ti,ab OR [mh Morale] OR [mh "Social Support"] OR [mh Communication])
OR
(safety OR error* OR injur* OR retain* OR retention OR attention OR concentra* or "self control" OR inhibit* OR cognition OR "cognitive abilit*" OR "cognitive function*" OR "cognitive resilienc*" OR productiv* OR efficien* OR "decision making" OR "emotion regulation*" OR "emotion self regulation*" OR "regulating emotion*" OR impuls* OR absentee* OR turnover):ti,ab OR [mh "Attention"] OR [mh "Personnel Turnover"]

OR [mh "Efficiency"] OR [mh "Decision Making"] OR [mh "Emotional Regulation"] OR [mh "Impulsive Behavior"] OR [mh "Absenteeism"] OR MeSH descriptor: [Accidents, Occupational] explode all trees
AND
(random* OR rct OR rcts OR "Randomized Controlled Trials" OR "Randomized Clinical Trials" OR "controlled study" OR "single arm" OR "prospective cohort" OR "cohort study" OR "cohort comparison" OR "Cohort Analysis" OR "pre-post" OR "pre/post" OR "before/after" OR "before-after" OR "comparative study" OR "systematic review" OR meta-analy* OR metaanaly*) OR ((assign*):ti,ab AND (group*):ti,ab) OR ((cohort* OR participant*):ti,ab AND (recruit*):ti,ab) OR [mh "cohort studies"] OR [mh "Randomized Controlled Trials as Topic"]

Cumulative Index to Nursing and Allied Health Literature (CINAHL) (EBSCO Platform)

PERIOD COVERED
2000 to August 26, 2020

LANGUAGE
English

SEARCH STRATEGY
(MH "Mindfulness" OR MH "Meditation" OR TI (Mindful* OR mbsr OR mbct OR m-bct OR meditat* OR Vipassana OR satipatthana OR anapanasati OR Zen OR Pranayama OR Sudarshan OR Kriya OR Zazen OR Shambhala OR buddis* OR "loving kindness") OR AB (Mindful* OR mbsr OR mbct OR m-bct OR meditat* OR Vipassana OR satipatthana OR anapanasati OR Zen OR Pranayama OR Sudarshan OR Kriya OR Zazen OR Shambhala OR buddis* OR "loving kindness")
AND
(MH "Decision Making+" OR MH "Attention+" OR MH "Emotional Regulation" OR MH "Impulsive Behavior" OR MH "personnel turnover" OR MH "Organizational Efficiency" OR MH "Absenteeism" OR MH "Accidents, Occupational")
OR
((TI (work* OR employ* OR job OR occupation*) OR AB (work* OR employ* OR job OR occupation*)) AND (TI(morale OR "teamwork" OR "team work" OR "social support*" OR "communication skill*" OR "skilled communication*" OR "interpersonal conflict*" OR accident*) OR AB (morale OR "teamwork" OR "team work" OR "social support*" OR "communication skill*" OR "skilled communication*" OR "interpersonal conflict*" OR accident*)))
OR
((TI (work* OR employ* OR job OR occupation*) OR AB (work* OR employ* OR job OR occupation*)) AND (MH "Communication+")
OR
TI (safety OR error* OR injur* OR retain* OR retention OR attention OR concentrat* OR "self-control" OR inhibit* OR cognition OR "cognitive abilit*" OR "cognitive function*" OR "cognitive resilienc*" OR productiv* OR efficien* OR "decision making" OR "emotion regulation*" OR "emotion self-regulation*" OR "emotional regulation*" OR "emotional self-regulation*" OR "regulating emotion*" OR impuls* OR absentee* OR turnover) OR AB (safety OR error* OR injur* OR retain* OR retention OR attention OR concentrat* OR "self-control" OR inhibit* OR cognition OR "cognitive abilit*" OR "cognitive function*" OR "cogni-

tive resilienc*" OR productiv* OR efficien* OR "decision making" OR "emotion regulation*" OR "emotion self-regulation*" OR "emotional regulation*" OR "emotional self-regulation*" OR "regulating emotion*" OR impuls* OR absentee* OR turnover)
AND
random* OR rct OR rcts OR DE "Randomized Controlled Trials" OR DE "Randomized Clinical Trials" OR "controlled study" OR "single arm" OR "prospective cohort" OR "cohort study" OR "cohort comparison" OR DE "Cohort Analysis" OR "pre-post" OR "pre/post" OR "before/after" OR "before-after" OR "comparative study" OR "systematic review" OR meta-analy* OR metaanaly* OR (assign* AND group*) OR ((cohort* OR participant*) AND recruit*) OR PT "clinical trial" OR PT "systematic review" OR PT "meta analysis")

Defense Technical Information Center (DTIC)

CITATION SEARCH TERM (CST) Query
Technical Reports and Projects

PERIOD COVERED
2000 to August 31, 2020

LANGUAGE
English

SEARCH STRATEGY
(mindful* OR MBSR OR MBCT OR "M-BCT" OR meditat* OR Vipassana OR Sapatthana OR Anapanasa OR Zen OR Pranayama OR Sudarshan OR Kriya OR Zazen OR Shambhala OR Buddhis* OR "loving kindness")
AND
(work* morale OR work* teamwork OR work* "team work" OR work* "social support*" OR work* "communication skill*" OR work* "skilled communication*" OR work* "interpersonal conflict*" OR work* accident* OR employ* morale OR employ* teamwork OR employ* "team work" OR employ* "social support*" OR employ* "communication skill*" OR employ* "skilled communication*" OR employ* "interpersonal conflict*" OR employ* accident* OR job morale OR job teamwork OR job "team work" OR job "social support*" OR job "communication skill*" OR job "skilled communication*" OR job "interpersonal conflict*" OR job accident* OR occupation* morale OR occupation* teamwork OR occupation* "team work" OR occupation* "social support*" OR occupation* "communication skill*" OR occupation* "skilled communication*" OR occupation* "interpersonal conflict*" OR occupation* accident* OR safety OR error* OR injur* OR retain* OR retention OR attention OR concentra* OR "self-control" OR inhibit* OR cognition OR "cognitive abilit*" OR "cognitive function*" OR "cognitive resilienc*" OR productiv* OR efficien* OR "decision making" OR "emotion regulation*" OR "emotion self-regulation*" OR "regulating emotion*" OR impuls* OR absentee* OR turnover)
AND
(random* OR RCTs OR "randomized controlled trials" OR "randomized clinical trials" OR "controlled study" OR "single arm" OR "prospective cohort" OR "cohort study" OR "cohort comparison" OR "cohort analysis" OR "pre-post" OR "pre/post" OR "before/after" OR "before-after" OR "comparative study" OR "systematic review" OR "meta-analy*" OR metaanaly* OR (assign* AND group*) OR (cohort* AND recruit*) OR (participant* AND recruit*))

PsycINFO (EBSCO Platform)

PERIOD COVERED
2000 to August 26, 2020

LANGUAGE
English

OTHER LIMITERS
Age groups: adulthood (18 yrs & older), young adulthood (18–29 yrs), thirties (30–39 yrs), middle age (40–64 yrs), aged (65 yrs & older), very old (85 yrs & older); phrase searching

SEARCH STRATEGY
(DE "Mindfulness" OR DE "Mindfulness-Based Interventions" OR DE "Meditation" OR TI (Mindful* OR mbsr OR mbct OR m-bct OR meditat* OR Vipassana OR satipatthana OR anapanasati OR Zen OR Pranayama OR Sudarshan OR Kriya OR Zazen OR Shambhala OR buddis* OR "loving kindness") OR AB (Mindful* OR mbsr OR mbct OR m-bct OR meditat* OR Vipassana OR satipatthana OR anapanasati OR Zen OR Pranayama OR Sudarshan OR Kriya OR Zazen OR Shambhala OR buddis* OR "loving kindness")
AND
(DE "Decision Making" OR DE "Choice Behavior" OR DE "Group Decision Making" OR DE "Management Decision Making" OR DE "Attention" OR DE "Attentional Capture" OR DE "Distraction" OR DE "Divided Attention" OR DE "Focused Attention" OR DE "Monitoring" OR DE "Selective Attention" OR DE "Sustained Attention" OR DE "Vigilance" OR DE "Visual Attention" OR DE "Emotional Regulation" OR DE "Impulsiveness" OR DE "Employee Efficiency" OR DE "Employee Absenteeism" OR DE "Tardiness" OR DE "Employee Turnover" OR DE "Industrial Accidents")
OR
((TI (work* OR employ* OR job OR occupation*) OR AB(work* OR employ* OR job OR occupation*)) AND (TI (morale OR "teamwork" OR "team work" OR "social support*" OR "communication skill*" OR "skilled communication*" OR "interpersonal conflict*" OR accident*) OR AB(morale OR "teamwork" OR "team work" OR "social support*" OR "communication skill*" OR "skilled communication*" OR "interpersonal conflict*" OR accident*)))
OR
((TI (work* OR employ* OR job OR occupation*) OR AB(work* OR employ* OR job OR occupation*)) AND (DE "Communication" OR DE "Augmentative Communication" OR DE "Communication Barriers" OR DE "Electronic Communication" OR DE "Interpersonal Communication" OR DE "Messages" OR DE "Nonverbal Communication" OR DE "Obscenity" OR DE "Persuasive Communication" OR DE "Privileged Communication" OR DE "Social Communication" OR DE "Verbal Communication" OR DE "Social Support" OR DE "Morale" OR DE "Demoralization"))
OR
TI (safety OR error* OR injur* OR retain* OR retention OR attention OR concentrat* OR "self-control" OR inhibit* OR cognition OR "cognitive abilit*" OR "cognitive function*" OR "cognitive resilienc*" OR productiv* OR efficien* OR "decision making" OR "emotion regulation*" OR "emotion self-regulation*" OR "emotional regulation*" OR "emotional self-regulation*" OR "regulating emotion*" OR impuls* OR absentee* OR turnover) OR AB (safety OR error* OR injur* OR retain* OR retention OR attention OR concentrat* OR "self-control" OR inhibit* OR cognition OR "cognitive abilit*" OR "cognitive function*" OR "cogni-

tive resilienc*" OR productiv* OR efficien* OR "decision making" OR "emotion regulation*" OR "emotion self-regulation*" OR "emotional regulation*" OR "emotional self-regulation*" OR "regulating emotion*" OR impuls* OR absentee* OR turnover)
AND
random* OR rct OR rcts OR DE "Randomized Controlled Trials" OR DE "Randomized Clinical Trials" OR "controlled study" OR "single arm" OR "prospective cohort" OR "cohort study" OR "cohort comparison" OR DE "Cohort Analysis" OR ""pre-post" OR "pre/post" OR "before/after" OR "before-after" OR "comparative study" OR systematic review" OR meta-analy* OR metaanaly* OR (assign* AND group*) OR ((cohort* OR participant*) AND recruit*) OR MR clinical trial" OR MR "systematic review" OR MR "meta analysis")
OR
DE "Mindfulness" OR DE "Mindfulness-Based Interventions" OR DE "Meditation" OR TI (Mindful* OR mbsr OR mbct OR m-bct OR meditat* OR Vipassana OR satipatthana OR anapanasati OR Zen OR Pranayama OR Sudarshan OR Kriya OR Zazen OR Shambhala OR buddis* OR "loving kindness") OR AB(Mindful* OR mbsr OR mbct OR m-bct OR meditat* OR Vipassana OR satipatthana OR anapanasati OR Zen OR Pranayama OR Sudarshan OR Kriya OR Zazen OR Shambhala OR buddis* OR "loving kindness")
AND
(DE "Decision Making OR DE "Choice Behavior" OR DE "Group Decision Making" OR DE "Management Decision Making" OR DE "Attention" OR DE "Attentional Capture" OR DE "Distraction" OR DE "Divided Attention" OR DE "Focused Attention" OR DE "Monitoring" OR DE "Selective Attention" OR DE "Sustained Attention" OR DE "Vigilance" OR DE "Visual Attention" OR DE "Emotional Regulation" OR DE "Impulsiveness" OR DE "Employee Efficiency" OR DE "Employee Absenteeism" OR DE "Tardiness" OR DE "Employee Turnover" OR DE "Industrial Accidents")
OR
((TI (work* OR employ* OR job OR occupation*) OR AB(work* OR employ* OR job OR occupation*)) AND (TI (morale OR "teamwork" OR "eam work" OR "social support*" OR "communication skill*" OR "skilled communication*" OR "interpersonal conflict*" OR accident*) OR AB (morale OR "teamwork" OR "team work" OR "social support*" OR "communication skill*" OR "skilled communication*" OR "interpersonal conflict*" OR accident*)))
OR
((TI (work* OR employ* OR job OR occupation*) OR AB (work* OR employ* OR job OR occupation*)) AND (DE "Communication" OR DE "Augmentative Communication" OR DE "Communication Barriers" OR DE "Electronic Communication" OR DE "Interpersonal Communication" OR DE "Messages" OR DE "Nonverbal Communication" OR DE "Obscenity" OR DE "Persuasive Communication" OR DE "Privileged Communication" OR DE "Social Communication" OR DE "Verbal Communication" OR DE "Social Support" OR DE "Morale" OR DE "Demoralization"))
OR
TI (safety OR error* OR injur* OR retain* OR retention OR attention OR concentrat* OR "self-control" OR inhibit* OR cognition OR "cognitive abilit*" OR "cognitive function*" OR "cognitive resilienc*" OR productiv* OR efficien* OR "decision making" OR "emotion regulation*" OR "emotion self-regulation*" OR "emotional regulation*" OR "emotional self-regulation*" OR "regulating emotion*" OR impuls* OR absentee* OR turnover) OR AB (safety OR error* OR injur* OR retain* OR retention OR attention OR concentrat* OR "self-control" OR inhibit* OR cognition OR "cognitive abilit*" OR "cognitive function*" OR "cognitive resilienc*" OR productiv* OR efficien* OR "decision making" OR "emotion regulation*" OR "emotion self-regulation*" OR "emotional regulation*" OR "emotional self-regulation*" OR "regulating emotion*" OR impuls* OR absentee* OR turnover)
AND

random* OR rct OR rcts OR DE "Randomized Controlled Trials" OR DE "Randomized Clinical Trials" OR "controlled study" OR "single arm" OR "prospective cohort" OR "cohort study" OR "cohort comparison" OR DE "Cohort Analysis" OR "pre-post" OR "pre/post" OR "before/after" OR "before-after" OR "comparative study" OR "systematic review" OR meta-analy* OR metaanaly* OR (assign* AND group*) OR ((cohort* OR participant*) AND recruit*) OR MR "clinical trial" OR MR "systematic review" OR MR "meta analysis"
AND
PS(first posting)

PTSDPubs (Proquest Platform)

PERIOD COVERED
2000 to August 26, 2020

LANGUAGE
English

SEARCH STRATEGY
TI (Mindful* OR mbsr OR mbct OR m-bct OR meditat* OR Vipassana OR satipatthana OR anapanasati OR Zen OR Pranayama OR Sudarshan OR Kriya OR Zazen OR Shambhala OR buddis* OR "loving kindness")
OR
AB (Mindful* OR mbsr OR mbct OR m-bct OR meditat* OR Vipassana OR satipatthana OR anapanasati OR Zen OR Pranayama OR Sudarshan OR Kriya OR Zazen OR Shambhala OR buddis* OR "loving kindness")
AND
((TI (work* OR employ* OR job OR occupation*) OR AB (work* OR employ* OR job OR occupation*))
AND
(TI (morale OR "teamwork" OR "team work" OR "social support*" OR "communication skill*" OR "skilled communication*" OR "interpersonal conflict*" OR accident*) OR AB (morale OR "teamwork" OR "team work" OR "social support*" OR "communication skill*" OR "skilled communication*" OR "interpersonal conflict*" OR accident*))) OR TI(safety OR error* OR injur* OR retain* OR retention OR attention OR concentrat* OR "self-control" OR inhibit* OR cognition OR "cognitive abilit*" OR "cognitive function*" OR "cognitive resilienc*" OR productiv* OR efficien* OR "decision making" OR "emotion regulation*" OR "emotion self-regulation*" OR "emotional regulation*" OR "emotional self-regulation*" OR "regulating emotion*" OR impuls* OR absentee* OR turnover) OR AB (safety OR error* OR injur* OR retain* OR retention OR attention OR concentrat* OR "self-control" OR inhibit* OR cognition OR "cognitive abilit*"
OR
"cognitive function*" OR "cognitive resilienc*" OR productiv* OR efficien* OR "decision making" OR "emotion regulation*" OR "emotion self-regulation*" OR "emotional regulation*" OR "emotional self regulation*" OR "regulating emotion*" OR impuls* OR absentee* OR turnover)
AND
random* OR rct OR rcts OR DE "Randomized Controlled Trials" OR "Randomized Clinical Trials" OR "controlled study" OR "single arm" OR "prospective cohort" OR "cohort study" OR "cohort comparison" OR DE "Cohort Analysis" OR "pre-post" OR "pre/post" OR "before/after" OR "before-after" OR "comparative study" OR "systematic review" OR meta-analy* OR metaanaly* OR (assign* AND group*) OR ((cohort* OR participant*) AND recruit*)

PubMed

PERIOD COVERED
2000 to August 26, 2020

LANGUAGE
English

SEARCH STRATEGY
"Mindfulness"[Mesh] OR Meditation[Mesh] OR Mindful*[title/abstract] OR mbsr[tiab] OR mbct[tiab] OR m-bct[tiab] OR meditat*[tiab] OR Vipassana[tiab] OR satipatthana[tiab] OR anapanasati[title/abstract] OR Zen[tiab] OR Pranayama[tiab] OR Sudarshan[title/abstract] OR Kriya[tiab] OR Zazen[tiab] OR Shambhala[title/abstract] OR buddis*[tiab] OR "loving kindness"[tiab]
AND
"decision making"[tiab] OR "Decision Making"[Mesh] OR attention[title/abstract] OR concentrat*[tiab] OR "Attention"[Mesh] OR "emotion regulation*"[tiab] OR "emotion self-regulation*"[tiab] OR "emotional regulation*"[tiab] OR "emotional self-regulation*"[tiab] OR "regulating emotion*"[tiab] OR "Emotional Regulation"[Mesh] OR impuls*[title/abstract] OR "Impulsive Behavior"[Mesh] OR "self-control"[title/abstract] OR inhibit*[tiab] OR cognition[tiab] OR "cognitive abilit*"[tiab] OR "cognitive function*"[tiab] OR "cognitive resilienc*"[tiab] OR productiv*[tiab] OR efficien*[tiab] OR "Efficiency"[Mesh] OR absentee*[tiab] OR "Absenteeism"[Mesh] OR turnover[tiab] OR "Personnel Turnover" [Mesh]
OR
work*[tiab] OR employ*[tiab] OR job[tiab] OR occupation*[tiab] OR "Workplace"[Mesh] OR "Employment"[Mesh]) AND morale[tiab] OR "Morale"[Mesh] OR "teamwork"[tiab] OR "team work"[tiab] OR "social support*"[tiab] OR "Social Support"[Mesh] OR "communication skill*"[tiab] OR "skilled communication*"[tiab] OR "Communication"[Mesh] OR "interpersonal conflict*"[tiab] OR accident*[tiab]
OR
"Accidents, Occupational"[Mesh] OR safety[tiab] OR error*[tiab] OR injur*[tiab] OR retain*[tiab] OR retention[tiab]
AND
random* OR rct OR rcts OR randomized controlled trial*[pt] OR "Randomized Controlled Trials as Topic"[Mesh] OR "controlled study" OR "single arm" OR "prospective cohort" OR "cohort study" OR "cohort comparison" OR "cohort studies"[Mesh] OR "pre-post" OR "pre/post" OR "before/after: OR "before-after" OR "comparative study" OR Systematic[sb] OR systematic review[pt] OR meta-analy* OR metaanaly* OR assign*[tiab] AND group*[tiab] OR cohort*[tiab] OR participant*[tiab]) AND recruit*[tiab]

(children/adolescents removed at end)

Web of Science

Indexes: SCI-EXPANDED, SSCI, A&HCI

PERIOD COVERED
2000 to August 27, 2020

LANGUGE
English

SEARCH STRATEGY
TS = (Mindful* OR mbsr OR mbct OR m-bct OR meditat* OR Vipassana OR sapatthana OR anapanasa OR Zen
OR Pranayama OR Sudarshan OR Kriya OR Zazen OR Shambhala OR buddis* OR "loving kindness")
AND
(TS = (work* OR employ* OR job OR occupation*) AND TS = (morale OR "teamwork" OR "team work" OR "social support*" OR "communication skill*" OR "skilled communication*" OR "interpersonal conflict*" OR
accident*)) OR TS = (safety OR error* OR injur* OR retain* OR retention OR attention OR concentrat* OR "self-control" OR inhibit* OR cognition OR "cognitive abilit*" OR "cognitive function*" OR "cognitive resilienc*" OR productiv* OR efficien* OR "decision making" OR "emotion regulation*" OR "emotion self regulation*" OR "emotional regulation*" OR "emotional self-regulation*" OR "regulating emotion*" OR impuls* OR absentee* OR turnover)
AND
TS = (random* OR rct OR rcts OR "Randomized Controlled Trials" OR "Randomized Clinical Trials" OR "controlled study" OR "single arm" OR "prospective cohort" OR "cohort study" OR "cohort comparison" OR "Cohort Analysis" OR "pre-post" OR "pre/post" OR "before/after" OR "before-after" OR "comparative study" OR "systematic review" OR meta-analy* OR metaanaly*) OR (TS = (assign*) AND TS = (group*)) OR
(TS = (cohort* OR participant*) AND TS = recruit*)

APPENDIX H

Evidence Table of Studies Included in the Systematic Review

The evidence table (Table H.1) presents the study-level details and the findings for each study included in the systematic review. Studies are ordered alphabetically by study ID (all randomized controlled trials first, then non-randomized studies), and the results for some studies run across multiple pages.

TABLE H.1
Evidence Table of Studies Included in the Systematic Review

Study Details	Participants	Intervention	Outcome
Randomized controlled trials			
Study ID: Adhikari, 2018 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Unclear Country: India	Number randomized or enrolled: 90 Population (description): University students Population (civilian, military): Non-military Mean age (standard deviation [SD]) or age range: 21.5 (2.2) Percent female: 54.1 Inclusion criteria: Functional English proficiency Exclusion criteria: Self-reported practice of any form of meditation or any other therapeutic activity (e.g., yoga, psychotherapy) in the past 3 months, self-reported medical or mental illness	Setting: Community Intervention type: Mindfulness meditation training Dosage, duration: Multiple sessions (6); number of program weeks: 0.9; total number of program hours: 2.5 Delivery mode: In-person Intervention format: Group Comparator type: Active	**Attention/concentration: Cogstate identification task mean of the log 10 transformation of reaction time (RT) for correct response (log 10 milliseconds [ms])** Intervention 1: Mindfulness meditation training—Vipassana meditation, *n* = 34; Mean (SD) at post-intervention: 2.7 (0.05) Control 1: Active, reading or listening to music, *n* = 37; Mean (SD) at post-intervention: 2.7 (0.07) Intervention 1 vs. control 1 Standardized mean difference (SMD) (95% confidence interval [CI]): 0.32 (−0.14, 0.79)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Ainsworth, 2013 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Medical Research Council, Economic and Social Research Council Country: United Kingdom	Number randomized or enrolled: 76 Population (description): Adults Population (civilian, military): Non-military Mean age (SD) or age range: 20.3 (4.1) Percent female: 86.8 Inclusion criteria: Young adults, no prior meditation experience Exclusion criteria: Outliers on self-report generalized trait anxiety	Setting: School Intervention type 1: Focused-attention meditation Dosage, duration: Multiple sessions (3); number of program weeks: 1.1; total number of program hours: 3 Delivery mode: In-person Intervention format: Group Intervention type 2: Open-monitoring meditation Dosage, duration: Multiple sessions (3); number of program weeks: 1.1; total number of program hours: 3 Delivery mode: In-person Intervention format: Group Comparator type: Passive, no intervention/treatment	**Attention/concentration: Attention Network Test (ANT) alerting network RT—difference score** Intervention 1: Focused-attention meditation, *n* = 24; Mean (SD) at post-intervention: 53.2 (33.1) Intervention 2: Open-monitoring meditation, *n* = 25; Mean (SD) at post-intervention: 49.4 (40.5) Control 1: Passive, no intervention/ treatment, *n* = 24; Mean (SD) at post-intervention: 50.9 (32.8) Intervention 1 vs. control 1 SMD (95% CI): 0.07 (–0.49, 0.63) Intervention 2 vs. control 1 SMD (95% CI): –0.04 (–0.59, 0.51) **Attention/concentration: ANT alerting network RT—difference score (negative)** Intervention 1: Focused-attention meditation, *n* = 24; Mean (SD) at post-intervention: 54.1 (35.6) Intervention 2: Open-monitoring meditation, *n* = 25; Mean (SD) at post-intervention: 46.8 (39.2) Control 1: Passive, no intervention, *n* = 24; Mean (SD) at post-intervention: 52.1 (27.7) Intervention 1 vs. control 1 SMD (95% CI): 0.06 (–0.49, 0.62) Intervention 2 vs. control 1 SMD (95% CI): –0.15 (–0.71, 0.40)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Ainsworth, 2013 (cont.)			**Attention/concentration: ANT alerting network RT—difference score (neutral)** Intervention 1: Focused-attention meditation, *n* = 24; Mean (SD) at post-intervention: 50.7 (32.1) Intervention 2: Open-monitoring meditation, *n* = 25; Mean (SD) at post-intervention: 50.0 (36.0) Control 1: Passive, no intervention, *n* = 24; Mean (SD) at post-intervention: 54.7 (29.4) Intervention 1 vs. control 1 SMD (95% CI): −0.13 (−0.68, 0.43) Intervention 2 vs. control 1 SMD (95% CI): −0.14 (−0.69, 0.41) **Attention/concentration: ANT executive network RT—difference score** Intervention 1: Focused-attention meditation, *n* = 24; Mean (SD) at post-intervention: 91.3 (28.9) Intervention 2: Open-monitoring meditation, *n* = 25; Mean (SD) at post-intervention: 70.9 (24.8) Control 1: Passive, no intervention, *n* = 24; Mean (SD) at post-intervention: 103.5 (39.4) Intervention 1 vs. control 1 SMD (95% CI): 0.35 (−0.21, 0.91) Intervention 2 vs. control 1 SMD (95% CI): 0.98 (0.39, 1.56)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Ainsworth, 2013 (cont.)			**Attention/concentration: ANT executive network RT—difference score (negative)** Intervention 1: Focused-attention meditation, *n* = 24; Mean (SD) at post-intervention: 94.1 (45.2) Intervention 2: Open-monitoring meditation, *n* = 25; Mean (SD) at post-intervention: 76.6 (27.7) Control 1: Passive, no intervention, *n* = 24; Mean (SD) at post-intervention: 95.8 (33.2) Intervention 1 vs. control 1 SMD (95% CI): 0.04 (–0.51, 0.60) Intervention 2 vs. control 1 SMD (95% CI): 0.62 (0.05, 1.18) **Attention/concentration: ANT executive network RT—difference score (neutral)** Intervention 1: Focused-attention meditation, *n* = 24; Mean (SD) at post-intervention: 83.9 (27.6) Intervention 2: Open-monitoring meditation, *n* = 25; Mean (SD) at post-intervention: 66.4 (30.4) Control 1: Passive, no intervention, *n* = 24; Mean (SD) at post-intervention: 92.0 (44.5) Intervention 1 vs. control 1 SMD (95% CI): 0.22 (–0.34, 0.77) Intervention 2 vs. control 1 SMD (95% CI): 0.66 (0.10, 1.23)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Ainsworth, 2013 (cont.)			**Attention/concentration: ANT orienting network RT—difference score** Intervention 1: Focused-attention meditation, *n* = 24; Mean (SD) at post-intervention: 28.1 (20.6) Intervention 2: Open-monitoring meditation, *n* = 25; Mean (SD) at post-intervention: 19.8 (26.2) Control 1: Passive, no intervention, *n* = 24; Mean (SD) at post-intervention: 29.2 (32.7) Intervention 1 vs. control 1 SMD (95% CI): −0.04 (−0.60, 0.52) Intervention 2 vs. control 1 SMD (95% CI): −0.31 (−0.87, 0.24) **Attention/concentration: ANT orienting network RT—difference score (negative)** Intervention 1: Focused-attention meditation, *n* = 24; Mean (SD) at post-intervention: 24.3 (22.4) Intervention 2: Open-monitoring meditation, *n* = 25; Mean (SD) at post-intervention: 30.1 (32.1) Control 1: Passive, no intervention, *n* = 24; Mean (SD) at post-intervention: 21.1 (27.7) Intervention 1 vs. control 1 SMD (95% CI): 0.12 (−0.43, 0.68) Intervention 2 vs. control 1 SMD (95% CI): 0.29 (−0.26, 0.85)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Ainsworth, 2013 (cont.)			**Attention/concentration: ANT orienting network RT—difference score (neutral)** Intervention 1: Focused-attention meditation, *n* = 24; Mean (SD) at post-intervention: 26.7 (22.0) Intervention 2: Open-monitoring meditation, *n* = 25; Mean (SD) at post-intervention: 31.9 (24.4) Control 1: Passive, no intervention, *n* = 24; Mean (SD) at post-intervention: 32.3 (31.6) Intervention 1 vs. control 1 SMD (95% CI): −0.20 (−0.76, 0.36) Intervention 2 vs. control 1 SMD (95% CI): −0.01 (−0.57, 0.54)
Study ID: Ainsworth, 2017 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Medical Research Council (United Kingdom) Country: United Kingdom	Number randomized or enrolled: 77 Population (description): Adults Population (civilian, military): Non-military Mean age (SD) or age range: 20.5 (2.9) Percent female: 76.0 Inclusion criteria: Not reported Exclusion criteria: Current practitioners of mindfulness	Setting: Virtual Intervention type 1: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.17 Delivery mode: Virtual asynchronous Intervention format: Individual Intervention type 2: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.17 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type: Active	**Attention/concentration: Attentional Control Scale** Intervention 1: Mindfulness analogue intervention or induction—focused-attention meditation, *n* = 26 Intervention 2: Mindfulness analogue intervention or induction—open-monitoring and acceptance meditation, *n* = 23 Control 1: Active, 10-minute progressive muscle relaxation, *n* = 24 Intervention 1 vs. control 1 No usable data reported Intervention 2 vs. control 1 No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Allen, 2012 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: National Institutes of Health Country: Denmark	Number randomized or enrolled: 61 Population (description): Adults Population (civilian, military): Non-military Mean age (SD) or age range: 26.5 (not reported) Percent female: 55.3 Inclusion criteria: Meditation-naive, 18–50 years of age. expressed interest in receiving a wellness course, right-handed Exclusion criteria: Magnetic resonance imaging incompatibility (metallic implants, claustrophobia, etc.), prior experience with meditation, history of neurological or psychiatric disease, use of prescription drugs, use of recreational substances within 48 hours of measurement	Setting: Community Intervention type: Mindfulness meditation training Dosage, duration: Multiple sessions (6); number of program weeks: 6; total number of program hours: 12 Delivery mode: In-person Intervention format: Group Comparator type: Active	**Attention/concentration: Error awareness task** Intervention 1: Mindfulness meditation training, *n* = 19 Control 1: Active, shared reading and listening, *n* = 19 Intervention 1 vs. control 1 Time by group interaction from repeated measures analysis of variance (ANOVA) $F(1,36) < 1.0$ **Attention/concentration: Stop accuracy** Intervention 1: Mindfulness meditation training, *n* = 19 Control 1: Active, shared reading and listening, *n* = 19 Intervention 1 vs. control 1 Time by group interaction from repeated measures ANOVA $F(1,36) < 1.0$ **Emotion regulation: Affective Stroop RT (ms)** Intervention 1: Mindfulness meditation training, *n* = 19; Mean (SD) at post-intervention: 26.0 (13.1) Control 1: Active, shared reading and listening, *n* = 19; Mean (SD) at post-intervention: 36.0 (13.1) Intervention 1 vs. control 1 SMD (95% CI): 0.75 (0.10, 1.39)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Allexandre, 2016 Study design: Randomized controlled trial, individual Study quality rating: Fair Funding: Anonymous corporate employer Country: United States	Number randomized or enrolled: 161 Population (description): Corporate call center employees Population (civilian, military): Non-military Mean age (SD) or age range: 40.0 (12.6) Percent female: 83.2 Inclusion criteria: Corporate call center employees (debt collectors, customer service or fraud representatives), have regular internet access Exclusion criteria: Managers or supervisors	Setting: Workplace; virtual Intervention type 1: Stress Free Now Dosage, duration: Self-paced, online, or application-based; number of program weeks: 8; total number of program hours: 6 Delivery mode: Virtual asynchronous Intervention format: Individual Intervention type 2: Stress Free Now Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 14 Delivery mode: Mixed in-person and virtual Intervention format: Mixed individual and group Intervention type 3: Stress Free Now Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 14 Delivery mode: Mixed in-person and virtual Intervention format: Mixed individual and group Comparator type: Passive, waitlist	**Productivity: Company's monthly global measure of work performance** Intervention 1: Stress Free Now, *n* = 24; Mean (SD) at post-intervention: 2.7 (0.42) Intervention 2: Stress Free Now, *n* = 20; Mean (SD) at post-intervention: 2.7 (0.39) Intervention 3: Stress Free Now, *n* = 20; Mean (SD) at post-intervention: 2.7 (0.54) Control 1: Passive, waitlist, *n* = 21; Mean (SD) at post-intervention: 2.6 (0.49) Intervention 1 vs. control 1 SMD (95% CI): −0.09 (−0.66, 0.49) Intervention 2 vs. control 1 SMD (95% CI): −0.18 (−0.78, 0.43) Intervention 3 vs. control 1 SMD (95% CI): −0.04 (−0.64, 0.56)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Allexandre, 2016 (cont.)			**Productivity: Company's monthly global measure of work performance** Intervention 1: Stress Free Now, *n* = 22; Mean (SD) at 16 weeks after baseline: 2.3 (0.58) Intervention 2: Stress Free Now, *n* = 21; Mean (SD) at 16 weeks after baseline: 2.5 (0.76) Intervention 3: Stress Free Now, *n* = 21; Mean (SD) at 16 weeks after baseline: 2.6 (0.65) Control 1: Passive, waitlist, *n* = 24; Mean (SD) at 16 weeks after baseline: 2.7 (0.61) Intervention 1 vs. control 1 SMD (95% CI): 0.63 (0.04, 1.21) Intervention 2 vs. control 1 SMD (95% CI): 0.27 (–0.31, 0.85) Intervention 3 vs. control 1 SMD (95% CI): 0.14 (–0.44, 0.72)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Allexandre, 2016 (cont.)			**Productivity: Company's monthly global measure of work performance** Intervention 1: Stress Free Now, *n* = 23; Mean (SD) at 24 weeks after baseline: 2.4 (0.60) Intervention 2: Stress Free Now, *n* = 23; Mean (SD) at 24 weeks after baseline: 2.4 (0.63) Intervention 3: Stress Free Now, *n* = 21; Mean (SD) at 24 weeks after baseline: 2.4 (0.69) Control 1: Passive, waitlist, *n* = 25; Mean (SD) at 24 weeks after baseline: 2.5 (0.65) Intervention 1 vs. control 1 SMD (95% CI): 0.19 (–0.37, 0.75) Intervention 2 vs. control 1 SMD (95% CI): 0.21 (–0.34, 0.77) Intervention 3 vs. control 1 SMD (95% CI): 0.25 (–0.32, 0.82)
Study ID: Anderson, 2007 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Canadian Institutes of Health Research Country: Canada	Number randomized or enrolled: 86 Population (description): Adults Population (civilian, military): Non-military Mean age (SD) or age range: 39.2 (not reported) Percent female: Not reported Inclusion criteria: No prior experience of any form of meditation, yoga, tai-chi, or qigong Exclusion criteria: Not reported	Setting: Community Intervention type: Mindfulness-based stress reduction (MBSR) Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 16 Delivery mode: In-person Intervention format: Group Comparator type: Passive, waitlist	**Attention/concentration: Attention-switching task accuracy** Intervention 1: MBSR Control 1: Passive, waitlist, *n* = 33 Intervention 1 vs. control 1 No usable data reported **Attention/concentration: Attention-switching task non-switch RT (ms)** Intervention 1: MBSR, *n* = 39; Mean (SD) at post-intervention: 510.0 (124.9) Control 1: Passive, waitlist, *n* = 33; Mean (SD) at post-intervention: 500.0 (57.4) Intervention 1 vs. control 1 SMD (95% CI): –0.10 (–0.56, 0.36)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Anderson, 2007 (cont.)			**Attention/concentration: Attention-switching task stay RT within switch blocks (ms)** Intervention 1: MBSR, *n* = 39; Mean (SD) at post-intervention: 1,050.0 (124.9) Control 1: Passive, waitlist, *n* = 33; Mean (SD) at post-intervention: 1,020.0 (114.9) Intervention 1 vs. control 1 SMD (95% CI): –0.25 (–0.71, 0.21) **Attention/concentration: Attention-switching task switch RT (ms)** Intervention 1: MBSR, *n* = 39; Mean (SD) at post-intervention: 1,060.0 (187.3) Control 1: Passive, waitlist, *n* = 33; Mean (SD) at post-intervention: 1,030.0 (172.3) Intervention 1 vs. control 1 SMD (95% CI): –0.16 (–0.62, 0.30) **Attention/concentration: Continuous Performance Test RT** Intervention 1: MBSR, *n* = 39 Control 1: Passive, waitlist, *n* = 33 Intervention 1 vs. control 1 No usable data reported **Attention/concentration: Continuous Performance Test sustained attention target discrimination (hit rate minus false alarm rate)** Intervention 1: MBSR, *n* = 39 Control 1: Passive, waitlist, *n* = 33 Intervention 1 vs. control 1 No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Anderson, 2007 (cont.)			**Attention/concentration: Object detection task RT (object absent consistent)** Intervention 1: MBSR, *n* = 39; Mean (SD) at post-intervention: 2,200.0 (1,249.0) Control 1: Passive, waitlist, *n* = 32; Mean (SD) at post-intervention: 2,100.0 (1,131.4) Intervention 1 vs. control 1 SMD (95% CI): −0.08 (−0.55, 0.38) **Attention/concentration: Object detection task RT (object absent inconsistent)** Intervention 1: MBSR, *n* = 39; Mean (SD) at post-intervention: 2,600.0 (2,185.7) Control 1: Passive, waitlist, *n* = 32; Mean (SD) at post-intervention: 2,000.0 (1,131.4) Intervention 1 vs. control 1 SMD (95% CI): −0.33 (−0.80, 0.13) **Attention/concentration: Object detection task RT (object present consistent)** Intervention 1: MBSR, *n* = 39; Mean (SD) at post-intervention: 1,000.0 (312.2) Control 1: Passive, waitlist, *n* = 32; Mean (SD) at post-intervention: 950.0 (282.8) Intervention 1 vs. control 1 SMD (95% CI): −0.17 (−0.63, 0.30) **Attention/concentration: Object detection task RT (object present inconsistent)** Intervention 1: MBSR, *n* = 39; Mean (SD) at post-intervention: 1,050.0 (156.1) Control 1: Passive, waitlist, *n* = 32; Mean (SD) at post-intervention: 1,000.0 (141.4) Intervention 1 vs. control 1 SMD (95% CI): −0.33 (−0.80, 0.14)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Anderson, 2007 (cont.)			**Attention/concentration: Object detection task accuracy (object absent consistent)** Intervention 1: MBSR, *n* = 39 Control 1: Passive, waitlist, *n* = 32 Intervention 1 vs. control 1 No usable data reported **Attention/concentration: Object detection task accuracy (object absent inconsistent)** Intervention 1: MBSR, *n* = 39 Control 1: Passive, waitlist, *n* = 32 Intervention 1 vs. control 1 No usable data reported **Attention/concentration: Object detection task accuracy (object present consistent)** Intervention 1: MBSR, *n* = 39 Control 1: Passive, waitlist, *n* = 32 Intervention 1 vs. control 1 No usable data reported **Attention/concentration: Object detection task accuracy (object present inconsistent)** Intervention 1: MBSR, *n* = 39 Control 1: Passive, waitlist, *n* = 32 Intervention 1 vs. control 1 No usable data reported **Attention/concentration: Stroop false errors** Intervention 1: MBSR, *n* = 39 Control 1: Passive, waitlist, *n* = 33 Intervention 1 vs. control 1 No usable data reported **Attention/concentration: Stroop mean RT** Intervention 1: MBSR, *n* = 39 Control 1: Passive, waitlist, *n* = 33 Intervention 1 vs. control 1 No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Anderson, 2007 (cont.)			**Attention/concentration: Stroop true errors** Intervention 1: MBSR, *n* = 39 Control 1: Passive, waitlist, *n* = 33 Intervention 1 vs. control 1 No usable data reported
Study ID: Arch, 2006 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Unclear Country: United States	Number randomized or enrolled: 60 Population (description): University students Population (civilian, military): Non-military Mean age (SD) or age range: 18–25 Percent female: 69.0 Inclusion criteria: 18 years or older; had not received treatment for a mental disorder in the past 2 years or taken psychotropic medications; had no blood, injury, or injection phobia; was not pregnant; had no cardiovascular or pulmonary condition(s), such as asthma or heartbeat irregularities; had no previous mindfulness or other formal meditation experience Exclusion criteria: Hospital Anxiety and Depression Scale (Zigmond and Snaith, 1983) score of 11 or higher on either subscale (depression or anxiety), which corresponded with the Hospital Anxiety and Depression Scale cutoff criteria for a ‘‘definite case’’ of clinical depression or anxiety	Setting: Virtual Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.25 Delivery mode: Virtual asynchronous Intervention format: Mixed individual and group Comparator type 1: Active Comparator type 2: Active	**Emotion regulation: Affect Scale negative** Intervention 1: Mindfulness analogue intervention or induction—focused-breathing induction, *n* = 20; Mean (SD) at post-intervention, Time 2: –8.19 (34.9) Control 1: Active (other type of intervention, includes treatment as usual), worry induction adapted from Vasey and Borkovec (1992)’s Catastrophizing Interview Technique, *n* = 20; Mean (SD) at post-intervention, Time 2: –33.00 (16.3) Control 2: Active, unfocused attention, *n* = 20; Mean (SD) at post-intervention, Time 2: –14.38 (31.3) Intervention 1 vs. control 1 SMD (95% CI): 0.89 (0.26, 1.53) Intervention 1 vs. control 2 SMD (95% CI): 0.18 (–0.43, 0.79)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Arch, 2006 (cont.)			**Emotion regulation: Affect Scale negative** Intervention 1: Mindfulness analogue intervention or induction—focused-breathing induction, *n* = 20; Mean (SD) at post-intervention, Time 3: –11.85 (36.3) Control 1: Active, worry induction adapted from Vasey and Borkovec (1992)'s Catastrophizing Interview Technique, *n* = 20; Mean (SD) at post-intervention, Time 3: –25.35 (21.8) Control 2: Active, unfocused attention, *n* = 20; Mean (SD) at post-intervention, Time 3: –10.18 (28.1) Intervention 1 vs. control 1 SMD (95% CI): 0.44 (–0.17, 1.06) Intervention 1 vs. control 2 SMD (95% CI): –0.05 (–0.66, 0.56) **Emotion regulation: Affect Scale neutral** Intervention 1: Mindfulness analogue intervention or induction—focused-breathing induction, *n* = 20; Mean (SD) at post-intervention, Time 2: 22.3 (20.4) Control 1: Active, worry induction adapted from Vasey and Borkovec (1992)'s Catastrophizing Interview Technique, *n* = 20; Mean (SD) at post-intervention, Time 2: 6.2 (22.5) Control 2: Active, unfocused attention, *n* = 20; Mean (SD) at post-intervention, Time 2: 16.4 (18.5) Intervention 1 vs. control 1 SMD (95% CI): 0.73 (0.10, 1.36) Intervention 1 vs. control 2 SMD (95% CI): 0.29 (–0.32, 0.90)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Arch, 2006 (cont.)			**Emotion regulation: Affect Scale neutral** Intervention 1: Mindfulness analogue intervention or induction—focused-breathing induction, *n* = 20; Mean (SD) at post-intervention, Time 3: 20.1 (18.7) Control 1: Active, worry induction adapted from Vasey and Borkovec (1992)'s Catastrophizing Interview Technique, *n* = 20; Mean (SD) at post-intervention, Time 3: 8.2 (14.3) Control 2: Active, unfocused attention, *n* = 20; Mean (SD) at post-intervention, Time 3: 15.3 (20.7) Intervention 1 vs. control 1 SMD (95% CI): 0.70 (0.07, 1.32) Intervention 1 vs. control 2 SMD (95% CI): 0.23 (–0.38, 0.84) **Emotion regulation: Affect Scale positive** Intervention 1: Mindfulness analogue intervention or induction—focused-breathing induction, *n* = 20; Mean (SD) at post-intervention, Time 2: 26.1 (15.6) Control 1: Active, worry induction adapted from Vasey and Borkovec (1992)'s Catastrophizing Interview Technique, *n* = 20; Mean (SD) at post-intervention, Time 2: 18.3 (16.7) Control 2: Active, unfocused attention, *n* = 20; Mean (SD) at post-intervention, Time 2: 16.8 (26.5) Intervention 1 vs. control 1 SMD (95% CI): 0.47 (–0.14, 1.09) Intervention 1 vs. control 2 SMD (95% CI): 0.42 (–0.19, 1.03)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Arch, 2006 (cont.)			**Emotion regulation: Affect Scale positive** Intervention 1: Mindfulness analogue intervention or induction—focused-breathing induction, *n* = 20; Mean (SD) at post-intervention, Time 3: 30.5 (14.1) Control 1: Active, worry induction adapted from Vasey and Borkovec (1992)'s Catastrophizing Interview Technique, *n* = 20; Mean (SD) at post-intervention, Time 3: 19.6 (21.0) Control 2: Active, unfocused attention, *n* = 20; Mean (SD) at post-intervention, Time 3: 21.2 (19.0) Intervention 1 vs. control 1 SMD (95% CI): 0.60 (–0.02, 1.22) Intervention 1 vs. control 2 SMD (95% CI): 0.54 (–0.08, 1.16) **Emotion regulation: Short Positive and Negative Affect Schedule negative** Intervention 1: Mindfulness analogue intervention or induction—focused-breathing induction, *n* = 20; Mean (SD) at post-intervention, Time 3: 15.3 (4.4) Control 1: Active, worry induction adapted from Vasey and Borkovec (1992)'s Catastrophizing Interview Technique, *n* = 20; Mean (SD) at post-intervention, Time 3: 18.2 (4.7) Control 2: Active, unfocused attention, *n* = 20; Mean (SD) at post-intervention, Time 3: 17.2 (3.9) Intervention 1 vs. control 1 SMD (95% CI): 0.63 (0.01, 1.26) Intervention 1 vs. control 2 SMD (95% CI): 0.46 (–0.16, 1.07)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Arch, 2006 (cont.)			**Emotion regulation: Short Positive and Negative Affect Schedule neutral** Intervention 1: Mindfulness analogue intervention or induction—focused-breathing induction, *n* = 20; Mean (SD) at post-intervention, Time 3: 15.5 (4.4) Control 1: Active, worry induction adapted from Vasey and Borkovec (1992)'s Catastrophizing Interview Technique, *n* = 20; Mean (SD) at post-intervention, Time 3: 14.5 (4.6) Control 2: Active, unfocused attention, *n* = 20; Mean (SD) at post-intervention, Time 3: 15.2 (4.3) Intervention 1 vs. control 1 SMD (95% CI): −0.23 (−0.83, 0.38) Intervention 1 vs. control 2 SMD (95% CI): −0.07 (−0.68, 0.54) **Emotion regulation: Short Positive and Negative Affect Schedule positive** Intervention 1: Mindfulness analogue intervention or induction—focused-breathing induction, *n* = 20; Mean (SD) at post-intervention, Time 3: 16.0 (5.1) Control 1: Active, worry induction adapted from Vasey and Borkovec (1992)'s Catastrophizing Interview Technique, *n* = 20; Mean (SD) at post-intervention, Time 3: 16.7 (3.4) Control 2: Active, unfocused attention, *n* = 20; Mean (SD) at post-intervention, Time 3: 15.9 (4.6) Intervention 1 vs. control 1 SMD (95% CI): 0.15 (−0.45, 0.76) Intervention 1 vs. control 2 SMD (95% CI): −0.02 (−0.63, 0.58)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Baby, 2019 Study design: Randomized controlled trial, cluster randomized (unit of randomization: workplace) Study quality rating: Fair Funding: James Hume Bequest Fund Country: New Zealand	Number randomized or enrolled: 127 Population (description): Health care support workers Population (civilian, military): Non-military Mean age (SD) or age range: Under 25: 6.3%; 25–34: 16.6%; 35–44: 17.3%; 45–54: 30.7%; 55–64: 22.0%; 65 or older: 7.0% Percent female: 78.0 Inclusion criteria: Health care support worker working for a national government organization, District Health Board, or aged care facility; aged 18 years or above; fluent in English; able to provide informed consent; have no formal, New Zealand–recognized health care training, which includes courses with a duration of 6 months or longer, certificates, diplomas, and degree courses Exclusion criteria: Personal caregivers or family members who assume the role of primary caregivers (e.g., anyone unpaid), registered health care professionals (e.g., occupational therapists, social workers, psychologists, nurses, physiotherapists, and speech and language therapists) with recognized New Zealand or equivalent qualifications and active professional registration	Setting: Workplace Intervention type: Mindfulness meditation training Dosage, duration: Multiple sessions (4); number of program weeks: 4 Delivery mode: In-person Intervention format: Group Comparator type: Active	**Communication skills: Interpersonal Communication Competence Scale** Intervention 1: Mindfulness meditation training, *n* = 64; Mean (SD) at post-intervention: 103.3 (6.6) Control 1: Active, communication class, *n* = 63; Mean (SD) at post-intervention: 103.3 (8.1) Intervention 1 vs. control 1 SMD (95% CI): 0.00 (−0.34, 0.35) **Communication skills: Interpersonal Communication Competence Scale (ICCS)** Intervention 1: Mindfulness meditation training, *n* = 64; Mean (SD) at 3 months after baseline: 103.1 (7.9) Control 1: Active, communication class, *n* = 63; Mean (SD) at 3 months after baseline: 106.9 (14.1) Intervention 1 vs. control 1 SMD (95% CI): −0.34 (−0.68, 0.01) **Communication skills: Interpersonal Communication Competence Scale** Intervention 1: Mindfulness meditation training, *n* = 64; Mean (SD) at 6 months after baseline: 106.5 (13.4) Control 1: Active, communication class, *n* = 63; Mean (SD) at 6 months after baseline: 107.2 (9.7) Intervention 1 vs. control 1 SMD (95% CI): −0.06 (−0.41, 0.28)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Balconi, 2019 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Catholic University of Milan Country: Italy	Number randomized or enrolled: 50 Population (description): Adults with a valid drivers' license Population (civilian, military): Non-military Mean age (SD) or age range: 24.2 (7.0) Percent female: 76.0 Inclusion criteria: Active drivers with more than 1 year of active driving experience and an annual driven distance greater than 5,000 km, from Northern Italy, normal or corrected-to-normal hearing and vision Exclusion criteria: History of psychiatric or neurological diseases, the presence of cognitive deficits, ongoing concurrent therapies based on psychoactive drugs that can alter central nervous system functioning, clinically relevant stress or anxiety, the occurrence of significant stressful life events during the past 6 months, previous systematic meditation experience or analogous, presence of relevant clinical signs of anxiety (State-Trait Anxiety Inventory; Pedrabissi and Santinello, 1989] or of a broader set of symptoms of psychological distress (Brief Symptom Inventory; De Leo et al., 1993)	Setting: Community Intervention type: Mindfulness meditation training Dosage, duration: Multiple sessions (21); number of program weeks: 3; total number of program hours: 5 Delivery mode: In-person Intervention format: Individual Comparator type: Active	**Attention/concentration: Multiple Features Target Cancellation RT** Intervention 1: Mindfulness meditation training with neurofeedback from Lowdown Focus glasses, *n* = 25; Mean (SD) at post-intervention: 31.6 (7.3) Control 1: Active, breathing-awareness practice, *n* = 25; Mean (SD) at post-intervention: 31.0 (5.1) Intervention 1 vs. control 1 SMD (95% CI): −0.09 (−0.63, 0.46) **Attention/concentration: Multiple Features Target Cancellation accuracy** Intervention 1: Mindfulness meditation training with neurofeedback from Lowdown Focus glasses, *n* = 25 Control 1: Active, breathing-awareness practice, *n* = 25 Intervention 1 vs. control 1 No usable data reported **Attention/concentration: Stroop error interference** Intervention 1: Mindfulness meditation training with neurofeedback from Lowdown Focus glasses Control 1: Active, breathing-awareness practice, *n* = 25 Intervention 1 vs. control 1 No usable data reported **Attention/concentration: Stroop time interference** Intervention 1: Mindfulness meditation training with neurofeedback from Lowdown Focus glasses, *n* = 25; Mean (SD) at post-intervention: 7.9 (3.0) Control 1: Active, breathing-awareness practice, *n* = 25; Mean (SD) at post-intervention: 8.9 (2.8) Intervention 1 vs. control 1 SMD (95% CI): 0.32 (−0.22, 0.87)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Balconi, 2019 (cont.)			**Attention/concentration: attentional matrices** Intervention 1: Mindfulness meditation training with neurofeedback from Lowdown Focus glasses, *n* = 25 Control 1: Active, breathing-awareness practice, *n* = 25 Intervention 1 vs. control 1 No usable data reported
Study ID: Baltar, 2018 Study design: Randomized controlled trial, individual Study quality rating: Fair Funding: Fundação de Amparo à Pesquisa do Estado do Rio de Janeiro (Brazil) Country: Brazil	Number randomized or enrolled: 40 Population (description): Professional football players Population (civilian, military): Non-military Mean age (SD) or age range: 23.6 (1.4) Percent female: 0.0 Inclusion criteria: Elite football players on the same professional team (i.e., American football or gridiron), aged between 18 and 39 years Exclusion criteria: Not reported	Setting: Virtual Intervention type: Mindfulness meditation training Dosage, duration: Self-paced, online, or application-based sessions (36); number of program weeks: 12; total number of program hours: 6 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type: Active	**Attention/concentration: Attentional Control Scale (ACS)** Intervention 1: Mindfulness meditation training, *n* = 20; Mean (SD) at post-intervention: 48.2 (4.2) Control 1: Active, no activity but participants had to log into a website 3 times a week, *n* = 20; Mean (SD) at post-intervention: 46.2 (6.2) Intervention 1 vs. control 1 SMD (95% CI): 0.37 (−0.24, 0.98)
Study ID: Banks, 2019 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Unclear Country: United States	Number randomized or enrolled: 102 Population (description): Undergraduate students Population (civilian, military): Non-military Mean age (SD) or age range: 19.1 (2.3) Percent female: 71.8 Inclusion criteria: Undergraduate students from Nova Southeastern University, meditation-naïve Exclusion criteria: Not reported	Setting: Virtual Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Single session; number of program weeks: 0.14; total number of program hours: 0.25 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type 1: Active Comparator type 2: Passive, waitlist	**Attention/concentration: Negative task-unrelated thought (%)** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation induction, *n* = 31; Mean (SD) at post-intervention: 5.4 (8.1) Control 1: Active, 15-minute relaxation induction audio recording, *n* = 31; Mean (SD) at post-intervention: 8.6 (10.0) Control 2: Passive, waitlist, *n* = 30; Mean (SD) at post-intervention: 12.2 (14.3) Intervention 1 vs. control 1 SMD (95% CI): 0.35 (−0.15, 0.84) Intervention 1 vs. control 2 SMD (95% CI): 0.59 (0.08, 1.09)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Banks, 2019 (cont.)			**Attention/concentration: Neutral task-unrelated thought (%)** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation induction, *n* = 31; Mean (SD) at post-intervention: 18.4 (15.7) Control 1: Active, 15-minute relaxation induction audio recording, *n* = 31; Mean (SD) at post-intervention: 20.7 (19.7) Control 2: Passive, waitlist, *n* = 30; Mean (SD) at post-intervention: 21.2 (21.0) Intervention 1 vs. control 1 SMD (95% CI): 0.13 (–0.36, 0.62) Intervention 1 vs. control 2 SMD (95% CI): 0.15 (–0.35, 0.65) **Attention/concentration: Overall task-unrelated thought (%)** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation induction, *n* = 31; Mean (SD) at post-intervention: 31.0 (21.1) Control 1: Active, 15-minute relaxation induction audio recording, *n* = 31; Mean (SD) at post-intervention: 32.8 (13.2) Control 2: Passive, waitlist, *n* = 30; Mean (SD) at post-intervention: 39.1 (29.0) Intervention 1 vs. control 1 SMD (95% CI): 0.10 (–0.39, 0.59) Intervention 1 vs. control 2 SMD (95% CI): 0.32 (–0.18, 0.82)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Banks, 2019 (cont.)			**Attention/concentration: Positive task-unrelated thought (%)** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation induction, *n* = 31; Mean (SD) at post-intervention: 6.5 (11.5) Control 1: Active, 15-minute relaxation induction audio recording, *n* = 31; Mean (SD) at post-intervention: 4.8 (6.5) Control 2: Passive, waitlist, *n* = 30; Mean (SD) at post-intervention: 5.7 (8.0) Intervention 1 vs. control 1 SMD (95% CI): −0.17 (−0.67, 0.32) Intervention 1 vs. control 2 SMD (95% CI): −0.08 (−0.58, 0.42) **Attention/concentration: Sustained attention to response task (SART) RT variability (intraindividual coefficient of variation [ICV])** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation induction, *n* = 31; Mean (SD) at post-intervention: 243.3 (106.0) Control 1: Active, 15-minute relaxation induction audio recording, *n* = 31; Mean (SD) at post-intervention: 233.0 (104.1) Control 2: Passive, waitlist, *n* = 30; Mean (SD) at post-intervention: 223.3 (108.8) Intervention 1 vs. control 1 SMD (95% CI): −0.10 (−0.59, 0.39) Intervention 1 vs. control 2 SMD (95% CI): −0.18 (−0.68, 0.31)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Banks, 2019 (cont.)			**Attention/concentration: SART mean accuracy on non-target trials** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation induction, *n* = 31; Mean (SD) at post-intervention: 438.3 (56.7) Control 1: Active, 15-minute relaxation induction audio recording, *n* = 31; Mean (SD) at post-intervention: 444.5 (34.4) Control 2: Passive, waitlist, *n* = 30; Mean (SD) at post-intervention: 450.3 (32.7) Intervention 1 vs. control 1 SMD (95% CI): −0.13 (−0.62, 0.36) Intervention 1 vs. control 2 SMD (95% CI): −0.25 (−0.75, 0.24) **Attention/concentration: SART mean accuracy on target trials** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation induction, *n* = 31; Mean (SD) at post-intervention: 31.9 (12.8) Control 1: Active, 15-minute relaxation induction audio recording, *n* = 31; Mean (SD) at post-intervention: 32.6 (13.2) Control 2: Passive, waitlist, *n* = 30; Mean (SD) at post-intervention: 31.7 (13.3) Intervention 1 vs. control 1 SMD (95% CI): −0.05 (−0.55, 0.44) Intervention 1 vs. control 2 SMD (95% CI): 0.02 (−0.48, 0.51)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Barattucci, 2019 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: None Country: Italy	Number randomized or enrolled: 594 Population (description): Health care providers Population (civilian, military): Non-military Mean age (SD) or age range: 40.4 (11.0) Percent female: 57.0 Inclusion criteria: Health care professionals from Italian public hospitals Exclusion criteria: Not reported	Setting: Workplace Intervention type: IARA Model Training (IARA is an Italian acronym that translates to "meeting, compliance, responsibility, autonomy") Dosage, duration: Multiple sessions (4); total number of program hours: 32 Delivery mode: In-person Intervention format: Group Comparator type: Passive, no intervention/treatment	**Emotion regulation: Difficulties in Emotion Regulation Scale** Intervention 1: IARA Model Training, *n* = 295; Mean (SD) at post-intervention: 2.4 (5.5) Control 1: Passive, no intervention, *n* = 202; Mean (SD) at post-intervention: 2.5 (10.4) Intervention 1 vs. control 1 SMD (95% CI): 0.02 (−0.16, 0.20)
Study ID: Basso, 2019 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: New York University, Journey Meditation Country: United States	Number randomized or enrolled: 42 Population (description): Adults Population (civilian, military): Non-military Mean age (SD) or age range: Not reported Percent female: 64.3 Inclusion criteria: Non-smoking, between the ages of 18 to 45, not experienced meditators Exclusion criteria: Had a mediation practice of more than once per week for the past 3 months, had a current or prior diagnosis of any neurological or mental health issue (e.g., depression, anxiety, schizophrenia, epilepsy, traumatic brain injury)	Setting: Virtual Intervention type: Journey Meditation Dosage, duration: Self-paced, online, or application-based sessions (56); number of program weeks: 8; total number of program hours: 12.2 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type: Active	**Attention/concentration: Eriksen flanker task** Intervention 1: Journey Meditation, *n* = 20 Control 1: Active, podcast listening, *n* = 20 Intervention 1 vs. control 1 No usable data reported **Attention/concentration: Stroop accuracy % for congruent trials** Intervention 1: Journey Meditation, *n* = 20; Mean (SD) at post-intervention: 98.6 (1.6) Control 1: Active, podcast listening, *n* = 20; Mean (SD) at post-intervention: 97.4 (2.9) Intervention 1 vs. control 1 SMD (95% CI): 0.48 (−0.14, 1.09) **Attention/concentration: Stroop accuracy % for incongruent trials** Intervention 1: Journey Meditation, *n* = 20 Control 1: Active, podcast listening, *n* = 20 Intervention 1 vs. control 1 No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Basso, 2019 (cont.)			**Attention/concentration: Stroop congruent RT** Intervention 1: Journey Meditation, *n* = 20 Control 1: Active, podcast listening, *n* = 20 Intervention 1 vs. control 1 No usable data reported **Attention/concentration: Stroop incongruent RT** Intervention 1: Journey Meditation, *n* = 20 Control 1: Active, podcast listening, *n* = 20 Intervention 1 vs. control 1 No usable data reported **Attention/concentration: Stroop interference RT** Intervention 1: Journey Meditation, *n* = 20 Control 1: Active, podcast listening, *n* = 20 Intervention 1 vs. control 1 No usable data reported **Impulse control/impulsivity: Eriksen flanker task** Intervention 1: Journey Meditation, *n* = 20 Control 1: Active, podcast listening, *n* = 20 Intervention 1 vs. control 1 No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Becerra, 2017 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: None Country: Australia	Number randomized or enrolled: 62 Population (description): Undergraduate students Population (civilian, military): Non-military Mean age (SD) or age range: 33.9 (12.1) Percent female: 77.4 Inclusion criteria: Undergraduate university students from Perth, Western Australia Exclusion criteria: Previous experience in meditation (participants who have engaged in formal practice of mindfulness—brief or extended)	Setting: School Intervention type: Mindfulness meditation training Dosage, duration: Multiple sessions (4); number of program weeks: 8; total number of program hours: 1.6 Delivery mode: In-person Intervention format: Group Comparator type: Passive, waitlist	**Attention/concentration: ANT alerting network RT—difference score** Intervention 1: Mindfulness meditation training—Shamatha mindfulness meditation, *n* = 23; Mean (SD) at post-intervention: 49.5 (14.6) Control 1: Passive, waitlist, *n* = 23; Mean (SD) at post-intervention: 46.5 (11.6) Intervention 1 vs. control 1 SMD (95% CI): −0.22 (−0.79, 0.35) **Attention/concentration: ANT executive network RT—difference score** Intervention 1: Mindfulness meditation training—Shamatha mindfulness meditation, *n* = 23; Mean (SD) at post-intervention: 113.3 (33.7) Control 1: Passive, waitlist, *n* = 23; Mean (SD) at post-intervention: 135.2 (32.3) Intervention 1 vs. control 1 SMD (95% CI): 0.65 (0.07, 1.23) **Attention/concentration: ANT orienting network RT—difference score** Intervention 1: Mindfulness meditation training—Shamatha mindfulness meditation, *n* = 23; Mean (SD) at post-intervention: 45.1 (11.7) Control 1: Passive, waitlist, *n* = 23; Mean (SD) at post-intervention: 52.9 (13.9) Intervention 1 vs. control 1 SMD (95% CI): 0.60 (0.02, 1.18)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Bhayee, 2016 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Mitacs Engage Grant, Ontario Centres for Excellence Country: Canada	Number randomized or enrolled: 43 Population (description): Community-dwelling adults Population (civilian, military): Non-military Mean age (SD) or age range: 32.7 (4.8) Percent female: 53.8 Inclusion criteria: Community-dwelling, under moderate to high levels of stress, fluent in English, have normal or corrected-to-normal vision, have daily internet access Exclusion criteria: The presence of any neuropsychological or psychiatric condition that may influence the functioning of the nervous system, a history of head injury, prior meditation experience	Setting: Virtual Intervention type: Calm smartphone application with Muse neurofeedback Dosage, duration: Self-paced, online, or application-based sessions (42); number of program weeks: 6; total number of program hours: 7 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type: Active	**Attention/concentration: Stroop accuracy (%)** Intervention 1: Calm smartphone application with Muse neurofeedback, *n* = 13 Control 1: Active, math training program, *n* = 13 Intervention 1 vs. control 1 No usable data reported **Attention/concentration: Stroop interference RT** Intervention 1: Calm smartphone application with Muse neurofeedback, *n* = 13; Mean (SD) at post-intervention: 98.1 (37.9) Control 1: Active, math training program, *n* = 13; Mean (SD) at post-intervention: 88.1 (33.9) Intervention 1 vs. control 1 SMD (95% CI): −0.27 (–1.02, 0.48) **Attention/concentration: Stroop mean RT** Intervention 1: Calm smartphone application with Muse neurofeedback, *n* = 13; Mean (SD) at post-intervention: 457.0 (65.4) Control 1: Active, math training program, *n* = 13; Mean (SD) at post-intervention: 469.7 (51.4) Intervention 1 vs. control 1 SMD (95% CI): 0.21 (–0.54, 0.96) **Attention/concentration: d2 (a test of concentration) commit error (%)** Intervention 1: Calm smartphone application with Muse neurofeedback, *n* = 13; Mean (SD) at post-intervention: 0.30 (0.40) Control 1: Active, math training program, *n* = 13; Mean (SD) at post-intervention: 0.90 (2.0) Intervention 1 vs. control 1 SMD (95% CI): 0.40 (–0.35, 1.16)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Bhayee, 2016 (cont.)			**Attention/concentration: d2 omit error (%)** Intervention 1: Calm smartphone application with Muse neurofeedback, *n* = 13; Mean (SD) at post-intervention: 7.4 (5.6) Control 1: Active, math training program, *n* = 13; Mean (SD) at post-intervention: 8.4 (5.5) Intervention 1 vs. control 1 SMD (95% CI): 0.17 (–0.57, 0.92)
Study ID: Bostock, 2019 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: National Institutes of Health Country: United Kingdom	Number randomized or enrolled: 238 Population (description): Employees Population (civilian, military): Non-military Mean age (SD) or age range: 35.5 (7.7) Percent female: 59.2 Inclusion criteria: Employees at two British companies (pharmaceutical firm and high-tech company) that each had more than 900 onsite employees Exclusion criteria: Reported no work stress (scored zero on a 6-item work over commitment scale; Siegrist et al., 2004); self-reported a clinical diagnosis of depression, hypertension, heart disease, or cancer; did not own an Android or iPhone smartphone; refused to be randomly assigned to the intervention or control condition	Setting: Virtual Intervention type: Headspace smartphone application Dosage, duration: Self-paced, online, or application-based sessions (45); number of program weeks: 8; total number of program hours: 12.1 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type: Passive, waitlist	**Work-related social support: Workplace social support** Intervention 1: Headspace smartphone application, *n* = 123; Mean (SD) at post-intervention: 3.3 (0.50) Control 1: Passive, waitlist, *n* = 106; Mean (SD) at post-intervention: 3.2 (0.60) Intervention 1 vs. control 1 SMD (95% CI): 0.16 (–0.10, 0.42)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Broderick, 2005 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: West Chester University Country: United States	Number randomized or enrolled: 177 Population (description): Undergraduate students Population (civilian, military): Non-military Mean age (SD) or age range: 20.9 (not reported) Percent female: 78.5 Inclusion criteria: Undergraduate students recruited from educational psychology courses at a university in Pennsylvania Exclusion criteria: Prior meditation experience	Setting: Virtual Type: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.13 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type 1: Active Comparator type 2: Active	**Emotion regulation: Positive and Negative Affect Schedule negative** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation, *n* = 61; Mean (SD) at post-intervention: 14.0 (4.7) Control 1: Active, rumination condition following Nolen-Hoeksema and Morrow (1991)'s protocol, *n* = 55; Mean (SD) at post-intervention: 19.0 (6.1) Control 2: Active, distraction condition following Nolen-Hoeksema and Morrow (1991)'s protocol, *n* = 61; Mean (SD) at post-intervention: 15.4 (4.6) SMD (95% CI): Intervention 1 vs. control 1 0.91 (0.53, 1.29) Intervention 1 vs. control 2 SMD (95% CI): 0.29 (–0.07, 0.64) **Emotion regulation: Positive and Negative Affect Schedule positive** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation, *n* = 61; Mean (SD) at post-intervention: 26.1 (7.2) Control 1: Active, rumination condition following Nolen-Hoeksema and Morrow (1991)'s protocol, *n* = 55; Mean (SD) at post-intervention: 23.6 (7.7) Control 2: Active, distraction condition following Nolen-Hoeksema and Morrow (1991)'s protocol, *n* = 61; Mean (SD) at post-intervention: 26.3 (7.8) Intervention 1 vs. control 1 SMD (95% CI): 0.33 (–0.04, 0.69) Intervention 1 vs. control 2 SMD (95% CI): –0.03 (–0.38, 0.32)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Burger, 2017 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Unclear Country: United States	Number randomized or enrolled: 60 Population (description): First semester associate's degree nursing students Population (civilian, military): Non-military Mean age (SD) or age range: 18–40 Percent female: 82.7 Inclusion criteria: Associate's degree nursing students enrolled in their first semester at a college in the northeastern United States Exclusion criteria: Not reported	Setting: Virtual Intervention type: Mindfulness meditation training Dosage, duration: Self-paced, online, or application-based sessions (number not reported); number of program weeks: 4; total number of program hours: 4.67 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type: Passive, waitlist	**Attention/concentration: ANT alerting network RT—difference score** Intervention 1: Mindfulness meditation training, *n* = 28; Mean (SD) at post-intervention: 38.6 (24.7) Control 1: Passive, waitlist, *n* = 24; Mean (SD) at post-intervention: 36.0 (19.2) Intervention 1 vs. control 1 SMD (95% CI): 0.11 (–0.42, 0.65) **Attention/concentration: ANT executive network RT—difference score** Intervention 1: Mindfulness meditation training, *n* = 28; Mean (SD) at post-intervention: 95.9 (28.6) Control 1: Passive, waitlist, *n* = 24; Mean (SD) at post-intervention: 125.9 (39.7) Intervention 1 vs. control 1 SMD (95% CI): 0.87 (0.30, 1.43) **Attention/concentration: ANT orienting network RT—difference score** Intervention 1: Mindfulness meditation training, *n* = 28; Mean (SD) at post-intervention: 39.9 (21.4) Control 1: Passive, waitlist, *n* = 24; Mean (SD) at post-intervention: 37.2 (21.0) Intervention 1 vs. control 1 SMD (95% CI): 0.13 (–0.41, 0.66)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Cerna, 2020 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: National Fund for Scientific and Technological Development Country: Chile	Number randomized or enrolled: 103 Population (description): Adults Population (civilian, military): Non-military Mean age (SD) or age range: 18–30: 63.1%; 31–45: 26.2%; 46–60: 7.8%; > 60: 2.9% Percent female: 74.8 Inclusion criteria: Over 18 years old Exclusion criteria: Previously diagnosed with a serious psychopathological disorder, under psychiatric or psychopharmacological treatment	Setting: School Intervention type: MBSR Dosage, duration: Multiple sessions (4); number of program weeks: 4; total number of program hours: 6 Delivery mode: In-person Intervention format: Group Comparator type: Passive, waitlist	**Emotion regulation: Emotional Regulation Questionnaire cognitive reappraisal** Intervention 1: MBSR, *n* = 51; Mean (SD) at post-intervention: 33.3 (3.5) Control 1: Passive, waitlist, *n* = 52; Mean (SD) at post-intervention: 30.2 (5.0) Intervention 1 vs. control 1 SMD (95% CI): 0.70 (0.31, 1.10) **Emotion regulation: Emotional Regulation Questionnaire emotional suppression** Intervention 1: MBSR, *n* = 51; Mean (SD) at post-intervention: 10.4 (5.2) Control 1: Passive, waitlist, *n* = 52; Mean (SD) at post-intervention: 12.3 (4.8) Intervention 1 vs. control 1 SMD (95% CI): 0.39 (0.00, 0.78)
Study ID: Chow, 2017 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Ontario Mental Health Foundation, Lawson Health Research Institute Country: Canada	Number randomized or enrolled: 74 Population (description): Undergraduate psychology students Population (civilian, military): Non-military Mean age (SD) or age range: 18–25 Percent female: 68.9 Inclusion criteria: A lack of prior experience with mindfulness meditation practice or electroencephalogram neurofeedback Exclusion criteria: Not reported	Setting: Laboratory Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.25 Delivery mode: In-person Intervention format: Individual Comparator type 1: Active Comparator type 2: Active	**Attention/concentration: Stroop RT (congruent)** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation Control 1: Active, electroencephalography-alpha neurofeedback Control 2: Active, sham neurofeedback Intervention 1 vs. control 1 No usable data reported Intervention 1 vs. control 2 No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Chow, 2017 (cont.)			**Attention/concentration: Stroop RT (incongruent)** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation Control 1: Active, electroencephalography-alpha neurofeedback Control 2: Active, sham neurofeedback Intervention 1 vs. control 1 No usable data reported Intervention 1 vs. control 2 No usable data reported **Attention/concentration: Stroop accuracy % (congruent)** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation Control 1: Active, electroencephalography-alpha neurofeedback Control 2: Active, sham neurofeedback Intervention 1 vs. control 1 No usable data reported Intervention 1 vs. control 2 No usable data reported **Attention/concentration: Stroop accuracy % (incongruent)** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation Control 1: Active, electroencephalography-alpha neurofeedback Control 2: Active, sham neurofeedback Intervention 1 vs. control 1 No usable data reported Intervention 1 vs. control 2 No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Course-Choi, 2017 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Birkbeck University of London Country: United Kingdom	Number randomized or enrolled: 45 Population (description): High worriers Population (civilian, military): Non-military Mean age (SD) or age range: 28.6 (6.7) Percent female: 25.0 Inclusion criteria: Over the age of 17, score of 45 or more on the Pennsylvania State Worry Questionnaire, normal or corrected-to-normal vision Exclusion criteria: Not reported	Setting: Virtual Intervention type: Mindfulness meditation practice Dosage, duration: Multiple sessions (7); number of program weeks: 1; total number of program hours: 2.5 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type 1: Active Comparator type 2: Active	**Attention/concentration: Anti-saccade and pro-saccade tasks error rate (% of incorrect anti-saccades)** Intervention 1: Mindfulness meditation practice, *n* = 15 Control 1: Active, working memory training, in the form of an adaptive dual *n*-back task, *n* = 15 Control 2: Active, non-adaptive dual 1-back task, *n* = 15 Intervention 1 vs. control 1 No usable data reported Intervention 1 vs. control 2 No usable data reported **Attention/concentration: Anti-saccade and pro-saccade tasks latency of correct anti-saccades** Intervention 1: Mindfulness meditation practice, *n* = 15 Control 1: Active, working memory training, in the form of an adaptive dual *n*-back task, *n* = 15 Control 2: Active, non-adaptive dual 1-back task, *n* = 15 Intervention 1 vs. control 1 No usable data reported Intervention 1 vs. control 2 No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Deady, 2020 Study design: Randomized controlled trial, individual Study quality rating: Good Funding: Movember Foundation, Australian Research Council Future Fellowship, iCare Foundation, New South Wales Ministry of Health Country: Australia	Number randomized or enrolled: 2,275 Population (description): Employees in male-dominated industries Population (civilian, military): Non-military Mean age (SD) or age range: 40.3 (10.6) Percent female: 25.8 Inclusion criteria: Having a valid telephone number, owning an Apple iPhone or Android-operating smartphone, being currently employed, residing in Australia Exclusion criteria: Not having reliable access to the internet, not being able to read English, failing to provide a phone number, having substantial levels of depression symptoms at baseline as indicated by a score above 14 on the Patient Health Questionnaire-9 or meeting provisional major depressive disorder diagnosis using the algorithm from that questionnaire (Kroenke, Spitzer, and Williams, 2001)	Setting: Virtual Intervention type: HeadGear smartphone application Dosage, duration: Self-paced, online, or application-based; number of program weeks: 4.3; total number of program hours: 5 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type: Active	**Productivity: Health and Work Performance Questionnaire** Intervention 1: HeadGear smartphone application, *n* = 1,128 No data reported by group at post-intervention Control 1: Active, attention-control application, *n* = 1,143 No data reported by group at post-intervention Intervention 1 vs. control 1 SMD (95% CI): −0.09 (−0.17, −0.01) **Productivity: Health and Work Performance Questionnaire** Intervention 1: HeadGear smartphone application, *n* = 1,128 No data reported by group at 3 months after baseline Control 1: Active, attention-control application, *n* = 1,143 No data reported by group at 3 months after baseline Intervention 1 vs. control 1 SMD (95% CI): 0.42 (0.33, 0.50) **Productivity: Health and Work Performance Questionnaire** Intervention 1: HeadGear smartphone application, *n* = 1,128 No data reported by group at 12 months after baseline Control 1: Active, attention-control application, *n* = 1,143 No data reported by group at 12 months after baseline Intervention 1 vs. control 1 SMD (95% CI): 0.69 (0.61, 0.78)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: de Bruin, 2016 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Philips and Technology Foundation STW, National Initiatief Hersenen en Cognitie Country: Netherlands	Number randomized or enrolled: 126 Population (description): Adults with elevated stress levels Population (civilian, military): Non-military Mean age (SD) or age range: 26.2 (5.3) Percent female: 73.5 Inclusion criteria: Aged between 18 and 40 years, had a score on the Perceived Stress Scale (Cohen, Kamarck, and Mermelstein, 1983) that was higher than at least one standard deviation below the normative mean Exclusion criteria: Pregnant, had insufficient understanding of the Dutch language	Setting: Laboratory Intervention type: Mindfulness meditation training Dosage, duration: Single session; number of program weeks: 5; total number of program hours: 2 Delivery mode: In-person Intervention format: Group Comparator type 1: Active Comparator type 2: Active	**Attention/concentration: Attentional Control Scale** Intervention 1: Mindfulness meditation training, *n* = 27; Mean (SD) at post-intervention: 51.8 (8.3) Control 1: Active, heart rate variability biofeedback with breathing, *n* = 25; Mean (SD) at post-intervention: 53.7 (8.9) Control 2: Active, *n* = 23; Mean (SD) at post-intervention: 55.1 (8.2) Intervention 1 vs. control 1 SMD (95% CI): −0.22 (−0.76, 0.32) Intervention 1 vs. control 2 SMD (95% CI): −0.40 (−0.95, 0.16) **Attention/concentration: Attentional Control Scale** Intervention 1: Mindfulness meditation training, *n* = 27; Mean (SD) at 11 weeks after baseline: 53.8 (7.9) Control 1: Active, heart rate variability biofeedback with breathing, *n* = 25; Mean (SD) at 11 weeks after baseline: 52.5 (8.2) Control 2: Active, *n* = 23; Mean (SD) at 11 weeks after baseline: 54.9 (8.7) Intervention 1 vs. control 1 SMD (95% CI): 0.16 (−0.38, 0.69) Intervention 1 vs. control 2 SMD (95% CI): −0.14 (−0.69, 0.41)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: DeSteno, 2018 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Unclear Country: United States	Number randomized or enrolled: 77 Population (description): Undergraduate students Population (civilian, military): Non-military Mean age (SD) or age range: 18–24 Percent female: Not reported Inclusion criteria: Undergraduate students, native English speakers, no prior meditation experience Exclusion criteria: Not reported	Setting: Virtual Intervention type: Headspace smartphone application Dosage, duration: Self-paced, online, or application-based sessions (21); number of program weeks: 3; total number of program hours: 5.3 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type: Active	**Attention/concentration: Stroop interference RT** Intervention 1: Headspace smartphone application Control 1: Active, solving logic problems Intervention 1 vs. control 1 No usable data reported **Attention/concentration: Stroop number of errors** Intervention 1: Headspace smartphone application Control 1: Active, solving logic problems Intervention 1 vs. control 1 No usable data reported
Study ID: Diaz, 2013 Study design: Randomized controlled trial, individual Study quality rating: Fair Funding: Unclear Country: United States	Number randomized or enrolled: 132 Population (description): University music students Population (civilian, military): Non-military Mean age (SD) or age range: Not reported Percent female: Not reported Inclusion criteria: Undergraduate and graduate students enrolled in music classes or ensembles within a large university in the southern United States Exclusion criteria: Not reported	Setting: Virtual Intervention type 1: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.25 Delivery mode: Virtual asynchronous Intervention format: Individual Intervention type 2: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.25 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type 1: Active Comparator type 2: Active	**Attention/concentration: Perceived magnitude of attention** Intervention 1: Mindfulness analogue intervention or induction—mindfulness induction paired with aesthetic response, *n* = 35; Mean (SD) at post-intervention: 7.8 (1.5) Intervention 2: Mindfulness analogue intervention or induction—mindfulness induction paired with flow response, *n* = 34; Mean (SD) at post-intervention: 8.1 (1.8) Control 1: Active, aesthetic response, *n* = 32; Mean (SD) at post-intervention: 7.8 (1.5) Control 2: Active, flow response, *n* = 31; Mean (SD) at post-intervention: 7.8 (1.2) Intervention 1 vs. control 1 SMD (95% CI): −0.05 (−0.52, 0.43) Intervention 2 vs. control 2 SMD (95% CI): 0.24 (−0.24, 0.72)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Dixon, 2019 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: None Country: United States	Number randomized or enrolled: 24 Population (description): Graduate students Population (civilian, military): Non-military Mean age (SD) or age range: 25.8 (not reported) Percent female: 66.7 Inclusion criteria: Graduate students taking a course at a Midwestern university Exclusion criteria: Not reported	Setting: Virtual Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.1 Delivery mode: Virtual synchronous Intervention format: Individual Comparator type: Active	**Impulse control/impulsivity: Delay discounting survey area under the curve** Intervention 1: Mindfulness analogue intervention or induction—mindful breathing meditation exercise, *n* = 11; Mean (SD) at post-intervention: 0.54 (0.16) Control 1: Active, listening to a music tape, *n* = 12; Mean (SD) at post-intervention: 0.45 (0.20) Intervention 1 vs. control 1 SMD (95% CI): 0.48 (–0.32, 1.28)
Study ID: Dundas, 2017 Study design: Randomized controlled trial, individual Study quality rating: Good Funding: Unclear Country: Norway	Number randomized or enrolled: 138 Population (description): University students Population (civilian, military): Non-military Mean age (SD) or age range: 25.0 (4.9) Percent female: 85.0 Inclusion criteria: University students Exclusion criteria: Not reported	Setting: School Intervention type: Mindfulness meditation training Dosage, duration: Multiple sessions (3); number of program weeks: 2; total number of program hours: 4.5 Delivery mode: In-person Intervention format: Group Comparator type: Passive, waitlist	**Impulse control/impulsivity: Self-control scale healthy impulse control** Intervention 1: Mindfulness meditation training—self-compassion course, *n* = 53; Mean (SD) at post-intervention: 3.4 (0.59) Control 1: Passive, waitlist, *n* = 64; Mean (SD) at post-intervention: 3.3 (0.65) Intervention 1 vs. control 1 SMD (95% CI): 0.24 (–0.12, 0.60)
Study ID: Eisenbeck, 2018 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Ministry of Education, Culture, and Sport (Spain) Country: Spain	Number randomized or enrolled: 46 Population (description): Undergraduate psychology students Population (civilian, military): Non-military Mean age (SD) or age range: 25.2 (8.0) Percent female: 58.9 Inclusion criteria: Undergraduate psychology students, non-meditators Exclusion criteria: Severe mental illness	Setting: Virtual Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.2 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type: Active	**Attention/concentration: Concentrated Attention Test correct responses** Intervention 1: Mindfulness analogue intervention or induction—focused-breathing exercise, *n* = 20; Mean (SD) at post-intervention: 544.4 (93.5) Control 1: Active, listening to the audiobook version of J. R. R. Tolkien's *The Hobbit*, *n* = 19; Mean (SD) at post-intervention: 539.5 (107.9) Intervention 1 vs. control 1 SMD (95% CI): 0.05 (–0.57, 0.66)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Eisenbeck, 2018 (cont.)			**Attention/concentration: Concentrated Attention Test global index (errors – correct responses)** Intervention 1: Mindfulness analogue intervention or induction—focused-breathing exercise, *n* = 20; Mean (SD) at post-intervention: 508.9 (87.5) Control 1: Active, listening to the audiobook version of J. R. R. Tolkien's *The Hobbit*, *n* = 19; Mean (SD) at post-intervention: 511.8 (104.1) Intervention 1 vs. control 1 SMD (95% CI): −0.03 (−0.65, 0.59)
Study ID: Esch, 2016 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Oberberg Foundation (Germany), Samueli Institute (United States) Country: Germany	Number randomized or enrolled: 31 Population (description): Adults Population (civilian, military): Non-military Mean age (SD) or age range: 26.7 (7.6) Percent female: 77.4 Inclusion criteria: At least 18 years old, language proficient, without visual impairment that would prevent them from completing the research assessments Exclusion criteria: Any form of addiction; regular use of pain medication; severe psychiatric disease, epilepsy, diabetes, or pregnancy; prior meditation experience	Setting: Laboratory Intervention type: Mindfulness meditation training Dosage, duration: Multiple sessions (5); number of program weeks: 1.4; total number of program hours: 7.5 Delivery mode: In-person Intervention format: Group Comparator type: Passive, no intervention	**Attention/concentration: ANT Overall errors** Intervention 1: Mindfulness meditation training—breathing and mindfulness meditation, *n* = 16; Mean (SD) at post-intervention: 2.0 (1.8) Control 1: Passive, no intervention, *n* = 15; Mean (SD) at post-intervention: 3.4 (2.6) Intervention 1 vs. control 1 SMD (95% CI): 0.61 (−0.10, 1.31) **Attention/concentration: ANT alerting network RT—difference score** Intervention 1: Mindfulness meditation training—breathing and mindfulness meditation, *n* = 16; Mean (SD) at post-intervention: 40.5 (20.8) Control 1: Passive, no intervention, *n* = 15; Mean (SD) at post-intervention: 34.1 (16.2) Intervention 1 vs. control 1 SMD (95% CI): 0.33 (−0.36, 1.02)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Esch, 2016 (cont.)			**Attention/concentration: ANT executive network RT—difference score** Intervention 1: Mindfulness meditation training—breathing and mindfulness meditation, *n* = 16; Mean (SD) at post-intervention: 59.6 (21.2) Control 1: Passive, no intervention, *n* = 15; Mean (SD) at post-intervention: 61.6 (23.3) Intervention 1 vs. control 1 SMD (95% CI): 0.09 (–0.60, 0.78) **Attention/concentration: ANT orienting network RT—difference score** Intervention 1: Mindfulness meditation training—breathing and mindfulness meditation, *n* = 16; Mean (SD) at post-intervention: 41.3 (19.6) Control 1: Passive, no intervention, *n* = 15; Mean (SD) at post-intervention: 42.8 (20.2) Intervention 1 vs. control 1 SMD (95% CI): –0.07 (–0.76, 0.61)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Fan, 2014 Study design: Randomized controlled trial, individual Study quality rating: Fair Funding: Office of Naval Research (China) Country: China	Number randomized or enrolled: 43 Population (description): Undergraduate students Population (civilian, military): Non-military Mean age (SD) or age range: 21.0 (not reported) Percent female: 51.2 Inclusion criteria: Undergraduate students at Dalian University of Technology, no past training experiences, right-handed, no history of neurological or mental problems, normal or corrected-to-normal vision, normal color vision Exclusion criteria: Confounding factors that have been shown to affect behavioral and electrophysiological dependent measures	Setting: School Intervention type: Integrative body-mind training Dosage, duration: Multiple sessions (5); number of program weeks: 0.7; total number of program hours: 2 Delivery mode: In-person Intervention format: Group Comparator type: Active	**Attention/concentration: Stroop accuracy** Intervention 1: Integrative body-mind training, *n* = 21 Control 1: Active, relaxation training—progressive muscle relaxation (2 hours total across 5 sessions), *n* = 22 Intervention 1 vs. control 1 No usable data reported **Attention/concentration: Stroop interference RT** Intervention 1: Integrative body-mind training, *n* = 21; Mean (SD) at post-intervention: 72.0 (25.0) Control 1: Active, relaxation training—progressive muscle relaxation (2 hours total across 5 sessions), *n* = 22; Mean (SD) at post-intervention: 101.0 (30.0) Intervention 1 vs. control 1 SMD (95% CI): 1.03 (0.40, 1.65)
Study ID: Flook, 2013 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: National Institutes of Health Country: United States	Number randomized or enrolled: 18 Population (description): Public elementary school teachers Population (civilian, military): Non-military Mean age (SD) or age range: 43.1 (9.9) Percent female: 88.9 Inclusion criteria: Public elementary school teachers in a medium-sized Midwestern city Exclusion criteria: Not reported	Setting: Workplace Intervention type: MBSR Dosage, duration: Multiple sessions (9); number of program weeks: 8; total number of program hours: 26 Delivery mode: In-person Intervention format: Group Comparator type: Passive, waitlist	**Attention/concentration: Rapid visual information-processing task A** Intervention 1: MBSR, *n* = 10; Mean (SD) at post-intervention: 0.94 (0.05) Control 1: Passive, waitlist, *n* = 8; Mean (SD) at post-intervention: 0.94 (0.04) Intervention 1 vs. control 1 SMD (95% CI): 0.00 (–0.89, 0.89) **Emotion regulation: Affective go/no-go errors of commission** Intervention 1: MBSR, *n* = 10; Mean (SD) at post-intervention: 10.9 (5.9) Control 1: Passive, waitlist, *n* = 8; Mean (SD) at post-intervention: 12.9 (6.0) Intervention 1 vs. control 1 SMD (95% CI): 0.32 (–0.57, 1.21)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Garland, 2015 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: National Institutes of Health Country: United States	Number randomized or enrolled: 44 Population (description): University students Population (civilian, military): Non-military Mean age (SD) or age range: 24.4 (4.0) Percent female: 82.2 Inclusion criteria: Florida State University students Exclusion criteria: Not reported	Setting: Virtual Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Multiple sessions (3); number of program weeks: 1; total number of program hours: 0.65 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type 1: Active Comparator type 2: Active	**Emotion regulation: Emotional Regulation Questionnaire reappraisal subscale** Intervention 1: Mindfulness analogue intervention or induction—mindfulness induction Control 1: Active, suppression induction Control 2: Active, mind-wandering induction Intervention 1 vs. control 1 vs. control 2 Time by group interaction from repeated measures ANOVA $F(2,41) = 4.65$, $p = 0.037$
Study ID: Ghawadra, 2020 Study design: Randomized controlled trial, cluster randomized (unit of randomization: ward) Study quality rating: Fair Funding: Unclear Country: Malaysia	Number randomized or enrolled: 249 Population (description): Nurses with mild to moderate stress, anxiety, and depression Population (civilian, military): Non-military Mean age (SD) or age range: 25–31 Percent female: 50.1 Inclusion criteria: Ward nurses in one of the largest Malaysian teaching hospitals; identified as having a mild or moderate level of stress, anxiety, or depression using Depression, Anxiety, and Stress Scale-21 (Lovibond and Lovibond, 1995) Exclusion criteria: Nurses who work in the outpatient clinic, nursing managers, history of mental illness, severe and extremely severe levels of seasonal affective disorder (according to Depression, Anxiety, and Stress Scale-21; Lovibond and Lovibond, 1995)	Setting: Workplace Intervention type: MINDFULGym Dosage, duration: Single session; number of program weeks: 5; total number of program hours: 2 Delivery mode: Mixed in-person and virtual Intervention format: Mixed individual and group Comparator type: Passive, no intervention	**Work-related morale: Job Satisfaction Scale for Nurses, number with normal levels of job satisfaction** Intervention 1: MINDFULGym, $n = 118$ Count (%) at post-intervention Control 1: Passive, no intervention, $n = 106$ Count (%) at post-intervention Intervention 1 vs. control 1 Odds ratio (OR) (95% CI): 8.83 (1.96, 39.82)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Giannandrea, 2019 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: BIAL Foundation (Portugal) Country: Italy	Number randomized or enrolled: 60 Population (description): Adults Population (civilian, military): Non-military Mean age (SD) or age range: 35.7 (12.1) Percent female: Not reported Inclusion criteria: Adults in Rome, Italy Exclusion criteria: Not reported	Setting: Community Intervention type: MBSR Dosage, duration: Multiple sessions (not reported) Delivery mode: In-person Intervention format: Group Comparator type: Passive, waitlist	**Attention/concentration: SART average of probe 1 and probe 2** Intervention 1: MBSR, *n* = 20; Mean (SD) at post-intervention: 4.8 (0.90) Control 1: Passive, waitlist, *n* = 17; Mean (SD) at post-intervention: 4.6 (1.1) Intervention 1 vs. control 1 SMD (95% CI): −0.24 (−0.87, 0.40) **Attention/concentration: SART errors of commission** Intervention 1: MBSR, *n* = 20; Mean (SD) at post-intervention: 8.3 (8.5) Control 1: Passive, waitlist, *n* = 17; Mean (SD) at post-intervention: 11.8 (8.4) Intervention 1 vs. control 1 SMD (95% CI): 0.40 (−0.24, 1.04) **Attention/concentration: SART probe 1** Intervention 1: MBSR, *n* = 20; Mean (SD) at post-intervention: 4.8 (0.76) Control 1: Passive, waitlist, *n* = 17; Mean (SD) at post-intervention: 4.3 (1.1) Intervention 1 vs. control 1 SMD (95% CI): −0.53 (−1.18, 0.11) **Attention/concentration: SART probe 2** Intervention 1: MBSR, *n* = 20; Mean (SD) at post-intervention: 4.9 (1.0) Control 1: Passive, waitlist, *n* = 17; Mean (SD) at post-intervention: 4.9 (1.1) Intervention 1 vs. control 1 SMD (95% CI): 0.02 (−0.61, 0.65)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Glück, 2011 Study design: Randomized controlled trial, individual Study quality rating: Good Funding: University of Vienna Country: Switzerland	Number randomized or enrolled: 49 Population (description): Community-dwelling adults Population (civilian, military): Non-military Mean age (SD) or age range: 35.2 (13.4) Percent female: 73.5 Inclusion criteria: Not reported Exclusion criteria: Under 18 years old, indication of a psychotic disorder or suicidal ideation in the screening, currently pharmacologically or psychotherapeutically treated for a mental disorder or suffering of substance dependence	Setting: Virtual Intervention type: Mindfulness meditation training Dosage, duration: Self-paced, online, or application-based sessions (12); number of program weeks: 2; total number of program hours: 4 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type: Passive, waitlist	**Emotion regulation: Selbsteinschätzung emotionaler Kompetenzen** Intervention 1: Mindfulness meditation training—brief web-based mindfulness training, *n* = 28; Mean (SD) at post-intervention: 2.8 (0.54) Control 1: Passive, waitlist, *n* = 19; Mean (SD) at post-intervention: 3.0 (0.49) Intervention 1 vs. control 1 SMD (95% CI): −0.32 (−0.90, 0.26) **Emotion regulation: Selbsteinschätzung emotionaler Kompetenzen** Intervention 1: Mindfulness meditation training—brief web-based mindfulness training, *n* = 28 Control 1: Passive, waitlist, *n* = 19 Intervention 1 vs. control 1 No usable data reported
Study ID: Green, 2017 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Unclear Country: United States	Number randomized or enrolled: 305 Population (description): Undergraduate students in a psychology course Population (civilian, military): Non-military Mean age (SD) or age range: 19.3 (2.8) Percent female: 48.6 Inclusion criteria: Undergraduate students enrolled in introductory psychology classes at Ohio State University, Lima Exclusion criteria: Not reported	Setting: Virtual Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.33 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type 1: Active Comparator type 2: Active	**Attention/concentration: Anagram puzzles anagram score (number of correctly solved anagrams after intervention – number of correctly solved anagrams before intervention)** Intervention 1: Mindfulness analogue intervention or induction—breathing attention meditation, *n* = 87; Mean (SD) at post-intervention: 9.0 (3.3) Control 1: Active, Progressive Muscle Relaxation, *n* = 87; Mean (SD) at post-intervention: 8.8 (4.1) Control 2: Active, participants watched a video segment of the Discovering Psychology video series (Annenberg Learner, 2001), *n* = 83; Mean (SD) at post-intervention: 8.5 (3.9) Intervention 1 vs. control 1 SMD (95% CI): 0.06 (−0.24, 0.35) Intervention 1 vs. control 2 SMD (95% CI): 0.14 (−0.16, 0.44)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Green, 2017 (cont.)			**Attention/concentration: Post-anagram trial questions, self-reported concentration** Intervention 1: Mindfulness analogue intervention or induction—breathing attention meditation, *n* = 87; Mean (SD) at post-intervention: 4.9 (1.4) Control 1: Active, progressive muscle relaxation, *n* = 87; Mean (SD) at post-intervention: 4.8 (1.5) Control 2: Active, participants watched a video segment of the Discovering Psychology video series (Annenberg Learner, 2001), *n* = 83; Mean (SD) at post-intervention: 4.8 (1.5) Intervention 1 vs. control 1 SMD (95% CI): 0.08 (–0.21, 0.38) Intervention 1 vs. control 2 SMD (95% CI): 0.07 (–0.22, 0.37) **Attention/concentration: Post-anagram trial questions, self-reported mind-wandering** Intervention 1: Mindfulness analogue intervention or induction—breathing attention meditation, *n* = 87; Mean (SD) at post-intervention: 5.2 (1.4) Control 1: Active, progressive muscle relaxation, *n* = 87; Mean (SD) at post-intervention: 4.7 (1.7) Control 2: Active, participants watched a video segment of the Discovering Psychology video series (Annenberg Learner, 2001), *n* = 83; Mean (SD) at post-intervention: 4.7 (1.5) Intervention 1 vs. control 1 SMD (95% CI): 0.34 (0.04, 0.64) Intervention 1 vs. control 2 SMD (95% CI): 0.34 (0.04, 0.64)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Green, 2017 (cont.)			**Attention/concentration: Self-reported concentration during anagram trials, average of questions 2 and 3** Intervention 1: Mindfulness analogue intervention or induction—breathing attention meditation, *n* = 87; Mean (SD) at post-intervention: 5.0 (1.4) Control 1: Active, progressive muscle relaxation, *n* = 87; Mean (SD) at post-intervention: 4.7 (1.6) Control 2: Active, participants watched a video segment of the Discovering Psychology video series (Annenberg Learner, 2001), *n* = 83; Mean (SD) at post-intervention: 4.7 (1.5) Intervention 1 vs. control 1 SMD (95% CI): 0.22 (–0.08, 0.51) Intervention 1 vs. control 2 SMD (95% CI): 0.21 (–0.09, 0.51)
Study ID: Grégoire, 2015 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Unclear Country: Canada	Number randomized or enrolled: 71 Population (description): Call center employees Population (civilian, military): Non-military Mean age (SD) or age range: 36.1 (not reported) Percent female: 58.5 Inclusion criteria: Employees working in the call center of a large not-for-profit organization in Canada offering automotive, travel, residential, and financial services, and products Exclusion criteria: Not reported	Setting: Workplace Intervention type: Mindfulness-based intervention Dosage, duration: Multiple sessions (5); number of program weeks: 5; total number of program hours: 6.25 Delivery mode: Mixed in-person and virtual Intervention format: Mixed individual and group Comparator type: Passive, waitlist	**Emotion regulation: Difficulties in Emotion Regulation Scale average of impulse control difficulties and lack of emotional awareness subscales** Intervention 1: Mindfulness-based intervention, *n* = 26; Mean (SD) at post-intervention: 2.0 (0.57) Control 1: Passive, waitlist, *n* = 15; Mean (SD) at post-intervention: 2.3 (0.81) Intervention 1 vs. control 1 SMD (95% CI): 0.44 (–0.19, 1.07)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Grégoire, 2015 (cont.)			**Emotion regulation: Difficulties in Emotion Regulation Scale impulse control difficulties subscale** Intervention 1: Mindfulness-based intervention, *n* = 26; Mean (SD) at post-intervention: 1.9 (0.69) Control 1: Passive, waitlist, *n* = 15; Mean (SD) at post-intervention: 2.2 (0.97) Intervention 1 vs. control 1 SMD (95% CI): 0.46 (–0.17, 1.10) **Emotion regulation: Difficulties in Emotion Regulation Scale lack of emotional awareness subscale** Intervention 1: Mindfulness-based intervention, *n* = 26; Mean (SD) at post-intervention: 2.1 (0.44) Control 1: Passive, waitlist, *n* = 15; Mean (SD) at post-intervention: 2.3 (0.65) Intervention 1 vs. control 1 SMD (95% CI): 0.39 (–0.24, 1.02)
Study ID: Hafenbrack, 2020 (1a) Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Portuguese Foundation of Science and Technology Country: United States	Number randomized or enrolled: 146 Population (description): Insurance company employees Population (civilian, military): Non-military Mean age (SD) or age range: 41.1 (10.5) Percent female: 82.9 Inclusion criteria: Employees working in the same division of a large insurance company Exclusion criteria: Not reported	Setting: Virtual Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Multiple sessions (5); number of program weeks: 0.7; total number of program hours: 0.6 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type: Active	**Work-related teamwork: Questions to employees and supervisors regarding helping coworkers, day-level helping** Intervention 1: Mindfulness analogue intervention or induction—mindfulness induction, *n* = 41 No data reported by group at post-intervention: (5.1) Control 1: Active, daily survey prompts and surveys, *n* = 43 No data reported by group at post-intervention Intervention 1 vs. control 1 SMD (95% CI): 0.34 (–0.09, 0.76)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Hafenbrack, 2020 (1a) (cont.)			**Work-related social support: Open-ended questions about what made work meaningful helping during the study week (supervisor report)** Intervention 1: Mindfulness analogue intervention or induction—mindfulness induction, *n* = 41 Control 1: Active, daily survey prompts and surveys, *n* = 43 Intervention 1 vs. control 1 ANOVA comparing groups: $F(1,75) = 0.21$, $p < 0.05$
Study ID: Hafenbrack, 2020 (1b) Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Portuguese Foundation of Science and Technology Country: United States	Number randomized or enrolled: 92 Population (description): Information technology consulting employees Population (civilian, military): Non-military Mean age (SD) or age range: 26.9 (2.2) Percent female: 40.2 Inclusion criteria: Employees in two divisions of a large information technology consulting company in India Exclusion criteria: Not reported	Setting: Virtual Intervention type: Mindfulness meditation training Dosage, duration: Single session; total number of program hours: 0.13 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type: Active	**Work-related social support: Prosocial helping behavior, prosocial behavior (other rated)** Intervention 1: Mindfulness meditation training, *n* = 54; Mean (SD) at post-intervention: 4.8 (1.2) Control 1: Active, listening instead to an 8-minute recording from National Public Radio (a 2018 Focus on Technology program) on the topic of technological advances., *n* = 38; Mean (SD) at post-intervention: 4.3 (1.3) Intervention 1 vs. control 1 SMD (95% CI): 0.44 (0.01, 0.87)
Study ID: Hülsheger, 2013 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Unclear Country: Germany	Number randomized or enrolled: 203 Population (description): Working adults Population (civilian, military): Non-military Mean age (SD) or age range: 38.6 (11.1) Percent female: 71.9 Inclusion criteria: Employees holding a broad variety of interactive service jobs in Berlin and various cities in North Rhine-Westphalia, Germany Exclusion criteria: Not reported	Setting: Virtual Intervention type: MBSR Dosage, duration: Self-paced, online, or application-based sessions (10); number of program weeks: 2 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type: Passive, waitlist	**Emotion regulation: Trait surface acting** Intervention 1: MBSR, *n* = 22 Control 1: Passive, waitlist, *n* = 42 Intervention 1 vs. control 1 No usable data reported **Work-related morale: Job satisfaction** Intervention 1: MBSR, *n* = 22; No data reported by group post-intervention: (0.83) Control 1: Passive, waitlist, *n* = 42; No data reported by group at post-intervention Intervention 1 vs. control 1 SMD (95% CI): 0.41 (–0.11, 0.92)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Hunsinger, 2019 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: National Institutes of Health Country: United States	Number randomized or enrolled: 61 Population (description): Law enforcement officers Population (civilian, military): Non-military Mean age (SD) or age range: 44.0 (6.0) Percent female: 10.0 Inclusion criteria: Law enforcement officers recruited from six local police departments in the Pacific Northwest region of the United States Exclusion criteria: Not reported	Setting: Workplace Intervention type: Mindfulness-based resilience training Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 16 Delivery mode: In-person Intervention format: Group Comparator type: Passive, no intervention	**Decisionmaking: Shooter bias task Process Dissociation Procedure automatic—black targets** Intervention 1: Mindfulness-based resilience training, *n* = 24; Mean (SD) at post-intervention: 0.51 (0.24) Control 1: Passive, no intervention, *n* = 26; Mean (SD) at post-intervention: 0.50 (0.20) Intervention 1 vs. control 1 SMD (95% CI): −0.04 (−0.59, 0.50) **Decisionmaking: Shooter bias task Process Dissociation Procedure automatic—black targets** Intervention 1: Mindfulness-based resilience training, *n* = 24; Mean (SD) at 3 months after baseline: 0.48 (0.22) Control 1: Passive, no intervention, *n* = 25; Mean (SD) at 3 months after baseline: 0.45 (0.23) Intervention 1 vs. control 1 SMD (95% CI): −0.13 (−0.68, 0.42) **Decisionmaking: Shooter bias task Process Dissociation Procedure automatic—white targets** Intervention 1: Mindfulness-based resilience training, *n* = 24; Mean (SD) at post-intervention: 0.42 (0.21) Control 1: Passive, no intervention, *n* = 26; Mean (SD) at post-intervention: 0.51 (0.18) Intervention 1 vs. control 1 SMD (95% CI): 0.45 (−0.10, 1.01)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Hunsinger, 2019 (cont.)			**Decisionmaking: Shooter bias task Process Dissociation Procedure automatic—white targets** Intervention 1: Mindfulness-based resilience training, *n* = 24; Mean (SD) at 3 months after baseline: 0.45 (0.23) Control 1: Passive, no intervention, *n* = 25; Mean (SD) at 3 months after baseline: 0.49 (0.20) Intervention 1 vs. control 1 SMD (95% CI): 0.18 (–0.37, 0.74) **Decisionmaking: Shooter bias task Process Dissociation Procedure control—black targets** Intervention 1: Mindfulness-based resilience training, *n* = 24; Mean (SD) at post-intervention: 0.83 (0.07) Control 1: Passive, no intervention, *n* = 26; Mean (SD) at post-intervention: 0.82 (0.11) Intervention 1 vs. control 1 SMD (95% CI): 0.11 (–0.44, 0.65) **Decisionmaking: Shooter bias task Process Dissociation Procedure control—black targets** Intervention 1: Mindfulness-based resilience training, *n* = 24; Mean (SD) at 3 months after baseline: 0.86 (0.07) Control 1: Passive, no intervention, *n* = 25; Mean (SD) at 3 months after baseline: 0.83 (0.07) Intervention 1 vs. control 1 SMD (95% CI): 0.42 (–0.14, 0.98)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Hunsinger, 2019 (cont.)			**Decisionmaking: Shooter bias task Process Dissociation Procedure control—white targets** Intervention 1: Mindfulness-based resilience training, *n* = 24; Mean (SD) at post-intervention: 0.82 (0.08) Control 1: Passive, no intervention, *n* = 26; Mean (SD) at post-intervention: 0.77 (0.10) Intervention 1 vs. control 1 SMD (95% CI): 0.54 (–0.02, 1.10) **Decisionmaking: Shooter bias task Process Dissociation Procedure control—white targets** Intervention 1: Mindfulness-based resilience training, *n* = 24; Mean (SD) at 3 months after baseline: 0.81 (0.08) Control 1: Passive, no intervention, *n* = 25; Mean (SD) at 3 months after baseline: 0.75 (0.12) Intervention 1 vs. control 1 SMD (95% CI): 0.58 (0.01, 1.14) **Decisionmaking: Shooter bias task armed black targets** Intervention 1: Mindfulness-based resilience training, *n* = 24; Mean (SD) at post-intervention: 493.5 (35.8) Control 1: Passive, no intervention, *n* = 26; Mean (SD) at post-intervention: 478.8 (40.2) Intervention 1 vs. control 1 SMD (95% CI): 0.38 (–0.17, 0.93)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Hunsinger, 2019 (cont.)			**Decisionmaking: Shooter bias task armed black targets** Intervention 1: Mindfulness-based resilience training, *n* = 24; Mean (SD) at 3 months after baseline: 487.6 (31.3) Control 1: Passive, no intervention, *n* = 26; Mean (SD) at 3 months after baseline: 473.8 (40.6) Intervention 1 vs. control 1 SMD (95% CI): 0.37 (–0.18, 0.92) **Decisionmaking: Shooter bias task armed white targets** Intervention 1: Mindfulness-based resilience training, *n* = 24; Mean (SD) at post-intervention: 498.9 (35.9) Control 1: Passive, no intervention, *n* = 26; Mean (SD) at post-intervention: 484.5 (40.3) Intervention 1 vs. control 1 SMD (95% CI): 0.37 (–0.18, 0.92) **Decisionmaking: Shooter bias task armed white targets** Intervention 1: Mindfulness-based resilience training, *n* = 24; Mean (SD) at 3 months after baseline: 496.9 (35.8) Control 1: Passive, no intervention, *n* = 26; Mean (SD) at 3 months after baseline: 483.0 (43.8) Intervention 1 vs. control 1 SMD (95% CI): 0.34 (–0.21, 0.89) **Decisionmaking: Shooter bias task unarmed black targets** Intervention 1: Mindfulness-based resilience training, *n* = 24; Mean (SD) at post-intervention: 552.5 (29.2) Control 1: Passive, no intervention, *n* = 26; Mean (SD) at post-intervention: 552.7 (35.7) Intervention 1 vs. control 1 SMD (95% CI): –0.01 (–0.55, 0.54)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Hunsinger, 2019 (cont.)			**Decisionmaking: Shooter bias task unarmed black targets** Intervention 1: Mindfulness-based resilience training, *n* = 24; Mean (SD) at 3 months after baseline: 547.3 (27.2) Control 1: Passive, no intervention, *n* = 26; Mean (SD) at 3 months after baseline: 548.7 (37.5) Intervention 1 vs. control 1 SMD (95% CI): −0.04 (−0.59, 0.51) **Decisionmaking: Shooter bias task unarmed white targets** Intervention 1: Mindfulness-based resilience training, *n* = 24; Mean (SD) at post-intervention: 547.5 (27.6) Control 1: Passive, no intervention, *n* = 26; Mean (SD) at post-intervention: 539.9 (38.6) Intervention 1 vs. control 1 SMD (95% CI): 0.22 (−0.33, 0.77) **Decisionmaking: Shooter bias task unarmed white targets** Intervention 1: Mindfulness-based resilience training, *n* = 24; Mean (SD) at 3 months after baseline: 544.5 (25.9) Control 1: Passive, no intervention, *n* = 26; Mean (SD) at 3 months after baseline: 536.2 (32.6) Intervention 1 vs. control 1 SMD (95% CI): 0.28 (−0.27, 0.82)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Hwang, 2019 Study design: Randomized controlled trial, cluster randomized (unit of randomization: school) Study quality rating: Poor Funding: Teachers' Health Foundation (Australia) Country: Australia	Number randomized or enrolled: 185 Population (description): Kindergarten through grade 12 teachers Population (civilian, military): Non-military Mean age (SD) or age range: 42.3 (12.6) Percent female: 83.5 Inclusion criteria: Educators at primary, secondary, and special schools in Australia Exclusion criteria: Not reported	Setting: School Intervention type: Reconnected Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 12 Delivery mode: In-person Intervention format: Group Comparator type: Passive, no intervention	**Emotion regulation: Emotional Regulation Questionnaire cognitive reappraisal** Intervention 1: Reconnected, *n* = 83; Mean (SD) at post-intervention: 30.0 (6.4) Control 1: Passive, no intervention, *n* = 83; Mean (SD) at post-intervention: 28.6 (7.4) Intervention 1 vs. control 1 SMD (95% CI): 0.21 (–0.10, 0.51) **Emotion regulation: Emotional Regulation Questionnaire cognitive reappraisal** Intervention 1: Reconnected, *n* = 55; Mean (SD) at post-intervention: 29.3 (6.3) Control 1: Passive, no intervention, *n* = 69; Mean (SD) at post-intervention: 29.2 (7.0) Intervention 1 vs. control 1 SMD (95% CI): 0.01 (–0.34, 0.36) **Emotion regulation: Emotional Regulation Questionnaire expressive suppression** Intervention 1: Reconnected, *n* = 83; Mean (SD) at post-intervention: 13.2 (4.0) Control 1: Passive, no intervention, *n* = 83; Mean (SD) at post-intervention: 14.2 (5.2) Intervention 1 vs. control 1 SMD (95% CI): 0.21 (–0.09, 0.51) **Emotion regulation: Emotional Regulation Questionnaire expressive suppression** Intervention 1: Reconnected, *n* = 55; Mean (SD) at post-intervention: 13.3 (3.9) Control 1: Passive, no intervention, *n* = 69; Mean (SD) at post-intervention: 14.6 (5.3) Intervention 1 vs. control 1 SMD (95% CI): 0.27 (–0.08, 0.63)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Jankowski, 2020 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: National Science Centre (Poland), University of Warsaw Country: Poland	Number randomized or enrolled: 81 Population (description): Young adults Population (civilian, military): Non-military Mean age (SD) or age range: 22.3 (2.4) Percent female: 65.4 Inclusion criteria: Normal vision and no difficulty differentiating colors Exclusion criteria: Not reported	Setting: Virtual Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.83 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type 1: Active Comparator type 2: Passive, no intervention	**Attention/concentration: Attention-switching task overall RT (ms)** Intervention 1: Mindfulness analogue intervention or induction—brief mindfulness meditation, *n* = 28; Mean (SD) at post-intervention: 779.0 (75.0) Control 1: Active, a 10-minute task intended to evoke worrying, *n* = 21; Mean (SD) at post-intervention: 844.0 (75.0) Control 2: Passive, no intervention, *n* = 25; Mean (SD) at post-intervention: 820.0 (75.0) Intervention 1 vs. control 1 SMD (95% CI): 0.85 (0.27, 1.43) Intervention 1 vs. control 2 SMD (95% CI): 0.54 (–0.00, 1.08) **Emotion regulation: Attention-switching task switch cost (difference in RT between switch vs. no switch trials)** Intervention 1: Mindfulness analogue intervention or induction—brief mindfulness meditation, *n* = 28 Control 1: Active, a 10-minute task intended to evoke worrying, *n* = 21 Control 2: Passive, no intervention, *n* = 25 Intervention 1 vs. control 1 No usable data reported Intervention 1 vs. control 2 No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Jennings, 2019 Study design: Randomized controlled trial, individual Study quality rating: Good Funding: Institute of Educational Sciences Country: United States	Number randomized or enrolled: 224 Population (description): Public elementary school teachers Population (civilian, military): Non-military Mean age (SD) or age range: 22–73 Percent female: 93.0 Inclusion criteria: General education teacher at a New York City public elementary school (kindergarten through grade 5) located in a high-poverty area of the Bronx or Upper Manhattan; lead teacher in the classroom, taught the same students for the entirety of the school day, had classrooms that were not gender-segregated Exclusion criteria: Not reported	Setting: Workplace Intervention type: Cultivating Awareness and Resilience in Education Dosage, duration: Multiple sessions (8); number of program weeks: 16; total number of program hours: 31.3 Delivery mode: Mixed in-person and virtual Intervention format: Mixed individual and group Comparator type: Passive, waitlist	**Emotion regulation: Emotional Regulation Questionnaire, reappraisal** Intervention 1: Cultivating Awareness and Resilience in Education, *n* = 118; Mean (SD) at 6 months after baseline: 5.3 (1.0) Control 1: Passive, waitlist, *n* = 106; Mean (SD) at 6 months after baseline: 5.1 (1.0) Intervention 1 vs. control 1 SMD (95% CI): 0.22 (−0.04, 0.49) **Emotion regulation: Emotional Regulation Questionnaire, suppression** Intervention 1: Cultivating Awareness and Resilience in Education, *n* = 118; Mean (SD) at 6 months after baseline: 3.4 (1.2) Control 1: Passive, waitlist, *n* = 106; Mean (SD) at 6 months after baseline: 3.7 (1.1) Intervention 1 vs. control 1 SMD (95% CI): 0.29 (0.03, 0.55)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Jensen, 2012 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: TryghedsGruppen (Denmark), Lundbeckfonden (Denmark), Copenhagen University Country: Denmark	Number randomized or enrolled: 48 Population (description): Young adults Population (civilian, military): Non-military Mean age (SD) or age range: 20–36 Percent female: 62.5 Inclusion criteria: Adults recruited through oral presentations and posters at the Department of Psychology at Copenhagen University, physically and psychologically healthy as evaluated on the Symptom Checklist-90—Revised (Derogatis, 1977) and a screening questionnaire (70 items) used at the Copenhagen University Hospital, meditation and yoga novices Exclusion criteria: Not reported	Setting: School Intervention type: MBSR Dosage, duration: Multiple sessions (9); number of program weeks: 8; total number of program hours: 27 Delivery mode: In-person Intervention format: Group Comparator type 1: Active Comparator type 2: Passive, no intervention Comparator type 3: Passive, no intervention	**Attention/concentration: CombiTVA paradigm attentional selectivity** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 0.61 (0.32) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 0.52 (0.27) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 0.48 (0.33) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 0.48 (0.18) Intervention 1 vs. control 1 SMD (95% CI): −0.30 (−0.99, 0.39) Intervention 1 vs. control 2 SMD (95% CI): −0.39 (−1.22, 0.44) Intervention 1 vs. control 3 SMD (95% CI): −0.44 (−1.27, 0.39) **Attention/concentration: CombiTVA paradigm capacity of visual STM** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 3.7 (0.68) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 3.6 (0.82) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 3.5 (0.64) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 3.6 (0.55) Intervention 1 vs. control 1 SMD (95% CI): 0.23 (−0.46, 0.92) Intervention 1 vs. control 2 SMD (95% CI): 0.40 (−0.42, 1.23) Intervention 1 vs. control 3 SMD (95% CI): 0.27 (−0.55, 1.09)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: CombiTVA paradigm perceptual threshold** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 9.0 (9.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 8.0 (6.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 9.0 (5.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 12.0 (5.0) Intervention 1 vs. control 1 SMD (95% CI): −0.13 (−0.81, 0.56) Intervention 1 vs. control 2 SMD (95% CI): 0.00 (−0.82, 0.82) Intervention 1 vs. control 3 SMD (95% CI): 0.36 (−0.46, 1.19) **Attention/concentration: CombiTVA paradigm processing speed** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 41.0 (11.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 40.0 (14.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 40.0 (14.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 40.0 (10.0) Intervention 1 vs. control 1 SMD (95% CI): 0.08 (−0.61, 0.76) Intervention 1 vs. control 2 SMD (95% CI): 0.08 (−0.74, 0.90) Intervention 1 vs. control 3 SMD (95% CI): 0.09 (−0.73, 0.91)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: Dual attention to response task gray digit RT** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 395.0 (86.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 375.0 (69.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 341.0 (63.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 331.0 (51.0) Intervention 1 vs. control 1 SMD (95% CI): −0.25 (−0.94, 0.44) Intervention 1 vs. control 2 SMD (95% CI): −0.66 (−1.50, 0.18) Intervention 1 vs. control 3 SMD (95% CI): −0.81 (−1.66, 0.04)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: Dual attention to response task gray digit RT coefficient of variation** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 0.46 (0.12) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 0.45 (0.05) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 0.56 (0.07) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 0.45 (0.14) Intervention 1 vs. control 1 SMD (95% CI): −0.10 (−0.79, 0.58) Intervention 1 vs. control 2 SMD (95% CI): 0.91 (0.05, 1.76) Intervention 1 vs. control 3 SMD (95% CI): −0.08 (−0.90, 0.74)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: Dual attention to response task white digit RT CV** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 170.0 (50.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 194.0 (44.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 139.0 (38.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 174.0 (38.0) Intervention 1 vs. control 1 SMD (95% CI): 0.50 (–0.20, 1.19) Intervention 1 vs. control 2 SMD (95% CI): –0.64 (–1.48, 0.20) Intervention 1 vs. control 3 SMD (95% CI): 0.08 (–0.74, 0.90)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: Spatial and temporal attention network task, neutral cues RT** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 273.0 (33.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 282.0 (39.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 275.0 (51.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 251.0 (24.0) Intervention 1 vs. control 1 SMD (95% CI): 0.24 (–0.45, 0.93) Intervention 1 vs. control 2 SMD (95% CI): 0.05 (–0.77, 0.87) Intervention 1 vs. control 3 SMD (95% CI): –0.70 (–1.54, 0.14)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: Spatial and temporal attention network task, neutral cues RT (left)** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 263.0 (32.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 270.0 (37.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 266.0 (58.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 248.0 (25.0) Intervention 1 vs. control 1 SMD (95% CI): 0.20 (−0.49, 0.89) Intervention 1 vs. control 2 SMD (95% CI): 0.07 (−0.75, 0.89) Intervention 1 vs. control 3 SMD (95% CI): −0.48 (−1.31, 0.35)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: Spatial and temporal attention network task, neutral cues RT (right)** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 263.0 (39.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 266.0 (39.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 264.0 (52.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 238.0 (20.0) Intervention 1 vs. control 1 SMD (95% CI): 0.07 (–0.61, 0.76) Intervention 1 vs. control 2 SMD (95% CI): 0.02 (–0.80, 0.84) Intervention 1 vs. control 3 SMD (95% CI): –0.71 (–1.55, 0.14)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: Spatial and temporal attention network task, neutral cues mean RT** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 263.0 (35.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 269.0 (35.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 265.0 (55.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 243.0 (22.0) Intervention 1 vs. control 1 SMD (95% CI): 0.17 (–0.52, 0.85) Intervention 1 vs. control 2 SMD (95% CI): 0.05 (–0.77, 0.87) Intervention 1 vs. control 3 SMD (95% CI): –0.61 (–1.45, 0.22)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: Spatial and temporal attention network task, spatial cues RT (invalid, left)** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 274.0 (31.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 301.0 (51.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 284.0 (32.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 272.0 (39.0) Intervention 1 vs. control 1 SMD (95% CI): 0.63 (−0.08, 1.33) Intervention 1 vs. control 2 SMD (95% CI): 0.31 (−0.52, 1.13) Intervention 1 vs. control 3 SMD (95% CI): −0.06 (−0.88, 0.76)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: Spatial and temporal attention network task, spatial cues RT (invalid, right)** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 282.0 (36.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 296.0 (36.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 286.0 (55.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 270.0 (44.0) Intervention 1 vs. control 1 SMD (95% CI): 0.38 (–0.31, 1.07) Intervention 1 vs. control 2 SMD (95% CI): 0.09 (–0.73, 0.91) Intervention 1 vs. control 3 SMD (95% CI): –0.30 (–1.12, 0.52)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: Spatial and temporal attention network task, spatial cues RT (valid, left)** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 252.0 (34.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 262.0 (32.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 240.0 (28.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 235.0 (40.0) Intervention 1 vs. control 1 SMD (95% CI): 0.29 (–0.40, 0.98) Intervention 1 vs. control 2 SMD (95% CI): –0.36 (–1.19, 0.47) Intervention 1 vs. control 3 SMD (95% CI): –0.46 (–1.29, 0.37)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: Spatial and temporal attention network task, spatial cues RT (valid, right)** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 249.0 (31.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 259.0 (32.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 247.0 (43.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 240.0 (26.0) Intervention 1 vs. control 1 SMD (95% CI): 0.31 (–0.38, 1.00) Intervention 1 vs. control 2 SMD (95% CI): –0.05 (–0.87, 0.76) Intervention 1 vs. control 3 SMD (95% CI): –0.29 (–1.12, 0.53)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: Spatial and temporal attention network task, temporal cues RT (invalid)** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 271.0 (39.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 274.0 (44.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 274.0 (41.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 262.0 (44.0) Intervention 1 vs. control 1 SMD (95% CI): 0.07 (–0.62, 0.76) Intervention 1 vs. control 2 SMD (95% CI): 0.07 (–0.75, 0.89) Intervention 1 vs. control 3 SMD (95% CI): –0.21 (–1.04, 0.61)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: Spatial and temporal attention network task, temporal cues RT (valid)** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 260.0 (33.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 256.0 (30.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 252.0 (32.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 239.0 (30.0) Intervention 1 vs. control 1 SMD (95% CI): −0.12 (−0.81, 0.56) Intervention 1 vs. control 2 SMD (95% CI): −0.24 (−1.06, 0.59) Intervention 1 vs. control 3 SMD (95% CI): −0.63 (−1.47, 0.21)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: Stroop color and word task, congruent block times (s)** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 48.0 (5.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 52.0 (6.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 46.0 (8.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 46.0 (8.0) Intervention 1 vs. control 1 SMD (95% CI): 0.71 (–0.00, 1.42) Intervention 1 vs. control 2 SMD (95% CI): –0.32 (–1.14, 0.51) Intervention 1 vs. control 3 SMD (95% CI): –0.32 (–1.14, 0.51)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: Stroop color and word task, incongruent block error rate** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 2.1 (1.5) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 2.3 (1.8) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 3.6 (1.7) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 1.9 (1.6) Intervention 1 vs. control 1 SMD (95% CI): 0.12 (–0.57, 0.80) Intervention 1 vs. control 2 SMD (95% CI): 0.92 (0.06, 1.78) Intervention 1 vs. control 3 SMD (95% CI): –0.13 (–0.95, 0.69)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: Stroop color and word task, incongruent block time** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 90.0 (12.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 95.0 (12.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 88.0 (18.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 82.0 (8.0) Intervention 1 vs. control 1 SMD (95% CI): 0.41 (–0.29, 1.10) Intervention 1 vs. control 2 SMD (95% CI): –0.14 (–0.96, 0.68) Intervention 1 vs. control 3 SMD (95% CI): –0.71 (–1.55, 0.13)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: D2 error distribution** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 10.0 (5.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 11.0 (4.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 10.0 (4.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 10.0 (4.0) Intervention 1 vs. control 1 SMD (95% CI): 0.21 (–0.47, 0.90) Intervention 1 vs. control 2 SMD (95% CI): 0.00 (–0.82, 0.82) Intervention 1 vs. control 3 SMD (95% CI): 0.00 (–0.82, 0.82)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: D2 error percentage (E%)** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 2.5 (1.9) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 3.9 (3.9) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 4.7 (3.7) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 3.6 (2.8) Intervention 1 vs. control 1 SMD (95% CI): 0.45 (–0.25, 1.14) Intervention 1 vs. control 2 SMD (95% CI): 0.81 (–0.04, 1.66) Intervention 1 vs. control 3 SMD (95% CI): 0.48 (–0.35, 1.31)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: D2 total error rate** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 15.0 (22.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 22.0 (22.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 26.0 (21.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 21.0 (17.0) Intervention 1 vs. control 1 SMD (95% CI): 0.31 (–0.38, 1.00) Intervention 1 vs. control 2 SMD (95% CI): 0.49 (–0.34, 1.32) Intervention 1 vs. control 3 SMD (95% CI): 0.28 (–0.54, 1.11)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: D2 total score** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 574.0 (62.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 558.0 (45.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 588.0 (45.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 563.0 (57.0) Intervention 1 vs. control 1 SMD (95% CI): 0.29 (–0.40, 0.98) Intervention 1 vs. control 2 SMD (95% CI): –0.24 (–1.06, 0.59) Intervention 1 vs. control 3 SMD (95% CI): 0.18 (–0.65, 1.00)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2012 (cont.)			**Attention/concentration: D2 total score – errors** Intervention 1: MBSR, *n* = 16; Mean (SD) at post-intervention: 559.0 (59.0) Control 1: Active, non-mindfulness stress reduction, *n* = 15; Mean (SD) at post-intervention: 536.0 (43.0) Control 2: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 562.0 (60.0) Control 3: Passive, no intervention, *n* = 8; Mean (SD) at post-intervention: 543.0 (54.0) Intervention 1 vs. control 1 SMD (95% CI): 0.43 (–0.26, 1.13) Intervention 1 vs. control 2 SMD (95% CI): –0.05 (–0.87, 0.77) Intervention 1 vs. control 3 SMD (95% CI): 0.27 (–0.55, 1.09)
Study ID: Jensen, 2020 Study design: Randomized controlled trial, cluster randomized (unit of randomization: platoon) Study quality rating: Poor Funding: U.S. Department of Defense Country: United States	Number randomized or enrolled: 203 Population (description): Active-duty, male Marines Population (civilian, military): Military (active duty, National Guard, or reserves) Mean age (SD) or age range: 22.7 (3.3) Percent female: 0.0 Inclusion criteria: Active-duty, male Marines currently enrolled in the Basic Reconnaissance Course at the School of Infantry-West, Camp Pendleton, California Exclusion criteria: Not reported	Setting: Military Intervention type: Mindfulness-based mind fitness training (MMFT) Dosage, duration: Multiple sessions (number not reported); number of program weeks: 8 Delivery mode: In-person Intervention format: Group Comparator type 1: Active Comparator type 2: Active	**Attention/concentration: SART SD RT** Intervention 1: MMFT, *n* = 65; No data reported by group at post-intervention (post-ambush) Control 1: Active, treatment as usual, *n* = 91; No data reported by group at post-intervention (post-ambush) Control 2: Active, general mental skills training, *n* = 47; No data reported by group at post-intervention (post-ambush) Intervention 1 vs. control 1 SMD: 0.06 Intervention 1 vs. control 2 SMD (95% CI): No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jensen, 2020 (cont.)			**Attention/concentration: SART average correct RT** Intervention 1: MMFT, *n* = 65; No data reported by group at post-intervention (post-ambush) Control 1: Active, treatment as usual, *n* = 91; No data reported by group at post-intervention (post-ambush) Control 2: Active, general mental skills training, *n* = 47; No data reported by group at post-intervention (post-ambush) Intervention 1 vs. control 1 SMD: 0.00 Intervention 1 vs. control 2 SMD (95% CI): No usable data reported
Study ID: Jha, 2015 Study design: Randomized controlled trial, cluster randomized (unit of randomization: Army) Study quality rating: Poor Funding: Army Country: United States	Number randomized or enrolled: 164 Population (description): Active-duty U.S. Army males Population (civilian, military): Military (active duty, National Guard, or reserves) Mean age (SD) or age range: 24.2 (4.9) Percent female: 1.8 Inclusion criteria: Male active-duty service members in a combat-arms platoon preparing for deployment to Afghanistan OR male U.S. Marine Corps Reservists preparing for deployment to Iraq OR civilians Exclusion criteria: Not reported	Setting: Military Intervention type 1: MMFT Dosage, duration: Multiple sessions (5); number of program weeks: 8; total number of program hours: 8.25 Delivery mode: In-person Intervention format: Mixed individual and group Intervention type 2: MMFT Dosage, duration: Multiple sessions (5); number of program weeks: 8; total number of program hours: 8.25 Delivery mode: In-person Intervention format: Mixed individual and group Comparator type 1: Passive, no intervention Comparator type 2: Passive, no intervention	**Attention/concentration: SART A'** Intervention 1: MMFT, *n* = 38; Mean (SD) at post-intervention: 0.77 (0.06) Intervention 2: MMFT, *n* = 33; Mean (SD) at post-intervention: 0.82 (0.06) Control 1: Passive, no intervention, *n* = 19; Mean (SD) at post-intervention: 0.71 (0.09) Control 2: Passive, no intervention, *n* = 45; Mean (SD) at post-intervention: 0.83 (0.07) Intervention 1 vs. control 1 SMD (95% CI): 0.83 (0.27, 1.40) Intervention 2 vs. control 1 SMD (95% CI): 1.56 (0.92, 2.19) Intervention 1 vs. control 2 SMD (95% CI): −0.92 (−1.37, −0.47) Intervention 2 vs. control 2 SMD (95% CI): −0.16 (−0.60, 0.29)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome

Jha, 2015 (cont.)			**Attention/concentration: SART RT variability (ICV)**
			Intervention 1: MMFT, *n* = 38;
			Mean (SD) at post-intervention:
			0.55 (0.18)
			
			Intervention 2: MMFT, *n* = 33;
			Mean (SD) at post-intervention:
			0.40 (0.17)
			
			Control 1: Passive, no intervention,
			n = 19;
			Mean (SD) at post-intervention:
			0.47 (0.22)
			
			Control 2: Passive, no intervention,
			n = 45;
			Mean (SD) at post-intervention:
			0.43 (0.20)
			
			Intervention 1 vs. control 1
			SMD (95% CI):
			−0.40 (−0.95, 0.15)
			
			Intervention 2 vs. control 1
			SMD (95% CI):
			0.36 (−0.20, 0.92)
			
			Intervention 1 vs. control 2
			SMD (95% CI):
			−0.61 (−1.05, −0.18)
			
			Intervention 2 vs. control 2
			SMD (95% CI):
			0.16 (−0.29, 0.60)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jha, 2015 (cont.)			**Attention/concentration: SART errors of commission (%)** Intervention 1: MMFT, *n* = 38; Mean (SD) at post-intervention: 64.0 (19.0) Intervention 2: MMFT, *n* = 33; Mean (SD) at post-intervention: 56.0 (19.0) Control 1: Passive, no intervention, *n* = 19; Mean (SD) at post-intervention: 71.0 (19.0) Control 2: Passive, no intervention, *n* = 45; Mean (SD) at post-intervention: 53.0 (19.0) Intervention 1 vs. control 1 SMD (95% CI): 0.36 (–0.18, 0.91) Intervention 2 vs. control 1 SMD (95% CI): 0.78 (0.20, 1.35) Intervention 1 vs. control 2 SMD (95% CI): –0.57 (–1.01, –0.14) Intervention 2 vs. control 2 SMD (95% CI): –0.16 (–0.60, 0.29) **Attention/concentration: SART mean RT** Intervention 1: MMFT Intervention 2: MMFT Control 1: Passive, no intervention Control 2: Passive, no intervention Intervention 1 vs. control 1 No usable data reported Intervention 2 vs. control 1 No usable data reported Intervention 1 vs. control 2 No usable data reported Intervention 2 vs. control 2 No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jha, 2015 (cont.)			**Attention/concentration: SART probe 1** Intervention 1: MMFT, *n* = 38 Intervention 2: MMFT, *n* = 33 Control 1: Passive, no intervention, *n* = 19 Control 2: Passive, no intervention, *n* = 45 Intervention 1 vs. control 1 No usable data reported Intervention 2 vs. control 1 No usable data reported Intervention 1 vs. control 2 No usable data reported Intervention 2 vs. control 2 No usable data reported **Attention/concentration: SART probe 2** Intervention 1: MMFT, *n* = 38; Mean (SD) at post-intervention: 1.9 (0.62) Intervention 2: MMFT, *n* = 33; Mean (SD) at post-intervention: 2.0 (0.57) Control 1: Passive, no intervention, *n* = 19; Mean (SD) at post-intervention: 2.5 (0.87) Control 2: Passive, no intervention, *n* = 45; Mean (SD) at post-intervention: 1.6 (0.67) Intervention 1 vs. control 1 SMD (95% CI): 0.83 (0.27, 1.40) Intervention 2 vs. control 1 SMD (95% CI): 0.71 (0.13, 1.28) Intervention 1 vs. control 2 SMD (95% CI): −0.46 (−0.89, −0.03) Intervention 2 vs. control 2 SMD (95% CI): −0.63 (−1.08, −0.17)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Johnson, 2015 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Unclear Country: United States	Number randomized or enrolled: 92 Population (description): University students Population (civilian, military): Non-military Mean age (SD) or age range: 23.4 (8.2) Percent female: 65.0 Inclusion criteria: Students at a large southeastern university participating in the university research subject pool, no prior meditation experience Exclusion criteria: Not reported	Setting: Virtual Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.42 Delivery mode: Virtual asynchronous Intervention format: Group Comparator type 1: Active Comparator type 2: Active	**Attention/concentration: Computer-adaptive adjustable two-back task extended hit rate (run of correct responses)** Intervention 1: Mindfulness analogue intervention or induction—brief mindfulness meditation, *n* = 41; Mean (SD) at post-intervention: 2.5 (3.3) Control 1: Active, sham meditation (90 minutes in length, delivered via audio recording), *n* = 25; Mean (SD) at post-intervention: 2.9 (3.4) Control 2: Active, book-listening group, *n* = 26; Mean (SD) at post-intervention: 2.3 (2.9) Intervention 1 vs. control 1 SMD (95% CI): −0.12 (−0.61, 0.37) Intervention 1 vs. control 2 SMD (95% CI): 0.06 (−0.42, 0.55) **Attention/concentration: Symbol Digit Modalities Test** Intervention 1: Mindfulness analogue intervention or induction—brief mindfulness meditation, *n* = 41; Mean (SD) at post-intervention: 59.2 (8.1) Control 1: Active, sham meditation (90 minutes in length, delivered via audio recording), *n* = 25; Mean (SD) at post-intervention: 58.5 (11.9) Control 2: Active, book-listening group, *n* = 26; Mean (SD) at post-intervention: 60.7 (7.8) Intervention 1 vs. control 1 SMD (95% CI): 0.07 (−0.42, 0.56) Intervention 1 vs. control 2 SMD (95% CI): −0.19 (−0.67, 0.30)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Johnson, 2015 (cont.)			**Attention/concentration: Trail Making Test, part A** Intervention 1: Mindfulness analogue intervention or induction—brief mindfulness meditation, *n* = 41; Mean (SD) at post-intervention: 25.4 (7.7) Control 1: Active, sham meditation (90 minutes in length, delivered via audio recording), *n* = 25; Mean (SD) at post-intervention: 27.8 (8.8) Control 2: Active, book-listening group, *n* = 26; Mean (SD) at post-intervention: 23.1 (6.6) Intervention 1 vs. control 1 SMD (95% CI): 0.29 (–0.20, 0.79) Intervention 1 vs. control 2 SMD (95% CI): –0.31 (–0.80, 0.18) **Attention/concentration: Trail Making Test, part A and part B averaged together** Intervention 1: Mindfulness analogue intervention or induction—brief mindfulness meditation, *n* = 41; Mean (SD) at post-intervention: 42.5 (13.2) Control 1: Active, sham meditation (90 minutes in length, delivered via audio recording), *n* = 25; Mean (SD) at post-intervention: 44.6 (14.7) Control 2: Active, book-listening group, *n* = 26; Mean (SD) at post-intervention: 38.9 (11.3) Intervention 1 vs. control 1 SMD (95% CI): 0.15 (–0.34, 0.64) Intervention 1 vs. control 2 SMD (95% CI): –0.29 (–0.77, 0.20)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Johnson, 2015 (cont.)			**Attention/concentration: Trail Making Test, part B** Intervention 1: Mindfulness analogue intervention or induction—brief mindfulness meditation, *n* = 41; Mean (SD) at post-intervention: 59.6 (18.6) Control 1: Active, sham meditation (90 minutes in length, delivered via audio recording), *n* = 25; Mean (SD) at post-intervention: 61.3 (20.5) Control 2: Active, book-listening group, *n* = 26; Mean (SD) at post-intervention: 54.7 (16.0) Intervention 1 vs. control 1 SMD (95% CI): 0.09 (–0.40, 0.58) Intervention 1 vs. control 2 SMD (95% CI): –0.27 (–0.76, 0.21)
Study ID: Keng, 2017 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: National Institutes of Health Country: Singapore	Number randomized or enrolled: 171 Population (description): Undergraduate psychology students Population (civilian, military): Non-military Mean age (SD) or age range: 20.2 (1.6) Percent female: 73.6 Inclusion criteria: Undergraduate psychology students at the National University of Singapore, aged between 18 and 55, proficient in English Exclusion criteria: Not reported	Setting: Virtual Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.17 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type 1: Active Comparator type 2: Active	**Attention/concentration: Stroop interference score** Intervention 1: Mindfulness analogue intervention or induction—mindfulness condition, *n* = 38 Control 1: Active, brief training in reappraisal—re-interpreting the meaning of "emotion-inducing situations to reduce their emotional impact" (Hofmann and Asmundson, 2008), *n* = 42 Control 2: Active, brief training in suppression—inhibiting "both the external expression and internal experience of emotion" (Dunn et al., 2009), *n* = 43 Intervention 1 vs. control 1 Interaction of group by time: $t(1) = 2.5$, $p = 0.014$ Intervention 1 vs. control 2 Interaction of group by time: $t(1) = 0.53$, $p = 0.598$

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Keng, 2017 (cont.)			**Emotion regulation: State sadness** Intervention 1: Mindfulness analogue intervention or induction—mindfulness condition, *n* = 39; Mean (SD) at post-intervention: 40.0 (24.0) Control 1: Active, brief training in reappraisal—re-interpreting the meaning of "emotion-inducing situations to reduce their emotional impact" (Hofmann and Asmundson, 2008), *n* = 43; Mean (SD) at post-intervention: 40.0 (24.0) Control 2: Active, brief training in suppression—inhibiting "both the external expression and internal experience of emotion" (Dunn et al., 2009), *n* = 43; Mean (SD) at post-intervention: 50.0 (24.0) Intervention 1 vs. control 1 SMD (95% CI): 0.00 (–0.43, 0.43) Intervention 1 vs. control 2 SMD (95% CI): 0.41 (–0.02, 0.85) **Emotion regulation: State sadness** Intervention 1: Mindfulness analogue intervention or induction—mindfulness condition, *n* = 39; Mean (SD) at post-intervention: 82.0 (24.0) Control 1: Active, brief training in reappraisal—re-interpreting the meaning of "emotion-inducing situations to reduce their emotional impact" (Hofmann and Asmundson, 2008), *n* = 43; Mean (SD) at post-intervention: 68.0 (24.0) Control 2: Active, brief training in suppression—inhibiting "both the external expression and internal experience of emotion" (Dunn et al., 2009), *n* = 43; Mean (SD) at post-intervention: 79.0 (24.0) Intervention 1 vs. control 1 SMD (95% CI): –0.58 (–1.02, –0.14) Intervention 1 vs. control 2 SMD (95% CI): –0.12 (–0.55, 0.31)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Klatt, 2017 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Nordea Bank Country: Denmark	Number randomized or enrolled: 81 Population (description): Bank employees Population (civilian, military): Non-military Mean age (SD) or age range: 42.9 (9.3) Percent female: 68.5 Inclusion criteria: Employees at a large bank in Copenhagen, Denmark; between the ages of 18 and 60 years Exclusion criteria: Current involvement in regular yoga and mindfulness practices, exercise more than 30 minutes per day	Setting: Workplace Intervention type: Mindfulness in Motion Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 8 Delivery mode: In-person Intervention format: Group Comparator type: Passive, waitlist	**Work-related morale: Utrecht Work Engagement Scale** Intervention 1: Mindfulness in Motion, *n* = 26; Mean (SD) at post-intervention: 4.7 (0.78) Control 1: Passive, waitlist, *n* = 30; Mean (SD) at post-intervention: 4.6 (0.66) Intervention 1 vs. control 1 SMD (95% CI): 0.19 (–0.33, 0.71)
Study ID: Kral, 2019 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: National Institutes of Health Country: United States	Number randomized or enrolled: 140 Population (description): Adults Population (civilian, military): Non-military Mean age (SD) or age range: 44.3 (12.8) Percent female: 59.3 Inclusion criteria: Not reported Exclusion criteria: Regular use of psychotropic or nervous system–altering medication; psychiatric diagnosis in the past year or history of bipolar disorder, schizophrenia, or schizoaffective disorder; color blindness; currently participating in another clinical trial; current asthma diagnosis; currently diagnosed with a sleep disorder or regularly taking prescribed sleeping medications; current night shift worker; significant training or practice in meditation or mind-body techniques, such as yoga or Tai-Chi; expert in physical activity, music, or nutrition; any history of brain damage or seizures; medical problems that would affect the participant's ability to participate in study procedures	Setting: Laboratory Intervention type: MBSR Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 28 Delivery mode: In-person Intervention format: Group Comparator type 1: Active Comparator type 2: Passive, waitlist	**Attention/concentration: Emotional Styles Questionnaire—Attention** Intervention 1: MBSR; No data reported by group at post-intervention Control 1: Active, health enhancement program; No data reported by group at post-intervention Control 2: Passive, waitlist; No data reported by group at post-intervention Intervention 1 vs. control 1 SMD (95% CI): 0.12 (–0.46, 0.69) Intervention 1 vs. control 2 SMD (95% CI): 0.15 (–0.42, 0.72)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Kuo, 2015 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: National Science Council (Taiwan) Country: Taiwan	Number randomized or enrolled: 48 Population (description): Undergraduate students Population (civilian, military): Non-military Mean age (SD) or age range: Not reported Percent female: Not reported Inclusion criteria: Undergraduate students at National Taiwan University, normal or corrected-to-normal visual acuity, normal color vision Exclusion criteria: Not reported	Setting: Laboratory Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.08 Delivery mode: In-person Intervention format: Individual Comparator type 1: Active Comparator type 2: Active	**Attention/concentration: Visual search task RT (ms)** Intervention 1: Mindfulness analogue intervention or induction—mindfulness practice, *n* = 16 Control 1: Active, scene-viewing group ("For the scene-viewing group, the participants passively viewed images of natural scenes for five minutes. Each image was displayed once on the screen for 5 seconds, and a total of 60 natural scenes were presented.") (p. 103), *n* = 16 Control 2: Active, distraction group ("For the distraction group, participants experienced a localization task. In this task, a display with four white placeholders were presented on the screen for 1000 ms at the beginning of each trial. After this, a white 'O', which served as a target, was presented at one of the four possible locations, and a white 'X', which served as a distractor, was presented at another. The probability of the target and the distractor being presented at each of the locations was equal. The participants were required to indicate the target location while ignoring the distractor by pressing the spatially corresponding keys on the keyboard. This display was presented on the screen until one of the keys was pressed or for 3000 ms.") (p. 103), *n* = 16 Intervention 1 vs. control 1 No usable data reported Intervention 1 vs. control 2 No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Kuo, 2015 (cont.)			**Attention/concentration: Visual search task number of errors** Intervention 1: Mindfulness analogue intervention or induction—mindfulness practice, *n* = 16 Control 1: Active, scene-viewing group ("For the scene-viewing group, the participants passively viewed images of natural scenes for 5 minutes. Each image was displayed once on the screen for 5 seconds, and a total of 60 natural scenes were presented.") (p. 103), *n* = 16 Control 2: Active, Distraction group: see above description, *n* = 16 Intervention 1 vs. control 1 No usable data reported Intervention 1 vs. control 2 No usable data reported
Study ID: Kwak, 2020 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: National Research Foundation (Korea), Jogye Order of Korean Buddhism Country: South Korea	Number randomized or enrolled: 67 Population (description): Adults with full-time employment Population (civilian, military): Non-military Mean age (SD) or age range: 30.6 (4.9) Percent female: 75.7 Inclusion criteria: Adults with full-time employment; no preexisting medical, neurological, or psychiatric disorders; no contraindications for magnetic resonance imaging scanning; no previous experience with meditation training Exclusion criteria: Not reported	Setting: Community Intervention type: Mindfulness meditation training Dosage, duration: Single session; total number of program hours: 19 Delivery mode: In-person Intervention format: Group Comparator type: Active	**Attention/concentration: ANT alerting network—RT (ms)** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: 59.7 (153.7) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: 67.5 (172.4) Intervention 1 vs. control 1 SMD (95% CI): −0.05 (−0.70, 0.60) **Attention/concentration: ANT alerting network—accuracy** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: 0.00 (0.07) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: 0.00 (0.05) Intervention 1 vs. control 1 SMD (95% 0.00 (−0.65, 0.65)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Kwak, 2020 (cont.)			**Attention/concentration: ANT alerting network—centered cue RT (ms)** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: 688.2 (101.1) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: 764.8 (112.4) Intervention 1 vs. control 1 SMD (95% CI): 0.71 (0.04, 1.38) **Attention/concentration: ANT alerting network—centered cue accuracy** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: 0.97 (0.05) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: 0.98 (0.03) Intervention 1 vs. control 1 SMD (95% CI): −0.22 (−0.88, 0.43) **Attention/concentration: ANT alerting network—no cue RT (ms)** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: 747.9 (115.9) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: 832.3 (130.7) Intervention 1 vs. control 1 SMD (95% CI): 0.68 (0.01, 1.35)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Kwak, 2020 (cont.)			**Attention/concentration: ANT alerting network—no cue accuracy** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: 0.97 (0.05) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: 0.98 (0.04) Intervention 1 vs. control 1 SMD (95% CI): −0.21 (−0.86, 0.44) **Attention/concentration: ANT executive network—RT (ms)** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: 72.1 (154.9) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: 85.4 (176.1) Intervention 1 vs. control 1 SMD (95% CI): 0.08 (−0.57, 0.73) **Attention/concentration: ANT executive network—accuracy** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: 0.00 (0.07) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: 0.00 (0.04) Intervention 1 vs. control 1 SMD (95% CI): 0.00 (−0.65, 0.65) **Attention/concentration: ANT executive network—congruent RT (ms)** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: 657.1 (106.7) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: 724.8 (108.9) Intervention 1 vs. control 1 SMD (95% CI): 0.62 (−0.05, 1.28)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Kwak, 2020 (cont.)			**Attention/concentration: ANT executive network—congruent accuracy** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: 0.98 (0.03) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: 0.99 (0.03) Intervention 1 vs. control 1 SMD (95% CI): −0.33 (−0.98, 0.33) **Attention/concentration: ANT executive network—incongruent RT (ms)** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: 729.2 (112.3) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: 810.3 (138.4) Intervention 1 vs. control 1 SMD (95% CI): 0.65 (−0.02, 1.31) **Attention/concentration: ANT executive network—incongruent accuracy** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: 0.96 (0.05) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: 0.98 (0.03) Intervention 1 vs. control 1 SMD (95% CI): −0.45 (−1.11, 0.21)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Kwak, 2020 (cont.)			**Attention/concentration: ANT orienting network—RT (ms)** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: 44.7 (145.7) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: 59.3 (165.3) Intervention 1 vs. control 1 SMD (95% CI): −0.09 (−0.74, 0.56) **Attention/concentration: ANT orienting network—accuracy** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: −0.01 (0.07) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: −0.01 (0.04) Intervention 1 vs. control 1 SMD (95% CI): 0.00 (−0.65, 0.65) **Attention/concentration: ANT orienting network—centered cue RT (ms)** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: 688.2 (101.1) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: 764.8 (112.4) Intervention 1 vs. control 1 SMD (95% CI): 0.71 (0.04, 1.38)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Kwak, 2020 (cont.)			**Attention/concentration: ANT orienting network—centered cue accuracy** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: 0.97 (0.05) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: 0.98 (0.03) Intervention 1 vs. control 1 SMD (95% CI): −0.22 (−0.88, 0.43) **Attention/concentration: ANT orienting network—spatial cue RT (ms)** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: 643.4 (104.9) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: 705.6 (121.2) Intervention 1 vs. control 1 SMD (95% CI): 0.55 (−0.12, 1.21) **Attention/concentration: ANT orienting network—spatial cue accuracy** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: 0.98 (0.03) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: 0.99 (0.03) Intervention 1 vs. control 1 SMD (95% CI): −0.33 (−0.98, 0.33)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Kwak, 2020 (cont.)			**Attention/concentration: ANT overall accuracy** Intervention 1: Mindfulness meditation training—Templestay program, *n* = 23; Mean (SD) at post-intervention: 0.97 (0.04) Control 1: Active, Templestay relaxation retreat, *n* = 14; Mean (SD) at post-intervention: 0.98 (0.03) Intervention 1 vs. control 1 SMD (95% CI): −0.27 (−0.92, 0.39)
Study ID: Lacerda, 2018 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Brazilian Industrial Social Services Country: Brazil	Number randomized or enrolled: 77 Population (description): Adults with stress complaints Population (civilian, military): Non-military Mean age (SD) or age range: 36.7 (2.1) Percent female: 54.5 Inclusion criteria: Workers with stress complaints, 18 to 60 years of age, available to attend the program and the before-and-after evaluations, minimum of 8 years of education Exclusion criteria: History of psychiatric or neurological disorders; under psychological or psychiatric treatment during the period of the study; history of substance abuse, with the exception of tobacco	Setting: Workplace Intervention type: PROGRESS (a stress reduction program) Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 9 Delivery mode: In-person Intervention format: Group Comparator type: Passive, waitlist	**Attention/concentration: Digit Symbol Substitution Test** Intervention 1: PROGRESS, *n* = 22; Mean (SD) at post-intervention: 74.0 (17.4) Control 1: Passive, waitlist, *n* = 22; Mean (SD) at post-intervention: 69.2 (15.7) Intervention 1 vs. control 1 SMD (95% CI): 0.28 (−0.30, 0.87)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Lai, 2015 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Unclear Country: Canada	Number randomized or enrolled: 70 Population (description): Undergraduate psychology students Population (civilian, military): Non-military Mean age (SD) or age range: 18.9 (2.7) Percent female: 65.7 Inclusion criteria: University undergraduate psychology students Exclusion criteria: Self-reported previous experience with mindfulness meditation or neurofeedback	Setting: Laboratory Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.25 Delivery mode: In-person Intervention format: Individual Comparator type 1: Active Comparator type 2: Active	**Attention/concentration: ANT accuracy (overall)** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation, *n* = 23; Mean (SD) at post-intervention: 96.7 (2.5) Control 1: Active, neurofeedback, *n* = 21; Mean (SD) at post-intervention: 95.8 (3.7) Control 2: Active, counting-backward task, *n* = 26; Mean (SD) at post-intervention: 97.1 (1.7) Intervention 1 vs. control 1 SMD (95% CI): 0.27 (–0.31, 0.85) Intervention 1 vs. control 2 SMD (95% CI): –0.18 (–0.73, 0.38) **Attention/concentration: ANT alerting network RT—difference score** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation, *n* = 23; Mean (SD) at post-intervention: 44.0 (27.9) Control 1: Active, neurofeedback, *n* = 21; Mean (SD) at post-intervention: 55.6 (27.9) Control 2: Active, counting-backward task, *n* = 26; Mean (SD) at post-intervention: 31.5 (18.7) Intervention 1 vs. control 1 SMD (95% CI): 0.41 (–0.18, 1.00) Intervention 1 vs. control 2 SMD (95% CI): –0.52 (–1.08, 0.04)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Lai, 2015 (cont.)			**Attention/concentration: ANT executive network RT—difference score** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation, *n* = 23; Mean (SD) at post-intervention: 123.0 (29.3) Control 1: Active, neurofeedback, *n* = 21; Mean (SD) at post-intervention: 111.7 (40.1) Control 2: Active, counting-backward task, *n* = 26; Mean (SD) at post-intervention: 126.2 (35.6) Intervention 1 vs. control 1 SMD (95% CI): −0.32 (−0.90, 0.27) Intervention 1 vs. control 2 SMD (95% CI): 0.10 (−0.46, 0.65) **Attention/concentration: ANT orienting network RT—difference score** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation, *n* = 23; Mean (SD) at post-intervention: 47.8 (20.5) Control 1: Active, neurofeedback, *n* = 21; Mean (SD) at post-intervention: 37.5 (15.6) Control 2: Active, counting-backward task, *n* = 26; Mean (SD) at post-intervention: 43.0 (23.2) Intervention 1 vs. control 1 SMD (95% CI): −0.55 (−1.14, 0.04) Intervention 1 vs. control 2 SMD (95% CI): −0.21 (−0.77, 0.34)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Lai, 2015 (cont.)			**Attention/concentration: Trail Making Test, part A** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation, *n* = 23 Control 1: Active, neurofeedback, *n* = 21 Control 2: Active, counting-backward task, *n* = 26 Intervention 1 vs. control 1 No usable data reported Intervention 1 vs. control 2 No usable data reported **Attention/concentration: Trail Making Test, part B** Intervention 1: Mindfulness analogue intervention or induction—mindfulness meditation, *n* = 23 Control 1: Active, neurofeedback, *n* = 21 Control 2: Active, counting-backward task, *n* = 26 Intervention 1 vs. control 1 No usable data reported Intervention 1 vs. control 2 No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Larson, 2013 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Brigham Young University, Office of Research and Creative Activities Grant Country: United States	Number randomized or enrolled: 62 Population (description): Undergraduate students in a psychology course Population (civilian, military): Non-military Mean age (SD) or age range: 19.9 (2.0) Percent female: 47.3 Inclusion criteria: Undergraduate psychology students unpracticed in mindfulness meditation Exclusion criteria: Previous practice in mindfulness meditation, current or previous diagnosis of a psychiatric disorder, current substance abuse or dependence, neurological disorders, head injury with loss of consciousness, left-handedness, or uncorrected visual impairment	Setting: Virtual Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.25 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type: Active	**Attention/concentration: Modified Eriksen flanker task congruent trial RT** Intervention 1: Mindfulness analogue intervention or induction—mindfulness-of-breathing exercise, *n* = 28; Mean (SD) at post-intervention: 375.9 (26.1) Control 1: Active, instructional portion of Kabat-Zinn's Mindfulness for Beginners, *n* = 27; Mean (SD) at post-intervention: 378.4 (39.3) Intervention 1 vs. control 1 SMD (95% CI): 0.07 (–0.45, 0.60) **Attention/concentration: Modified Eriksen flanker task congruent-trial error rates (%)** Intervention 1: Mindfulness analogue intervention or induction—mindfulness-of-breathing exercise, *n* = 28; Mean (SD) at post-intervention: 2.4 (2.0) Control 1: Active, instructional portion of Kabat-Zinn's Mindfulness for Beginners, *n* = 27; Mean (SD) at post-intervention: 3.0 (3.9) Intervention 1 vs. control 1 SMD (95% CI): 0.19 (–0.33, 0.71) **Attention/concentration: Modified Eriksen flanker task incongruent trial RT** Intervention 1: Mindfulness analogue intervention or induction—mindfulness-of-breathing exercise, *n* = 28; Mean (SD) at post-intervention: 429.4 (24.2) Control 1: Active, instructional portion of Kabat-Zinn's Mindfulness for Beginners, *n* = 27; Mean (SD) at post-intervention: 428.5 (38.9) Intervention 1 vs. control 1 SMD (95% CI): –0.03 (–0.55, 0.49)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Larson, 2013 (cont.)			**Attention/concentration: Modified Eriksen flanker task incongruent-trial error rates (%)** Intervention 1: Mindfulness analogue intervention or induction—mindfulness-of-breathing exercise, *n* = 28; Mean (SD) at post-intervention: 10.2 (6.1) Control 1: Active, instructional portion of Kabat-Zinn's Mindfulness for Beginners, *n* = 27; Mean (SD) at post-intervention: 10.0 (6.5) Intervention 1 vs. control 1 SMD (95% CI): −0.03 (−0.55, 0.49) **Attention/concentration: Modified Eriksen flanker task post-correct RT** Intervention 1: Mindfulness analogue intervention or induction—mindfulness-of-breathing exercise, *n* = 28; Mean (SD) at post-intervention: 410.2 (23.4) Control 1: Active, instructional portion of Kabat-Zinn's Mindfulness for Beginners, *n* = 27; Mean (SD) at post-intervention: 409.9 (39.1) Intervention 1 vs. control 1 SMD (95% CI): −0.01 (−0.53, 0.51) **Attention/concentration: Modified Eriksen flanker task post-error RT** Intervention 1: Mindfulness analogue intervention or induction—mindfulness-of-breathing exercise, *n* = 28; Mean (SD) at post-intervention: 420.5 (28.5) Control 1: Active, instructional portion of Kabat-Zinn's Mindfulness for Beginners, *n* = 27; Mean (SD) at post-intervention: 421.0 (38.5) Intervention 1 vs. control 1 SMD (95% CI): 0.01 (−0.51, 0.54)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Li, 2018 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: National Natural Science Foundation (China) Country: China	Number randomized or enrolled: 34 Population (description): Adults Population (civilian, military): Non-military Mean age (SD) or age range: 29.4 (9.3) Percent female: 66.7 Inclusion criteria: Without mindfulness-related experience, normal or corrected-to-normal vision Exclusion criteria: Not reported	Setting: School Intervention type: Mindfulness-based cognitive therapy (MBCT) Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 20 Delivery mode: In-person Intervention format: Group Comparator type: Passive, waitlist	**Attention/concentration: Continuous Performance Test Behavior Shift Index RT** Intervention 1: MBCT, *n* = 15; Mean (SD) at post-intervention: 0.25 (0.08) Control 1: Passive, waitlist, *n* = 15; Mean (SD) at post-intervention: 0.17 (0.08) Intervention 1 vs. control 1 SMD (95% CI): 1.00 (0.26, 1.75) **Attention/concentration: Continuous Performance Test Behavior Shift index error rate (%)** Intervention 1: MBCT, *n* = 15; Mean (SD) at post-intervention: 0.31 (0.39) Control 1: Passive, waitlist, *n* = 15; Mean (SD) at post-intervention: 0.27 (0.39) Intervention 1 vs. control 1 SMD (95% CI): 0.10 (–0.60, 0.80) **Attention/concentration: Continuous Performance Test RT, AX trial type (ms)** Intervention 1: MBCT, *n* = 15; Mean (SD) at post-intervention: 392.0 (62.0) Control 1: Passive, waitlist, *n* = 15; Mean (SD) at post-intervention: 422.0 (62.0) Intervention 1 vs. control 1 SMD (95% CI): 0.47 (–0.24, 1.18) **Attention/concentration: Continuous Performance Test RT, AY trial type (ms)** Intervention 1: MBCT, *n* = 15; Mean (SD) at post-intervention: 519.0 (69.7) Control 1: Passive, waitlist, *n* = 15; Mean (SD) at post-intervention: 537.0 (69.7) Intervention 1 vs. control 1 SMD (95% CI): 0.25 (–0.45, 0.95)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Li, 2018 (cont.)			**Attention/concentration: Continuous Performance Test RT, BX trial type (ms)** Intervention 1: MBCT, *n* = 15; Mean (SD) at post-intervention: 317.0 (81.3) Control 1: Passive, waitlist, *n* = 15; Mean (SD) at post-intervention: 385.0 (81.3) Intervention 1 vs. control 1 SMD (95% CI): 0.81 (0.09, 1.54) **Attention/concentration: Continuous Performance Test RT, BY trial type (ms)** Intervention 1: MBCT, *n* = 15; Mean (SD) at post-intervention: 324.0 (81.3) Control 1: Passive, waitlist, *n* = 15; Mean (SD) at post-intervention: 387.0 (81.3) Intervention 1 vs. control 1 SMD (95% CI): 0.75 (0.03, 1.48) **Attention/concentration: Continuous Performance Test error rate, AX trial type (%)** Intervention 1: MBCT, *n* = 15; Mean (SD) at post-intervention: 0.80 (0.77) Control 1: Passive, waitlist, *n* = 15; Mean (SD) at post-intervention: 1.1 (0.77) Intervention 1 vs. control 1 SMD (95% CI): 0.38 (−0.33, 1.08) **Attention/concentration: Continuous Performance Test error rate, AY trial type (%)** Intervention 1: MBCT, *n* = 15; Mean (SD) at post-intervention: 7.3 (12.0) Control 1: Passive, waitlist, *n* = 15; Mean (SD) at post-intervention: 11.3 (12.0) Intervention 1 vs. control 1 SMD (95% CI): 0.32 (−0.38, 1.03)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Li, 2018 (cont.)			**Attention/concentration: Continuous Performance Test error rate, BX trial type (%)** Intervention 1: MBCT, *n* = 15; Mean (SD) at post-intervention: 0.70 (4.3) Control 1: Passive, waitlist, *n* = 15; Mean (SD) at post-intervention: –2.7 (4.3) Intervention 1 vs. control 1 SMD (95% CI): 0.46 (–0.25, 1.16) **Attention/concentration: Continuous Performance Test error rate, BY trial type (%)** Intervention 1: MBCT, *n* = 15; Mean (SD) at post-intervention: 0.70 (2.3) Control 1: Passive, waitlist, *n* = 15; Mean (SD) at post-intervention: 1.7 (2.3) Intervention 1 vs. control 1 SMD (95% CI): 0.42 (–0.29, 1.12)
Study ID: Lin, 2019 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: General Program of Science and Technology Plan for Health Care (China) Country: China	Number randomized or enrolled: 110 Population (description): Nurses Population (civilian, military): Non-military Mean age (SD) or age range: 31.5 (6.8) Percent female: 93.3 Inclusion criteria: Full-time nurses employed at one of two hospitals in Dongguan, South China Exclusion criteria: Being a student nurse, suffering from serious somatic disease, taking mood-regulating drugs, having suffered a major traumatic event in the past 6 months, having participated in mindfulness training previously	Setting: Workplace Intervention type: MBSR Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 16 Delivery mode: Mixed in-person and virtual Intervention format: Group Comparator type: Passive, waitlist	**Work-related morale: McCloskey/Mueller Satisfaction Scale** Intervention 1: MBSR, *n* = 44; Mean (SD) at post-intervention: 102.3 (14.4) Control 1: Passive, waitlist, *n* = 46; Mean (SD) at post-intervention: 96.2 (18.1) Intervention 1 vs. control 1 SMD (95% CI): 0.37 (–0.04, 0.78) **Work-related morale: McCloskey/Mueller Satisfaction Scale** Intervention 1: MBSR, *n* = 44; Mean (SD) at 3 months after baseline: 102.1 (15.6) Control 1: Passive, waitlist, *n* = 46; Mean (SD) at 3 months after baseline: 96.6 (19.3) Intervention 1 vs. control 1 SMD (95% CI): 0.31 (–0.10, 0.73)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Ma, 2018 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: National Natural Science Foundation (China) Country: China	Number randomized or enrolled: 192 Population (description): Adults Population (civilian, military): Non-military Mean age (SD) or age range: 27.8 (7.9) Percent female: 57.9 Inclusion criteria: Have access to computers and the internet, could understand instructions in Chinese, no prior mindfulness or meditation experience, self-claimed to be mentally healthy without identified mental illness Exclusion criteria: Not reported	Setting: Virtual Intervention type 1: MBCT Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 16 Delivery mode: Virtual synchronous Intervention format: Group Intervention type 2: MBCT Dosage, duration: Self-paced, online, or application-based; number of program weeks: 8 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type 1: Active Comparator type 2: Passive, no intervention	**Emotion regulation: Difficulties in Emotion Regulation Scale** Intervention 1: MBCT, *n* = 20; Mean (SD) at post-intervention: 90.5 (25.4) Intervention 2: MBCT, *n* = 15; Mean (SD) at post-intervention: 93.9 (15.8) Control 1: Active, discussion group, *n* = 18; Mean (SD) at post-intervention: 94.5 (17.4) Control 2: Passive, no intervention, *n* = 23; Mean (SD) at post-intervention: 100.5 (17.8) Intervention 1 vs. control 1 SMD (95% CI): 0.18 (–0.45, 0.80) Intervention 2 vs. control 1 SMD (95% CI): 0.03 (–0.63, 0.70) Intervention 1 vs. control 2 SMD (95% CI): 0.45 (–0.14, 1.05) Intervention 2 vs. control 2 SMD (95% CI): 0.38 (–0.26, 1.02)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Menezes, 2013 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: National Council for Scientific and Technological Development, Fundação de Amparo à Pesquisa do Estado do Rio de Janeiro, Coordenação de Aperfeiçoamento de Pessoal de Nível Superior Country: Brazil	Number randomized or enrolled: 100 Population (description): University students Population (civilian, military): Non-military Mean age (SD) or age range: 25.0 (4.4) Percent female: 57.0 Inclusion criteria: College students Exclusion criteria: Not aged between 20–40 years old, did not have normal or corrected-to-normal vision, had any psychiatric or neurologic disorder, was taking any psychoactive medication, was undergoing psychotherapy treatment, had previous experience with meditation or yoga	Setting: School Intervention type: Focused meditation Dosage, duration: Multiple sessions (6); number of program weeks: 6; total number of program hours: 9 Delivery mode: In-person Intervention format: Group Comparator type 1: Active Comparator type 2: Passive, waitlist	**Attention/concentration: Concentrated Attention Test correct answers** Intervention 1: Focused meditation, *n* = 26; Mean (SD) at post-intervention: 118.5 (19.4) Control 1: Active (other type of intervention, includes treatment as usual) progressive relaxation, *n* = 24; Mean (SD) at post-intervention: 111.3 (23.4) Control 2: Passive, waitlist, *n* = 24; Mean (SD) at post-intervention: 117.7 (17.7) Intervention 1 vs. control 1 SMD (95% CI): 0.33 (–0.22, 0.88) Intervention 1 vs. control 2 SMD (95% CI): 0.04 (–0.50, 0.59) **Attention/concentration: Concentrated Attention Test number of errors** Intervention 1: Focused meditation, *n* = 26; Mean (SD) at post-intervention: 1.2 (4.6) Control 1: Active, progressive relaxation, *n* = 24; Mean (SD) at post-intervention: 0.75 (1.6) Control 2: Passive, waitlist, *n* = 24; Mean (SD) at post-intervention: 0.41 (0.73) Intervention 1 vs. control 1 SMD (95% CI): –0.12 (–0.67, 0.42) Intervention 1 vs. control 2 SMD (95% CI): –0.23 (–0.78, 0.32)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Menezes, 2013 (cont.)			**Attention/concentration: Concentrated Attention Test omissions** Intervention 1: Focused meditation, *n* = 26; Mean (SD) at post-intervention: 7.1 (5.2) Control 1: Active, progressive relaxation, *n* = 24; Mean (SD) at post-intervention: 8.4 (7.1) Control 2: Passive, waitlist, *n* = 24; Mean (SD) at post-intervention: 12.2 (5.6) Intervention 1 vs. control 1 SMD (95% CI): 0.21 (–0.34, 0.75) Intervention 1 vs. control 2 SMD (95% CI): 0.93 (0.35, 1.51) **Attention/concentration: Concentrated Attention Test total score** Intervention 1: Focused meditation, *n* = 26; Mean (SD) at post-intervention: 111.0 (20.3) Control 1: Active, progressive relaxation, *n* = 24; Mean (SD) at post-intervention: 102.2 (24.7) Control 2: Passive, waitlist, *n* = 24; Mean (SD) at post-intervention: 107.2 (20.5) Intervention 1 vs. control 1 SMD (95% CI): 0.38 (–0.17, 0.94) Intervention 1 vs. control 2 SMD (95% CI): 0.18 (–0.36, 0.73)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Menezes, 2013 (cont.)			**Emotion regulation: Discrimination task RT (ms)** Intervention 1: Focused meditation, *n* = 26; Mean (SD) at post-intervention: –22.00 (91.8) Control 1: Active, progressive relaxation, *n* = 24; Mean (SD) at post-intervention: 38.0 (98.0) Control 2: Passive, waitlist, *n* = 24; Mean (SD) at post-intervention: –7.00 (63.7) Intervention 1 vs. control 1 SMD (95% CI): 0.62 (0.06, 1.18) Intervention 1 vs. control 2 SMD (95% CI): 0.19 (–0.36, 0.73) **Emotion regulation: Discrimination task error rate** Intervention 1: Focused meditation, *n* = 26 Control 1: Active, progressive relaxation, *n* = 24 Control 2: Passive, waitlist, *n* = 24 Intervention 1 vs. control 1 No usable data reported Intervention 1 vs. control 2 No usable data reported **Emotion regulation: Discrimination task false alarms** Intervention 1: Focused meditation Control 1: Active, progressive relaxation Control 2: Passive, waitlist Intervention 1 vs. control 1 No usable data reported Intervention 1 vs. control 2 No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Menezes, 2013 (cont.)			**Emotion regulation: Discrimination task hits** Intervention 1: Focused meditation Control 1: Active, progressive relaxation Control 2: Passive, waitlist Intervention 1 vs. control 1 No usable data reported Intervention 1 vs. control 2 No usable data reported **Emotion regulation: Discrimination task response bias** Intervention 1: Focused meditation, *n* = 27; Mean (SD) at post-intervention: 0.57 (0.05) Control 1: Active, progressive relaxation, *n* = 28; Mean (SD) at post-intervention: 0.65 (0.05) Control 2: Passive, waitlist, *n* = 27; Mean (SD) at post-intervention: 0.68 (0.05) Intervention 1 vs. control 1 SMD (95% CI): 1.50 (0.91, 2.10) Intervention 1 vs. control 2 SMD (95% CI): 2.09 (1.43, 2.74)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Menezes, 2015 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: National Council for Scientific and Technological Development (Brazil) Country: Brazil	Number randomized or enrolled: 46 Population (description): University students Population (civilian, military): Non-military Mean age (SD) or age range: 24.8 (4.8) Percent female: 57.7 Inclusion criteria: University students at the Federal University of Rio Grande do Sul Exclusion criteria: Not aged between 20 and 40 years old, did not have normal or corrected vision, reported some psychiatric or neurological disorder, reported the use of psychoactive medication, undergoing psychotherapeutic treatment, reported previous experience with meditation or yoga	Setting: Laboratory Intervention type: Focused meditation Dosage, duration: Multiple sessions (5); number of program weeks: 1; total number of program hours: 7.5 Delivery mode: In-person Intervention format: Group Comparator type: Passive, waitlist	**Attention/concentration: Concentrated Attention Test correct responses** Intervention 1: Focused meditation, *n* = 14; Mean (SD) at post-intervention: 120.1 (21.0) Control 1: Passive, waitlist, *n* = 19; Mean (SD) at post-intervention: 116.5 (23.3) Intervention 1 vs. control 1 SMD (95% CI): 0.16 (–0.52, 0.83) **Attention/concentration: Concentrated Attention Test number of errors** Intervention 1: Focused meditation, *n* = 14; Mean (SD) at post-intervention: 0.29 (0.61) Control 1: Passive, waitlist, *n* = 19; Mean (SD) at post-intervention: 0.21 (0.53) Intervention 1 vs. control 1 SMD (95% CI): –0.14 (–0.81, 0.54) **Attention/concentration: Concentrated Attention Test omissions** Intervention 1: Focused meditation, *n* = 14; Mean (SD) at post-intervention: 7.0 (7.7) Control 1: Passive, waitlist, *n* = 19; Mean (SD) at post-intervention: 9.3 (7.6) Intervention 1 vs. control 1 SMD (95% CI): 0.29 (–0.38, 0.97) **Attention/concentration: Concentrated Attention Test total score** Intervention 1: Focused meditation, *n* = 14; Mean (SD) at post-intervention: 113.7 (21.7) Control 1: Passive, waitlist, *n* = 19; Mean (SD) at post-intervention: 107.0 (25.2) Intervention 1 vs. control 1 SMD (95% CI): 0.27 (–0.40, 0.95)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Menezes, 2016 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Unclear Country: Brazil	Number randomized or enrolled: 46 Population (description): Undergraduate students Population (civilian, military): Non-military Mean age (SD) or age range: 24.4 (4.5) Percent female: 56.6 Inclusion criteria: College students at the Federal University of Rio Grande do Sul, southern Brazil Exclusion criteria: Not aged between 20–40 years old, did not have normal or corrected sight, reported any psychiatric or neurologic disorder, taking any psychoactive medication, undergoing psychotherapy treatment, had previous experience with meditation or yoga	Setting: Laboratory Intervention type: Focused meditation Dosage, duration: Multiple sessions (5); number of program weeks: 0.71; total number of program hours: 7.5 Delivery mode: In-person Intervention format: Group Comparator type: Passive, waitlist	**Emotion regulation: Discrimination task emotion interference** Intervention 1: Focused meditation Control 1: Passive, waitlist Intervention 1 vs. control 1 Interaction of interference by time by group from a factorial general linear model: $F(1,29) = 2.54$, $p = 0.13$
Study ID: Molek-Winiarska, 2018 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Unclear Country: Poland	Number randomized or enrolled: 66 Population (description): Mining and other underground workers Population (civilian, military): Non-military Mean age (SD) or age range: 40.4 (6.8) Percent female: 0.0 Inclusion criteria: Copper mine employees; personnel working underground—miner, blaster, mining machine operator, or supervisor (mine foreman, shift foreman, mining supervisor) Exclusion criteria: Not described	Setting: Workplace Intervention type: MBSR Dosage, duration: Multiple sessions (5); number of program weeks: 10; total number of program hours: 40 Delivery mode: In-person Intervention format: Mixed individual and group Comparator type: Passive, no intervention	**Work-related social support: Job Content Questionnaire combined support coworker and support supervisor subscales** Intervention 1: MBSR, $n = 32$; Mean (SD) at post-intervention: 11.3 (1.7) Control 1: Passive, no intervention, $n = 32$; Mean (SD) at post-intervention: 9.6 (1.8) Intervention 1 vs. control 1 SMD (95% CI): 0.95 (0.44, 1.46)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Molek-Winiarska, 2018 (cont.)			**Work-related social support: Job Content Questionnaire support coworker subscale** Intervention 1: MBSR, *n* = 32; Mean (SD) at post-intervention: 11.1 (1.5) Control 1: Passive, no intervention, *n* = 32; Mean (SD) at post-intervention: 9.7 (1.7) Intervention 1 vs. control 1 SMD (95% CI): 0.85 (0.34, 1.36) **Work-related social support: Job Content Questionnaire support supervisor subscale** Intervention 1: MBSR, *n* = 32; Mean (SD) at post-intervention: 11.5 (1.9) Control 1: Passive, no intervention, *n* = 32; Mean (SD) at post-intervention: 9.5 (1.8) Intervention 1 vs. control 1 SMD (95% CI): 1.04 (0.52, 1.55)
Study ID: Mrazek, 2013 Study design: Randomized controlled trial, individual Study quality rating: Good Funding: U.S. Department of Education, National Science Foundation Graduate Research Fellowship Country: United States	Number randomized or enrolled: 48 Population (description): Undergraduate students Population (civilian, military): Non-military Mean age (SD) or age range: 20.8 (2.1) Percent female: 70.8 Inclusion criteria: Undergraduate students Exclusion criteria: Not reported	Setting: School Intervention type: MBSR Dosage, duration: Multiple sessions (8); number of program weeks: 2; total number of program hours: 6 Delivery mode: In-person Intervention format: Group Comparator type: Active	**Attention/concentration: Mind-wandering during operation span task (working memory capacity) retrospective self-report** Intervention 1: MBSR, *n* = 26; Mean (SD) at post-intervention: 1.4 (1.0) Control 1: Active, nutrition class, *n* = 22; Mean (SD) at post-intervention: 1.6 (0.94) Intervention 1 vs. control 1 SMD (95% CI): 0.20 (–0.36, 0.76)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Mrazek, 2013 (cont.)			**Attention/concentration: Mind-wandering during verbal reasoning Graduate Record Examinations (GRE) probe-caught** Intervention 1: MBSR, *n* = 26; Mean (SD) at post-intervention: 1.7 (1.0) Control 1: Active, nutrition class, *n* = 22; Mean (SD) at post-intervention: 2.1 (0.94) Intervention 1 vs. control 1 SMD (95% CI): 0.40 (–0.16, 0.96) **Attention/concentration: Mind-wandering during verbal reasoning GRE self-caught** Intervention 1: MBSR, *n* = 26; Mean (SD) at post-intervention: 5.0 (3.6) Control 1: Active, nutrition class, *n* = 22; Mean (SD) at post-intervention: 6.7 (5.6) Intervention 1 vs. control 1 SMD (95% CI): 0.36 (–0.20, 0.92) **Attention/concentration: Task-unrelated thought, average of 3 subscales** Intervention 1: MBSR, *n* = 26; Mean (SD) at post-intervention: 2.7 (1.9) Control 1: Active, nutrition class, *n* = 22; Mean (SD) at post-intervention: 3.5 (2.5) Intervention 1 vs. control 1 SMD (95% CI): 0.35 (–0.22, 0.91)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Norris, 2018 (1a) Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Unclear Country: United States	Number randomized or enrolled: 40 Population (description): Undergraduate students Population (civilian, military): Non-military Mean age (SD) or age range: 19.5 (1.2) Percent female: 32.4 Inclusion criteria: Novice meditators Exclusion criteria: Not reported	Setting: Virtual Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.17 Delivery mode: Virtual synchronous Intervention format: Individual Comparator type: Active	**Attention/concentration: Flanker task RT** Intervention 1: Mindfulness analogue intervention or induction—breath-focused mindfulness exercise, *n* = 18 Control 1: Active (other type of intervention, includes treatment as usual), 10-minute audio control tape, *n* = 19 Intervention 1 vs. control 1 No usable data reported **Attention/concentration: Flanker task accuracy (%)** Intervention 1: Mindfulness analogue intervention or induction—breath-focused mindfulness exercise, *n* = 18; Mean (SD) at post-intervention: 0.04 (0.25) Control 1: Active, 10-minute audio control tape, *n* = 19; Mean (SD) at post-intervention: 0.08 (0.26) Intervention 1 vs. control 1 SMD (95% CI): −0.15 (−0.78, 0.48)
Study ID: Norris, 2018 (1b) Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Unclear Country: United States	Number randomized or enrolled: 59 Population (description): Undergraduate students Population (civilian, military): Non-military Mean age (SD) or age range: 19.5 (1.1) Percent female: 48.2 Inclusion criteria: Novice meditators Exclusion criteria: Not reported	Setting: Virtual Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.17 Delivery mode: Virtual synchronous Intervention format: Individual Comparator type: Active	**Attention/concentration: ANT RT** Intervention 1: Mindfulness analogue intervention or induction—breath-focused mindfulness exercise, *n* = 29; Mean (SD) at post-intervention: 529.5 (58.5) Control 1: Active, 10-minute control audio tape, *n* = 27; Mean (SD) at post-intervention: 565.8 (57.4) Intervention 1 vs. control 1 SMD (95% CI): 0.62 (0.09, 1.15)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Norris, 2018 (1b) (cont.)			**Attention/concentration: ANT difference scores in RTs in accuracy (congruent-incongruent)** Intervention 1: Mindfulness analogue intervention or induction—breath-focused mindfulness exercise Control 1: Active, 10-minute control audio tape Intervention 1 vs. control 1 Test across groups: $t(53) = 1.18$, $p = 0.244$ **Attention/concentration: ANT difference scores in RTs on correct trials (incongruent-congruent)** Intervention 1: Mindfulness analogue intervention or induction—breath-focused mindfulness exercise Control 1: Active, 10-minute control audio tape Intervention 1 vs. control 1 Test across groups: $t(53) = 0.36$, $p = 0.721$ **Attention/concentration: ANT executive network RT—difference score** Intervention 1: Mindfulness analogue intervention or induction—breath-focused mindfulness exercise, $n = 29$; Mean (SD) at post-intervention: 529.5 (58.5) Control 1: Active, 10-minute control audio tape, $n = 27$; Mean (SD) at post-intervention: 565.8 (57.4) Intervention 1 vs. control 1 SMD (95% CI): 0.62 (0.09, 1.15) **Attention/concentration: ANT flanker accuracy** Intervention 1: Mindfulness analogue intervention or induction—breath-focused mindfulness exercise, $n = 18$; Mean (SD) at post-intervention: 0.97 (0.03) Control 1: Active, 10-minute control audio tape, $n = 19$; Mean (SD) at post-intervention: 0.95 (0.03) Intervention 1 vs. control 1 SMD (95% CI): 0.65 (0.00, 1.30)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Ortner, 2007 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Mind and Life Institute Country: Canada	Number randomized or enrolled: 82 Population (description): University students Population (civilian, military): Non-military Mean age (SD) or age range: 23.0 (not reported) Percent female: 76.5 Inclusion criteria: Students from a large, urban university Exclusion criteria: Not reported	Setting: School Intervention type: Mindfulness meditation training Dosage, duration: Multiple sessions (7); number of program weeks: 7; total number of program hours: 10.5 Delivery mode: In-person Intervention format: Group Comparator type 1: Active Comparator type 2: Passive, waitlist	**Emotion regulation: Emotional Interference Task RT (ms) difference between unpleasant and neutral pictures, average of 1- and 4-second stimulus onset asynchrony** Intervention 1: Mindfulness meditation training, *n* = 21; Mean (SD) at post-intervention: 20.0 (68.7) Control 1: Active (other type of intervention, includes treatment as usual), body awareness and relaxation meditation, *n* = 23; Mean (SD) at post-intervention: 110.0 (263.8) Control 2: Passive, waitlist, *n* = 24; Mean (SD) at post-intervention: 50.0 (73.5) Intervention 1 vs. control 1 SMD (95% CI): 0.45 (−0.14, 1.04) **Emotion regulation: Emotional Interference Task mean RTs to tones from pleasant pictures – mean RT to tones from neutral pictures** Intervention 1: Mindfulness meditation training, *n* = 21 Control 1: Active, body awareness and relaxation meditation, *n* = 23 Control 2: Passive, waitlist, *n* = 24 Intervention 1 vs. control 1 vs. control 2 Test across groups: $F(2,62) = 0.6$, $p < 0.05$ **Emotion regulation: Emotional Interference Task mean RTs to tones from unpleasant pictures – mean RT to tones from neutral pictures** Intervention 1: Mindfulness meditation training, *n* = 21 Control 1: Active, body awareness and relaxation meditation, *n* = 23 Control 2: Passive, waitlist, *n* = 24 Intervention 1 vs. control 1 vs. control 2 Test across groups: $F(2,62) = 0.1$, $p < 0.05$

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Ortner, 2007 (cont.)			**Emotion regulation: Emotional Interference Task 1-second stimulus onset asynchrony pleasant pictures** Intervention 1: Mindfulness meditation training Control 1: Active, body awareness and relaxation meditation Control 2: Passive, waitlist Intervention 1 vs. control 1 vs. control 2 Test across groups: $F(2,62) = 0.9$, $p < 0.05$ **Emotion regulation: Emotional Interference Task 4-second stimulus onset asynchrony pleasant pictures** Intervention 1: Mindfulness meditation training Control 1: Active, body awareness and relaxation meditation Control 2: Passive, waitlist Intervention 1 vs. control 1 vs. control 2 Test across groups: $F(2,62) = 0.7$, $p < 0.05$ **Emotion regulation: Emotional Interference Task RT (ms) difference between unpleasant and neutral pictures, 1-second stimulus onset asynchrony** Intervention 1: Mindfulness meditation training, $n = 21$; Mean (SD) at post-intervention: 40.0 (45.8) Control 1: Active, body awareness and relaxation meditation, $n = 23$; Mean (SD) at post-intervention: 140.0 (335.7) Control 2: Passive, waitlist, $n = 24$; Mean (SD) at post-intervention: 60.0 (98.0) Intervention 1 vs. control 1 SMD (95% CI): 0.40 (–0.19, 0.99)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Ortner, 2007 (cont.)			**Emotion regulation: Emotional Interference Task RT (ms) difference between unpleasant and neutral pictures, 4-second stimulus onset asynchrony** Intervention 1: Mindfulness meditation training, *n* = 21; Mean (SD) at post-intervention: 0.00 (91.7) Control 1: Active, body awareness and relaxation meditation, *n* = 23; Mean (SD) at post-intervention: 80.0 (191.8) Control 2: Passive, waitlist, *n* = 24; Mean (SD) at post-intervention: 40.0 (49.0) Intervention 1 vs. control 1 SMD (95% CI): 0.51 (–0.08, 1.11)
Study ID: Pang, 2019 Study design: Randomized controlled trial, individual Study quality rating: Fair Funding: Swiss National Science Foundation Country: Switzerland	Number randomized or enrolled: 63 Population (description): Working adults Population (civilian, military): Non-military Mean age (SD) or age range: 44.2 (10.0) Percent female: 68.9 Inclusion criteria: Aged 18 years or older, no previous meditation experience, level of employment greater than or equal to 50%, not attending psychotherapeutic treatment, not using psychotropic or illegal drugs Exclusion criteria: Not reported	Setting: School Intervention type 1: Mindfulness-based strengths practice Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 16 Delivery mode: In-person Intervention format: Group Intervention type 2: MBSR Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 16 Delivery mode: In-person Intervention format: Group Comparator type: Passive, waitlist	**Work-related productivity: Task Performance Questionnaire** Intervention 1: Mindfulness-based strengths practice, *n* = 17; Mean (SD) at post-intervention: 6.2 (0.47) Intervention 2: MBSR, *n* = 18; Mean (SD) at post-intervention: 5.9 (0.90) Control 1: Passive, waitlist, *n* = 16; Mean (SD) at post-intervention: 5.9 (0.63) Intervention 1 vs. control 1 SMD (95% CI): 0.44 (–0.23, 1.12) Intervention 2 vs. control 1 SMD (95% CI): –0.04 (–0.69, 0.62)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Pang, 2019 (cont.)			**Work-related productivity: Task Performance Questionnaire** Intervention 1: Mindfulness-based strengths practice, *n* = 15; Mean (SD) at 3 months after baseline: 5.8 (0.91) Intervention 2: MBSR, *n* = 18; Mean (SD) at 3 months after baseline: 6.0 (0.68) Control 1: Passive, waitlist, *n* = 16; Mean (SD) at 3 months after baseline: 6.1 (0.37) Intervention 1 vs. control 1 SMD (95% CI): −0.48 (−1.18, 0.21) Intervention 2 vs. control 1 SMD (95% CI): −0.18 (−0.83, 0.48) **Work-related productivity: Task Performance Questionnaire** Intervention 1: Mindfulness-based strengths practice, *n* = 16; Mean (SD) at 6 months after baseline: 6.0 (0.62) Intervention 2: MBSR, *n* = 16; Mean (SD) at 6 months after baseline: 6.1 (0.68) Control 1: Passive, waitlist, *n* = 16; Mean (SD) at 6 months after baseline: 6.2 (0.44) Intervention 1 vs. control 1 SMD (95% CI): −0.29 (−0.97, 0.39) Intervention 2 vs. control 1 SMD (95% CI): −0.10 (−0.78, 0.57)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Pang, 2019 (cont.)			**Work-related morale: Job Satisfaction Questionnaire** Intervention 1: Mindfulness-based strengths practice, *n* = 18; Mean (SD) at post-intervention: 4.4 (0.95) Intervention 2: MBSR, *n* = 18; Mean (SD) at post-intervention: 4.3 (1.0) Control 1: Passive, waitlist, *n* = 16; Mean (SD) at post-intervention: 4.0 (0.68) Intervention 1 vs. control 1 SMD (95% CI): 0.47 (–0.20, 1.13) Intervention 2 vs. control 1 SMD (95% CI): 0.32 (–0.35, 0.98) **Work-related morale: Job Satisfaction Questionnaire** Intervention 1: Mindfulness-based strengths practice, *n* = 18; Mean (SD) at 1 month after baseline: 4.4 (0.85) Intervention 2: MBSR, *n* = 18; Mean (SD) at 1 month after baseline: 4.3 (1.0) Control 1: Passive, waitlist, *n* = 16; Mean (SD) at 1 month after baseline: 4.1 (0.70) Intervention 1 vs. control 1 SMD (95% CI): 0.32 (–0.34, 0.99) Intervention 2 vs. control 1 SMD (95% CI): 0.13 (–0.52, 0.79)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Pang, 2019 (cont.)			**Work-related morale: Job Satisfaction Questionnaire** Intervention 1: Mindfulness-based strengths practice, *n* = 17; Mean (SD) at 3 months after baseline: 4.3 (0.97) Intervention 2: MBSR, *n* = 17; Mean (SD) at 3 months after baseline: 4.1 (1.1) Control 1: Passive, waitlist, *n* = 16; Mean (SD) at 3 months after baseline: 4.0 (0.79) Intervention 1 vs. control 1 SMD (95% CI): 0.43 (–0.25, 1.10) Intervention 2 vs. control 1 SMD (95% CI): 0.19 (–0.48, 0.86) **Work-related morale: Job Satisfaction Questionnaire** Intervention 1: Mindfulness-based strengths practice, *n* = 16; Mean (SD) at 6 months after baseline: 4.3 (0.84) Intervention 2: MBSR, *n* = 18; Mean (SD) at 6 months after baseline: 4.1 (1.0) Control 1: Passive, waitlist, *n* = 16; Mean (SD) at 6 months after baseline: 3.9 (0.79) Intervention 1 vs. control 1 SMD (95% CI): 0.57 (–0.12, 1.26) Intervention 2 vs. control 1 SMD (95% CI): 0.28 (–0.38, 0.95)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Prätzlich, 2016 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: University of Basel, Swiss National Science Foundation Country: Switzerland	Number randomized or enrolled: 60 Population (description): Adults Population (civilian, military): Non-military Mean age (SD) or age range: 28.7 (11.5) Percent female: 79.7 Inclusion criteria: Aged between 18 and 78, with broad professional and educational backgrounds Exclusion criteria: Prior meditation experience, color-blindness, motor impairment of writing hand, impaired visual acuity, attention deficit hyperactivity disorder, psychological or psychiatric treatment, drug consumption, current use of central nervous system medication	Setting: Laboratory Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Multiple sessions (3); number of program weeks: 0.43; total number of program hours: 1 Delivery mode: In-person Intervention format: Group Comparator type 1: Active Comparator type 2: Active	**Attention/concentration: Stroop interference control task** Intervention 1: Mindfulness analogue intervention or induction—focused-attention meditation with positive suggestion, *n* = 13; Mean (SD) at post-intervention: 25.0 (46.9) Control 1: Active, expectation control with positive suggestion, *n* = 10; Mean (SD) at post-intervention: 20.0 (15.8) Control 2: Active, sat in chair with eyes closed (aware they were not practicing meditation), *n* = 16; Mean (SD) at post-intervention: 50.0 (16.0) Intervention 1 vs. control 1 SMD (95% CI): −0.13 (−0.93, 0.66) Intervention 1 vs. control 2 SMD (95% CI): 0.73 (−0.01, 1.46) **Attention/concentration: d2-R** Intervention 1: Mindfulness analogue intervention or induction—focused-attention meditation with positive suggestion, *n* = 13 Control 1: Active, expectation control with positive suggestion, *n* = 10 Control 2: Active, sat in chair with eyes closed (aware they were not practicing meditation), *n* = 16 Intervention 1 vs. control 1 vs. control 2 $X^2(4) = 4.25$, $p > 0.37$

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Quaglia, 2019 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Mind and Life Institute, National Center for Advancing Translational Sciences Country: United States	Number randomized or enrolled: 66 Population (description): Adults Population (civilian, military): Non-military Mean age (SD) or age range: 30.6 (9.1) Percent female: 69.0 Inclusion criteria: Between the ages of 18 and 60, had no prior meditation experience, fluently speaks English, individuals in committed romantic relationships Exclusion criteria: Common neurological, psychiatric, substance abuse, or significant medical condition; psychotropic medication use; body mass index < 32	Setting: Laboratory Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Multiple sessions (4); total number of program hours: 1.3 Delivery mode: In-person Intervention format: Group Comparator type: Active	**Emotion regulation: Emotional go/no-go task RTs for correct (go trials; target present) trials** Intervention 1: Mindfulness analogue intervention or induction—brief mindfulness training condition Control 1: Active (other type of intervention, includes treatment as usual), book learning control sessions Intervention 1 vs. control 1 $F(1,58) = 5.04$, $p = 0.028$
Study ID: Quan, 2018 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: National Natural Science Foundation (China), Dongguan Medical Research Fund, Guangdong Medical University Country: China	Number randomized or enrolled: 48 Population (description): Undergraduate students Population (civilian, military): Non-military Mean age (SD) or age range: 19.2 (1.3) Percent female: 50.0 Inclusion criteria: Undergraduate students Exclusion criteria: Having psychological or neurological deficits, being treated with psychoactive medicines, having had previous meditation experiences	Setting: School Intervention type: MBCT Dosage, duration: Multiple sessions (7); number of program weeks: 1; total number of program hours: 11.7 Delivery mode: In-person Intervention format: Group Comparator type: Active	**Attention/concentration: ANT alerting network RT—difference score** Intervention 1: MBCT, $n = 22$ Control 1: Active, relaxation protocol in the Changeways Relaxation Program developed by Paterson (1997), $n = 22$ Intervention 1 vs. control 1 No usable data reported **Attention/concentration: ANT alerting network accuracy – difference score** Intervention 1: MBCT, $n = 22$ Control 1: Active, relaxation protocol in the Changeways Relaxation Program developed by Paterson (1997), $n = 22$ Intervention 1 vs. control 1 No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Quan, 2018 (cont.)			**Attention/concentration: ANT executive network RT—difference score** Intervention 1: MBCT, *n* = 22; Mean (SD) at post-intervention: 93.0 (26.0) Control 1: Active, relaxation protocol in the Changeways Relaxation Program developed by Paterson (1997), *n* = 22; Mean (SD) at post-intervention: 74.0 (26.0) Intervention 1 vs. control 1 SMD (95% CI): −0.72 (–1.32, −0.12) **Attention/concentration: ANT executive network accuracy – difference score** Intervention 1: MBCT, *n* = 22 Control 1: Active, relaxation protocol in the Changeways Relaxation Program developed by Paterson (1997), *n* = 22 Intervention 1 vs. control 1 No usable data reported **Attention/concentration: ANT orienting network RT—difference score** Intervention 1: MBCT, *n* = 22; Mean (SD) at post-intervention: 56.0 (27.0) Control 1: Active, relaxation protocol in the Changeways Relaxation Program developed by Paterson (1997), *n* = 22; Mean (SD) at post-intervention: 37.5 (27.0) Intervention 1 vs. control 1 SMD (95% CI): 0.67 (0.08, 1.27) **Attention/concentration: ANT orienting network accuracy – difference score** Intervention 1: MBCT, *n* = 22 Control 1: Active, relaxation protocol in the Changeways Relaxation Program developed by Paterson (1997), *n* = 22 Intervention 1 vs. control 1 No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Rahl, 2017 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: National Institutes of Health Country: United States	Number randomized or enrolled: 147 Population (description): Adults Population (civilian, military): Non-military Mean age (SD) or age range: 21.0 (3.3) Percent female: 49.7 Inclusion criteria: Between the ages of 18 and 30 years, in good mental and physical health, meditation novices (no prior meditation experience), not taking any form of oral contraceptive Exclusion criteria: Not reported	Setting: Virtual Intervention type 1: Mindfulness meditation training Dosage, duration: Multiple sessions (4); number of program weeks: 0.43; total number of program hours: 1.33 Delivery mode: Virtual asynchronous Intervention format: Individual Intervention type 2: Mindfulness meditation training Dosage, duration: Multiple sessions (4); number of program weeks: 0.43; total number of program hours: 1.33 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type 1: Active Comparator type 2: Active	**Attention/concentration: SART discrimination** Intervention 1: Mindfulness meditation training in attention-monitoring, *n* = 41; Mean (SD) at post-intervention: 261.1 (12.5) Intervention 2: Mindfulness meditation training in attention-monitoring and acceptance, *n* = 41; Mean (SD) at post-intervention: 267.3 (12.5) Control 1: Active, guided relaxation training, *n* = 38; Mean (SD) at post-intervention: 263.5 (12.6) Control 2: Active, reading control condition, *n* = 22; Mean (SD) at post-intervention: 257.4 (12.6) Intervention 1 vs. control 1 SMD (95% CI): −0.19 (−0.63, 0.24) Intervention 2 vs. control 1 SMD (95% CI): 0.30 (−0.14, 0.73) Intervention 1 vs. control 2 SMD (95% CI): 0.28 (−0.23, 0.80) Intervention 2 vs. control 2 SMD (95% CI): 0.77 (0.24, 1.30)
Study ID: Rooks, 2017 Study design: Randomized controlled trial, individual Study quality rating: Good Funding: Army Country: United States	Number randomized or enrolled: 100 Population (description): University athletes Population (civilian, military): Non-military Mean age (SD) or age range: 19.8 (1.5) Percent female: Not reported Inclusion criteria: Student athletes who were part of a Division I football program at a major university in the southeastern United States Exclusion criteria: Not reported	Setting: School Intervention type: MBSR Dosage, duration: Multiple sessions (20); number of program weeks: 4; total number of program hours: 5.4 Delivery mode: Mixed in-person and virtual Intervention format: Mixed individual and group Comparator type: Active	**Attention/concentration: SART A'** Intervention 1: MBSR, *n* = 48; Mean (SD) at post-intervention: 0.66 (0.21) Control 1: Active (other type of intervention, includes treatment as usual) relaxation training, *n* = 33; Mean (SD) at post-intervention: 0.67 (0.19) Intervention 1 vs. control 1 SMD (95% CI): −0.05 (−0.49, 0.39)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Rooks, 2017 (cont.)			**Attention/concentration: SART RT variability (ICV)** Intervention 1: MBSR, *n* = 48; Mean (SD) at post-intervention: 0.61 (0.27) Control 1: Active, relaxation training, *n* = 33; Mean (SD) at post-intervention: 0.60 (0.22) Intervention 1 vs. control 1 SMD (95% CI): −0.04 (−0.48, 0.40) **Attention/concentration: SART average of probe 1 and probe 2** Intervention 1: MBSR, *n* = 48; Mean (SD) at post-intervention: 2.3 (1.3) Control 1: Active, relaxation training, *n* = 33; Mean (SD) at post-intervention): 2.2 (1.3) Intervention 1 vs. control 1 SMD (95% CI): −0.09 (−0.53, 0.35) **Attention/concentration: SART probe 1** Intervention 1: MBSR, *n* = 48; Mean (SD) at post-intervention: 2.3 (1.3) Control 1: Active, relaxation training, *n* = 33; Mean (SD) at post-intervention: 2.2 (1.3) Intervention 1 vs. control 1 SMD (95% CI): −0.05 (−0.48, 0.39) **Attention/concentration: SART probe 2** Intervention 1: MBSR, *n* = 48; Mean (SD) at post-intervention: 2.3 (1.3) Control 1: Active, relaxation training, *n* = 33; Mean (SD) at post-intervention: 2.1 (1.2) Intervention 1 vs. control 1 SMD (95% CI): −0.14 (−0.58, 0.30)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Rothschild, 2017 Study design: Randomized controlled trial, cluster randomized (unit of randomization: blocks) Study quality rating: Poor Funding: Unclear Country: Israel	Number randomized or enrolled: 150 Population (description): Israel Defense Forces members Population (civilian, military): Military (active duty, National Guard, or reserves) Mean age (SD) or age range: 19.1 (0.8) Percent female: 54.5 Inclusion criteria: Israel Defense Forces members in the demanding initial stages of training, no earlier experience with any form of meditation, not using any mental health service, not prescribed any physical or psychotropic medications during the study period Exclusion criteria: None reported	Setting: Military Intervention type: Mindfulness meditation training Dosage, duration: Multiple sessions (88); number of program weeks: 24; total number of program hours: 20 Delivery mode: In-person Intervention format: Mixed individual and group Comparator type: Active	**Attention/concentration: Digit Symbol Substitution Test** Intervention 1: Mindfulness meditation training, *n* = 65; Mean (SD) at post-intervention: 72.0 (3.1) Control 1: Active, daily news, *n* = 58; Mean (SD) at post-intervention: 55.1 (2.7) Intervention 1 vs. control 1 SMD (95% CI): 5.75 (4.95, 6.56)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Schofield, 2015 Study design: Randomized controlled trial, cluster randomized (unit of randomization: classroom) Study quality rating: Good Funding: Unclear Country: Australia	Number randomized or enrolled: 794 Population (description): Introductory psychology students Population (civilian, military): Non-military Mean age (SD) or age range: 19.6 (3.2) Percent female: 64.5 Inclusion criteria: University introductory psychology students who completed the experimental tasks on a classroom computer as part of an in-class activity Exclusion criteria: Not reported	Setting: Virtual Intervention type 1: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.17 Delivery mode: Virtual asynchronous Intervention format: Individual Intervention type 2: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.17 Delivery mode: Virtual asynchronous Intervention format: Individual Intervention type 3: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.17 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type 1: Active Comparator type 2: Active Comparator type 3: Active	**Attention/concentration: Inattentional blindness task distractor awareness (%)** Intervention 1: Mindfulness analogue intervention or induction—mindfulness and no writing control, *n* = 145; Count (%) at post-intervention: 101 (69%) Intervention 2: Mindfulness analogue intervention or induction—mindfulness and control writing task, *n* = 139; Count (%) at post-intervention: 89 (64%) Intervention 3: Mindfulness analogue intervention or induction—mindfulness and depleting writing task, *n* = 123; Count (%) at post-intervention: 85 (69%) Control 1: Active, facts and no writing control (audio listening task), *n* = 120; Count (%) at post-intervention: 79 (65%) Control 2: Active, facts and control writing task (audio listening task) *n* = 133; Count (%) at post-intervention: 74 (55%) Control 3: Active, facts and Depletion writing task (audio listening task) *n* = 134; Count (%) at post-intervention: 78 (58%)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Schofield, 2015 (cont.)			Intervention 1 vs. control 1 OR (95% CI): 1.19 (0.71, 2.00) Intervention 2 vs. control 1 OR (95% CI): 0.92 (0.55, 1.54) Intervention 3 vs. control 1 OR (95% CI): 1.16 (0.68, 1.99) Intervention 1 vs. control 2 OR (95% CI): 1.83 (1.12, 2.99) Intervention 2 vs. control 2 OR (95% CI): 1.42 (0.87, 2.31) Intervention 3 vs. control 2 OR (95% CI): 1.78 (1.07, 2.98) Intervention 1 vs. control 3 OR (95% CI): 1.65 (1.01, 2.70) Intervention 2 vs. control 3 OR (95% CI): 1.28 (0.78, 2.08) Intervention 3 vs. control 3 OR (95% CI): 1.61 (0.96, 2.68)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Schofield, 2015 (cont.)			**Attention/concentration: Inattentional blindness task distractor encoding (%)** Intervention 1: Mindfulness analogue intervention or induction—mindfulness and no writing control, *n* = 145; Count (%) at post-intervention: 88 (60%) Intervention 2: Mindfulness analogue intervention or induction—mindfulness and control writing task, *n* = 139; Count (%) at post-intervention: 86 (61%) Intervention 3: Mindfulness analogue intervention or induction—mindfulness and depleting writing task, *n* = 123; Count (%) at post-intervention: 92 (74%) Control 1: Active, facts and no writing control (audio listening task), *n* = 120; Count (%) at post-intervention: 77 (64%) Control 2: Active, facts and control writing task (audio listening task), *n* = 133; Count (%) at post-intervention: 73 (54%) Control 3: Active, facts and Depletion writing task (audio listening task), *n* = 134; Count (%) at post-intervention: 86 (64%)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Schofield, 2015 (cont.)			Intervention 1 vs. control 1 OR (95% CI): 0.86 (0.52, 1.42) Intervention 2 vs. control 1 OR (95% CI): 0.91 (0.55, 1.50) Intervention 3 vs. control 1 OR (95% CI): 1.66 (0.95, 2.88) Intervention 1 vs. control 2 OR (95% CI): 1.27 (0.79, 2.04) Intervention 2 vs. control 2 OR (95% CI): 1.33 (0.82, 2.16) Intervention 3 vs. control 2 OR (95% CI): 2.44 (1.43, 4.15) Intervention 1 vs. control 3 OR (95% CI): 0.86 (0.53, 1.40) Intervention 2 vs. control 3 OR (95% CI): 0.91 (0.55, 1.48) Intervention 3 vs. control 3 OR (95% CI): 1.66 (0.97, 2.84)
Study ID: Semple, 2010 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: University of Auckland Country: New Zealand	Number randomized or enrolled: 53 Population (description): Adults Population (civilian, military): Non-military Mean age (SD) or age range: 40.2 (8.9) Percent female: 73.3 Inclusion criteria: Not reported Exclusion criteria: Prior experience with any meditation technique	Setting: Community Intervention type: Mindfulness meditation training Dosage, duration: Multiple sessions (2); number of program weeks: 4; total number of program hours: 2 Delivery mode: Mixed in-person and virtual Intervention format: Individual Comparator type 1: Active Comparator type 2: Passive, waitlist	**Attention/concentration: Continuous performance task discriminability (log d)** Intervention 1: Mindfulness meditation training—Benson technique (Benson, Beary, and Carol, 1974), *n* = 15 Control 1: Active, modified progressive muscle relaxation procedure (Bernstein and Borkovec, 1973; Jacobson, 1987), *n* = 14 Control 2: Passive, waitlist, *n* = 16 Intervention 1 vs. control 1 vs. control 2 Test of group by time interaction: $F(2,42) = 6.79$, $p < 0.01$

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Semple, 2010 (cont.)			**Attention/concentration: Digit Symbol Substitution Test** Intervention 1: Mindfulness meditation training—Benson technique (Benson, Beary, and Carol, 1974), *n* = 15 Control 1: Active, modified progressive muscle relaxation procedure (Bernstein and Borkovec, 1973; Jacobson, 1987), *n* = 14 Control 2: Passive, waitlist, *n* = 16 Intervention 1 vs. control 1 No usable data reported **Attention/concentration: Stroop interference score** Intervention 1: Mindfulness meditation training—Benson technique (Benson, Beary, and Carol, 1974), *n* = 15 Control 1: Active, modified progressive muscle relaxation procedure (Bernstein and Borkovec, 1973; Jacobson, 1987), *n* = 14 Control 2: Passive, waitlist, *n* = 16 Intervention 1 vs. control 1 No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Shonin, 2014 Study design: Randomized controlled trial, individual Study quality rating: Good Funding: Unclear Country: United Kingdom	Number randomized or enrolled: 152 Population (description): Office managers Population (civilian, military): Non-military Mean age (SD) or age range: 40.0 (8.4) Percent female: 56.9 Inclusion criteria: In full-time employment (> 30 hours per week), not currently absent from work (e.g., due to leave of absence, maternity leave, sickness), management responsibility for ≥ 1 salaried direct report (excluding secretaries or personal assistants), reporting to a line manager, annual salary between £40,000 and £65,000 per annum (a salary range was applied in order to maximize homogeneity in terms of career profile and role demands), being office-based for at least 50% of working hours, ≥ 18 years of age, not currently undergoing formal psychotherapy, not currently practicing meditation, no changes in psychopharmacology (type or dosage) 1 month prior to intervention (although stable prescription medication was permitted) Exclusion criteria: Currently diagnosed (based on self-reports) with a psychotic disorder, personality disorder, bipolar disorder, neurological disorder, or substance or alcohol use disorder; unable to confirm their availability to complete the 8-week meditation awareness training intervention and 3-month follow-up assessment	Setting: Workplace Intervention type: Meditation awareness training Dosage, duration: Multiple sessions (10); number of program weeks: 8; total number of program hours: 14 Delivery mode: In-person Intervention format: Mixed individual and group Comparator type: Active	**Work-related teamwork: Role-Based Performance Scale team member performance** Intervention 1: Meditation awareness training, *n* = 68; Mean (SD) at post-intervention: 88.1 (6.3) Control 1: Active, group program involving educating participants in cognitive behavioral theory and principles, *n* = 65; Mean (SD) at post-intervention: 79.0 (6.7) Intervention 1 vs. control 1 SMD (95% CI): 1.39 (1.01, 1.77) **Work-related teamwork: Role-Based Performance Scale team member performance** Intervention 1: Meditation awareness training, *n* = 68; Mean (SD) at 3 months after baseline: 89.2 (7.0) Control 1: Active, group program involving educating participants in cognitive behavioral theory and principles, *n* = 65; Mean (SD) at 3 months after baseline: 78.6 (6.6) Intervention 1 vs. control 1 SMD (95% CI): 1.55 (1.17, 1.94)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Shonin, 2014 (cont.)			**Work-related morale: Abridged Job in General Scale** Intervention 1: Meditation awareness training, *n* = 68; Mean (SD) at post-intervention: 19.5 (3.3) Control 1: Active, group program involving educating participants in cognitive behavioral theory and principles, *n* = 65; Mean (SD) at post-intervention: 14.6 (2.5) Intervention 1 vs. control 1 SMD (95% CI): 1.63 (1.24, 2.02) **Work-related morale: Abridged Job in General Scale** Intervention 1: Meditation awareness training, *n* = 68; Mean (SD) at 3 months after baseline: 20.2 (3.2) Control 1: Active, group program involving educating participants in cognitive behavioral theory and principles, *n* = 65; Mean (SD) at 3 months after baseline: 13.6 (2.6) Intervention 1 vs. control 1 SMD (95% CI): 2.23 (1.80, 2.67)
Study ID: Steinberg, 2016 Study design: Randomized controlled trial, individual Study quality rating: Fair Funding: Ohio State University Country: United States	Number randomized or enrolled: 32 Population (description): Surgical intensive care unit employees Population (civilian, military): Non-military Mean age (SD) or age range: 39.8 (not reported) Percent female: 78.0 Inclusion criteria: Surgical intensive care unit personnel at a large academic medical center, at least 18 years old, had direct contact with patients in the surgical intensive care unit and the patients' families Exclusion criteria: Involved in yoga, mindfulness, or exercising more than 30 minutes per day; third-trimester pregnancy; recent surgery that limited mobility	Setting: Workplace Intervention type: Mindfulness in Motion Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 8 Delivery mode: In-person Intervention format: Group Comparator type: Passive, waitlist	**Work-related morale: Utrecht Work Engagement Scale total** Intervention 1: Mindfulness in Motion, *n* = 16 Control 1: Passive, waitlist, *n* = 16 Intervention 1 vs. control 1 Significant increase from baseline in the mindfulness group ($p = 0.006$); nonsignificant increase from baseline in the control group **Work-related morale: Utrecht Work Engagement Scale vigor** Intervention 1: Mindfulness in Motion, *n* = 16 Control 1: Passive, waitlist, *n* = 16 Intervention 1 vs. control 1 Significant increase from baseline in the mindfulness group ($p = 0.005$), nonsignificant increase from baseline in the control group

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Tang, 2007 Study design: Randomized controlled trial, individual Study quality rating: Fair Funding: National Natural Science Foundation (China), National 863 Plan Project Grant, Ministry of Education Grant, University of Oregon Country: China	Number randomized or enrolled: 80 Population (description): Undergraduate students Population (civilian, military): Non-military Mean age (SD) or age range: 21.8 (0.6) Percent female: 45.0 Inclusion criteria: Undergraduate students Exclusion criteria: Not reported	Setting: School Intervention type: Integrative body-mind training Dosage, duration: Multiple sessions (5); number of program weeks: 0.7; total number of program hours: 1.7 Delivery mode: Mixed in-person and virtual Intervention format: Group Comparator type: Active	**Attention/concentration: ANT alerting network RT—difference score** Intervention 1: Integrative body-mind training, *n* = 40; Mean (SD) at post-intervention: 48.0 (22.0) Control 1: Active, relaxation training, *n* = 40; Mean (SD) at post-intervention: 47.0 (23.0) Intervention 1 vs. control 1 SMD (95% CI): 0.04 (−0.39, 0.48) **Attention/concentration: ANT executive network RT—difference score** Intervention 1: Integrative body-mind training, *n* = 40; Mean (SD) at post-intervention: 55.0 (23.0) Control 1: Active, relaxation training, *n* = 40; Mean (SD) at post-intervention: 65.0 (25.0) Intervention 1 vs. control 1 SMD (95% CI): 0.41 (−0.03, 0.85) **Attention/concentration: ANT orienting network RT—difference score** Intervention 1: Integrative body-mind training, *n* = 40; Mean (SD) at post-intervention: 41.0 (17.0) Control 1: Active, relaxation training, *n* = 40; Mean (SD) at post-intervention: 46.0 (18.0) Intervention 1 vs. control 1 SMD (95% CI): −0.28 (−0.72, 0.15)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Throuvala, 2020 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: None Country: United Kingdom	Number randomized or enrolled: 252 Population (description): Undergraduate students in a psychology course Population (civilian, military): Non-military Mean age (SD) or age range: 20.7 (3.1) Percent female: 82.0 Inclusion criteria: Regular smartphone and social media usage Exclusion criteria: Not reported	Setting: Virtual Intervention type: Headspace smartphone application Dosage, duration: Self-paced, online, or application-based sessions; number of program weeks: 1.4 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type: Passive, no intervention	**Impulse control/impulsivity: Barratt Impulsiveness Scale—Alternative Version** Intervention 1: Headspace smartphone application, *n* = 72; Mean (SD) at post-intervention: 14.7 (3.4) Control 1: Passive, no intervention, *n* = 71; Mean (SD) at post-intervention: 16.3 (3.5) Intervention 1 vs. control 1 SMD (95% CI): 0.44 (0.11, 0.77) **Impulse control/impulsivity: Deficient Self-Regulation Measure** Intervention 1: Headspace smartphone application, *n* = 72; Mean (SD) at post-intervention: 14.0 (5.3) Control 1: Passive, no intervention, *n* = 71; Mean (SD) at post-intervention: 15.3 (5.4) Intervention 1 vs. control 1 SMD (95% CI): 0.25 (–0.08, 0.57)
Study ID: Upton, 2018 Study design: Randomized controlled trial, individual Study quality rating: Good Funding: Unclear Country: United States	Number randomized or enrolled: 153 Population (description): Undergraduate students Population (civilian, military): Non-military Mean age (SD) or age range: 19.9 (not reported) Percent female: 76.5 Inclusion criteria: Undergraduate students enrolled in psychology courses at a major university in the southern United States Exclusion criteria: Not reported	Setting: Virtual Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.2 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type: Active	**Impulse control/impulsivity: Balloon analogue risk task** Intervention 1: Mindfulness analogue intervention or induction—mindful body scan practice, *n* = 76; Mean (SD) at post-intervention: 38.2 (12.7) Control 1: Active, mind-wandering audio, *n* = 77; Mean (SD) at post-intervention: 39.8 (13.8) Intervention 1 vs. control 1 SMD (95% CI): 0.12 (–0.20, 0.44)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Walsh, 2019 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Mobio Interactive Inc., Ontario Centre of Excellence Country: Canada	Number randomized or enrolled: 108 Population (description): Undergraduate students Population (civilian, military): Non-military Mean age (SD) or age range: 20.0 (2.5) Percent female: 83.8 Inclusion criteria: Undergraduate students; normal or corrected-to-normal vision and hearing; 18 years or older; fluent in English; own an iPhone, iPad, or iPod with access to the internet Exclusion criteria: Not reported	Setting: Virtual Intervention type: Wildflowers smartphone application Dosage, duration: Self-paced, online, or application-based sessions; number of program weeks: 3; total number of program hours: 3.5 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type: Active	**Attention/concentration: ANT alerting network RT—difference score** Intervention 1: Wildflowers smartphone application, *n* = 45 Control 1: Active, 2048 smartphone application, *n* = 41 Intervention 1 vs. control 1 Time by group interaction from multilevel model: *t*(84) = 1.43, *p* = 0.16 **Attention/concentration: ANT executive network RT—difference score** Intervention 1: Wildflowers smartphone application, *n* = 45; Mean (SD) at post-intervention: −0.15 (0.25) Control 1: Active, 2048 smartphone application, *n* = 41; Mean (SD) at post-intervention: 0.01 (0.35) Intervention 1 vs. control 1 SMD (95% CI): 0.53 (0.10, 0.95) **Attention/concentration: ANT orienting network RT—difference score** Intervention 1: Wildflowers smartphone application, *n* = 45 Control 1: Active, 2048 smartphone application, *n* = 41 Intervention 1 vs. control 1 Time by group interaction from multilevel model: *t*(84) = 1.43, *p* = 0.16
Study ID: Watford, 2015 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Unclear Country: United States	Number randomized or enrolled: 78 Population (description): Undergraduate psychology students Population (civilian, military): Non-military Mean age (SD) or age range: 19.3 (2.3) Percent female: 73.0 Inclusion criteria: Undergraduate psychology 101 students Exclusion criteria: Current use of psychotropic medication	Setting: Virtual Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.25 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type: Active	**Emotion regulation: State Difficulties in Emotion Regulation Scale awareness** Intervention 1: Mindfulness analogue intervention or induction—mindfulness intervention, *n* = 35; Mean (SD) at post-intervention: 12.6 (4.9) Control 1: Active, participants listened to a 15-minute “neutral recording” of an excerpt from a radio gardening program, *n* = 35; Mean (SD) at post-intervention: 13.0 (5.2) Intervention 1 vs. control 1 SMD (95% CI): 0.08 (−0.38, 0.55)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Watford, 2015 (cont.)			**Emotion regulation: State Difficulties in Emotion Regulation Scale clarity** Intervention 1: Mindfulness analogue intervention or induction—mindfulness intervention, *n* = 35; Mean (SD) at post-intervention: 9.5 (3.8) Control 1: Active, participants listened to a 15-minute "neutral recording" of an excerpt from a radio gardening program, *n* = 35; Mean (SD) at post-intervention: 9.2 (4.0) Intervention 1 vs. control 1 SMD (95% CI): –0.08 (–0.54, 0.38) **Emotion regulation: State Difficulties in Emotion Regulation Scale goals** Intervention 1: Mindfulness analogue intervention or induction—mindfulness intervention, *n* = 35; Mean (SD) at post-intervention: 10.4 (4.2) Control 1: Active, participants listened to a 15-minute "neutral recording" of an excerpt from a radio gardening program, *n* = 35; Mean (SD) at post-intervention: 9.6 (3.8) Intervention 1 vs. control 1 SMD (95% CI): –0.21 (–0.67, 0.26) **Emotion regulation: State Difficulties in Emotion Regulation Scale impulse** Intervention 1: Mindfulness analogue intervention or induction—mindfulness intervention, *n* = 35; Mean (SD) at post-intervention: 8.6 (3.6) Control 1: Active, participants listened to a 15-minute "neutral recording" of an excerpt from a radio gardening program, *n* = 35; Mean (SD) at post-intervention: 8.2 (2.6) Intervention 1 vs. control 1 SMD (95% CI): –0.12 (–0.59, 0.34)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Watford, 2015 (cont.)			**Emotion regulation: State Difficulties in Emotion Regulation Scale nonacceptance** Intervention 1: Mindfulness analogue intervention or induction—mindfulness intervention, *n* = 35; Mean (SD) at post-intervention: 9.0 (5.4) Control 1: Active, participants listened to a 15-minute "neutral recording" of an excerpt from a radio gardening program, *n* = 35; Mean (SD) at post-intervention: 8.8 (3.4) Intervention 1 vs. control 1 SMD (95% CI): −0.04 (−0.50, 0.43) **Emotion regulation: State Difficulties in Emotion Regulation Scale strategies** Intervention 1: Mindfulness analogue intervention or induction—mindfulness intervention, *n* = 35; Mean (SD) at post-intervention: 12.8 (4.8) Control 1: Active, participants listened to a 15-minute "neutral recording" of an excerpt from a radio gardening program, *n* = 35; Mean (SD) at post-intervention: 12.3 (4.4) Intervention 1 vs. control 1 SMD (95% CI): −0.09 (−0.55, 0.37) **Emotion regulation: State Difficulties in Emotion Regulation Scale total** Intervention 1: Mindfulness analogue intervention or induction—mindfulness intervention, *n* = 35; Mean (SD) at post-intervention: 62.9 (20.1) Control 1: Active, participants listened to a 15-minute "neutral recording" of an excerpt from a radio gardening program, *n* = 35; Mean (SD) at post-intervention: 61.2 (15.5) Intervention 1 vs. control 1 SMD (95% CI): −0.10 (−0.56, 0.37)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Watier, 2016 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Unclear Country: Canada	Number randomized or enrolled: 78 Population (description): Undergraduate students in a psychology course Population (civilian, military): Non-military Mean age (SD) or age range: 20.6 (not reported) Percent female: 78.0 Inclusion criteria: University students taking introductory psychology courses Exclusion criteria: Previous experience with mindfulness meditation	Setting: Virtual Intervention type: Mindfulness analogue intervention or induction Dosage, duration: Single session; total number of program hours: 0.17 Delivery mode: Virtual asynchronous Intervention format: Individual Comparator type 1: Active Comparator type 2: Active	**Emotion regulation: Emotional Stroop task emotional RT** Intervention 1: Mindfulness analogue intervention or induction—mindfulness condition, *n* = 26; Mean (SD) at post-intervention: 726.7 (71.4) Control 1: Active, 10-minute attention control audio recording, *n* = 26; Mean (SD) at post-intervention: 750.0 (71.4) Control 2: Active, 10-minute arithmetic, *n* = 26; Mean (SD) at post-intervention: 736.7 (71.4) Intervention 1 vs. control 1 SMD (95% CI): 0.32 (–0.22, 0.86) Intervention 1 vs. control 2 SMD (95% CI): 0.14 (–0.40, 0.67) **Emotion regulation: Emotional Stroop task neutral RT** Intervention 1: Mindfulness analogue intervention or induction—mindfulness condition, *n* = 26; Mean (SD) at post-intervention: 723.3 (71.4) Control 1: Active, 10-minute attention control audio recording, *n* = 26; Mean (SD) at post-intervention: 740.0 (71.4) Control 2: Active, 10-minute arithmetic, *n* = 26; Mean (SD) at post-intervention: 703.3 (71.4) Intervention 1 vs. control 1 SMD (95% CI): 0.23 (–0.31, 0.77) Intervention 1 vs. control 2 SMD (95% CI): –0.28 (–0.81, 0.26)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Wenzel, 2020 Study design: Randomized controlled trial, individual Study quality rating: Fair Funding: Stipendienstiftung Rheinland-Pfalz, Internal University Country: Germany	Number randomized or enrolled: 125 Population (description): Undergraduate students Population (civilian, military): Non-military Mean age (SD) or age range: 22.9 (5.1) Percent female: 77.6 Inclusion criteria: The ability to understand and fluently speak German, students aged between 18 and 65 years, sufficient experience to operate a smartphone reliably, having provided informed consent Exclusion criteria: Diagnosis of a psychiatric disorder, any mental or somatic impairment that precludes the use of a smartphone	Setting: Laboratory Intervention type: Mindfulness meditation training Dosage, duration: Multiple sessions (5); number of program weeks: 6; total number of program hours: 1 Delivery mode: In-person Intervention format: Individual Comparator type: Passive, waitlist	**Emotion regulation: Emotional regulation strategies reappraisal** Intervention 1: Mindfulness meditation training, *n* = 68; No data reported by group at post-intervention Control 1: Passive, waitlist, *n* = 69; No data reported by group at post-intervention Intervention 1 vs. control 1 SMD (95% CI): 0.10 (0.01, 0.20) **Emotion regulation: Emotional regulation strategies suppression** Intervention 1: Mindfulness meditation training, *n* = 68; No data reported by group at post-intervention Control 1: Passive, waitlist, *n* = 69 No data reported by group at post-intervention Intervention 1 vs. control 1 SMD (95% CI): 0.03 (−0.06, 0.11) **Impulse control/impulsivity: State Self-Control Capacity Scale** Intervention 1: Mindfulness meditation training, *n* = 68; Mean (SD) at post-intervention: 6.5 (0.74) Control 1: Passive, waitlist, *n* = 69; Mean (SD) at post-intervention: 6.3 (0.75) Intervention 1 vs. control 1 SMD (95% CI): 0.23 (−0.11, 0.56) **Impulse control/impulsivity: Self-Control Scale** Intervention 1: Mindfulness meditation training, *n* = 68; Mean (SD) at post-intervention: 3.8 (0.82) Control 1: Passive, waitlist, *n* = 69; Mean (SD) at post-intervention: 3.6 (0.75) Intervention 1 vs. control 1 SMD (95% CI): 0.24 (−0.09, 0.57)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Wingert, 2020 Study design: Randomized controlled trial, individual Study quality rating: Fair Funding: Work Colleges Consortium Faculty Staff Grant, G. D. Davidson Vocation Experience Grant Country: United States	Number randomized or enrolled: 58 Population (description): Working undergraduate students Population (civilian, military): Non-military Mean age (SD) or age range: 18.9 (1.3) Percent female: 52.6 Inclusion criteria: Students at a small liberal arts college in the southeastern United States at which students work 10 hours per week during the academic year Exclusion criteria: Not reported	Setting: School Intervention type: Mindfulness-based strengths practice Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 12 Delivery mode: In-person Intervention format: Group Comparator type: Passive, no intervention	**Work-related social support: Workplace PERMA (positive emotion, engagement, relationships, meaning, and accomplishment) profiler relationships subscale** Intervention 1: Mindfulness-based strengths practice, *n* = 21; Mean (SD) at post-intervention: 8.1 (1.1) Control 1: Passive, no intervention, *n* = 29; Mean (SD) at post-intervention: 6.8 (2.2) Intervention 1 vs. control 1 SMD (95% CI): 0.65 (0.08, 1.22)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Wolever, 2012 Study design: Randomized controlled trial, individual Study quality rating: Fair Funding: Aetna Inc., eMindful Inc. Country: United States	Number randomized or enrolled: 239 Population (description): Insurance company employees Population (civilian, military): Non-military Mean age (SD) or age range: 42.9 (9.7) Percent female: 76.6 Inclusion criteria: Employees of a national insurance carrier, scored a 16 or higher on the 10-item Perceived Stress Scale (Cohen, Kamarck, and Mermelstein, 1983) Exclusion criteria: Arrhythmia requiring medication or a pacemaker; pregnancy; heavy tobacco or nicotine use, defined as smoking 1 or more cigarette packs per day, chewing tobacco 5 or more times per day, using 1 stick of 2 milligrams of nicotine gum every 1–2 hours, or smoking 6 of more cigars daily; on medications that would affect heart rate (including antiarrhythmic drugs, beta blockers, calcium channel blockers, stimulants, and illicit drugs); any major medical condition (e.g., chronic obstructive pulmonary disease, chronic heart failure, angina, traumatic brain injury, and type 1 diabetes) or psychological disorder (i.e., posttraumatic stress disorder, major depression, bipolar disorder, psychosis, severe anxiety, panic disorders); significant current or previous yoga or meditation experience, defined as routine practice at least several times per week or participation in an extended meditation or yoga retreat of more than 2 days in the past 5 years	Setting: Workplace; virtual Intervention type 1: Mindfulness at Work Dosage, duration: Multiple sessions (13); number of program weeks: 12; total number of program hours: 14 Delivery mode: In-person Intervention format: Group Intervention type 2: Mindfulness at Work Dosage, duration: Multiple sessions (13); number of program weeks: 12; total number of program hours: 14 Delivery mode: Virtual synchronous Intervention format: Group Comparator type 1: Active Comparator type 2: Passive, no intervention	**Productivity: Work Limitations Questionnaire** Intervention 1: Mindfulness at Work, *n* = 52; Mean (SD) at post-intervention: 3.3 (3.6) Intervention 1 and 2 combined: Mindfulness at Work, *n* = 96; Mean (SD) at post-intervention: 3.6 (4.1) Intervention 2: Mindfulness at Work, *n* = 44; Mean (SD) at post-intervention: 3.7 (3.6) Control 1: Active, Viniyoga Stress Reduction Program, *n* = 90; Mean (SD) at post-intervention: 3.9 (4.1) Control 2: Passive, no intervention, *n* = 53; Mean (SD) at post-intervention: 4.3 (4.1) Intervention 1 vs. control 1 SMD (95% CI): 0.15 (–0.19, 0.49) Intervention 1 and 2 combined vs. control 1 SMD (95% CI): 0.08 (–0.21, 0.36) Intervention 2 vs. control 1 SMD (95% CI): 0.05 (–0.31, 0.41) Intervention 1 vs. control 2 SMD (95% CI): 0.25 (–0.13, 0.63) Intervention 1 and 2 combined vs. control 2 SMD (95% CI): 0.17 (–0.17, 0.50) Intervention 2 vs. control 2 SMD (95% CI): 0.14 (–0.25, 0.54)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Wu, 2019 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Military Medical Research Project, Shanghai Philosophy and Social Science Project Country: China	Number randomized or enrolled: 43 Population (description): University students Population (civilian, military): Non-military Mean age (SD) or age range: 21.6 (2.1) Percent female: 76.2 Inclusion criteria: 18–25 years of age; undergraduate or graduate student; in good health, with no mental illness according to established diagnostic criteria; ability to understand Cantonese; willing to attend the program Exclusion criteria: Suffering from serious physical or mental illness or conditions expected to severely limit participation or adherence (e.g., pregnancy), major life event (e.g., bereavement) or significant fluctuation in mood within the past month, screening positive for major depression when evaluated with a structured diagnostic interview, history of or interest in participation in a meditation program, failure to participate in all scheduled sessions	Setting: Virtual Intervention type: Mindfulness meditation training Dosage, duration: Multiple sessions (7); number of program weeks: 1; total number of program hours: 2 Delivery mode: Virtual synchronous Intervention format: Group Comparator type: Active	**Emotion regulation: Emotion intensity, negative images strength of emotional response** Intervention 1: Mindfulness meditation training—brief mindfulness meditation, *n* = 22; Mean (SD) at post-intervention: 3.7 (0.44) Control 1: Active, emotional education course, *n* = 20; Mean (SD) at post-intervention: 4.0 (0.57) Intervention 1 vs. control 1 SMD (95% CI): 0.68 (0.07, 1.29) **Emotion regulation: Emotion intensity, neutral images strength of emotional response** Intervention 1: Mindfulness meditation training—brief mindfulness meditation, *n* = 22; Mean (SD) at post-intervention: 2.1 (0.50) Control 1: Active, emotional education course, *n* = 20; Mean (SD) at post-intervention: 2.3 (0.66) Intervention 1 vs. control 1 SMD (95% CI): 0.37 (–0.23, 0.97) **Emotion regulation: Emotion intensity, positive images strength of emotional response** Intervention 1: Mindfulness meditation training—brief mindfulness meditation, *n* = 22; Mean (SD) at post-intervention: 2.8 (0.61) Control 1: Active, emotional education course, *n* = 20; Mean (SD) at post-intervention: 2.8 (0.81) Intervention 1 vs. control 1 SMD (95% CI): 0.01 (–0.58, 0.61)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Wu, 2019 (cont.)			**Emotion regulation: Emotional attention bias, negative images RT (ms)** Intervention 1: Mindfulness meditation training—brief mindfulness meditation, *n* = 22; Mean (SD) at post-intervention: −0.01 (0.01) Control 1: Active, emotional education course, *n* = 20; Mean (SD) at post-intervention: 0.00 (0.02) Intervention 1 vs. control 1 SMD (95% CI): 0.66 (0.05, 1.27) **Emotion regulation: Emotional attention bias, positive images RT (ms)** Intervention 1: Mindfulness meditation training—brief mindfulness meditation, *n* = 22; Mean (SD) at post-intervention: −0.00 (0.02) Control 1: Active, emotional education course, *n* = 20; Mean (SD) at post-intervention: −0.01 (0.03) Intervention 1 vs. control 1 SMD (95% CI): −0.38 (−0.98, 0.22)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Zanesco, 2019 Study design: Randomized controlled trial, individual Study quality rating: Good Funding: Henry Jackson Foundation Country: United States	Number randomized or enrolled: 120 Population (description): Special operations forces personnel Population (civilian, military): Military (active duty, National Guard, or reserves) Mean age (SD) or age range: 33.1 (5.6) Percent female: 0.0 Inclusion criteria: Active-duty male members of two special operations forces units at a U.S. military installation, including both operational and support personnel; had completed a rigorous selection process; had undergone advanced military training in order to serve in their current unit Exclusion criteria: Not reported	Setting: Military Intervention type 1: Mindfulness-based attention training (MBAT) Dosage, duration: Multiple sessions (4); number of program weeks: 2; total number of program hours: 8 Delivery mode: In-person Intervention format: Group Intervention type 2: MBAT Dosage, duration: Multiple sessions (4); number of program weeks: 4; total number of program hours: 8 Delivery mode: In-person Intervention format: Group Comparator type: Passive, no intervention	**Attention/concentration: SART A'** Intervention 1: MBAT, *n* = 30; Mean (SD) at post-intervention: 0.87 (0.13) Intervention 2: MBAT, *n* = 24; Mean (SD) at post-intervention: 0.93 (0.08) Control 1: Passive, no intervention, *n* = 36; Mean (SD) at post-intervention: 0.88 (0.10) Intervention 1 vs. control 1 SMD (95% CI): −0.09 (−0.57, 0.38) Intervention 2 vs. control 1 SMD (95% CI): 0.55 (0.03, 1.07) **Attention/concentration: SART RT variability (ICV)** Intervention 1: MBAT, *n* = 28; Mean (SD) at post-intervention: 0.29 (0.18) Intervention 2: MBAT, *n* = 24; Mean (SD) at post-intervention: 0.21 (0.07) Control 1: Passive, no intervention, *n* = 35; Mean (SD) at post-intervention: 0.31 (0.15) Intervention 1 vs. control 1 SMD (95% CI): 0.10 (−0.39, 0.60) Intervention 2 vs. control 1 SMD (95% CI): 0.79 (0.26, 1.32)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Zanesco, 2019 (cont.)			**Attention/concentration: SART average of probe 1 and probe 2** Intervention 1: MBAT, *n* = 30; Mean (SD) at post-intervention: 2.1 (1.1) Intervention 2: MBAT, *n* = 24; Mean (SD) at post-intervention: 1.7 (0.60) Control 1: Passive, no intervention, *n* = 36; Mean (SD) at post-intervention: 1.7 (0.58) Intervention 1 vs. control 1 SMD (95% CI): −0.55 (−1.04, −0.06) Intervention 2 vs. control 1 SMD (95% CI): −0.09 (−0.60, 0.42) **Attention/concentration: SART probe 1** Intervention 1: MBAT, *n* = 30; Mean (SD) at post-intervention: 2.2 (1.2) Intervention 2: MBAT, *n* = 24; Mean (SD) at post-intervention: 1.8 (0.64) Control 1: Passive, no intervention, *n* = 36; Mean (SD) at post-intervention: 1.7 (0.61) Intervention 1 vs. control 1 SMD (95% CI): −0.48 (−0.97, 0.00) Intervention 2 vs. control 1 SMD (95% CI): −0.07 (−0.58, 0.44)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Zanesco, 2019 (cont.)			**Attention/concentration: SART probe 2** Intervention 1: MBAT, *n* = 30; Mean (SD) at post-intervention: 2.1 (1.1) Intervention 2: MBAT, *n* = 24; Mean (SD) at post-intervention: 1.6 (0.56) Control 1: Passive, no intervention, *n* = 36; Mean (SD) at post-intervention: 1.6 (0.54) Intervention 1 vs. control 1 SMD (95% CI): −0.61 (–1.10, −0.12) Intervention 2 vs. control 1 SMD (95% CI): −0.11 (–0.62, 0.40)
Study ID: Zeidan, 2010 Study design: Randomized controlled trial, individual Study quality rating: Fair Funding: Unclear Country: United States	Number randomized or enrolled: 49 Population (description): University students Population (civilian, military): Non-military Mean age (SD) or age range: 22.5 (8.2) Percent female: 59.4 Inclusion criteria: University of North Carolina at Charlotte students who volunteered in fulfillment of general psychology requirements, interested in learning meditation, no prior meditation experience Exclusion criteria: Not reported	Setting: School Intervention type: Mindfulness meditation training Dosage, duration: Multiple sessions (4) Delivery mode: In-person Intervention format: Group Comparator type: Active	**Attention/concentration: Computer-adaptive n-back task extreme hit rate** Intervention 1: Mindfulness meditation training—Shamatha mindfulness meditation, *n* = 24; Mean (SD) at post-intervention: 9.0 (9.8) Control 1: Active (other type of intervention, includes treatment as usual), listening in small groups to the audiobook version of J. R. R. Tolkien's *The Hobbit*, *n* = 25; Mean (SD) at post-intervention: 5.5 (5.0) Intervention 1 vs. control 1 SMD (95% CI): 0.45 (–0.11, 1.00)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Zeidan, 2010 (cont.)			**Attention/concentration: Symbol Digit Modalities Test** Intervention 1: Mindfulness meditation training—Shamatha mindfulness meditation, *n* = 24; Mean (SD) at post-intervention: 71.0 (14.7) Control 1: Active (other type of intervention, includes treatment as usual), listening in small groups to the audiobook version of J. R. R. Tolkien's *The Hobbit*, *n* = 25; Mean (SD) at post-intervention: 64.0 (10.0) Intervention 1 vs. control 1 SMD (95% CI): 0.55 (–0.01, 1.11)
Study ID: Zhang, 2019 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Fundamental Research Funds for the Central Universities, Tsinghua University, Key Project of Philosophy and Social Science Research in Colleges and Universities in Jiangsu Province Country: China	Number randomized or enrolled: 40 Population (description): Adults Population (civilian, military): Non-military Mean age (SD) or age range: 22.5 (not reported) Percent female: 70.0 Inclusion criteria: No smoking or drinking habits, have not previously practiced mindfulness or other types of meditation Exclusion criteria: Not reported	Setting: Laboratory Intervention type: MBCT Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 16 Delivery mode: Mixed in-person and virtual Intervention format: Mixed individual and group Comparator type: Passive, waitlist	**Attention/concentration: Stroop congruent RT** Intervention 1: MBCT, *n* = 16; Mean (SD) at post-intervention: 660.2 (105.1) Control 1: Passive, waitlist, *n* = 20; Mean (SD) at post-intervention: 671.7 (146.0) Intervention 1 vs. control 1 SMD (95% CI): 0.09 (–0.56, 0.73) **Attention/concentration: Stroop incongruent RT** Intervention 1: MBCT, *n* = 16; Mean (SD) at post-intervention: 849.3 (163.2) Control 1: Passive, waitlist, *n* = 20; Mean (SD) at post-intervention: 808.5 (175.3) Intervention 1 vs. control 1 SMD (95% CI): –0.23 (–0.88, 0.41)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Zhu, 2019 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: Natural Science Foundation of Zhejiang Province, Program for New Century Excellent Talents in University from the Ministry of Education of the People's Republic of China Country: China	Number randomized or enrolled: 54 Population (description): University students Population (civilian, military): Non-military Mean age (SD) or age range: 24.2 (5.2) Percent female: 70.9 Inclusion criteria: No previous practice of any form of mindfulness-based training, no prior mindfulness experience, 18 years of age or older, higher-education student at Zhejiang University, ability to communicate independently and understand tasks, willingness to participate in the research and give informed consent Exclusion criteria: Severe neuropsychological impairment, psychosis or dissociative disorder	Setting: School Intervention type: MBSR Dosage, duration: Multiple sessions (12); number of program weeks: 12; total number of program hours: 24 Delivery mode: In-person Intervention format: Group Comparator type: Passive, no intervention	**Attention/concentration: Continuous performance task RT** Intervention 1: MBSR, *n* = 24; No data reported by group at post-intervention Control 1: Passive, no intervention, *n* = 24; No data reported by group at post-intervention Intervention 1 vs. control 1 SMD (95% CI): 0.63 (0.06, 1.21) **Attention/concentration: Stroop accuracy (%)** Intervention 1: MBSR, *n* = 24; No data reported by group at post-intervention Control 1: Passive, no intervention, *n* = 24; No data reported by group at post-intervention Intervention 1 vs. control 1 SMD (95% CI): 0.45 (–0.11, 1.02) **Attention/concentration: Stroop mean RT** Intervention 1: MBSR, *n* = 24; No data reported by group at post-intervention Control 1: Passive, no intervention, *n* = 24; No data reported by group at post-intervention Intervention 1 vs. control 1 SMD (95% CI): 0.24 (–0.32, 0.80) **Attention/concentration: Continuous performance task hit rate** Intervention 1: MBSR, *n* = 24; No data reported by group at post-intervention Control 1: Passive, no intervention, *n* = 24; No data reported by group at post-intervention Intervention 1 vs. control 1 SMD (95% CI): 0.00 (–0.56, 0.56)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Zwilling, 2019 Study design: Randomized controlled trial, individual Study quality rating: Poor Funding: University of Illinois at Urbana-Champaign Country: United States	Number randomized or enrolled: 160 Population (description): Adults Population (civilian, military): Non-military Mean age (SD) or age range: 23.8 (not reported) Percent female: 52.0 Inclusion criteria: 18–44 years of age; has at least a high school diploma; speaks English fluently; have normal or corrected-to-normal vision and hearing; does not have current or recent medications affecting the central nervous system; does not have a history of psychological, neurological, or endocrine disease; has not had a concussion in the past 2 years; does not have learning disorders; does not smoke more than 10 cigarettes per day; has a body mass index under 35; has at least one positive response on the revised Physical Activity Readiness Questionnaire (Scott, Reading, and Shephard, 1992) Exclusion criteria: Not reported	Setting: Community Intervention type: High-intensity cardio-resistance fitness training and cognitive training with mindfulness meditation training Dosage, duration: Multiple sessions (48); number of program weeks: 16; total number of program hours: 56 Delivery mode: Mixed in-person and virtual Intervention format: Mixed individual and group Comparator type 1: Active Comparator type 2: Active Comparator type 3: Active	**Attention/concentration: Digit Symbol Substitution Test** Intervention 1: High-intensity cardio-resistance fitness training and cognitive training with mindfulness meditation training, *n* = 40; Mean (SD) at post-intervention: 100.5 (13.0) Control 1: Active, high-intensity cardio-resistance fitness training, *n* = 36; Mean (SD) at post-intervention: 98.3 (12.6) Control 2: Active, high-intensity cardio-resistance fitness training and cognitive training, *n* = 42; Mean (SD) at post-intervention: 96.9 (12.8) Control 3: Active, active control training, *n* = 42; Mean (SD) at post-intervention: 96.9 (12.5) Intervention 1 vs. control 1 SMD (95% CI): 0.17 (–0.28, 0.62) Intervention 1 vs. control 2 SMD (95% CI): 0.28 (–0.15, 0.71) Intervention 1 vs. control 3 SMD (95% CI): 0.28 (–0.15, 0.71)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Zwilling, 2019 (cont.)			**Attention/concentration: Set-shifting task, switch cost measure** Intervention 1: High-intensity cardio-resistance fitness training and cognitive training with mindfulness meditation training, *n* = 40; Mean (SD) at post-intervention: 79.1 (3.9) Control 1: Active, high-intensity cardio-resistance fitness training, *n* = 36; Mean (SD) at post-intervention: 80.3 (3.8) Control 2: Active, high-intensity cardio-resistance fitness training and cognitive training, *n* = 42; Mean (SD) at post-intervention: 79.0 (2.8) Control 3: Active, active control training, *n* = 42; Mean (SD) at post-intervention: 77.4 (3.8) Intervention 1 vs. control 1 SMD (95% CI): −0.31 (−0.76, 0.14) Intervention 1 vs. control 2 SMD (95% CI): 0.02 (−0.41, 0.45) Intervention 1 vs. control 3 SMD (95% CI): 0.43 (−0.00, 0.86)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Zwilling, 2019 (cont.)			**Decisionmaking: Adult Decision-Making Competence test belief assessment** Intervention 1: High-intensity cardio-resistance fitness training and cognitive training with mindfulness meditation training, *n* = 40; Mean (SD) at post-intervention: 0.72 (0.06) Control 1: Active, high-intensity cardio-resistance fitness training, *n* = 36; Mean (SD) at post-intervention: 0.76 (0.06) Control 2: Active, high-intensity cardio-resistance fitness training and cognitive training, *n* = 42; Mean (SD) at post-intervention: 0.74 (0.08) Control 3: Active, active control training, *n* = 42; Mean (SD) at post-intervention: 0.70 (0.09) Intervention 1 vs. control 1 SMD (95% CI): −0.64 (–1.10, −0.19) Intervention 1 vs. control 2 SMD (95% CI): −0.27 (–0.70, 0.16) Intervention 1 vs. control 3 SMD (95% CI): 0.27 (–0.17, 0.70)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Zwilling, 2019 (cont.)			**Decisionmaking: Adult Decision-Making Competence test integration** Intervention 1: High-intensity cardio-resistance fitness training and cognitive training with mindfulness meditation training, *n* = 40; Mean (SD) at post-intervention: 0.87 (0.10) Control 1: Active, high-intensity cardio-resistance fitness training, *n* = 36; Mean (SD) at post-intervention: 0.91 (0.09) Control 2: Active, high-intensity cardio-resistance fitness training and cognitive training, *n* = 42; Mean (SD) at post-intervention: 0.89 (0.07) Control 3: Active, active control training, *n* = 42; Mean (SD) at post-intervention: 0.85 (0.10) Intervention 1 vs. control 1 SMD (95% CI): −0.43 (−0.88, 0.02) Intervention 1 vs. control 2 SMD (95% CI): −0.23 (−0.66, 0.20) Intervention 1 vs. control 3 SMD (95% CI): 0.20 (−0.23, 0.62)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Zwilling, 2019 (cont.)			**Decisionmaking: Adult Decision-Making Competence test value assessment** Intervention 1: High-intensity cardio-resistance fitness training and cognitive training with mindfulness meditation training, *n* = 40; Mean (SD) at post-intervention: 4.4 (0.32) Control 1: Active, high-intensity cardio-resistance fitness training, *n* = 36; Mean (SD) at post-intervention: 4.2 (0.51) Control 2: Active, high-intensity cardio-resistance fitness training and cognitive training, *n* = 42; Mean (SD) at post-intervention: 4.4 (0.46) Control 3: Active, active control training, *n* = 42; Mean (SD) at post-intervention: 4.2 (0.42) Intervention 1 vs. control 1 SMD (95% CI): 0.45 (–0.00, 0.90) Intervention 1 vs. control 2 SMD (95% CI): 0.00 (–0.43, 0.43) Intervention 1 vs. control 3 SMD (95% CI): 0.40 (–0.04, 0.83)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Non-randomized studies			
Study ID: Alkoby, 2019 Study design: Non-randomized trial, multiple-arm Funding: Mind & Life Institute Country: Israel	Number randomized or enrolled: 85 Population (description): University students Population (civilian, military): Non-military Mean age (SD) or age range: 26.8 (4.5) Percent female: 56.5 Inclusion criteria: Jewish Israelis who were enrolled in any of 8 MBSR workshops at 3 universities across Israel Exclusion criteria: Prescreening depression or posttraumatic stress disorder	Setting: School Intervention type: MBSR Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 28 Delivery mode: In-person Intervention format: Group Comparator type: Passive, waitlist	**Emotion regulation: Emotional regulation choice task** Intervention 1: MBSR, *n* = 85; No data reported by group at post-intervention Control 1: Passive, waitlist No data reported by group at post-intervention OR (95% CI): Intervention 1 vs. control 1 1.10 (1.04, 1.12)
Study ID: Ching, 2015 Study design: Non-randomized trial, multiple-arm Funding: Unclear Country: Taiwan	Number randomized or enrolled: 359 Population (description): University students Population (civilian, military): Non-military Mean age (SD) or age range: 18–19 Percent female: 61.0 Inclusion criteria: First-year university students enrolled in a required one-semester course in mindfulness meditation Exclusion criteria: Not reported	Setting: School Intervention type: Mindfulness meditation training Dosage, duration: Multiple sessions (18); number of program weeks: 18; total number of program hours: 15 Delivery mode: In-person Intervention format: Group Comparator type: Active	**Attention/concentration: Digit vigilance task RT** Intervention 1: Mindfulness meditation training, *n* = 112; Mean (SD) at post-intervention: 30.7 (4.6) Control 1: Active (other type of intervention, includes treatment as usual), physical exercise course, *n* = 66; Mean (SD) at post-intervention: 33.3 (7.9) Intervention 1 vs. control 1 SMD (95% CI): 0.43 (0.12, 0.74) **Attention/concentration: Choice reaction time RT (ms)** Intervention 1: Mindfulness meditation training, *n* = 112; Mean (SD) at post-intervention: 38.4 (6.4) Control 1: Active (other type of intervention, includes treatment as usual), physical exercise course, *n* = 66; Mean (SD) at post-intervention: 38.5 (9.2) Intervention 1 vs. control 1 SMD (95% CI): 0.01 (–0.29, 0.32)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Ching, 2015 (cont.)			**Attention/concentration: Choice reaction time accuracy (%)** Intervention 1: Mindfulness meditation training, *n* = 112; Mean (SD) at 15 weeks post-intervention: 75.0 (13.3) Control 1: Active (other type of intervention, includes treatment as usual), physical exercise course, *n* = 66; Mean (SD) at post-intervention: 67.9 (20.6) Intervention 1 vs. control 1 SMD (95% CI): 0.43 (0.13, 0.74) **Attention/concentration: Digit vigilance task accuracy (%)** Intervention 1: Mindfulness meditation training, *n* = 112; Mean (SD) at post-intervention: 86.4 (11.8) Control 1: Active (other type of intervention, includes treatment as usual), physical exercise course, *n* = 66; Mean (SD) at post-intervention: 81.6 (15.7) Intervention 1 vs. control 1 SMD (95% CI): 0.36 (0.05, 0.66)
Study ID: Coo, 2018 Study design: Non-randomized trial, multiple-arm Funding: Generalitat Valenciana (Spain) Country: Spain	Number randomized or enrolled: 36 Population (description): Large semi-public hospital employees Population (civilian, military): Non-military Mean age (SD) or age range: 37.1 (6.4) Percent female: 79.6 Inclusion criteria: Employees at a large semi-public Spanish hospital Exclusion criteria: Not reported	Setting: Workplace Intervention type: MBCT Dosage, duration: Multiple sessions (3); number of program weeks: 3; total number of program hours: 7.5 Delivery mode: In-person Intervention format: Group Comparator type: Passive, waitlist	**Work-related morale: Utrecht Work Engagement Scale total engagement** Intervention 1: MBCT, *n* = 19; Mean (SD) at post-intervention: 4.6 (0.80) Control 1: Passive, waitlist, *n* = 15; Mean (SD) at post-intervention: 3.9 (0.80) Intervention 1 vs. control 1 SMD (95% CI): 0.85 (0.16, 1.55)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Denkova, 2020 Study design: Non-randomized trial, multiple-arm Funding: U.S. Department of Defense Country: United States	Number randomized or enrolled: 121 Population (description): Firefighters Population (civilian, military): Non-military Mean age (SD) or age range: 43.9 (7.9) Percent female: 19.0 Inclusion criteria: Firefighters from the Miami-Dade Fire Rescue Department Exclusion criteria: Not reported	Setting: Workplace Intervention type: MBAT Dosage, duration: Multiple sessions (4); number of program weeks: 4; total number of program hours: 8 Delivery mode: In-person Intervention format: Mixed individual and group Comparator type 1: Active Comparator type 2: Passive, no intervention	**Attention/concentration: SART A'** Intervention 1: MBAT, *n* = 35; Mean (SD) at post-intervention: 0.90 (0.07) Control 1: Active, relaxation training, *n* = 31; Mean (SD) at post-intervention: 0.93 (0.05) Control 2: Passive, no intervention, *n* = 43; Mean (SD) at post-intervention: 0.90 (0.07) Intervention 1 vs. control 1 SMD (95% CI): −0.47 (−0.96, 0.01) Intervention 1 vs. control 2 SMD (95% CI): −0.04 (−0.48, 0.40)
Study ID: Hildebrandt, 2019 Study design: Non-randomized trial, multiple-arm Funding: European Research Council, Max Planck Society Country: Germany	Number randomized or enrolled: 332 Population (description): Adults Population (civilian, military): Non-military Mean age (SD) or age range: 40.7 (9.2) Percent female: 59.3 Inclusion criteria: Participant from the ReSource Project, woman, thoroughly screened for health problems and meditation experience	Setting: Community Intervention type: ReSource meditation-based mental training Dosage, duration: Multiple sessions (48); number of program weeks: 39; total number of program hours: 102 Delivery mode: In-person Intervention format: Group Comparator type: Passive, no intervention	**Emotion regulation: Brief COPE (Coping Orientation to Problems Experienced) Inventory accept subscale** Intervention 1: ReSource meditation-based mental training, *n* = 148; Mean (SD) at post-intervention: 1.8 (0.72) Control 1: Passive, no intervention, *n* = 79; Mean (SD) at post-intervention: 1.7 (0.66) Intervention 1 vs. control 1 SMD (95% CI): 0.17 (−0.10, 0.45)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Hildebrandt, 2019 (cont.)	Exclusion criteria: Not between 20 and 55 years old; no computer access at home or no internet connection; failing to meet study magnetic resonance imaging safety standards (irremovable metal in the body, tattoos on the upper part of the body, permanent make-up, pregnancy or lactating mothers, obesity, diabetes, neurological disorders, head trauma with loss of consciousness, peripheral vascular diseases, peripheral arterial diseases, Reynaud's diseases, involuntary motor disorders, epilepsy, insulin pumps, orthodontic retainer, inner ear implants, pacemakers, drug pumps, cerebral water drainage); regular spiritual practice in the past 2 years; regular meditation practice in the past 2 years; participation in meditation retreats; does not speak or understand German fluently; chronic pain; psychotherapy in the past 2 years; allergic to adhesive tape; smoking more than 5 cigarettes per week; drug or alcohol abuse; diagnosed mental disorder (unless symptom-free for more than 2 years); taking medication that influences the regulation of the hypothalamic-pituitary-adrena l-axis (e.g., cortisone-containing products) or that affects central nervous system function; taking psychotropics, opiates, or corticosteroids; taking medications for anxiety, depression, or other psychological problems; is studying or has studied psychology		**Emotion regulation: Brief COPE Inventory distraction subscale** Intervention 1: ReSource meditation-based mental training, *n* = 148; Mean (SD) at post-intervention: 1.4 (0.60) Control 1: Passive, no intervention, *n* = 79; Mean (SD) at post-intervention: 1.6 (0.71) Intervention 1 vs. control 1 SMD (95% CI): 0.32 (0.05, 0.60) **Emotion regulation: Brief COPE Inventory plan subscale** Intervention 1: ReSource meditation-based mental training, *n* = 148; Mean (SD) at post-intervention: 2.1 (0.58) Control 1: Passive, no intervention, *n* = 79; Mean (SD) at post-intervention: 1.9 (0.62) Intervention 1 vs. control 1 SMD (95% CI): 0.38 (0.11, 0.66)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Hildebrandt, 2019 (cont.)			**Emotion regulation: Brief COPE Inventory positive reinterpretation subscale** Intervention 1: ReSource meditation-based mental training, *n* = 148; Mean (SD) at post-intervention: 1.9 (0.68) Control 1: Passive, no intervention, *n* = 79; Mean (SD) at post-intervention: 1.7 (0.73) Intervention 1 vs. control 1 SMD (95% CI): 0.36 (0.08, 0.63) **Emotion regulation: Cognitive Emotion Regulation Questionnaire acceptance subscale** Intervention 1: ReSource meditation-based mental training, *n* = 147; Mean (SD) at post-intervention: 2.3 (0.71) Control 1: Passive, no intervention, *n* = 79; Mean (SD) at post-intervention: 2.1 (0.74) Intervention 1 vs. control 1 SMD (95% CI): 0.30 (0.03, 0.58) **Emotion regulation: Cognitive Emotion Regulation Questionnaire perspective subscale** Intervention 1: ReSource meditation-based mental training, *n* = 147; Mean (SD) at post-intervention: 2.3 (0.92) Control 1: Passive, no intervention, *n* = 79; Mean (SD) at post-intervention: 1.9 (0.89) Intervention 1 vs. control 1 SMD (95% CI): 0.37 (0.09, 0.64)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Hildebrandt, 2019 (cont.)			**Emotion regulation: Cognitive Emotion Regulation Questionnaire planning refocus subscale** Intervention 1: ReSource meditation-based mental training, *n* = 147; Mean (SD) at post-intervention: 3.1 (0.77) Control 1: Passive, no intervention, *n* = 79; Mean (SD) at post-intervention: 2.9 (0.88) Intervention 1 vs. control 1 SMD (95% CI): 0.25 (–0.02, 0.52) **Emotion regulation: Cognitive Emotion Regulation Questionnaire positive reappraisal subscale** Intervention 1: ReSource meditation-based mental training, *n* = 147; Mean (SD) at post-intervention: 2.7 (0.92) Control 1: Passive, no intervention, *n* = 79; Mean (SD) at post-intervention: 2.4 (0.99) Intervention 1 vs. control 1 SMD (95% CI): 0.29 (0.02, 0.56) **Emotion regulation: Cognitive Emotion Regulation Questionnaire positive refocus subscale** Intervention 1: ReSource meditation-based mental training, *n* = 147; Mean (SD) at post-intervention: 1.5 (0.80) Control 1: Passive, no intervention, *n* = 79; Mean (SD) at post-intervention: 1.7 (0.89) Intervention 1 vs. control 1 SMD (95% CI): 0.29 (0.01, 0.56)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Jha, 2007 Study design: Non-randomized trial, multiple-arm Funding: National Institutes of Health Country: United States	Number randomized or enrolled: 51 Population (description): University medical and nursing students Population (civilian, military): Non-military Mean age (SD) or age range: 27.0 (5.8) Percent female: Not reported Inclusion criteria: Medical and nursing students at the University of Pennsylvania who were participating in MBSR courses at the university, took part in an intensive 1-month residential mindfulness retreat at a meditation center, or were volunteers from the larger university community Exclusion criteria: Not reported	Setting: Community, school Intervention type 1: MBSR Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 24 Delivery mode: In-person Intervention format: Group Intervention type 2: Mindfulness meditation training Dosage, duration: Multiple sessions (not reported except that it was a 30-day retreat); number of program weeks: 4 Delivery mode: In-person Intervention format: Mixed individual and group Comparator type: Passive, no intervention	**Attention/concentration: ANT alerting network RT—difference score** Intervention 1: MBSR Intervention 2: Mindfulness meditation training intensive 1-month residential mindfulness retreat Control 1: Passive, no intervention Intervention 1 vs. control 1 Test of difference across groups: $t(1, 32) = 1.22$, $p > 0.2$ Intervention 2 vs. control 1 No usable data reported **Attention/concentration: ANT alerting network accuracy – difference score** Intervention 1: MBSR Intervention 2: Mindfulness meditation training intensive 1-month residential mindfulness retreat Control 1: Passive, no intervention Intervention 1 vs. control 1 Test of difference across groups: $t(1, 32) = 0.92$, $p > 0.3$ Intervention 2 vs. control 1 No usable data reported **Attention/concentration: ANT executive network RT—difference score** Intervention 1: MBSR Intervention 2: Mindfulness meditation training intensive 1-month residential mindfulness retreat Control 1: Passive, no intervention Intervention 1 vs. control 1 Test of difference across groups: $t(1, 32) = 0.26$, $p > 0.8$ Intervention 2 vs. control 1 No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jha, 2007 (cont.)			**Attention/concentration: ANT executive network accuracy – difference score** Intervention 1: MBSR Intervention 2: Mindfulness meditation training intensive 1-month residential mindfulness retreat Control 1: Passive, no intervention Intervention 1 vs. control 1 Test of difference across groups: $t(1, 32) = 0.07$, $p > 0.9$ Intervention 2 vs. control 1 No usable data reported **Attention/concentration: ANT orienting network RT—difference score** Intervention 1: MBSR Intervention 2: Mindfulness meditation training intensive 1-month residential mindfulness retreat Control 1: Passive, no intervention Intervention 1 vs. control 1 Test of difference across groups: $t(1, 32) = 0.39$, $p > 0.7$ Intervention 2 vs. control 1 No usable data reported **Attention/concentration: ANT orienting network accuracy – difference score** Intervention 1: MBSR Intervention 2: Mindfulness meditation training intensive 1-month residential mindfulness retreat Control 1: Passive, no intervention Intervention 1 vs. control 1 Test of difference across groups: $t(1, 32) = 0.18$, $p > 0.8$ Intervention 2 vs. control 1 No usable data reported

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Jha, 2017 Study design: Non-randomized trial, multiple-arm Funding: U.S. Department of Defense Country: United States	Number randomized or enrolled: 55 Population (description): U.S. Marine Corps reservists Population (civilian, military): Military (active duty, National Guard, or reserves) Mean age (SD) or age range: 27.8 (6.4) Percent female: 0.0 Inclusion criteria: Male U.S. Marine Corps reservists preparing for deployment to Iraq, no prior meditation experience Exclusion criteria: Not reported	Setting: Military Intervention type: MMFT Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 24 Delivery mode: In-person Intervention format: Group Comparator type: Passive, no intervention	**Attention/concentration: SART A'** Intervention 1: MMFT, *n* = 28; Mean (SD) at post-intervention: 0.77 (0.16) Control 1: Passive, no intervention, *n* = 17; Mean (SD) at post-intervention: 0.60 (0.19) Intervention 1 vs. control 1 SMD (95% CI): 0.95 (0.33, 1.57) **Attention/concentration: SART RT variability (ICV)** Intervention 1: MMFT, *n* = 28; Mean (SD) at post-intervention: 0.38 (0.18) Control 1: Passive, no intervention, *n* = 17; Mean (SD) at post-intervention: 0.54 (0.23) Intervention 1 vs. control 1 SMD (95% CI): 0.84 (0.22, 1.45) **Attention/concentration: SART average of probe 1 and probe 2** Intervention 1: MMFT, *n* = 28; Mean (SD) at post-intervention: 2.5 (1.2) Control 1: Passive, no intervention, *n* = 17; Mean (SD) at post-intervention: 2.9 (1.5) Intervention 1 vs. control 1 SMD (95% CI): 0.32 (–0.28, 0.91) **Attention/concentration: SART mean RT** Intervention 1: MMFT, *n* = 28; Mean (SD) at post-intervention: 386.1 (85.8) Control 1: Passive, no intervention, *n* = 17; Mean (SD) at post-intervention: 352.0 (80.0) Intervention 1 vs. control 1 SMD (95% CI): –0.40 (–1.00, 0.20)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jha, 2017 (cont.)			**Attention/concentration: SART mean accuracy on target trials** Intervention 1: MMFT, *n* = 28; Mean (SD) at post-intervention: 49.5 (29.5) Control 1: Passive, no intervention, *n* = 17; Mean (SD) at post-intervention: 25.9 (16.9) Intervention 1 vs. control 1 SMD (95% CI): 0.91 (0.29, 1.53) **Attention/concentration: SART probe 1** Intervention 1: MMFT, *n* = 28; Mean (SD) at post-intervention: 2.6 (1.2) Control 1: Passive, no intervention, *n* = 17; Mean (SD) at post-intervention: 2.9 (1.5) Intervention 1 vs. control 1 SMD (95% CI): 0.19 (–0.40, 0.79) **Attention/concentration: SART probe 2** Intervention 1: MMFT, *n* = 28; Mean (SD) at post-intervention: 2.5 (1.2) Control 1: Passive, no intervention, *n* = 17; Mean (SD) at post-intervention: 2.9 (1.5) Intervention 1 vs. control 1 SMD (95% CI): 0.32 (–0.28, 0.91)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Jha, 2019 Study design: Non-randomized trial, multiple-arm Funding: U.S. Army Country: United States	Number randomized or enrolled: 180 Population (description): U.S. Army active-duty males Population (civilian, military): Military (active duty, National Guard, or reserves) Mean age (SD) or age range: 23.3 (3.0) Percent female: 0.0 Inclusion criteria: Active-duty male soldiers from four U.S. Army companies recruited from a military base in the continental United States Exclusion criteria: Not reported	Setting: Military Intervention type 1: MBAT Dosage, duration: Multiple sessions (4); number of program weeks: 4; total number of program hours: 8 Delivery mode: In-person Intervention format: Group Intervention type 2: MBAT Dosage, duration: Multiple sessions (4); number of program weeks: 4; total number of program hours: 8 Delivery mode: In-person Intervention format: Group Comparator type: Passive, no intervention	**Attention/concentration: SART) A'** Intervention 1: MBAT, *n* = 32; Mean (SD) at post-intervention: 0.69 (0.14) Intervention 2: MBAT, *n* = 57; Mean (SD) at post-intervention: 0.72 (0.14) Control 1: Passive, no intervention, *n* = 32; Mean (SD) at post-intervention: 0.72 (0.12) Intervention 1 vs. control 1 SMD (95% CI): −0.26 (−0.75, 0.23) Intervention 2 vs. control 1 SMD (95% CI): 0.00 (−0.43, 0.43) **Attention/concentration: SART average of probe 1 and probe 2** Intervention 1: MBAT, *n* = 32; Mean (SD) at post-intervention: 2.2 (1.5) Intervention 2: MBAT, *n* = 32; Mean (SD) at post-intervention: 2.2 (1.5) Control 1: Passive, no intervention, *n* = 57; Mean (SD) at post-intervention: 2.3 (1.3) Intervention 1 vs. control 1 SMD (95% CI): 0.04 (−0.39, 0.47) Intervention 2 vs. control 1 SMD (95% CI): 0.04 (−0.38, 0.47)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome

Jha, 2019 (cont.)			**Attention/concentration: SART probe 1**
			Intervention 1: MBAT, *n* = 32;
			Mean (SD) at post-intervention:
			2.2 (1.7)
			
			Intervention 2: MBAT, *n* = 57;
			Mean (SD) at post-intervention:
			2.3 (1.3)
			
			Control 1: Passive, no intervention,
			n = 32;
			Mean (SD) at post-intervention:
			2.2 (1.3)
			
			Intervention 1 vs. control 1
			SMD (95% CI):
			0.02 (–0.46, 0.50)
			
			Intervention 2 vs. control 1
			SMD (95% CI):
			–0.08 (–0.51, 0.35)
			
			Attention/concentration: SART probe 2
			Intervention 1: MBAT, *n* = 32;
			Mean (SD) at post-intervention:
			2.2 (1.8)
			
			Intervention 2: MBAT, *n* = 32;
			Mean (SD) at post-intervention:
			2.2 (1.2)
			
			Control 1: Passive, no intervention,
			n = 57;
			Mean (SD) at post-intervention:
			2.2 (1.3)
			
			Intervention 1 vs. control 1
			SMD (95% CI):
			–0.02 (–0.45, 0.41)
			
			Intervention 2 vs. control 1
			SMD (95% CI):
			–0.01 (–0.44, 0.42)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Jha, 2020 Study design: Non-randomized trial, multiple-arm Funding: U.S. Army Country: United States	Number randomized or enrolled: 80 Population (description): Active-duty U.S. Army service members Population (civilian, military): Military (active duty, National Guard, or reserves) Mean age (SD) or age range: 24.6 (4.2) Percent female: 0.0 Inclusion criteria: Active-duty U.S. Army service members Exclusion criteria: No exclusions based on prior health history	Setting: Military Intervention type: MMFT Dosage, duration: Multiple sessions (10); number of program weeks: 8; total number of program hours: 16.25 Delivery mode: In-person Intervention format: Group Comparator type: Active	**Attention/concentration: SART A'** Intervention 1: MMFT, *n* = 35; Mean (SD) at post-intervention: 0.81 (0.12) Control 1: Active, positive emotion resilience training (Algoe and Fredrickson, 2011), *n* = 33; Mean (SD) at post-intervention: 0.71 (0.15) Intervention 1 vs. control 1 SMD (95% CI): 0.71 (0.22, 1.19) **Attention/concentration: SART RT variability (ICV)** Intervention 1: MMFT, *n* = 35; Mean (SD) at post-intervention: 0.50 (0.28) Control 1: Active, positive emotion resilience training (Algoe and Fredrickson, 2011), *n* = 33; Mean (SD) at post-intervention: 0.60 (0.28) Intervention 1 vs. control 1 SMD (95% CI): 0.37 (–0.11, 0.84) **Attention/concentration: SART average of probe 1 and probe 2** Intervention 1: MMFT, *n* = 35; Mean (SD) at post-intervention: 2.0 (1.1) Control 1: Active, positive emotion resilience training (Algoe and Fredrickson, 2011), *n* = 33; Mean (SD) at post-intervention: 2.0 (1.4) Intervention 1 vs. control 1 SMD (95% CI): 0.01 (–0.46, 0.48) **Attention/concentration: SART probe 1** Intervention 1: MMFT, *n* = 35; Mean (SD) at post-intervention: 2.1 (1.1) Control 1: Active, positive emotion resilience training (Algoe and Fredrickson, 2011), *n* = 33; Mean (SD) at post-intervention: 1.9 (1.3) Intervention 1 vs. control 1 SMD (95% CI): –0.14 (–0.61, 0.33)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Jha, 2020 (cont.)			**Attention/concentration: SART probe 2** Intervention 1: MMFT, *n* = 35; Mean (SD) at post-intervention: 1.8 (1.1) Control 1: Active, positive emotion resilience training (Algoe and Fredrickson, 2011), *n* = 33; Mean (SD) at post-intervention: 2.0 (1.5) Intervention 1 vs. control 1 SMD (95% CI): 0.15 (–0.32, 0.62)
Study ID: Morrison, 2014 Study design: Non-randomized trial, multiple-arm Funding: U.S. Army Country: United States	Number randomized or enrolled: 58 Population (description): Psychology and neuroscience university majors Population (civilian, military): Non-military Mean age (SD) or age range: 18.2 (1.3) Percent female: 51.7 Inclusion criteria: University psychology and neuroscience majors Exclusion criteria: Not reported	Setting: School Intervention type: MBSR Dosage, duration: Multiple sessions (21); number of program weeks: 7; total number of program hours: 7 Delivery mode: Mixed in-person and virtual Intervention format: Mixed individual and group Comparator type: Passive, waitlist	**Attention/concentration: SART RT variability** Intervention 1: MBSR, *n* = 24; Mean (SD) at post-intervention: 0.32 (0.14) Control 1: Passive, waitlist, *n* = 18; Mean (SD) at post-intervention: 0.38 (0.15) Intervention 1 vs. control 1 SMD (95% CI): 0.41 (–0.20, 1.01) **Attention/concentration: SART average of probe 1 and probe 2** Intervention 1: MBSR, *n* = 24; Mean (SD) at post-intervention: 1.8 (0.88) Control 1: Passive, waitlist, *n* = 18; Mean (SD) at post-intervention: 2.5 (1.3) Intervention 1 vs. control 1 SMD (95% CI): 0.66 (0.05, 1.28) **Attention/concentration: SART mean RT on correct non-target responses** Intervention 1: MBSR, *n* = 24; Mean (SD) at post-intervention: 347.5 (52.6) Control 1: Passive, waitlist, *n* = 18; Mean (SD) at post-intervention: 368.0 (42.6) Intervention 1 vs. control 1 SMD (95% CI): 0.41 (–0.19, 1.02)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Morrison, 2014 (cont.)			**Attention/concentration: SART mean accuracy on non-target trials** Intervention 1: MBSR, *n* = 24; Mean (SD) at post-intervention: 97.8 (3.3) Control 1: Passive, waitlist, *n* = 18; Mean (SD) at post-intervention: 92.5 (9.5) Intervention 1 vs. control 1 SMD (95% CI): 0.76 (0.14, 1.38) **Attention/concentration: SART mean accuracy on target trials** Intervention 1: MBSR, *n* = 24; Mean (SD) at post-intervention: 55.1 (22.5) Control 1: Passive, waitlist, *n* = 18; Mean (SD) at post-intervention: 53.6 (19.2) Intervention 1 vs. control 1 SMD (95% CI): 0.07 (–0.53, 0.67) **Attention/concentration: SART mean overall accuracy** Intervention 1: MBSR, *n* = 24; Mean (SD) at post-intervention: 95.6 (4.0) Control 1: Passive, waitlist, *n* = 18; Mean (SD) at post-intervention: 90.6 (9.1) Intervention 1 vs. control 1 SMD (95% CI): 0.73 (0.11, 1.35) **Attention/concentration: SART probe 1** Intervention 1: MBSR, *n* = 24; Mean (SD) at post-intervention: 1.8 (0.73) Control 1: Passive, waitlist, *n* = 18; Mean (SD) at post-intervention: 2.6 (1.4) Intervention 1 vs. control 1 SMD (95% CI): 0.77 (0.15, 1.39)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Morrison, 2014 (cont.)			**Attention/concentration: SART probe 2** Intervention 1: MBSR, *n* = 24; Mean (SD) at post-intervention: 1.8 (1.0) Control 1: Passive, waitlist, *n* = 18; Mean (SD) at post-intervention: 2.4 (1.1) Intervention 1 vs. control 1 SMD (95% CI): 0.55 (–0.06, 1.16)
Study ID: Rodriguez Vega, 2014 Study design: Non-randomized trial, multiple-arm Funding: None Country: Spain	Number randomized or enrolled: 103 Population (description): Resident intern psychiatrists and clinical psychologists Population (civilian, military): Non-military Mean age (SD) or age range: 29.6 (5.6) Percent female: 70.0 Inclusion criteria: Resident intern psychiatrists and clinical psychologists who came from different hospitals in Spain and Latin America to work for 3–6 months at the psychotherapy unit at La Paz University Hospital in Madrid, Spain Exclusion criteria: Prior experience with any form of meditation, yoga, tai chi, or Qigong	Setting: Workplace Intervention type: MBSR Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 20 Delivery mode: In-person Intervention format: Group Comparator type: Passive, waitlist	**Attention/concentration: Continuous performance task RT** Intervention 1: MBSR, *n* = 58; Mean (SD) at post-intervention: 358.5 (46.9) Control 1: Passive, waitlist, *n* = 43; Mean (SD) at post-intervention: 340.4 (47.2) Intervention 1 vs. control 1 SMD (95% CI): –0.38 (–0.78, 0.01) **Attention/concentration: Continuous performance task beta** Intervention 1: MBSR, *n* = 58; Mean (SD) at post-intervention: 0.45 (0.34) Control 1: Passive, waitlist, *n* = 43; Mean (SD) at post-intervention: 0.37 (0.34) Intervention 1 vs. control 1 SMD (95% CI): 0.22 (–0.17, 0.62) **Attention/concentration: Continuous performance task commissions (%)** Intervention 1: MBSR, *n* = 58; Mean (SD) at post-intervention: 23.5 (21.0) Control 1: Passive, waitlist, *n* = 43; Mean (SD) at post-intervention: 30.3 (21.0) Intervention 1 vs. control 1 SMD (95% CI): 0.32 (–0.07, 0.72)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Rodriguez Vega, 2014 (cont.)			**Attention/concentration: Stroop mean RT** Intervention 1: MBSR, *n* = 58; Mean (SD) at post-intervention: 746.6 (195.6) Control 1: Passive, waitlist, *n* = 43; Mean (SD) at post-intervention: 675.2 (200.9) Intervention 1 vs. control 1 SMD (95% CI): −0.36 (−0.75, 0.04) **Attention/concentration: Continuous performance task d'** Intervention 1: MBSR, *n* = 58; Mean (SD) at post-intervention: 2.8 (0.75) Control 1: Passive, waitlist, *n* = 43; Mean (SD) at post-intervention: 2.6 (0.75) Intervention 1 vs. control 1 SMD (95% CI): 0.25 (−0.14, 0.65) **Attention/concentration: Continuous performance task omissions (%)** Intervention 1: MBSR, *n* = 58; Mean (SD) at post-intervention: 0.21 (0.47) Control 1: Passive, waitlist, *n* = 43; Mean (SD) at post-intervention: 0.13 (0.48) Intervention 1 vs. control 1 SMD (95% CI): −0.17 (−0.56, 0.22) **Attention/concentration: Continuous performance task standard error of the predicted RT by inter-stimulus intervals** Intervention 1: MBSR, *n* = 58; Mean (SD) at post-intervention: 69.9 (21.4) Control 1: Passive, waitlist, *n* = 43; Mean (SD) at post-intervention: 67.9 (21.5) Intervention 1 vs. control 1 SMD (95% CI): −0.09 (−0.49, 0.30)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Rodriguez Vega, 2014 (cont.)			**Attention/concentration: Continuous performance task standard error of the predicted RT by sub-block** Intervention 1: MBSR, *n* = 58; Mean (SD) at post-intervention: 73.4 (22.2) Control 1: Passive, waitlist, *n* = 43; Mean (SD) at post-intervention: 71.4 (22.3) Intervention 1 vs. control 1 SMD (95% CI): −0.09 (−0.48, 0.30) **Attention/concentration: Stroop congruent RT** Intervention 1: MBSR, *n* = 58; Mean (SD) at post-intervention: 802.3 (187.5) Control 1: Passive, waitlist, *n* = 43; Mean (SD) at post-intervention: 745.9 (191.8) Intervention 1 vs. control 1 SMD (95% CI): −0.30 (−0.69, 0.10) **Attention/concentration: Stroop incongruent RT** Intervention 1: MBSR, *n* = 58; Mean (SD) at post-intervention: 1,021.5 (326.4) Control 1: Passive, waitlist, *n* = 43; Mean (SD) at post-intervention: 936.8 (334.2) Intervention 1 vs. control 1 SMD (95% CI): −0.25 (−0.65, 0.14) **Attention/concentration: Stroop neutral RT** Intervention 1: MBSR, *n* = 58; Mean (SD) at post-intervention: 891.1 (234.6) Control 1: Passive, waitlist, *n* = 43; Mean (SD) at post-intervention: 774.0 (240.8) Intervention 1 vs. control 1 SMD (95% CI): −0.49 (−0.89, −0.09)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Rodriguez Vega, 2014 (cont.)			**Attention/concentration: Stroop number of errors** Intervention 1: MBSR, *n* = 58; Mean (SD) at post-intervention: 4.2 (4.5) Control 1: Passive, waitlist, *n* = 43; Mean (SD) at post-intervention: 6.6 (4.6) Intervention 1 vs. control 1 SMD (95% CI): 0.51 (0.11, 0.91) **Attention/concentration: Stroop perseverations** Intervention 1: MBSR, *n* = 58; Mean (SD) at post-intervention: 0.38 (1.0) Control 1: Passive, waitlist, *n* = 43; Mean (SD) at post-intervention: 0.71 (1.1) Intervention 1 vs. control 1 SMD (95% CI): 0.32 (–0.08, 0.71) **Attention/concentration: Stroop word RT** Intervention 1: MBSR, *n* = 58; Mean (SD) at post-intervention: 905.9 (217.7) Control 1: Passive, waitlist, *n* = 43; Mean (SD) at post-intervention: 817.1 (222.2) Intervention 1 vs. control 1 SMD (95% CI): –0.40 (–0.80, –0.01)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Van Gordon, 2017 Study design: Non-randomized trial, multiple-arm Funding: None Country: United Kingdom	Number randomized or enrolled: 73 Population (description): Adults suffering from workaholism Population (civilian, military): Non-military Mean age (SD) or age range: 38.7 (8.4) Percent female: 41.1 Inclusion criteria: English-speaking; working in full-time employment; the presence of workaholism, confirmed based on a score of 4 or more on the Bergen Work Addiction Scale (Andreassen et al., 2012); aged between 18 and 65 years; not currently absent from work (e.g., due to leave of absence, maternity leave, sickness); no periods of annual leave planned for the duration of the 8-week intervention; not currently undergoing formal psychotherapy; not currently practicing meditation; no changes in psychopharmacology type or dosage 1 month prior to intervention (although stable prescription medication was permitted); working a minimum of 32 paid hours per week Exclusion criteria: Did not meet the Bergen Work Addiction Scale criteria for workaholism; not in full-time paid employment; currently absent from work; currently receiving structured psychotherapy; recent change in psychopharmacology type or dosage; already attending meditation or mindfulness classes	Setting: Community Intervention type: Meditation awareness training Dosage, duration: Multiple sessions (8); number of program weeks: 8; total number of program hours: 17.7 Delivery mode: In-person Intervention format: Mixed individual and group Comparator type: Passive, waitlist	**Work-related morale: Abridged Job in General Scale** Intervention 1: Meditation awareness training, *n* = 32; Mean (SD) at post-intervention: 13.7 (3.2) Control 1: Passive, waitlist, *n* = 26; Mean (SD) at post-intervention: 9.2 (2.7) Intervention 1 vs. control 1 SMD (95% CI): 1.51 (0.93, 2.09) **Work-related morale: Abridged Job in General Scale** Intervention 1: Meditation awareness training, *n* = 29; Mean (SD) at 3 months after baseline: 14.3 (3.7) Control 1: Passive, waitlist, *n* = 21; Mean (SD) at 3 months after baseline: 9.2 (2.9) Intervention 1 vs. control 1 SMD (95% CI): 1.49 (0.86, 2.11)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Study ID: Wimmer, 2019 Study design: Non-randomized trial, multiple-arm Funding: Unclear Country: Germany	Number randomized or enrolled: 222 Population (description): University students in a psychology course Population (civilian, military): Non-military Mean age (SD) or age range: 24.9 (3.5) Percent female: 63.9 Inclusion criteria: University students taking psychology classes at the University of Duisburg Essen Exclusion criteria: Not reported	Setting: School Intervention type: MBSR Dosage, duration: Multiple sessions (7); number of program weeks: 12; total number of program hours: 10.5 Delivery mode: In-person Intervention format: Mixed individual and group Comparator type 1: Active Comparator type 2: Passive, no intervention	**Attention/concentration: d2-R concentration performance** Intervention 1: MBSR, *n* = 60; Mean (SD) at post-intervention: 198.9 (37.8) Control 1: Active, awareness activities, *n* = 45; Mean (SD) at post-intervention: 184.1 (34.4) Control 2: Passive, no intervention, *n* = 31; Mean (SD) at post-intervention: 181.9 (28.0) Intervention 1 vs. control 1 SMD (95% CI): 0.40 (0.01, 0.79) Intervention 1 vs. control 2 SMD (95% CI): 0.48 (0.05, 0.92) **Attention/concentration: d2-R working accuracy** Intervention 1: MBSR, *n* = 60; Mean (SD) at post-intervention: 9.9 (9.7) Control 1: Active, awareness activities, *n* = 45; Mean (SD) at post-intervention: 9.3 (8.4) Control 2: Passive, no intervention, *n* = 31; Mean (SD) at post-intervention: 8.3 (7.7) Intervention 1 vs. control 1 SMD (95% CI): −0.07 (−0.45, 0.32) Intervention 1 vs. control 2 SMD (95% CI): −0.18 (−0.61, 0.25)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Wimmer, 2019 (cont.)			**Attention/concentration: d2-R working speed** Intervention 1: MBSR, *n* = 60; Mean (SD) at post-intervention: 221.0 (35.2) Control 1: Active, awareness activities, *n* = 45; Mean (SD) at post-intervention: 203.0 (32.2) Control 2: Passive, no intervention, *n* = 31; Mean (SD) at post-intervention: 200.1 (37.3) Intervention 1 vs. control 1 SMD (95% CI): 0.52 (0.13, 0.91) Intervention 1 vs. control 2 SMD (95% CI): 0.58 (0.14, 1.01) **Attention/concentration: Flanker task RT** Intervention 1: MBSR, *n* = 60; Mean (SD) at post-intervention: 75.7 (24.9) Control 1: Active, awareness activities, *n* = 45; Mean (SD) at post-intervention: 69.6 (27.6) Control 2: Passive, no intervention, *n* = 31; Mean (SD) at post-intervention: 74.7 (31.0) Intervention 1 vs. control 1 SMD (95% CI): −0.23 (−0.62, 0.15) Intervention 1 vs. control 2 SMD (95% CI): −0.04 (−0.47, 0.39)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Wimmer, 2019 (cont.)			**Attention/concentration: Flanker task accuracy** Intervention 1: MBSR, *n* = 60; Mean (SD) at post-intervention: 1.9 (3.0) Control 1: Active, awareness activities, *n* = 45; Mean (SD) at post-intervention: 1.6 (2.7) Control 2: Passive, no intervention, *n* = 31; Mean (SD) at post-intervention: 2.3 (2.8) Intervention 1 vs. control 1 SMD (95% CI): –0.11 (–0.50, 0.27) Intervention 1 vs. control 2 SMD (95% CI): 0.11 (–0.32, 0.54) **Emotion regulation: Emotional Regulation Questionnaire reappraisal** Intervention 1: MBSR, *n* = 53; Mean (SD) at post-intervention: 26.0 (5.4) Control 1: Active, awareness activities, *n* = 42; Mean (SD) at post-intervention: 23.8 (7.5) Control 2: Passive, no intervention, *n* = 31; Mean (SD) at post-intervention: 24.5 (8.7) Intervention 1 vs. control 1 SMD (95% CI): 0.33 (–0.07, 0.74) Intervention 1 vs. control 2 SMD (95% CI): 0.22 (–0.22, 0.66)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome
Wimmer, 2019 (cont.)			**Emotion regulation: Emotional Regulation Questionnaire suppression** Intervention 1: MBSR, *n* = 53; Mean (SD) at post-intervention: 12.4 (5.5) Control 1: Active, awareness activities, *n* = 42; Mean (SD) at post-intervention: 15.8 (6.3) Control 2: Passive, no intervention, *n* = 31; Mean (SD) at post-intervention: 13.0 (5.4) Intervention 1 vs. control 1 SMD (95% CI): 0.58 (0.17, 0.99) Intervention 1 vs. control 2 SMD (95% CI): 0.11 (–0.33, 0.55) **Emotion regulation: Response Style Questionnaire distraction** Intervention 1: MBSR, *n* = 65; Mean (SD) at post-intervention: 21.5 (5.7) Control 1: Active, awareness activities, *n* = 51; Mean (SD) at post-intervention: 20.4 (5.6) Control 2: Passive, no intervention, *n* = 33; Mean (SD) at post-intervention: 20.9 (6.8) Intervention 1 vs. control 1 SMD (95% CI): 0.20 (–0.16, 0.57) Intervention 1 vs. control 2 SMD (95% CI): 0.09 (–0.32, 0.51)

Table H.1—Continued

Study Details	Participants	Intervention	Outcome

Wimmer, 2019 (cont.)			**Emotion regulation: Response Style Questionnaire self-focused rumination**
			Intervention 1: MBSR, *n* = 65;
			Mean (SD) at post-intervention:
			13.5 (4.4)
			
			Control 1: Active, awareness activities,
			n = 51;
			Mean (SD) at post-intervention:
			17.0 (5.7)
			
			Control 2: Passive, no intervention,
			n = 33;
			Mean (SD) at post-intervention:
			12.6 (3.5)
			
			Intervention 1 vs. control 1
			SMD (95% CI):
			0.69 (0.31, 1.06)
			
			Intervention 1 vs. control 2
			SMD (95% CI):
			−0.21 (−0.63, 0.21)
			
			Emotion regulation: Response Style Questionnaire symptom-focused rumination
			Intervention 1: MBSR, *n* = 65;
			Mean (SD) at post-intervention:
			13.1 (3.7)
			
			Control 1: Active, awareness activities,
			n = 51;
			Mean (SD) at post-intervention:
			16.2 (5.9)
			
			Control 2: Passive, no intervention,
			n = 33;
			Mean (SD) at post-intervention:
			14.0 (5.0)
			
			Intervention 1 vs. control 1
			SMD (95% CI):
			0.64 (0.26, 1.01)
			
			Intervention 1 vs. control 2
			SMD (95% CI):
			0.21 (−0.21, 0.63)

APPENDIX I

Outcome Measures in Included Studies

In Table I.1, we provide the measures used to assess each of the eight outcomes of interest for which we identified studies for the systematic review. The number of studies that used each measure is indicated in parentheses.

TABLE I.1
Measures Used to Assess Outcomes Evaluated in Included Studies

Outcome	Outcome Measures
Attention/ concentration	Anagram puzzles (1); anti-saccade/pro-saccade (1); ANT (11); attention-switching task (2); Attention Control Scale (3); attentional matrices (1); choice reaction time (1); Cogstate identification task (1); computer-adaptive adjustable two-back task (1); computer-adaptive n-back task (1); Concentrated Attention Test (3); continuous performance task (5); d2 (2); d2-R (2); Digit Symbol Substitution Test (4); digit vigilance task (1); dual attention to response task (1); Emotional Styles Questionnaire—Attention (1); Eriksen flanker task (1); error awareness task (1); Flanker task (2); inattentional blindness task (1); mind-wandering during operation span task (1); mind-wandering during verbal reasoning GRE (1); Mind Wandering Questionnaire (1); Modified Erikson flanker task (1); Multiple Features Target Cancellation (1); object detection task (1); overselectivity task (1); perceived magnitude of attention (1); post-anagram trial questions (1); rapid visual information-processing task (1); set-shifting task (1); spatial and temporal attention network task (1); Stroop (14); SART (12); Symbol Digit Modalities Test (2); Trail Making Test (2); visual search task (1)
Decisionmaking	Adult Decisionmaking Competence Test (1); Emotional Self-Awareness Scale (1); Shooter Bias Task (1)
Emotion regulation	Affect Scale (1); affective go/no-go (1); affective Stroop (1); attention-switching task (1); Brief COPE Inventory (1); Cognitive Emotion Regulation Questionnaire (1); Difficulties in Emotion Regulation Scale (3); discrimination task (2); dot probe task (1); emotion intensity (1); emotion regulation (1); emotional attention bias (1); emotional go/no-go (1); emotional interference task (1); emotional regulation choice task (1); Emotion Regulation Questionnaire (5); emotional regulation strategies (1); emotional Stroop task (1); Response Style Questionnaire (1); Positive and Negative Affect Schedule (1); Selbsteinschätzung emotionaler Kompetenzen (1); Short Positive and Negative Affect Schedule (1); State Difficulties in Emotion Regulation Scale (1); Stroop interference control task (1); trait surface acting (1)
Impulse control/ impulsivity	Balloon analogue risk task (1); Barratt Impulsiveness Scale—Alternative Version (1); Delay Discounting Survey (1); Eriksen flanker task (1); Self Control Scale (2); State Self-Control Capacity Scale (1)
Work-related morale	Abridged Job in General Scale (2); job satisfaction (1); Job Satisfaction Questionnaire (1); Job Satisfaction Scale for Nurses (1); McCloskey/Mueller Satisfaction Scale (1); Utrecht Work Engagement Scale (2)
Work-related productivity	Company's monthly global measure of work performance (1); Health and Work Performance Questionnaire (1); Task Performance Questionnaire (1); Work Limitations Questionnaire (1)
Work-related social support	Job Content Questionnaire (1); Open-ended questions about what made work meaningful (1); prosocial helping behavior (1); workplace PERMA profiler (1); workplace social support (1)
Work-related teamwork	Questions to employees and supervisors regarding helping coworkers (1)

APPENDIX J

Individual Study Quality

In this appendix, we describe the criteria that we used to assess individual study quality, and we provide the quality ratings for each study. Table J.1 provides quality ratings for randomized controlled trials, and Table J.2 provides the ratings for non-randomized studies. The methods and processes used to assess individual study quality are described in Chapter Two and Appendix A, and the results are summarized in Chapter Three.

Description of the Items Used to Assess Individual Study Quality

Randomized Controlled Trials

The quality of randomized controlled trials was assessed using a slightly modified version of the U.S. Preventive Services Task Force assessment tool (U.S. Preventive Services Task Force, 2017). In this section, we describe high-level results for each item used to assess study quality. For more information on each item, see Chapter Three and Appendix A.

Random sequence generation. Of the 93 articles reporting results from randomized controlled trials included in our systematic review, 60 were unclear in describing randomization methods, five described randomization methods that could contribute to high risk of bias (low study quality), and 28 described adequate randomization procedures.

Allocation concealment. This item refers to the methods used to ensure that no one would be able to predict the treatment group assignment of participants. Among publications reporting on randomized controlled trials, 69 described no protocols for allocation concealment, 19 described protocols that would greatly lessen the chance of guessing a participant's assignment, and five described a protocol that would likely ensure that study staff knew the participants' assignments (a high risk to quality).

Blinding of participants to their assigned intervention. Of the 93 randomized trials, 89 clearly made no attempt to blind participants; two implemented careful methods to blind participants; and two attempted to blind participants to their assignments, but with unclear implications.

Blinding of outcome assessors to the participants' assigned intervention. When outcomes are self-reported, blinding is not possible. Of the 93 randomized trials, 32 used only self-reported outcomes, four clearly were designed to ensure blinded outcome assessment, and 57—nearly two-thirds—were unclear in whether outcome assessment was blinded.

Completeness of reporting of outcome data. High participant dropout rates or dropout rates that differ substantially between groups can lower study quality because of incomplete outcome data. When dropout rates are high and data are missing, it is impossible to know whether the study participants who dropped out and those who remained in the study differed in important ways and whether the results truly reflect the effectiveness of the program. A dropout rate of 20 percent or more is usually considered high. Intent-to-treat analysis can mitigate the impact of dropouts because groups are compared based on their original random assignments. Intent-to-treat analyses also capture the acceptability of the intervention and maintain the similarity between groups achieved by randomization. Among the 93 randomized trials, 51 used intent-

to-treat analysis, 30 used per-protocol analysis, and 12 were unclear in the number of participants included in analysis.

Selective reporting of outcome data. Failing to report negative findings or reporting additional findings that were not originally planned. Identifying selective reporting is challenging, but studies that have pre-published or pre-registered their study protocols are much less likely to selectively report outcomes. Only 26 studies in our review described registration or prior publication of protocols; 65 provided unclear evidence of potential selective reporting, and two showed clear evidence of selective reporting. We also measured the likelihood of publication bias (see Appendix K).

Differences between intervention groups at the start of a study. Such differences can affect study quality if they could affect how the participants respond to the intervention. For this review, we considered information on gender makeup, average age, and prior meditation experience. Of the randomized trials, 55 showed no evidence of differences, 31 reported insufficient information to see differences, and seven showed evidence of such differences.

Crossover or contamination between groups. If study participants cross over from one group to another or if participants in the control group are engaging in the intervention (called *contamination*), that would lower study quality. We saw almost no evidence of crossover or contamination among the randomized trials in our review.

Equal, reliable, and valid outcome measurement. Using non-validated or unreliable tests to measure outcomes or measuring outcomes differently among the different groups would reduce quality. Most (81) of the randomized trials showed no evidence of problems with outcome assessments, but 12 studies did use non-validated outcome measures or described differences in how outcomes were measured in intervention and control groups.

Clear definitions of interventions. Using vague or confusing descriptions of study interventions might be a sign of poor study quality, especially for interventions that lack universally recognized definitions. Of the 93 randomized trials, 20 failed to clearly describe their interventions.

Finally, as noted earlier, *intent-to-treat analysis* can mitigate the impact of participant dropouts because groups are compared based on their original random assignments. Intent-to-treat analyses also capture the acceptability of the intervention and maintain the similarity between groups achieved by randomization. Among the 29 studies that conducted intent-to-treat analyses, only two showed evidence of a problem with the analysis.

Most of the randomized controlled trials that met our inclusion criteria—70 of 93—had poor study quality overall. The most common reason that a study was rated as poor quality is that results were not analyzed for all participants enrolled (incomplete outcome data). Analyzing results for all study enrollees—that is, intent-to-treat analysis—is a requirement for a rating of good quality. Instead, these poor-quality studies included only study completers in their results. Ten studies met the criteria for good quality, and 13 met criteria for fair quality.

Table J.1 presents the results for each of the 11 items and the overall quality rating for each study. The first six items were rated as contributing to low, unclear, or high risk of bias; these ratings were operationalized by providing examples of low, unclear, and high risk. For the other potential sources of bias for randomized controlled trials, we report whether the item could be contributing to bias (yes) or whether it was not an issue (no). We assessed the overall quality of each study as poor, fair, or good based on the U.S. Preventive Services Task Force's criteria.

TABLE J.1

Study Quality of Each Randomized Controlled Trial Included in the Systematic Review

Study ID	Random Sequence Generation	Allocation Concealment	Blinding of Participants to Their Assigned Intervention	Blinding of Outcome Assessors	Completeness of Reporting of Outcome Data	Selective Reporting of Outcome Data	Differences Between Intervention Groups at the Start of a Study	Crossover or Contamination Between Groups	Equal, Reliable, and Valid Outcome Measurement	Clear Definitions of Interventions	Intent-to-Treat Analysis	Quality Rating
Adhikari, 2018	Low risk	Unclear risk	High risk	Unclear risk	Unclear risk	Unclear risk	No	No	No	No	Not applicable	Poor
Ainsworth, 2013	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Unclear risk	No	No	No	No	Not applicable	Poor
Ainsworth, 2017	Unclear risk	Unclear risk	High risk	Not applicable	Unclear risk	Unclear risk	No	No	No	No	Not applicable	Poor
Allen, 2012	Unclear risk	Unclear risk	High risk	Unclear risk	High risk	Unclear risk	No	No	No	No	Not applicable	Poor
Allexandre, 2016	Low risk	Unclear risk	High risk	Unclear risk	Low risk	Low risk	No	No	Yes	No	No	Fair
Anderson, 2007	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Unclear risk	No	No	No	Yes	Not applicable	Poor
Arch, 2006	Unclear risk	Unclear risk	High risk	Not applicable	Low risk	Unclear risk	Insufficient information	No	No	No	Not applicable	Poor
Baby, 2019	Low risk	Low risk	High risk	Not applicable	Low risk	Low risk	No	Yes	No	Yes	No	Fair
Balconi, 2019	Unclear risk	Unclear risk	High risk	Unclear risk	Unclear risk	Low risk	Insufficient information	No	Yes	No	Not applicable	Poor
Baltar, 2018	High risk	High risk	High risk	Not applicable	Low risk	Unclear risk	No	No	No	No	No	Fair
Banks, 2019	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Unclear risk	Insufficient information	No	No	No	Not applicable	Poor
Barattucci, 2019	Unclear risk	Unclear risk	High risk	Not applicable	High risk	Low risk	No	No	No	No	Not applicable	Poor
Basso, 2019	Unclear risk	Unclear risk	High risk	Unclear risk	High risk	Unclear risk	Insufficient information	No	No	No	Not applicable	Poor

Table J.1—Continued

Study ID	Random Sequence Generation	Allocation Concealment	Blinding of Participants to Their Assigned Intervention	Blinding of Outcome Assessors	Completeness of Reporting of Outcome Data	Selective Reporting of Outcome Data	Differences Between Intervention Groups at the Start of a Study	Crossover or Contamination Between Groups	Equal, Reliable, and Valid Outcome Measurement	Clear Definitions of Interventions	Intent-to-Treat Analysis	Quality Rating
Becerra, 2017	Low risk	Unclear risk	High risk	Unclear risk	High risk	Unclear risk	Insufficient information	No	No	Yes	Not applicable	Poor
Bhayee, 2016	Low risk	Low risk	High risk	Unclear risk	Low risk	Low risk	Insufficient information	No	No	No	No	Poor
Bostock, 2019	Low risk	Low risk	High risk	Not applicable	Low risk	Unclear risk	No	No	Yes	No	Not applicable	Poor
Broderick, 2005	Unclear risk	Unclear risk	High risk	Not applicable	High risk	Unclear risk	No	No	No	No	Not applicable	Poor
Burger, 2017	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Unclear risk	No	No	Yes	No	Not applicable	Poor
Cerna, 2020	Low risk	Low risk	High risk	Not applicable	High risk	Unclear risk	Insufficient information	No	No	Yes	Not applicable	Poor
Chow, 2017	Unclear risk	Unclear risk	High risk	Unclear risk	High risk	Unclear risk	No	No	No	No	Not applicable	Poor
Course-Choi, 2017	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Unclear risk	Yes	No	No	Yes	Not applicable	Poor
de Bruin, 2016	Unclear risk	Unclear risk	High risk	Not applicable	High risk	Unclear risk	No	No	No	No	Not applicable	Poor
Deady, 2020	Low risk	Low risk	High risk	Not applicable	Low risk	Low risk	No	No	No	No	No	Good
DeSteno, 2018	Unclear risk	Unclear risk	High risk	Unclear risk	High risk	Unclear risk	Insufficient information	No	No	No	Not applicable	Poor
Diaz, 2013	Unclear risk	Unclear risk	High risk	Not applicable	Low risk	Low risk	Insufficient information	No	No	No	No	Fair
Dixon, 2019	Unclear risk	Unclear risk	High risk	Not applicable	Unclear risk	Unclear risk	No	No	Yes	No	Not applicable	Poor

Table J.1—Continued

Study ID	Random Sequence Generation	Allocation Concealment	Blinding of Participants to Their Assigned Intervention	Blinding of Outcome Assessors	Completeness of Reporting of Outcome Data	Selective Reporting of Outcome Data	Differences Between Intervention Groups at the Start of a Study	Crossover or Contamination Between Groups	Equal, Reliable, and Valid Outcome Measurement	Clear Definitions of Interventions	Intent-to-Treat Analysis	Quality Rating
Dundas, 2017	Low risk	Low risk	High risk	Not applicable	Low risk	Unclear risk	Insufficient information	No	No	Yes	No	Good
Eisenbeck, 2018	Unclear risk	Unclear risk	High risk	Unclear risk	Unclear risk	Unclear risk	No	No	Yes	No	Not applicable	Poor
Esch, 2016	Unclear risk	Low risk	High risk	Low risk	Low risk	Low risk	No	No	No	Yes	Not applicable	Poor
Fan, 2014	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Unclear risk	No	No	Yes	Yes	No	Fair
Flook, 2013	Unclear risk	Unclear risk	High risk	Unclear risk	Unclear risk	Unclear risk	No	No	No	No	Yes	Poor
Garland, 2015	Unclear risk	Unclear risk	High risk	Not applicable	Low risk	Unclear risk	Insufficient information	No	No	No	Not applicable	Poor
Ghawadra, 2020	Low risk	Unclear risk	High risk	Not applicable	Low risk	Low risk	Yes	No	No	Yes	No	Fair
Giannandrea, 2019	Low risk	Unclear risk	High risk	Unclear risk	High risk	Unclear risk	Insufficient information	No	No	Yes	Not applicable	Poor
Glück, 2011	Low risk	Unclear risk	High risk	Not applicable	Low risk	Low risk	No	No	No	No	No	Good
Green, 2017	High risk	High risk	High risk	Unclear risk	High risk	Unclear risk	No	No	No	No	Not applicable	Poor
Grégoire, 2015	Low risk	High risk	High risk	Not applicable	High risk	Unclear risk	No	No	No	No	Not applicable	Poor
Hafenbrack, 2020 (1a)	Unclear risk	Unclear risk	High risk	Unclear risk	High risk	Unclear risk	Insufficient information	No	No	No	Not applicable	Poor
Hafenbrack, 2020 (1b)	Unclear risk	Unclear risk	High risk	Unclear risk	High risk	Unclear risk	No	No	No	No	Not applicable	Poor
Hülsheger, 2013	Unclear risk	Unclear risk	High risk	Not applicable	High risk	Unclear risk	Insufficient information	No	No	No	Not applicable	Poor

Table J.1—Continued

Study ID	Random Sequence Generation	Allocation Concealment	Blinding of Participants to Their Assigned Intervention	Blinding of Outcome Assessors	Completeness of Reporting of Outcome Data	Selective Reporting of Outcome Data	Differences Between Intervention Groups at the Start of a Study	Crossover or Contamination Between Groups	Equal, Reliable, and Valid Outcome Measurement	Clear Definitions of Interventions	Intent-to-Treat Analysis	Quality Rating
Hunsinger, 2019	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Low risk	No	No	No	No	Not applicable	Poor
Hwang, 2019	Low risk	Unclear risk	High risk	Not applicable	Low risk	Unclear risk	No	No	No	No	Not applicable	Poor
Jankowski, 2020	Unclear risk	Unclear risk	Low risk	Unclear risk	Low risk	Unclear risk	Yes	No	No	No	Not applicable	Poor
Jennings, 2019	Low risk	Unclear risk	High risk	Not applicable	Low risk	Unclear risk	Insufficient information	No	No	No	No	Good
Jensen, 2012	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	No	No	No	No	Not applicable	Poor
Jensen, 2020	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Unclear risk	Insufficient information	No	No	Yes	No	Poor
Jha, 2015	Low risk	Unclear risk	High risk	Unclear risk	High risk	Unclear risk	Yes	No	No	No	Not applicable	Poor
Johnson, 2015	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Unclear risk	Insufficient information	No	Yes	No	No	Poor
Keng, 2017	Unclear risk	Unclear risk	High risk	Unclear risk	High risk	Low risk	Insufficient information	No	No	No	Not applicable	Poor
Klatt, 2017	Low risk	Low risk	High risk	Not applicable	Low risk	Unclear risk	No	No	No	No	Not applicable	Poor
Kral, 2019	Unclear risk	Unclear risk	High risk	Not applicable	Low risk	High risk	No	No	Yes	Yes	Not applicable	Poor
Kuo, 2015	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Unclear risk	Insufficient information	No	Yes	No	No	Poor
Kwak, 2020	Low risk	Low risk	High risk	Unclear risk	High risk	Unclear risk	Yes	No	No	Yes	Not applicable	Poor

Table J.1—Continued

Study ID	Random Sequence Generation	Allocation Concealment	Blinding of Participants to Their Assigned Intervention	Blinding of Outcome Assessors	Completeness of Reporting of Outcome Data	Selective Reporting of Outcome Data	Differences Between Intervention Groups at the Start of a Study	Crossover or Contamination Between Groups	Equal, Reliable, and Valid Outcome Measurement	Clear Definitions of Interventions	Intent-to-Treat Analysis	Quality Rating
Lacerda, 2018	Unclear risk	Unclear risk	High risk	Unclear risk	High risk	Low risk	No	No	No	No	Not applicable	Poor
Lai, 2015	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Unclear risk	Insufficient information	No	No	No	No	Poor
Larson, 2013	Unclear risk	Unclear risk	Low risk	Unclear risk	Low risk	Unclear risk	No	No	No	No	Not applicable	Poor
Li, 2018	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Low risk	No	No	No	No	Not applicable	Poor
Lin, 2019	Low risk	High risk	High risk	Not applicable	High risk	Unclear risk	No	No	No	No	No	Poor
Ma, 2018	Unclear risk	Unclear risk	High risk	Not applicable	High risk	Low risk	No	No	No	No	Not applicable	Poor
Menezes, 2013	Unclear risk	Unclear risk	High risk	Unclear risk	High risk	Unclear risk	No	No	No	No	Not applicable	Poor
Menezes, 2015	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Low risk	Insufficient information	No	No	No	Not applicable	Poor
Menezes, 2016	Unclear risk	Low risk	High risk	Unclear risk	High risk	Low risk	No	No	No	No	Not applicable	Poor
Molek-Winiarska, 2018	Unclear risk	Unclear risk	High risk	Not applicable	Unclear risk	Unclear risk	No	No	No	No	Not applicable	Poor
Mrazek, 2013	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Unclear risk	No	No	No	Yes	No	Good
Norris, 2018 (1a)	Unclear risk	Unclear risk	High risk	Unclear risk	Unclear risk	Low risk	No	No	No	No	Not applicable	Poor
Norris, 2018 (1b)	Unclear risk	Unclear risk	High risk	Unclear risk	Unclear risk	Low risk	No	No	No	No	Not applicable	Poor
Ortner, 2007	Unclear risk	Unclear risk	High risk	Unclear risk	High risk	Unclear risk	No	No	No	No	Not applicable	Poor

Table J.1—Continued

Study ID	Random Sequence Generation	Allocation Concealment	Blinding of Participants to Their Assigned Intervention	Blinding of Outcome Assessors	Completeness of Reporting of Outcome Data	Selective Reporting of Outcome Data	Differences Between Intervention Groups at the Start of a Study	Crossover or Contamination Between Groups	Equal, Reliable, and Valid Outcome Measurement	Clear Definitions of Interventions	Intent-to-Treat Analysis	Quality Rating
Pang, 2019	Unclear risk	Unclear risk	High risk	Not applicable	Low risk	Unclear risk	No	No	No	No	No	Fair
Prätzlich, 2016	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Unclear risk	Yes	No	No	Yes	Not applicable	Poor
Quaglia, 2019	Low risk	Low risk	High risk	Unclear risk	Low risk	Unclear risk	Insufficient information	No	No	Yes	Not applicable	Poor
Quan, 2018	Unclear risk	Unclear risk	High risk	Unclear risk	Unclear risk	Unclear risk	Insufficient information	No	No	No	Not applicable	Poor
Rahl, 2017	Low risk	Low risk	High risk	Low risk	Low risk	Low risk	No	No	No	No	Not applicable	Poor
Rooks, 2017	High risk	Unclear risk	High risk	Unclear risk	Low risk	Unclear risk	Insufficient information	No	No	No	No	Good
Rothschild, 2017	High risk	Unclear risk	High risk	Unclear risk	Low risk	Unclear risk	No	No	No	No	Not applicable	Poor
Schofield, 2015	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Unclear risk	Insufficient information	No	No	No	No	Good
Semple, 2010	Unclear risk	Unclear risk	High risk	Unclear risk	High risk	Unclear risk	No	No	No	No	Not applicable	Poor
Shonin, 2014	Low risk	Low risk	High risk	Low risk	Low risk	Unclear risk	No	No	No	No	No	Good
Steinberg, 2016	Low risk	Low risk	High risk	Not applicable	Unclear risk	Low risk	No	No	No	No	No	Fair
Tang, 2007	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Unclear risk	Insufficient information	No	No	No	No	Fair
Throuvala, 2020	Low risk	Low risk	High risk	Not applicable	High risk	Unclear risk	No	No	No	Yes	Not applicable	Poor

Table J.1—Continued

Study ID	Random Sequence Generation	Allocation Concealment	Blinding of Participants to Their Assigned Intervention	Blinding of Outcome Assessors	Completeness of Reporting of Outcome Data	Selective Reporting of Outcome Data	Differences Between Intervention Groups at the Start of a Study	Crossover or Contamination Between Groups	Equal, Reliable, and Valid Outcome Measurement	Clear Definitions of Interventions	Intent-to-Treat Analysis	Quality Rating
Upton, 2018	Low risk	Low risk	High risk	Unclear risk	Low risk	Unclear risk	Insufficient information	No	No	No	No	Good
Walsh, 2019	Unclear risk	Unclear risk	High risk	Unclear risk	High risk	Low risk	No	No	No	Yes	Not applicable	Poor
Watford, 2015	Low risk	Low risk	High risk	Not applicable	Unclear risk	High risk	Insufficient information	No	No	No	Not applicable	Poor
Watier, 2016	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Unclear risk	Insufficient information	No	No	No	Not applicable	Poor
Wenzel, 2020	Low risk	Low risk	High risk	Not applicable	Low risk	Low risk	Yes	No	Yes	Yes	Yes	Fair
Wingert, 2020	Unclear risk	Unclear risk	High risk	Not applicable	Low risk	Unclear risk	No	No	No	Yes	No	Fair
Wolever, 2012	Unclear risk	Unclear risk	High risk	Not applicable	Low risk	Unclear risk	No	No	No	No	No	Fair
Wu, 2019	Unclear risk	Unclear risk	High risk	Unclear risk	Low risk	Low risk	No	No	Yes	No	Not applicable	Poor
Zanesco, 2019	Unclear risk	Unclear risk	High risk	Unclear risk	High risk	Low risk	No	No	No	No	No	Good
Zeidan, 2010	High risk	High risk	High risk	Unclear risk	Low risk	Unclear risk	No	No	No	No	Not applicable	Fair
Zhang, 2019	Unclear risk	Unclear risk	Unclear risk	Unclear risk	High risk	Unclear risk	Insufficient information	No	No	No	Not applicable	Poor
Zhu, 2019	Low risk	Low risk	High risk	Unclear risk	Low risk	Unclear risk	No	No	No	No	Not applicable	Poor
Zwilling, 2019	Unclear risk	Unclear risk	High risk	Unclear risk	High risk	Low risk	Insufficient information	No	No	No	Not applicable	Poor

Non-Randomized Studies

The quality of non-randomized studies was assessed using the Newcastle-Ottawa method, as described in Chapter Three and Appendix A.

The first item that we assessed was *representativeness of the exposed cohort*, which indicates whether the group that received the mindfulness meditation intervention was truly representative of the general population. The second item was *selection of the non-exposed cohort*, which indicates whether the control group was drawn from the same community as the experimental group. The third item that we assessed was *ascertainment of exposure*—that is, how the researchers knew that the participants indeed attended the meditation sessions or accessed the program if it was virtual. The fourth item assessed was *demonstration that the outcome of interest was not present at the start of the study*, which indicates whether the experimental group differed from the control group at the outset. The fifth item assessed—*comparability of cohorts on gender, age, and meditation experience*—indicates whether the assignment of participants to the experimental and control groups matched participants on potentially important characteristics or whether the authors considered these characteristics in their analyses. In our case, the important characteristics that we selected were age, gender, and prior experience with meditation. Next, we considered each study's *assessment of the outcome*, or how the authors assessed the results of the intervention; higher-quality studies employed record linkage (an official job performance assessment) or independent blinded assessment (usually task performance). The alternative is self-assessment. We also considered whether the *follow-up time was long enough for outcomes to occur*. Finally, we considered the *adequacy of follow-up cohorts*, which indicates whether the analysis was conducted on all participants (intent-to-treat analysis) or only on those who completed the program (per-protocol analysis).

The Newcastle-Ottawa assessment tool does not automatically assign an overall quality score to each study, and because we did not include the non-randomized studies in meta-analyses, we did not assign overall scores for these 13 studies.

The fact that these trials assigned participants to groups by a non-random process automatically lowers the quality of the studies; however, considering other items used to assess quality, the non-randomized trials tended to be fair in quality. Most (11 of 13) studies included highly select populations (such as soldiers or health care personnel); however, these studies drew the control groups from the same populations. Only two studies matched participants on age, gender, and prior meditation experience, and five matched on two of those three characteristics. Eight of the 13 studies included all enrolled participants in analysis. Table J.2. presents the results for each of these eight items for the non-randomized studies in our systematic review.

TABLE J.2

Study Quality of Each Non-Randomized Study Included in the Systematic Review

Study ID	Representativeness of the Exposed Cohort	Selection of the Non-Exposed Cohort	Ascertainment of Exposure	Demonstration That the Outcome of Interest Was Not Present at the Start of the Study	Comparability of Cohorts on Gender, Age, and Meditation Experience	Assessment of the Outcome	Follow-Up Time Was Long Enough for Outcomes to Occur	Adequacy of Follow-Up of Cohorts
Alkoby, 2019	Selected group of users	Drawn from the same community as the exposed cohort	Secure record	No	Study controls for (or groups are matched by) age, gender, and prior meditation experience	Independent blind assessment	Yes	Follow-up rate less than 80% and dropout reasons not accounted for indicate high risk of bias
Ching, 2015	Selected group of users	Drawn from the same community as the exposed cohort	Secure record, written self-report	Yes	Study controls for (or groups are matched by) age	Record linkage	No	Follow-up rate less than 80% and dropout reasons not accounted for indicate high risk of bias
Coo, 2018	Selected group of users	Drawn from the same community as the exposed cohort	Secure record	Yes	Study does not control for any of the three characteristics	Self-report	Yes	Complete follow-up
Denkova, 2020	Selected group of users	Drawn from the same community as the exposed cohort	Secure record	Yes	Study controls for (or groups are matched by) age	Independent blind assessment	Yes	Complete follow-up
Hildebrandt, 2019	Somewhat representative, similar to the general population in most respects	Drawn from the same community as the exposed cohort	Secure record	Yes	Study controls for (or groups are matched by) age and gender	Self-report	Yes	Complete follow-up
Jha, 2007	Selected group of users	Drawn from a different source	No description	Yes	Study controls for (or groups are matched by) age	Independent blind assessment	Yes	No statement regarding follow-up of cohorts
Jha, 2017	Selected group of users	Drawn from the same community as the exposed cohort	Secure record	Yes	Study controls for (or groups are matched by) age, gender, and prior meditation experience	Independent blind assessment	Yes	Complete follow-up

Table J.2—Continued

Study ID	Representativeness of the Exposed Cohort	Selection of the Non-Exposed Cohort	Ascertainment of Exposure	Demonstration That the Outcome of Interest Was Not Present at the Start of the Study	Comparability of Cohorts on Gender, Age, and Meditation Experience	Assessment of the Outcome	Follow-Up Time Was Long Enough for Outcomes to Occur	Adequacy of Follow-Up of Cohorts
Jha, 2019	Selected group of users	Drawn from the same community as the exposed cohort	Secure record	Yes	Study controls for (or groups are matched by) age and gender	Independent blind assessment	Yes	Complete follow-up
Jha, 2020	Selected group of users	Drawn from a different source	Secure record	Yes	Study controls for (or groups are matched by) age and gender	Independent blind assessment	Yes	Complete follow-up
Morrison, 2014	Selected group of users	Drawn from the same community as the exposed cohort	Secure record	Yes	Study does not control for any of the three characteristics	Independent blind assessment	Yes	Complete follow-up
Rodriguez Vega, 2014	Selected group of users	Drawn from the same community as the exposed cohort	Secure record	Yes	Study controls for (or groups are matched by) age, gender, and prior meditation experience	Independent blind assessment	Yes	Complete follow-up
Van Gordon, 2017	Truly representative, essentially drawn from the general population	Drawn from the same community as the exposed cohort	Secure record	Yes	Study controls for (or groups are matched by) age and gender	Self-report	Yes	Follow-up rate less than 80% and dropout reasons not accounted for indicate high risk of bias
Wimmer, 2019	Selected group of users	Drawn from the same community as the exposed cohort	Secure record, written self-report	Yes	Study controls for (or groups are matched by) age and prior meditation experience	Independent blind assessment, self-report	Yes	Complete follow-up

APPENDIX K

Assessment of Publication Bias

This appendix summarizes analyses examining publication bias. We found no evidence of publication bias in the studies included in our systematic review.

As discussed in Chapter Two, *publication bias* refers to the tendency of studies, especially small studies, to be published only if findings are statistically significant and not published if they indicate no difference between groups. Publication bias is usually examined separately for each outcome included in a meta-analysis by comparing the estimated effect of the intervention versus the precision of the estimated effect across studies. In the absence of publication bias, we would expect the estimated effects of mindfulness to be approximately symmetrically distributed around the overall (pooled) finding, regardless of how precise the estimates are. Publication bias can show up as published estimates that tend to indicate a significant effect of the intervention when sample sizes are small but then the significance of findings weakens as the sample size increases.

Formal evaluation of publication bias generally requires at least ten pooled studies (Sterne et al., 2011). Only two poolings in our analysis met these criteria. We created a funnel plot for each analysis (not shown), but neither one showed evidence of publication bias. Because relatively few studies in our systematic review examined each outcome of interest, we include an informal examination of publication bias in this appendix.

Table K.1 presents details for the attention suboutcomes, and Table K.2 presents details for emotion regulation; impulsivity; and work-related morale, productivity, and social support. Specifically, the tables include one row for each study comparison included in a pooled analysis and list the study ID (which includes the publication year), comparator type, whether the study type was an analogue, the comparison group and total study sample sizes, and whether the finding for each outcome included in pooled analyses was statistically significant. In the outcome columns of Tables K.1 and K.2,

- 0 indicates that the 95-percent confidence interval for the effect of the mindfulness intervention included zero (no significant effect)
- +1 indicates that the 95-percent confidence interval was above zero, indicating that the finding was statistically significant and favored the mindfulness intervention
- –1 indicates that the 95-percent confidence interval was below zero, indicating that the finding was statistically significant and favored the comparison group.

We did not observe any published studies that indicated that the intervention favored the comparison group.

In general, studies published more recently were more likely than earlier studies to have at least one statistically significant finding. About half of all the studies included in pooled analyses (36 of 68; 53 percent) were published between 2005 and 2017. The remaining 32 studies were published between 2018 and 2020. Eight of the earlier studies (22 percent) indicated a significant effect of mindfulness meditation on at least one outcome. In contrast, 13 of the later studies (41 percent) indicated a significant effect of mindfulness on at least one outcome.

Most of these studies (51 of 68; 75 percent) had a sample size smaller than 100. Later studies tended to have a larger sample size, but of the 17 studies with 100 or more participants, more than half (nine of 17; 53 percent) were published earlier (before 2018), and one was the earliest study included in pooled analyses (published in 2005). The typical concern with publication bias is that early and small studies that do not indicate that the intervention had a statistically significant effect are unlikely to be published. We did not find evidence of this typical relationship:

- Six of 26 studies (23 percent) with a sample size of 50 or fewer participants reported a significant effect of mindfulness.
- Eight of 27 studies (30 percent) with a sample size of 51 to 100 participants reported a significant effect of mindfulness.
- Seven of 17 studies (41 percent) with a sample size of 100 or more participants reported a significant effect of mindfulness.

TABLE K.1
Publication Bias: Attention Outcomes

					Attention				
Study ID	Comparator Type	Analogue	Comparison Group Sample Size	Total Study Sample Size	Self-Perception of Attention	Alerting Attention RT	Orienting Attention RT	Executive Attention RT	Executive Attention Accuracy
Jha, 2015	Passive	No	57	135	+1			0	
Zanesco, 2019	Passive	No	60	90	0			+1[a]	+1
Banks, 2019	Active	Yes	62	92	0			0	0
Rooks, 2017	Active	No	81	81	0			0	0
Giannandrea, 2019	Passive	No	37	37	0				0
Baltar, 2018	Active	No	40	40	0				
Diaz, 2013 (flow response groups)	Active	Yes	65	132	0				
Diaz, 2013 (aesthetic response groups)	Active	Yes	67	132	0				
Green, 2017	Active	Yes	174	257	0				
Kral, 2019	Active	No	45	70	0				
Kral, 2019	Passive	No	46	70	0				
Mrazek, 2013	Active	No	48	48	0				
de Bruin, 2016	Active	No	50	75	0				
Rahl, 2017	Active	No	63	142					+1
Rothschild, 2017	Active	No	123	123					+1
Esch, 2016	Passive	No	31	31		0	0	0	0
Jensen, 2012	Active	No	31	47			0	0	0

Table K.1—Continued

Study ID	Comparator Type	Analogue	Comparison Group Sample Size	Total Study Sample Size	Attention				
					Self-Perception of Attention	Alerting Attention RT	Orienting Attention RT	Executive Attention RT	Executive Attention Accuracy
Jensen, 2012	Passive	No	24	47			0	0	0
Kwak, 2020	Active	No	37	37			0	0	0
Bhayee, 2016	Active	No	26	26				0	0
Johnson, 2015	Active	Yes	67	92				0	0
Lai, 2015	Active	Yes	49	70				0	0
Larson, 2013	Active	Yes	55	55				0	0
Li, 2018	Passive	No	30	30				0	0
Zhu, 2019	Passive	No	48	48				0	0
Menezes, 2013	Active	No	50	74					0
Basso, 2019	Active	No	40	40					0
Eisenbeck, 2018	Active	Yes	39	39					0
Flook, 2013	Passive	No	18	18					0
Lacerda, 2018	Passive	No	44	44					0
Menezes, 2013	Passive	No	50	74					0
Menezes, 2015	Passive	No	33	33					0
Zeidan, 2010	Active	No	49	49					0
Zwilling, 2019	Active	No	82	160					0
Becerra, 2017	Passive	No	46	46		0	+1	+1	
Burger, 2017	Passive	No	52	52		0	0	+1	
Fan, 2014	Active	No	43	43				+1	
Jankowski, 2020	Active	Yes	49	74				+1	
Norris, 2018 (1a)	Active	Yes	56	56				+1	
Walsh, 2019	Active	No	86	86				+1	
Ainsworth, 2013	Passive	No	48	73		0	0	0	
Tang, 2007	Active	No	80	80			0	0	
Anderson, 2007	Passive	No	72	72				0	
Balconi, 2019	Active	No	50	50				0	
Zhang, 2019	Passive	No	36	36				0	
Quan, 2018	Active	No	44	44			+1		
Adhikari, 2018	Active	No	71	71			0		

Table K.1—Continued

					Attention				
Study ID	Comparator Type	Analogue	Comparison Group Sample Size	Total Study Sample Size	Self-Perception of Attention	Alerting Attention RT	Orienting Attention RT	Executive Attention RT	Executive Attention Accuracy
Barattucci, 2019	Passive	No	497	497					
Glück, 2011	Passive	No	47	47					
Grégoire, 2015	Passive	No	41	41					
Ma, 2018	Passive	No	43	76					
Cerna, 2020	Passive	No	103	103					
Wenzel, 2020	Passive	No	137	137					
Jennings, 2019	Passive	No	224	224					
Hwang, 2019	Passive	No	166	166					
Arch, 2006	Active	No	40	60					
Broderick, 2005	Active	No	122	177					
Keng, 2017	Active	No	82	123					
Allen, 2012	Active	No	38	38					
Wu, 2019	Active	No	42	42					
Ortner, 2007	Active	No	44	68					
Throuvala, 2020	Passive	No	143	143					
Dundas, 2017	Passive	No	117	117					
Molek-Winiarska, 2018	Passive	No	64	64					
Wingert, 2020	Passive	No	50	50					
Bostock, 2019	Passive	No	229	229					
Pang, 2019	Passive	No	34	52					
Allexandre, 2016	Passive	No	45	85					
Wolever, 2012	Passive	No	149	335					
Hülsheger, 2013	Passive	No	64	64					
Klatt, 2017	Passive	No	56	56					
Lin, 2019	Passive	No	90	90					

[a] The comparison group sample size for this outcome was 59.

TABLE K.2

Publication Bias: Emotion Regulation, Impulsivity, and Work-Related Outcomes

					Emotion Regulation								
Study ID	Comparator Type	Analogue	Comparison Group Sample Size	Total Study Sample Size	General Emotion Regulation Ability	Reap-praisal	Suppres-sion	Change in Negative Mood Intensity	Emotional Interference	Impulsivity	Work-Related Morale	Work-Related Productivity	Work-Related Social Support
Jha, 2015	Passive	No	57	135									
Zanesco, 2019	Passive	No	60	90									
Banks, 2019	Active	Yes	62	92									
Rooks, 2017	Active	No	81	81									
Giannandrea, 2019	Passive	No	37	37									
Baltar, 2018	Active	No	40	40									
Diaz, 2013 (flow response groups)	Active	Yes	65	132									
Diaz, 2013 (aesthetic response groups)	Active	Yes	67	132									
Green, 2017	Active	Yes	174	257									
Kral, 2019	Active	No	45	70									
Kral, 2019	Passive	No	46	70									
Mrazek, 2013	Active	No	48	48									
de Bruin, 2016	Active	No	50	75									
Rahl, 2017	Active	No	63	142									
Rothschild, 2017	Active	No	123	123									
Esch, 2016	Passive	No	31	31									
Jensen, 2012	Active	No	31	47									
Jensen, 2012	Passive	No	24	47									

Table K.2—Continued

Study ID	Comparator Type	Analogue	Comparison Group Sample Size	Total Study Sample Size	Emotion Regulation					Impulsivity	Work-Related Morale	Work-Related Productivity	Work-Related Social Support
					General Emotion Regulation Ability	Reap-praisal	Suppres-sion	Change in Negative Mood Intensity	Emotional Interference				
Kwak, 2020	Active	No	37	37									
Bhayee, 2016	Active	No	26	26									
Johnson, 2015	Active	Yes	67	92									
Lai, 2015	Active	Yes	49	70									
Larson, 2013	Active	Yes	55	55									
Li, 2018	Passive	No	30	30									
Zhu, 2019	Passive	No	48	48									
Menezes, 2013	Active	No	50	74					+1				
Basso, 2019	Active	No	40	40									
Eisenbeck, 2018	Active	Yes	39	39									
Flook, 2013	Passive	No	18	18									
Lacerda, 2018	Passive	No	44	44									
Menezes, 2013	Passive	No	50	74									
Menezes, 2015	Passive	No	33	33									
Zeidan, 2010	Active	No	49	49									
Zwilling, 2019	Active	No	82	160									
Becerra, 2017	Passive	No	46	46									
Burger, 2017	Passive	No	52	52									
Fan, 2014	Active	No	43	43									
Jankowski, 2020	Active	Yes	49	74									
Norris, 2018 (1a)	Active	Yes	56	56									

Table K.2—Continued

					Emotion Regulation								
Study ID	Comparator Type	Analogue	Comparison Group Sample Size	Total Study Sample Size	General Emotion Regulation Ability	Reap-praisal	Suppres-sion	Change in Negative Mood Intensity	Emotional Interference	Impulsivity	Work-Related Morale	Work-Related Productivity	Work-Related Social Support
Walsh, 2019	Active	No	86	86									
Zanesco, 2019	Passive	No	59	90									
Ainsworth, 2013	Passive	No	48	73									
Tang, 2007	Active	No	80	80									
Anderson, 2007	Passive	No	72	72									
Balconi, 2019	Active	No	50	50									
Zhang, 2019	Passive	No	36	36									
Quan, 2018	Active	No	44	44									
Adhikari, 2018	Active	No	71	71									
Barattucci, 2019	Passive	No	497	497	0								
Glück, 2011	Passive	No	47	47	0								
Grégoire, 2015	Passive	No	41	41	0								
Ma, 2018	Passive	No	43	76	0								
Cerna, 2020	Passive	No	103	103		+1	+1						
Wenzel, 2020	Passive	No	137	137		+1	0			0			
Jennings, 2019	Passive	No	224	224		0	+1						
Hwang, 2019	Passive	No	166	166		0	0						
Arch, 2006	Active	No	40	60				0					
Broderick, 2005	Active	No	122	177				0					
Keng, 2017	Active	No	82	123				0					
Allen, 2012	Active	No	38	38					+1				

Table K.2—Continued

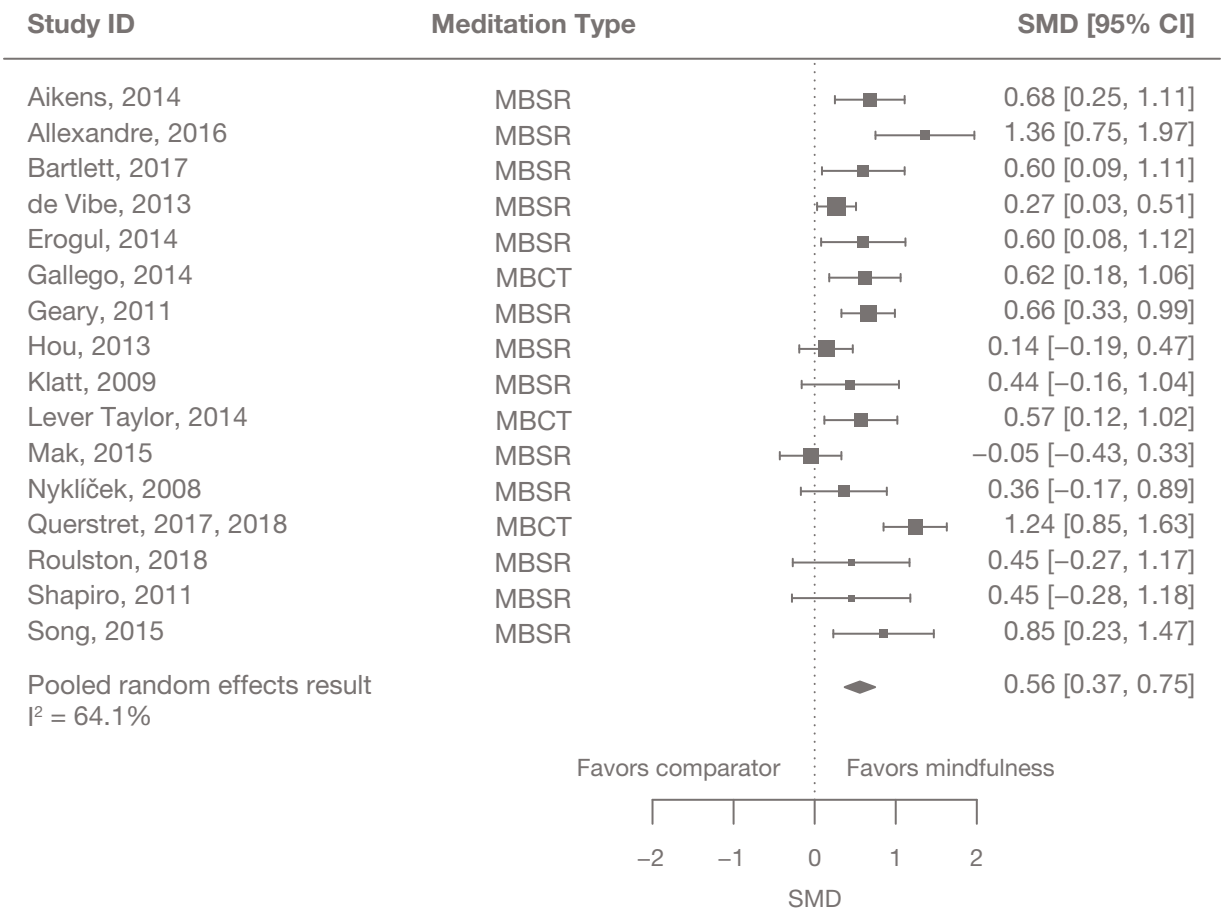
Study ID	Comparator Type	Analogue	Comparison Group Sample Size	Total Study Sample Size	Emotion Regulation					Impulsivity	Work-Related Morale	Work-Related Productivity	Work-Related Social Support
					General Emotion Regulation Ability	Reap-praisal	Suppres-sion	Change in Negative Mood Intensity	Emotional Interference				
Wu, 2019	Active	No	42	42					+1				
Ortner, 2007	Active	No	44	68					0				
Throuvala, 2020	Passive	No	143	143						+1			
Dundas, 2017	Passive	No	117	117						0			
Molek-Winiarska, 2018	Passive	No	64	64									+1
Wingert, 2020	Passive	No	50	50									+1
Bostock, 2019	Passive	No	229	229									0
Pang, 2019	Passive	No	34	52							0	0	
Allexandre, 2016	Passive	No	45	85								0	
Wolever, 2012	Passive	No	149	335								0	
Hülsheger, 2013	Passive	No	64	64							0		
Klatt, 2017	Passive	No	56	56							0		
Lin, 2019	Passive	No	90	90							0		

APPENDIX L

Technical Details on Modifications to the Meta-Analysis of the Effect of Mindfulness Meditation on Stress

This appendix describes the technical details of the meta-analysis of the effect of mindfulness meditation on stress. We based our analysis on the between-group meta-analysis of stress and psychological distress from the Querstret et al. (2020) review. We used reported effect sizes for each controlled trial from that review's supplementary materials. Two studies (Jain, 2007; van Dijk, 2017) were removed from our analysis because they used the Brief Symptom Inventory to measure psychological distress instead of a specific measure focused on general stress. To avoid double-counting of the comparison group, we removed the self-help comparison from Allexandre et al. (2016) and selected the face-to-face comparison because the majority of other studies included in the analysis reported a face-to-face comparison. Randomized controlled trial studies were pooled using a random effects meta-analysis and are illustrated in the forest plot in Figure L.1.

FIGURE L.1
Estimates of the Effect of Mindfulness Meditation on Stress



The studies included in the supplemental meta-analysis of the effect of mindfulness meditation on stress are as follows:

Aikens, Kimberly A., Josh Astin, Kenneth R. Pelletier, Kristin Levanovich, Catherine M. Baase, Yeo Yung Park, and Catherine M. Bodnar, "Mindfulness Goes to Work: Impact of an Online Workplace Intervention," *Journal of Occupational and Environmental Medicine*, Vol. 56, No. 7, 2014, pp. 721–731.

Allexandre, Didier, Adam M. Bernstein, Esteban Walker, Jennifer Hunter, Michael F. Roizen, and Thomas J. Morledge, "A Web-Based Mindfulness Stress Management Program in a Corporate Call Center: A Randomized Clinical Trial to Evaluate the Added Benefit of Onsite Group Support," *Journal of Occupational and Environmental Medicine*, Vol. 58, No. 3, March 1, 2016, pp. 254–264.

Bartlett, Larissa, Pamela Lovell, Petr Otáhal, and Kristy Sanderson, "Acceptability, Feasibility, and Efficacy of a Workplace Mindfulness Program for Public Sector Employees: A Pilot Randomized Controlled Trial with Informant Reports," *Mindfulness*, Vol. 8, No. 3, June 2017, pp. 1–16.

de Vibe, Michael, Ida Solhaug, Reidar Tyssen, Oddgeir Friborg, Jan H. Rosenvinge, Tore Sørlie, and Arild Bjørndal, "Mindfulness Training for Stress Management: A Randomised Controlled Study of Medical and Psychology Students," *BMC Medical Education*, Vol. 13, 2013, article 107.

Erogul, Mert, Gary Singer, Thomas McIntyre, and Dimitre G. Stefanov, "Abridged Mindfulness Intervention to Support Wellness in First-Year Medical Students," *Teaching and Learning in Medicine*, Vol. 26, No. 4, 2014, pp. 350–356.

Gallego, José, José M. Aguilar-Parra, Adolfo J. Cangas, Álvaro I. Langer , and Israel Mañas, "Effect of a Mindfulness Program on Stress, Anxiety and Depression in University Students," *Spanish Journal of Psychology*, Vol. 17, 2014, article E109.

Geary, Cara, and Susan L. Rosenthal, "Sustained Impact of MBSR on Stress, Well-Being, and Daily Spiritual Experiences for 1 Year in Academic Health Care Employees," *Journal of Alternative and Complementary Medicine*, Vol. 17, No. 10, October 2011, pp. 939–944.

Hou, Rebecca Jing, S. Wong, B. Yip, A. Hung, H. H. Lo, P. Chan, C. S. Lo, T. Kwok, W. Tang, W. Mak, S. Mercer, and S. H. Ma, "The Effects of Mindfulness-Based Stress Reduction Program on the Mental Health of Family Caregivers: A Randomized Controlled Trial," *Psychotherapy and Psychosomatics*, Vol. 83, No. 1, 2013, pp. 45–53.

Klatt, Maryanna D., Janet Buckworth, and William B. Malarkey, "Effects of Low-Dose Mindfulness-Based Stress Reduction (MBSR-ld) on Working Adults," *Health Education & Behavior*, Vol. 36, No. 3, June 2009, pp. 601–614.

Lever Taylor, Billie, Clara Strauss, Kate Cavanagh, and Fergal Jones, "The Effectiveness of Self-Help Mindfulness-Based Cognitive Therapy in a Student Sample: A Randomised Controlled Trial," *Behaviour Research and Therapy*, Vol. 63, December 2014, pp. 63–39.

Mak, Winnie W. S., Amy T. Y. Chan, Eliza Y. L. Cheung, Cherry. L. Y. Lin, and Karin. C. S. Ngai, "Enhancing Web-Based Mindfulness Training for Mental Health Promotion with the Health Action Process Approach: Randomized Controlled Trial," *Journal of Medical Internet Research*, Vol. 17, No. 1, 2015, article e8.

Nyklíček, Ivan, and Karlijn F. Kuijpers, "Effects of Mindfulness-Based Stress Reduction Intervention on Psychological Well-being and Quality of Life: Is Increased Mindfulness Indeed the Mechanism?" *Annals of Behavioral Medicine*, Vol. 35, No. 3, June 2008, pp. 331–340.

Querstret, Dawn, Mark Cropley, and Chris Fife-Schaw, "Internet-Based Instructor-Led Mindfulness for Work-Related Rumination, Fatigue, and Sleep: Assessing Facets of Mindfulness as Mechanisms of Change. A Randomized Waitlist Control Trial," *Journal of Occupational Health Psychology*, Vol. 22, No. 2, April 2017, pp. 153–169.

———, "The Effects of an Online Mindfulness Intervention on Perceived Stress, Depression and Anxiety in a Non-Clinical Sample: A Randomised Waitlist Control Trial," *Mindfulness*, Vol. 9, No. 6, 2018, pp. 1825–1836.

Roulston, Audrey, Lorna Montgomery, Anne Campbell, and Gavin Davidson, "Exploring the Impact of Mindfulness on Mental Wellbeing, Stress and Resilience of Undergraduate Social Work Students," *Social Work Education*, Vol. 37, No. 2, 2018, pp. 157–172.

Shapiro, Shauna L., Kirk Warren Brown, Carl Thoresen, and Thomas G. Plante, "The Moderation of Mindfulness-Based Stress Reduction Effects by Trait Mindfulness: Results from a Randomized Controlled Trial," *Journal of Clinical Psychology*, Vol. 67, No. 3, March 2011, pp. 267–277.

Song, Yeoungsuk, and Ruth Lindquist, "Effects of Mindfulness-Based Stress Reduction on Depression, Anxiety, Stress and Mindfulness in Korean Nursing Students," *Nurse Education Today*, Vol. 35, No. 1, January 2015, pp. 86–90.

Abbreviations

ANOVA	analysis of variance
ANT	Attention Network Test
CI	confidence interval
COPE	Coping Orientation to Problems Experienced
GRE	Graduate Record Examinations
ICV	intraindividual coefficient of variation
MBAT	mindfulness-based attention training
MBCT	mindfulness-based cognitive therapy
MBSR	mindfulness-based stress reduction
MMFT	mindfulness-based mind fitness training
ms	millisecond
OR	odds ratio
RT	reaction time
SART	sustained attention to response task
SD	standard deviation
SMD	standardized mean difference

References

Sources Cited

Algoe, Sara B., and Barbara L. Fredrickson, "Emotional Fitness and the Movement of Affective Science from Lab to Field, *American Psychologist*, Vol. 66, No. 1, January 2011, pp. 35–42.

Andreassen, Cecilie Schou, Mark D. Griffiths, Jørn Hetland, and Ståle Pallesen, "Development of a Work Addiction Scale," *Scandinavian Journal of Psychology*, Vol. 53, No. 3, June 2012, pp. 265–272.

Annenberg Learner, *Discovering Psychology*, Los Angeles, Calif.: WGBH Educational Foundation, 2001.

Benson, H., J. F. Beary, and M. P. Carol, "The Relaxation Response," *Psychiatry*, Vol. 37, No. 1, 1974, pp. 37–46.

Bernstein, D. A., and T. D. Borkovec, *Progressive Relaxation Training: A Manual for the Helping Professions*, Champaign, Ill.: Research Press, 1973.

Cohen, Sheldon, Tom Kamarck, and Robin Mermelstein, "A Global Measure of Perceived Stress," *Journal of Health and Social Behavior*, Vol. 24, No. 4, December 1983, pp. 385–396.

De Leo, D., G. B. Frisoni, R. Rozzini, and M. Trabucchi, "Italian Community Norms for the Brief Symptom Inventory in the Elderly," *British Journal of Clinical Psychology*, Vol. 32, No. 2, 1993, pp. 209–213.

Derogatis, L. R., *The SCL-R-90 Manual I: Scoring, Administration and Procedures for the SCL-90*, Baltimore, Md.: Clinical Psychometric Research, 1977.

Dunn, Barnaby D., Danielle Billotti, Vicky Murphy, and Tim Dalgleish, "The Consequences of Effortful Emotion Regulation When Processing Distressing Material: A Comparison of Suppression and Acceptance," *Behaviour Research and Therapy*, Vol. 47, No. 9, September 2009, pp. 761–773.

Hofmann, Stefan G., and Gordon J. G. Asmundson, "Acceptance and Mindfulness-Based Therapy: New Wave or Old Hat?" *Clinical Psychology Review*, Vol. 28, No. 1, January 2008, pp. 1–16.

Jacobson, E., "Progressive Relaxation," *American Journal of Psychology*, Vol. 100, No. 3–4, 1987, pp. 522–537.

Jain, Shamini, Shauna L. Shapiro, Summer Swanick, Scott C. Roesch, Paul J. Mills, Iris Bell, and Gary E. R. Schwartz, "A Randomized Controlled Trial of Mindfulness Meditation Versus Relaxation Training: Effects on Distress, Positive States of Mind, Rumination, and Distraction," *Annals of Behavioral Medicine*, Vol. 33, No. 1, February 2007, pp. 11–21.

Kroenke, Kurt, Robert L. Spitzer, and Janet B. W. Williams, "The PHQ-9: Validity of a Brief Depression Severity Measure," *Journal of General Internal Medicine*, Vol. 16, No. 9, 2001, pp. 606–613.

Lovibond, S. H., and P. F. Lovibond, *Manual for the Depression Anxiety Stress Scales*, 2nd ed., Sydney: Psychology Foundation of Australia, 1995.

Nolen-Hoeksema, S., and J. Morrow, "A Prospective Study of Depression and Posttraumatic Stress Symptoms After a Natural Disaster: The 1989 Loma Prieta Earthquake," *Journal of Personality and Social Psychology*, Vol. 61, No. 1, July 1991, pp. 115–121.

Paterson, R., *Changeways: Relaxation Program*, Vancouver, Canada: Changeways Clinic, 1997.

Pedrabissi, L., and M. Santinello, *STAI State-Trait Anxiety Inventory Forma Y: Manuale*, Firenze: Organizzazioni Speciali, 1989.

Querstret, Dawn, Linda Morison, Sophie Dickinson, Mark Cropley, and Mary John, "Mindfulness-Based Stress Reduction and Mindfulness-Based Cognitive Therapy for Psychological Health and Well-Being in Nonclinical Samples: A Systematic Review and Meta-Analysis," *International Journal of Stress Management*, Vol. 27, No. 4, 2020, pp. 394–411.

Scott, T., J. Reading, and R. J. Shephard, "Revision of the Physical Activity Readiness Questionnaire (PAR-Q)," *Canadian Journal of Sport Science*, Vol. 17, No. 4, December 1992, pp. 338–345.

Siegrist, Johannes, Dagmar Starke, Tarani Chandola, Isabelle Godin, Michael Marmot, Isabelle Niedhammer, and Richard Peter, "The Measurement of Effort-Reward Imbalance at Work: European Comparisons," *Social Science and Medicine*, Vol. 58, No. 8, April 2004, pp. 1483–1499.

Sterne, Jonathan A. C., Alex J. Sutton, John P. A. Ioannidis, Norma Terrin, David R. Jones, Joseph Lau, James Carpenter, Gerta Rücker, Roger M. Harbord, Christopher H. Schmid, Jennifer Tetzlaff, Jonathan J. Deeks, Jaime Peters, Petra Macaskill, Guido Schwarzer, Sue Duval, Douglas G. Altman, David Moher, and Julian P. T. Higgins, "Recommendations for Examining and Interpreting Funnel Plot Asymmetry in Meta-Analyses of Randomised Controlled Trials," *British Medical Journal*, Vol. 343, July 22, 2011, article d4002.

U.S. Preventive Services Task Force, "Appendix VI. Criteria for Assessing Internal Validity of Individual Studies," in U.S. Preventive Services Task Force, *Procedure Manual*, Rockville, Md., July 2017.

van Dijk, Inge, Peter L. B. J. Lucassen, Reinier P. Akkermans, Baziel G. M. V. van Engelen, Chris van Weel, and Anne E. M. Speckens, "Effects of Mindfulness-Based Stress Reduction on the Mental Health of Clinical Clerkship Students: A Cluster-Randomized Controlled Trial," *Academic Medicine*, Vol. 92, No. 7, July 2017, pp. 1012–1021.

Vasey, Michael W., and Thomas D. Borkovec, "A Catastrophizing Assessment of Worrisome Thoughts," *Cognitive Therapy and Research*, Vol. 16, No. 5, 1992, pp. 505–520.

Zigmond, A. S., and R. P. Snaith, "The Hospital Anxiety and Depression Scale," *Acta Psychiatrica Scandinavica*, Vol. 67, No. 6, June 1983, pp. 361–370.

Systematic Review Publications

Adhikari, Kishor, Farida Kothari, and Anjana Khadka, "The Effect of Short-Term Training of Vipassana's Body-Scan on Select Cognitive Functions," *Psychological Studies*, Vol. 63, No. 3, 2018, pp. 228–235.

Ainsworth, B., H. Bolderston, and M. Garner, "Testing the Differential Effects of Acceptance and Attention-Based Psychological Interventions on Intrusive Thoughts and Worry," *Behaviour Research and Therapy*, Vol. 91, April 1, 2017, pp. 72–77.

Ainsworth, Ben, Rachael Eddershaw, Daniel Meron, David S. Baldwin, and Matthew Garner, "The Effect of Focused Attention and Open Monitoring Meditation on Attention Network Function in Healthy Volunteers," *Psychiatry Research*, Vol. 210, No. 3, December 30, 2013, pp. 1226–1231.

Alkoby, Alon, Ruthie Pliskin, Eran Halperin, and Nava Levit-Binnun, "An Eight-Week Mindfulness-Based Stress Reduction (MBSR) Workshop Increases Regulatory Choice Flexibility," *Emotion*, Vol. 19, No. 4, June 1, 2019, pp. 593–604.

Allen, Micah, Martin Dietz, Karina S. Blair, Martijn van Beek, Geraint Rees, Peter Vestergaard-Poulsen, Antoine Lutz, and Andreas Roepstorff, "Cognitive-Affective Neural Plasticity Following Active-Controlled Mindfulness Intervention," *Journal of Neuroscience*, Vol. 32, No. 44, October 31, 2012, pp. 15601–15610.

Allexandre, Didier, Adam M. Bernstein, Esteban Walker, Jennifer Hunter, Michael F. Roizen, and Thomas J. Morledge, "A Web-Based Mindfulness Stress Management Program in a Corporate Call Center: A Randomized Clinical Trial to Evaluate the Added Benefit of Onsite Group Support," *Journal of Occupational and Environmental Medicine*, Vol. 58, No. 3, March 1, 2016, pp. 254–264.

Anderson, Nicole D., Mark A. Lau, Zindel V. Segal, and Scott R. Bishop, "Mindfulness-Based Stress Reduction and Attentional Control," *Clinical Psychology & Psychotherapy*, Vol. 14, No. 6, 2007, pp. 449–463.

Arch, Joanna J., and Michelle G. Craske, "Mechanisms of Mindfulness: Emotion Regulation Following a Focused Breathing Induction," *Behaviour Research and Therapy*, Vol. 44, No. 12, December 1, 2006, pp. 1849–1858.

Baby, Maria, Christopher Gale, and Nicola Swain, "A Communication Skills Intervention to Minimise Patient Perpetrated Aggression for Healthcare Support Workers in New Zealand: A Cluster Randomised Controlled Trial," *Health and Social Care in the Community*, Vol. 27, No. 1, January 2019, pp. 170–181.

Balconi, Michela, Davide Crivelli, and Laura Angioletti, "Efficacy of a Neurofeedback Training on Attention and Driving Performance: Physiological and Behavioral Measures," *Frontiers in Neuroscience*, Vol. 13, September 18, 2019, article 996.

Baltar, Yago Carioca, and Alberto Filgueiras, "The Effects of Mindfulness Meditation on Attentional Control During Off-Season Among Football Players," *Sage Open*, Vol. 8, No. 2, June 1, 2018, pp. 1–9.

Banks, Jonathan B., Amishi P. Jha, Audrey V. B. Hood, Haley G. Goller, and Lindsay L. Craig, "Reducing the TUTs that Hurt: The Impact of a Brief Mindfulness Induction on Emotionally Valenced Mind Wandering," *Journal of Cognitive Psychology*, Vol. 31, No. 8, 2019, pp. 785–799.

Barattucci, Massimiliano, Anna M. Padovan, Ermanno Vitale, Venerando Rapisarda, Tiziana Ramaci, and Andrea De Giorgio, "Mindfulness-Based IARA Model® Proves Effective to Reduce Stress and Anxiety in Health Care Professionals. A Six-Month Follow-Up Study," *International Journal of Environmental Research and Public Health*, Vol. 16, No. 22, November 12, 2019.

Basso, Julia C., Alexandra McHale, Victoria Ende, Douglas J. Oberlin, and Wendy A. Suzuki, "Brief, Daily Meditation Enhances Attention, Memory, Mood, and Emotional Regulation in Non-Experienced Meditators," *Behavioural Brain Research*, Vol. 356, January 1, 2019, pp. 208–220.

Becerra, Rodrigo, Coralyn Dandrade, and Craig Harms, "Can Specific Attentional Skills Be Modified with Mindfulness Training for Novice Practitioners?" *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues*, Vol. 36, No. 3, 2017, pp. 657–664.

Bhayee, Sheffy, Patricia Tomaszewski, Daniel H. Lee, Graeme Moffat, Lou Pino, Sylvain Moreno, and Norman A. S. Farb, "Attentional and Affective Consequences of Technology Supported Mindfulness Training: A Randomised, Active Control, Efficacy Trial," *BMC Psychology*, Vol. 4, No. 60, 2016, pp. 1–14.

Bostock, Sophie, Alexandra D. Crosswell, Aric A. Prather, and Andrew Steptoe, "Mindfulness On-the-Go: Effects of a Mindfulness Meditation App on Work Stress and Well-Being," *Journal of Occupational Health Psychology*, Vol. 24, No. 1, February 1, 2019, pp. 127–138.

Broderick, Patricia C., "Mindfulness and Coping with Dysphoric Mood: Contrasts with Rumination and Distraction," *Cognitive Therapy and Research*, Vol. 29, No. 5, 2005, pp. 501–510.

Burger, Kathleen G., and Joan Such Lockhart, "Meditation's Effect on Attentional Efficiency, Stress, and Mindfulness Characteristics of Nursing Students," *Journal of Nursing Education*, Vol. 56, No. 7, July 1, 2017, pp. 430–434.

Cerna, Cristian, Felipe E. García, and Arnoldo Téllez, "Brief Mindfulness, Mental Health, and Cognitive Processes: A Randomized Controlled Trial," *PsyCh Journal*, Vol. 9, No. 3, June 2020, pp. 359–369.

Ching, Ho-Hoi, Malcolm Koo, Tsung-Huang Tsai, and Chiu-Yuan Chen, "Effects of a Mindfulness Meditation Course on Learning and Cognitive Performance Among University Students in Taiwan," *Evidence-Based Complementary and Alternative Medicine*, Vol. 2015, 2015, article 254358.

Chow, Theodore, Tanaz Javan, Tomas Ros, and Paul Frewen, "EEG Dynamics of Mindfulness Meditation Versus Alpha Neurofeedback: A Sham-Controlled Study," *Mindfulness*, Vol. 8, No. 3, June 2017, pp. 572–584.

Coo, Cristián, and Marisa Salanova, "Mindfulness Can Make You Happy-and-Productive: A Mindfulness Controlled Trial and Its Effects on Happiness, Work Engagement and Performance," *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, Vol. 19, No. 6, 2018, pp. 1691–1711.

Course-Choi, Jenna, Harry Saville, and Nazanin Derakshan, "The Effects of Adaptive Working Memory Training and Mindfulness Meditation Training on Processing Efficiency and Worry in High Worriers," *Behaviour Research and Therapy*, Vol. 89, February 1, 2017, pp. 1–13.

de Bruin, Esther I., J. Esi van der Zwan, and Susan M. Bögels, "A RCT Comparing Daily Mindfulness Meditations, Biofeedback Exercises, and Daily Physical Exercise on Attention Control, Executive Functioning, Mindful Awareness, Self-Compassion, and Worrying in Stressed Young Adults," *Mindfulness*, Vol. 7, No. 5, July 2, 2016, pp. 1182–1192.

Deady, Mark, Nicholas Glozier, Rafael Calvo, David Johnston, Andrew Mackinnon, David Milne, Isabella Choi, Aimee Gayed, Dorian Peters, Richard Bryant, Helen Christensen, and Samuel B. Harvey, "Preventing Depression Using a Smartphone App: A Randomized Controlled Trial," *Psychological Medicine*, July 6, 2020, pp. 1–10.

Denkova, Ekaterina, Anthony P. Zanesco, Scott L. Rogers, and Amishi P. Jha, "Is Resilience Trainable? An Initial Study Comparing Mindfulness and Relaxation Training in Firefighters," *Psychiatry Research*, Vol. 285, January 16, 2020, article 112794.

DeSteno, David, Daniel Lim, Fred Duong, and Paul Condon, "Meditation Inhibits Aggressive Responses to Provocations," *Mindfulness*, Vol. 9, No. 4, 2018, pp. 1117–1122.

Diaz, Frank M., "Mindfulness, Attention, and Flow During Music Listening: An Empirical Investigation," *Psychology of Music*, Vol. 41, No. 1, 2013, pp. 42–58.

Dixon, Mark R., Dana Paliliunas, Jordan Belisle, Ryan C. Speelman, Karl F. Gunnarsson, and Jordan L. Shaffer, "The Effect of Brief Mindfulness Training on Momentary Impulsivity," *Journal of Contextual Behavioral Science*, Vol. 11, January 2019, pp. 15–20.

Dundas, Ingrid, Per-Einar Binder, Tia G. B. Hansen, and Signe Hjelen Stige, "Does a Short Self-Compassion Intervention for Students Increase Healthy Self-Regulation? A Randomized Control Trial," *Scandinavian Journal of Psychology*, Vol. 58, October 1, 2017, pp. 443–450.

Eisenbeck, Nikolett, Carmen Luciano, and Sonsoles Valdivia-Salas, "Effects of a Focused Breathing Mindfulness Exercise on Attention, Memory, and Mood: The Importance of Task Characteristics," *Behaviour Change*, Vol. 35, No. 1, 2018, pp. 54–70.

Esch, Tobias, Jeremy Winkler, Volker Auwärter, Heike Gnann, Roman Huber, and Stefan Schmidt, "Neurobiological Aspects of Mindfulness in Pain Autoregulation: Unexpected Results from a Randomized-Controlled Trial and Possible Implications for Meditation Research," *Frontiers in Human Neuroscience*, Vol. 10, No. 674, 2016, pp. 1–15.

Fan, Yaxin, Yi-Yuan Tang, Rongxiang Tang, and Michael I. Posner, "Short Term Integrative Meditation Improves Resting Alpha Activity and Stroop Performance," *Applied Psychophysiology and Biofeedback*, Vol. 39, No. 3–4, 2014, pp. 213–217.

Flook, Lisa, Simon B. Goldberg, Laura Pinger, Katherine A. Bonus, and Richard J. Davidson, "Mindfulness for Teachers: A Pilot Study to Assess Effects on Stress, Burnout, and Teaching Efficacy," *Mind, Brain, and Education*, Vol. 7, No. 3, December 7, 2013.

Garland, Eric L., Adam Hanley, Norman A. Farb, and Brett E. Froeliger, "State Mindfulness During Meditation Predicts Enhanced Cognitive Reappraisal," *Mindfulness*, Vol. 6, No. 2, April 1, 2015, pp. 234–242.

Ghawadra, Sajed F., Khatijah Lim Abdullah, Wan Yuen Choo, Mahmoud Danaee, and Cheng Kar Phang, "The Effect of Mindfulness-Based Training on Stress, Anxiety, Depression and Job Satisfaction Among Ward Nurses: A Randomized Control Trial," *Journal of Nursing Management*, Vol. 28, No. 5, July 2020, pp. 1088–1097.

Giannandrea, Alessandro, Luca Simione, Bianca Pescatori, Katie Ferrell, Marta Olivetti Belardinelli, Steven D. Hickman, and Antonino Raffone, "Effects of the Mindfulness-Based Stress Reduction Program on Mind Wandering and Dispositional Mindfulness Facets," *Mindfulness*, Vol. 10, No. 1, 2019, pp. 185–195.

Glück, Tobias M., and Andreas Maercker, "A Randomized Controlled Pilot Study of a Brief Web-Based Mindfulness Training," *BMC Psychiatry*, Vol. 11, No. 175, 2011, pp. 1–12.

Green, Joseph P., and Katharine N. Black, "Meditation-Focused Attention with the MBAS and Solving Anagrams," *Psychology of Consciousness: Theory, Research, and Practice*, Vol. 4, No. 4, 2017, pp. 348–366.

Grégoire, Simon, Lise Lachance, and Geneviève Taylor, "Mindfulness, Mental Health and Emotion Regulation Among Workers," *International Journal of Wellbeing*, Vol. 5, No. 4, 2015, pp. 96–119.

Hafenbrack, Andrew. C., Lindsey D. Cameron, Gretchen M. Spreitzer, Chen Zhang, Laura J. Noval, and Samah Shaffakat, "Helping People by Being in the Present: Mindfulness Increases Prosocial Behavior," *Organizational Behavior and Human Decision Processes*, Vol. 159, July 2020, pp. 21–38.

Hildebrandt, Lea K., Cade McCall, and Tania Singer, "Socioaffective Versus Sociocognitive Mental Trainings Differentially Affect Emotion Regulation Strategies," *Emotion*, Vol. 19, No. 8, December 2019, pp. 1329–1342.

Hülsheger, Ute R., Hugo J. E. M. Alberts, Alina Feinholdt, and Jonas W. B. Lang, "Benefits of Mindfulness at Work: The Role of Mindfulness in Emotion Regulation, Emotional Exhaustion, and Job Satisfaction," *Journal of Applied Psychology*, Vol. 98, No. 2, March 1, 2013, pp. 310–325.

Hunsinger, Matthew, Michael Christopher, and Andi M. Schmidt, "Mindfulness Training, Implicit Bias, and Force Response Decision-Making," *Mindfulness*, Vol. 10, No. 12, December 1, 2019, pp. 2555–2566.

Hwang, Yoon-Suk, Harvey Goldstein, Oleg N. Medvedev, Nirbhay N. Singh, Jae-Eun Noh, and Kirstine Hand, "Mindfulness-Based Intervention for Educators: Effects of a School-Based Cluster Randomized Controlled Study," *Mindfulness*, Vol. 10, No. 7, 2019, pp. 1417–1436.

Jankowski, Tomasz, and Pawel Holas, "Effects of Brief Mindfulness Meditation on Attention Switching," *Mindfulness*, Vol. 11, No. 5, May 1, 2020, pp. 1150–1158.

Jennings, Patricia A., Sebrina Doyle, Yoonkyung Oh, Damira Rasheed, Jennifer L. Frank, and Joshua L. Brown, "Long-Term Impacts of the CARE Program on Teachers' Self-Reported Social and Emotional Competence and Well-Being," *Journal of School Psychology*, Vol. 76, October 2019, pp. 186–202.

Jensen, Andrew E., Jake R. Bernards, Jameson T. Jameson, Douglas C. Johnson, and Karen R. Kelly, "The Benefit of Mental Skills Training on Performance and Stress Response in Military Personnel," *Frontiers in Psychology*, Vol. 10, January 14, 2020, article 2964.

Jensen, Christian G., Signe Vangkilde, Vibe Frokjaer, and Steen G. Hasselbalch, "Mindfulness Training Affects Attention—or Is It Attentional Effort?" *Journal of Experimental Psychology: General*, Vol. 141, No. 1, February 2012, pp. 106–123.

Jha, Amishi P., Jason Krompinger, and Michael J. Baime, "Mindfulness Training Modifies Subsystems of Attention," *Cognitive Affective Behavioral Neuroscience*, Vol. 7, No. 2, June 2007, pp. 109–119.

Jha, Amishi P., Alexandra B. Morrison, Justin Dainer-Best, Suzanne Parker, Nina Rostrup, and Elizabeth A. Stanley, "Minds 'at Attention': Mindfulness Training Curbs Attentional Lapses in Military Cohorts," *PLOS ONE*, Vol. 10, No. 2, 2015, article e0116889.

Jha, Amishi P., Alexandra B. Morrison, Suzanne C. Parker, and Elizabeth A. Stanley, "Practice Is Protective: Mindfulness Training Promotes Cognitive Resilience in High-Stress Cohorts," *Mindfulness*, Vol. 8, No. 1, 2017, pp. 46–58.

Jha, Amishi P., Anthony P. Zanesco, Ekaterina Denkova, Alexandra B. Morrison, Nicolas Ramos, Keith Chichester, John W. Gaddy, and Scott L. Rogers, "Bolstering Cognitive Resilience via Train-the-Trainer Delivery of Mindfulness Training in Applied High-Demand Settings," *Mindfulness*, Vol. 11, No. 3, March 1, 2019, pp. 683–697.

Jha, Amishi P., Anthony P. Zanesco, Ekaterina Denkova, Joshua Rooks, Alexandra B. Morrison, and Elizabeth A. Stanley, "Comparing Mindfulness and Positivity Trainings in High-Demand Cohorts," *Cognitive Therapy and Research*, Vol. 44, No. 2, April 1, 2020, pp. 311–326.

Johnson, Susan, Ravid Moses Gur, Zhanna David, and Elise Currier, "One-Session Mindfulness Meditation: A Randomized Controlled Study of Effects on Cognition and Mood," *Mindfulness*, Vol. 6, No. 1, 2015, pp. 88–98.

Keng, Shian-Ling, Elysia Li Yan Tan, Tory A. Eisenlohr-Moul, and Moria J. Smoski, "Effects of Mindfulness, Reappraisal, and Suppression on Sad Mood and Cognitive Resources," *Behaviour Research and Therapy*, Vol. 91, April 1, 2017, pp. 33–42.

Klatt, Maryanna, Chris Norre, Brenda Reader, Laura Yodice, and Susan White, "Mindfulness in Motion: A Mindfulness-Based Intervention to Reduce Stress and Enhance Quality of Sleep in Scandinavian Employees," *Mindfulness*, Vol. 8, No. 2, 2017, pp. 481–488.

Kral, Tamira R. A., Ted Imhoff-Smith, Douglas C. Dean, Dan Grupe, Nagesh Adluru, Elena Patsenko, Jeanette A. Mumford, Robin Goldman, Melissa A. Rosenkranz, and Richard J. Davidson, "Mindfulness-Based Stress Reduction-Related Changes in Posterior Cingulate Resting Brain Connectivity," *Social Cognitive Affective Neuroscience*, Vol. 14, No. 7, July 31, 2019, pp. 777–787.

Kuo, Chun-Yu, and Yei-Yu Yeh, "Reset a Task Set After Five Minutes of Mindfulness Practice," *Consciousness and Cognition*, Vol. 35, September 1, 2015, pp. 98–109.

Kwak, Seoyeon, So-Yeon Kim, Dahye Bae, Wu-Jeong Hwang, Kang Ik Kevin Cho, Kyung-Ok Lim, Hye-Yoon Park Park, Tae Young Lee, and Jun Soo Kwon, "Enhanced Attentional Network by Short-Term Intensive Meditation," *Frontiers in Psychology*, Vol. 10, February 7, 2020, article 3073.

Lacerda, Shirley S., Stephen W. Little, and Elisa H. Kozasa, "A Stress Reduction Program Adapted for the Work Environment: A Randomized Controlled Trial with a Follow-Up," *Frontiers in Psychology*, Vol. 9, May 1, 2018, article 668.

Lai, Constantine, Benjamin MacNeil, and Paul Frewen, "A Comparison of the Attentional Effects of Single-Session Mindfulness Meditation and Fp-HEG Neurofeedback in Novices," *Mindfulness*, Vol. 6, No. 5, 2015, pp. 1012–1020.

Larson, Michael J., Patrick R. Steffen, and Mark Primosch, "The Impact of a Brief Mindfulness Meditation Intervention on Cognitive Control and Error-Related Performance Monitoring," *Frontiers in Human Neuroscience*, Vol. 7, July 9, 2013, article 308.

Li, Yunyun, Fang Liu, Qin Zhang, Xinghua Liu, and Ping Wei, "The Effect of Mindfulness Training on Proactive and Reactive Cognitive Control," *Frontiers in Psychology*, Vol. 9, June 1, 2018, article 1002.

Lin, Lin, Guoping He, Jin Yan, Can Gu, and Jianfei Xie, "The Effects of a Modified Mindfulness-Based Stress Reduction Program for Nurses: A Randomized Controlled Trial," *Workplace Health & Safety*, Vol. 67, No. 3, March 1, 2019, pp. 111–122.

Ma, Ying, Zhaozhuo She, Angela Fung-Ying Siu, Xianlong Zeng, and Xinghua Liu, "Effectiveness of Online Mindfulness-Based Interventions on Psychological Distress and the Mediating Role of Emotion Regulation," *Frontiers in Psychology*, Vol. 9, October 2018, article 2090.

Menezes, Carolina Baptista, and Lisiane Bizarro, "Effects of a Brief Meditation Training on Negative Affect, Trait Anxiety and Concentrated Attention," *Paidéia*, Vol. 25, No. 62, 2015, pp. 393–401.

Menezes, Carolina Baptista, Maria Clara de Paula Couto, Luciano G. Buratto, Fatima Erthal, Mirtes G. Pereira, and Lisiane Bizarro, "The Improvement of Emotion and Attention Regulation After a 6-Week Training of Focused Meditation: A Randomized Controlled Trial," *Evidence-Based Complementary and Alternative Medicine*, Vol. 2013, 2013, article 984678.

Menezes, Carolina Baptista, Mirtes G. Pereira, Izabela Mocaiber, and Lisiane Bizarro, "Brief Meditation and the Interaction Between Emotional Interference and Anxiety," *Psicologia: Teoria e Pesquisa*, Vol. 32, No. 2, 2016, pp. 1–8.

Molek-Winiarska, Dorota, and Dorota Żołnierczyk-Zreda, "Application of Mindfulness-Based Stress Reduction to a Stress Management Intervention in a Study of a Mining Sector Company," *International Journal of Occupational Safety and Ergonomics*, Vol. 24, No. 4, December 1, 2018, pp. 546–556.

Morrison, Alexandra B., Merissa Goolsarran, Scott L. Rogers, and Amishi P. Jha, "Taming a Wandering Attention: Short-Form Mindfulness Training in Student Cohorts," *Frontiers in Human Neuroscience*, Vol. 7, January 6, 2014, article 897.

Mrazek, Michael D., Michael S. Franklin, Dawa Tarchin Phillips, Benjamin Baird, and Jonathan W. Schooler, "Mindfulness Training Improves Working Memory Capacity and GRE Performance While Reducing Mind Wandering," *Psychological Science*, Vol. 24, No. 5, May 1, 2013, pp. 776–781.

Norris, Catherine J., Daniel Creem, Reuben Hendler, and Hedy Kober, "Brief Mindfulness Meditation Improves Attention in Novices: Evidence from ERPs and Moderation by Neuroticism," *Frontiers in Human Neuroscience*, Vol. 12, August 1, 2018, article 315.

Ortner, Catherine N. M., Sachne J. Kilner, and Philip David Zelazo, "Mindfulness Meditation and Reduced Emotional Interference on a Cognitive Task," *Motivation and Emotion*, Vol. 31, No. 4, 2007, pp. 271–283.

Pang, Dandan, and Willibald Ruch, "Fusing Character Strengths and Mindfulness Interventions: Benefits for Job Satisfaction and Performance," *Journal of Occupational Health Psychology*, Vol. 24, No. 1, February 1, 2019, pp. 150–162.

Prätzlich, Martin, Joe Kossowsky, Jens Gaab, and Peter Krummenacher, "Impact of Short-Term Meditation and Expectation on Executive Brain Functions," *Behavioural Brain Research*, Vol. 297, January 15, 2016, pp. 268–276.

Quaglia, Jordan T., Fadel Zeidan, Peter G. Grossenbacher, Sara P. Freeman, Sarah E. Braun, Alexandra Martelli, Robert J. Goodman, and Kirk Warren Brown, "Brief Mindfulness Training Enhances Cognitive Control in Socioemotional Contexts: Behavioral and Neural Evidence," *PLOS ONE*, Vol. 14, No. 7, July 19, 2019, article e0219862.

Quan, Peng, Wenna Wang, Chengjin Chu, and Lingfeng Zhou, "Seven Days of Mindfulness-Based Cognitive Therapy Improves Attention and Coping Style," *Social Behavior and Personality: An International Journal*, Vol. 46, No. 3, 2018, pp. 421–430.

Rahl, Hayley A., Emily K. Lindsay, Laura E. Pacilio, Kirk W. Brown, and J. David Creswell, "Brief Mindfulness Meditation Training Reduces Mind Wandering: The Critical Role of Acceptance," *Emotion*, Vol. 17, No. 2, March 1, 2017, pp. 224–230.

Rodriguez Vega, Beatriz, Javier Melero-Llorente, Carmen Bayon Perez, Susana Cebolla, Jorge Mira, Carla Valverde, and Alberto Fernández-Liria, "Impact of Mindfulness Training on Attentional Control and Anger Regulation Processes for Psychotherapists in Training," *Psychotherapy Research*, Vol. 24, No. 2, 2014, pp. 202–213.

Rooks, Joshua D., Alexandra B. Morrison, Merissa Goolsarran, Scott L. Rogers, and Amishi P. Jha, "'We Are Talking About Practice': The Influence of Mindfulness vs. Relaxation Training on Athletes' Attention and Well-Being over High-Demand Intervals," *Journal of Cognitive Enhancement*, Vol. 1, 2017, pp. 141–153.

Rothschild, Sarit, Gilat Kaplan, Tomer Golan, and Yoram Barak, "Mindfulness Meditation in the Israel Defense Forces: Effect on Cognition and Satisfaction with Life—A Randomized Controlled Trial," *European Journal of Integrative Medicine*, Vol. 10, February 1, 2017, pp. 71–74.

Schofield, Timothy P., J. David Creswell, and Thomas F. Denson, "Brief Mindfulness Induction Reduces Inattentional Blindness," *Consciousness and Cognition*, Vol. 37, December 1, 2015, pp. 63–70.

Semple, Randye J., "Does Mindfulness Meditation Enhance Attention? A Randomized Controlled Trial," *Mindfulness*, Vol. 1, No. 2, 2010, pp. 121–130.

Shonin, Edo, William Van Gordon, Thomas J. Dunn, Nirbhay N. Singh, and Mark D. Griffiths, "Meditation Awareness Training (MAT) for Work-Related Wellbeing and Job Performance: A Randomised Controlled Trial," *International Journal of Mental Health and Addiction*, Vol. 12, No. 6, December 2014, pp. 806–823.

Steinberg, Beth A., Maryanna Klatt, and Anne-Marie Duchemin, "Feasibility of a Mindfulness-Based Intervention for Surgical Intensive Care Unit Personnel," *American Journal of Critical Care*, Vol. 26, No. 1, December 1, 2016, pp. 10–18.

Tang, Yi-Yuan, Yinghua Ma, Junhong Wang, Yaxin Fan, Shigang Feng, Qilin Lu, Qingbao Yu, Danni Sui, Mary K. Rothbart, Ming Fan, and Michael I. Posner, "Short-Term Meditation Training Improves Attention and Self-Regulation," *Proceedings of the National Academy of Sciences of the United States of America*, Vol. 104, No. 43, October 23, 2007, pp. 17152–17156.

Throuvala, Melina A., Mark D. Griffiths, Mike Rennoldson, and Daria J. Kuss, "Mind over Matter: Testing the Efficacy of an Online Randomized Controlled Trial to Reduce Distraction from Smartphone Use," *International Journal of Environmental Research and Public Health*, Vol. 17, No. 13, July 5, 2020.

Upton, Shelley R., and Tyler L. Renshaw, "Immediate Effects of the Mindful Body Scan Practice on Risk-Taking Behavior," *Mindfulness*, Vol. 10, No. 1, May 16, 2018, pp. 78–88.

Van Gordon, William, Edo Shonin, Thomas J. Dunn, Javier Garcia-Campayo, Marcelo M. P. Demarzo, and Mark D. Griffiths, "Meditation Awareness Training for the Treatment of Workaholism: A Controlled Trial," *Journal of Behavioral Addictions*, Vol. 6, No. 2, June 1, 2017, pp. 212–220.

Walsh, Kathleen Marie, Bechara J. Saab, and Norman A. S. Farb, "Effects of a Mindfulness Meditation App on Subjective Well-Being: Active Randomized Controlled Trial and Experience Sampling Study," *JMIR Mental Health*, Vol. 6, No. 1, January 8, 2019, article e10844.

Watford, Tanya S., and Jane Stafford, "The Impact of Mindfulness on Emotion Dysregulation and Psychophysiological Reactivity Under Emotional Provocation," *Psychology of Consciousness: Theory, Research, and Practice*, Vol. 2, No. 1, 2015, pp. 90–109.

Watier, Nicholas, and Michael Dubois, "The Effects of a Brief Mindfulness Exercise on Executive Attention and Recognition Memory," *Mindfulness*, Vol. 7, No. 3, 2016, pp. 745–753.

Wenzel, Mario, Zarah Rowland, and Thomas Kubiak, "How Mindfulness Shapes the Situational Use of Emotion Regulation Strategies in Daily Life," *Cognition and Emotion*, Vol. 34, No. 7, May 6, 2020, pp. 1408–1422.

Wimmer, Lena, Lisa von Stockhausen, and Silja Bellingrath, "Improving Emotion Regulation and Mood in Teacher Trainees: Effectiveness of Two Mindfulness Trainings," *Brain and Behavior*, Vol. 9, September 2019, article e01390.

Wingert, Jason R., Jeffrey C. Jones, Robert A. Swoap, and Heather M. Wingert, "Mindfulness-Based Strengths Practice Improves Well-Being and Retention in Undergraduates: A Preliminary Randomized Controlled Trial," *Journal of American College Health*, May 20, 2020, pp. 1–8.

Wolever, Ruth Q., Kyra J. Bobinet, Kelley McCabe, Elizabeth R. Mackenzie, Erin Fekete, Catherine A. Kusnick, and Michael Baime, "Effective and Viable Mind-Body Stress Reduction in the Workplace: A Randomized Controlled Trial," *Journal of Occupational Health Psychology*, Vol. 17, No. 2, April 1, 2012, pp. 246–258.

Wu, Ran, Lin-Lin Liu, Hong Zhu, Wen-Jun Su, Zhi-Yong Cao, Shi-Yang Zhong, Xing-Hua Liu, and Chun-Lei Jiang, "Brief Mindfulness Meditation Improves Emotion Processing," *Frontiers in Neuroscience*, Vol. 13, October 10, 2019, article 1074.

Zanesco, Anthony P., Ekaterina Denkova, Scott L. Rogers, William K. MacNulty, and Amishi P. Jha, "Mindfulness Training as Cognitive Training in High-Demand Cohorts: An Initial Study in Elite Military Servicemembers," *Progress in Brain Research*, Vol. 244, 2019, pp. 323–354.

Zeidan, Fadel, Susan K. Johnson, Bruce J. Diamond, Zhanna David, and Paula Goolkasian, "Mindfulness Meditation Improves Cognition: Evidence of Brief Mental Training," *Consciousness and Cognition*, Vol. 19, No. 2, June 2010, pp. 597–605.

Zhang, Qin, Zheng Wang, Xinqiang Wang, Lei Liu, Jing Zhang, and Renlai Zhou, "The Effects of Different Stages of Mindfulness Meditation Training on Emotion Regulation," *Frontiers in Human Neuroscience*, Vol. 13, June 2019, article 208.

Zhu, Tingfei, Jiang Xue, Astrid Montuclard, Yuxing Jiang, Wenqi Weng, and Shulin Chen, "Can Mindfulness-Based Training Improve Positive Emotion and Cognitive Ability in Chinese Non-Clinical Population? A Pilot Study," *Frontiers in Psychology*, Vol. 10, July 3, 2019, article 1549.

Zwilling, Christopher E., Ana M. Daugherty, Charles H. Hillman, Arthur F. Kramer, Neal J. Cohen, and Aron K. Barbey, "Enhanced Decision-Making Through Multimodal Training," *NPJ Science of Learning*, Vol. 4, No. 11, 2019, pp. 1–10.