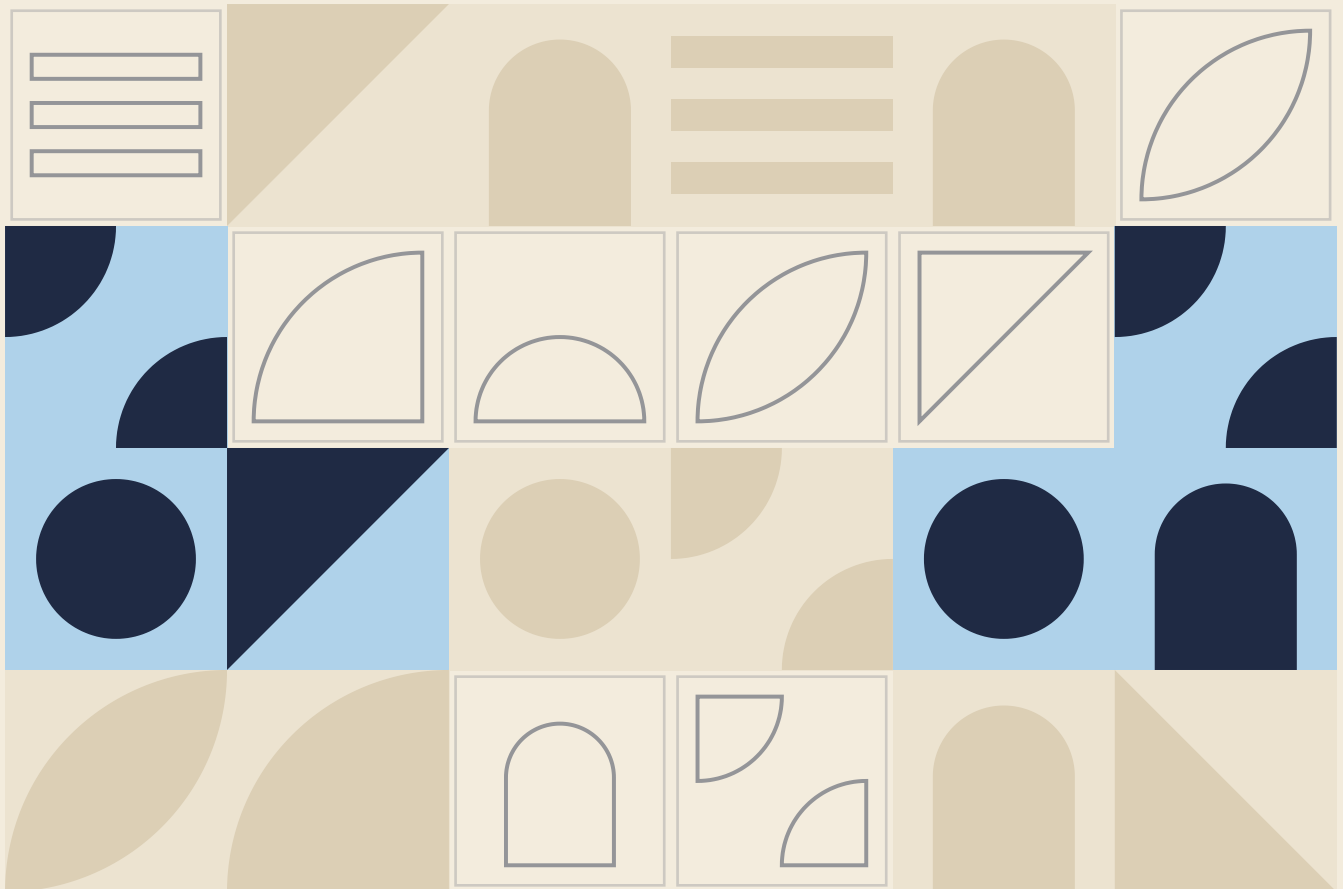


Move for Mood, Not Medals

Physical activity versus psychological interventions for subclinical distress in working adults: an umbrella review

Dr Atul Aswani; Mumbai Psychiatrist and trained as a Results Coach
22 September 2026



KEY NUMBER

0.42

95% CI 0.26 to 0.57

0.42. In adults without a diagnosed condition, physical activity improved wellbeing by SMD 0.42 (95% CI 0.26 to 0.57) versus inactive control, from 183 trials and 22,811 participants.

Move for Mood, Not Medals

Physical activity versus psychological interventions for subclinical distress in working adults: an umbrella review

Singh 2023 and Noetel 2024 put exercise level with psychotherapy for depression. Does that hold in working adults who are not depressed?

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01

Abstract

Singh 2023 and Noetel 2024 put exercise level with psychotherapy for depression. That claim was built on people who already met a clinical cut-off. This umbrella review asks whether the same parity holds in adults who are not depressed – the people who fill Indian offices.

In 183 randomised trials of 22,811 adults without a diagnosed condition, physical activity improved wellbeing by a standardised mean difference of 0.42 (95% CI 0.26 to 0.57), statistically indistinguishable from mindfulness (0.44, 0.35 to 0.54) and from yoga and other psychological programmes (0.41 to 0.49). Combined movement-plus-psychological programmes reached 0.73 (0.27 to 1.20), but that node rests on three trials.

We searched eight databases and registries (2010 to 22 September 2026) for reviews of physical activity in non-clinical adults; fourteen met the eligibility screen. The large depression umbrellas (Singh, Munro, Rebar) overlap heavily, so they were not treated as independent. The independent head-to-head unit is Wilkie 2026, a network meta-analysis of adults without diagnosed conditions.

Against inactive controls, physical activity produces a small-to-moderate lift in wellbeing and a small-to-moderate drop in stress and low mood. Against psychological programmes, the difference is compatible with zero. Certainty is moderate for activity versus sitting still, and low for activity versus coaching. Higher intensity helps mood symptoms more than it helps workplace stress. Leisure-time activity helps; occupational physical labour does not.

The practical sentence for an Indian workplace is not “skip the coach and just run.” It is “move and coach are both countable reps.” Count the walk.

02

Key findings box

KEY FINDINGS

0.42

– **0.42.** In adults without a diagnosed condition, physical activity improved wellbeing by SMD 0.42 (95% CI 0.26 to 0.57) versus inactive control, from 183 trials and 22,811 participants.

0.00

– **0.00.** The head-to-head gap between physical activity (0.42) and mindfulness (0.44) is 0.02, with fully overlapping confidence intervals. Yoga sits at 0.49. No node beat another by a statistically significant margin.

0.73

– **0.73.** Combined movement-plus-psychological programmes produced the largest wellbeing effect (0.73, 0.27 to 1.20), from only three trials. Treat this as a signal, not a prescription.

–0.56

– **–0.56.** In working adults, workplace activity programmes reduced mental-health complaints by $g = -0.56$ (40 trials, 6,602 people). Workplace yoga reduced perceived stress by -0.67 (six trials).

9

– **9 of 15.** Nine of fifteen desk-worker yoga trials in the most India-relevant review were conducted in India. Almost none compared walking or strength training with a psychological programme in a scheduled Indian language. That is the gap.

03

Definition block

DEFINITION

Subclinical distress is the weekday weather of a working adult who is not ill and is not well. Sleep is shorter. Irritability is cheaper. The Sunday scaries arrive on Thursday. No psychiatrist would write a diagnosis. No manager would call it a crisis. The person still has a job to do.

Physical activity, in this paper, is planned movement done for its own sake: walking, jogging, yoga, strength circuits, mixed aerobic sessions. It is not the extra load of a physically demanding job. Psychological programmes, in this paper, are structured practices that train attention, thought, value or kindness: mindfulness courses, compassion practices, acceptance-based skills, and single-component positive-psychology exercises. We call them programmes, techniques and reps. We do not call them therapy. We do not call the participant a patient.

The comparison is not medals versus medicine. It is two training logs. One log counts steps and sessions. The other counts breaths and noticed thoughts. The logs overlap more than their labels suggest. After a bruising review, an analyst in Bengaluru feels flat. The urge is to freeze at her desk and scroll. She stands up instead and walks two rounds of the car park before the next call. She does not wait to feel like it; she moves first. Several psychological practices ask for exactly that step. An entrepreneur already knew this: the minimum viable product of a better week is twenty minutes you can ship today. An optimiser already knew this: a loss function that never takes a step is just a diary.

04

Introduction

A joke does the work of a systematic review if you let it. A manager in Pune sits on a cushion through an eight-week mindfulness course. His app congratulates him. His step count is still a rounding error. His colleague two desks away walks round the block at lunch and never names a feeling. Both sleep better. The first writes a testimonial about presence. The second just wants his knees to last. On the top floor, the board asks HR which vendor to buy.

Singh and colleagues, in the British Journal of Sports Medicine in 2023, gathered 97 systematic reviews, 1,039 trials and 128,119 people. Physical activity had a medium effect on depression (median effect size -0.43), anxiety (-0.42) and psychological distress (-0.60 versus usual care). Healthy adults were among the groups with the largest gains. Most of the reviews they sat on were rated critically low on AMSTAR-2. The paper still changed the conversation. Exercise, they argued, should be a mainstay, not an afterthought.

Noetel and colleagues, in The BMJ in 2024, went further into diagnosed depression. Across 218 trials and 14,170 people who met a clinical cut-off, walking or jogging ($g = -0.62$), yoga (-0.55) and strength training (-0.49) reduced depressive symptoms versus active controls. Those numbers sat next to published effects for psychological programmes and for medicines. Headlines wrote themselves: exercise is as good as therapy.

That is a sentence about medals. It is a sentence about people who already crossed a diagnostic line. It is not a sentence about the Indian professional who is tired, wired and still high-functioning.

Rebar and colleagues asked the non-clinical question in 2015. In adults without a diagnosed disorder, physical activity reduced depressive symptoms by SMD -0.50 (95% CI -0.93 to -0.06) and anxiety by -0.38 (-0.66 to -0.11). The paper is a decade old. The interval on depression is wide. The question did not go away.

It matters more in India than the citation graph admits. Nearly half of surveyed corporate employees in India now report high stress. One report put burnout symptoms at 59 per cent of employees and priced poor wellbeing at a slice of national output large enough to make a CFO sit down. Women report more tension than men. The 21-to-30 cohort is the most strained. Counselling capacity is thin. Stigma is not. WhatsApp is the channel people will actually open.

EmotionApp is not a clinic. It is a coaching platform that sells countable daily reps in 23 Indian languages, with an AI coach and a human hand-off, India-resident data, DPDP compliance, and quality systems built under ISO 9001 and ISO 13485. The honest product question is not “does exercise treat major depression?” That question belongs to Noetel. The honest product question is: in adults without a diagnosed disorder, how does physical activity compare with psychological programmes for stress, mood and wellbeing?

Two pictures sit behind the question.

The first is an office week. On Monday a team lead in Chennai finishes an app module on handling worry. He gets it. By Thursday he has barely left his chair, and the worry is back. His colleague takes the stairs daily and never notices what she is walking away from. A psychological programme without the body is a set of good ideas. A walking programme without attention is a treadmill.

The second is computational. Gradient descent does not improve a model by staring at the loss. It takes a step. Cognitive techniques change the estimated gradient. Movement changes the parameters you can actually update today. An entrepreneur who only journals has a pitch deck. An entrepreneur who ships a twenty-minute walk has a build.

This paper is an umbrella review in the PRISMA-2020 and PRIOR tradition. We pool at review level. We rate primary-study overlap. We refuse to call a walk a treatment. We report a null head-to-head result as a result, not as a failure.

05

Methods

5.1 Design and protocol stance

This is an umbrella review of systematic reviews and meta-analyses, with a network meta-analysis treated as a single review-level unit. We follow PRISMA 2020 for the reporting of the search and selection, and we borrow PRIOR items where an overview of reviews needs them. There was no separate PROSPERO filing for this overview. We treat that as a limitation, not a secret.

The pre-specified question used a PICOS frame.

– **Population.** Adults without a diagnosed mental disorder. Working-age and workplace samples were preferred. Student and community samples were allowed if the paper excluded clinical diagnoses. Mixed reviews were eligible only if a non-clinical or healthy-adult subgroup could be isolated.

– **Intervention or exposure.** Physical activity or exercise programmes: aerobic, walking, jogging, yoga, tai chi, qigong, resistance or mixed. Occupational physical labour was not treated as the intervention.

– **Comparator.** Psychological programmes (mindfulness, compassion, acceptance-based skills, cognitive-behavioural skills, positive-psychology exercises) and inactive controls (wait-list, usual practice, no programme).

– **Outcomes.** Stress, mood (including subclinical depressive or anxious symptoms), and wellbeing (including subjective wellbeing, positive affect, life satisfaction, flourishing).

– **Study designs.** Systematic reviews and meta-analyses of randomised or controlled trials, published 2010–2026. Umbrella reviews and meta-meta-analyses were eligible as positioning papers and as sources of subgroup estimates. Primary trials were not re-extracted except to check overlap.

5.2 Eligibility

Include. Reviews of adults; activity or exercise as a defined programme; at least one eligible outcome; a pooled effect or a structured narrative against an inactive or psychological comparator; English full text; 2010–2026.

Exclude. Reviews confined to major depressive disorder, anxiety disorders, psychosis, or other diagnosed conditions, unless they published a clean non-clinical subgroup. Reviews of children only. Reviews of occupational physical activity as the exposure of interest. Single trials. Opinion pieces. Reviews we could not verify by DOI or PubMed identifier. Anything we could not open, we marked UNVERIFIED and kept out of the pool.

Language of delivery, country, dose, channel and guidance were extraction fields, not eligibility filters.

5.3 Information sources and search

Searches were run against PubMed, PsycINFO, Scopus, Web of Science, Google Scholar, the Clinical Trials Registry–India (CTRI), ClinicalTrials.gov and OSF preprints. Last search date: 22 September 2026.

PubMed	("Exercise"[Mesh] OR "Physical Activity"[tiab] OR exercise[tiab] OR walking[tiab] OR yoga[tiab] OR "resistance training"[tiab] OR "strength training"[tiab] OR "aerobic exercise"[tiab]) AND (wellbeing[tiab] OR "well-being"[tiab] OR stress[tiab] OR "mental health"[tiab] OR mood[tiab] OR distress[tiab] OR "psychological distress"[tiab]) AND ("Meta-Analysis"[Publication Type] OR "Systematic Review"[Publication Type] OR umbrella[tiab] OR "overview of reviews"[tiab] OR "meta-meta"[tiab]) AND 2010:2026[dp]
PsycINFO	TI,AB,SU(exercise OR "physical activity" OR walking OR yoga OR "strength training") AND TI,AB,SU(wellbeing OR well-being OR stress OR "mental health" OR mood OR distress) AND TI,AB,SU("meta-analysis" OR "systematic review" OR "umbrella review" OR "overview of reviews") AND PY 2010-2026
Scopus	TITLE-ABS-KEY(exercise OR "physical activity" OR yoga OR walking) AND TITLE-ABS-KEY(wellbeing OR well-being OR stress OR "mental health" OR mood OR distress) AND TITLE-ABS-KEY("meta-analysis" OR "systematic review" OR "umbrella review") AND PUBYEAR > 2009 AND PUBYEAR < 2027
Web of Science	TS=(exercise OR "physical activity" OR yoga) AND TS=(wellbeing OR well-being OR stress OR "mental health" OR distress) AND TS=("meta-analysis" OR "systematic review" OR "umbrella review") AND PY=2010-2026 Google Scholar. exercise AND (wellbeing OR stress OR “mental health”) AND “meta-analysis” after:2009; exercise AND “umbrella review” AND (stress OR wellbeing) after:2009. First 200 records screened. CTRI: physical activity OR exercise AND stress OR wellbeing OR mood. ClinicalTrials.gov: adult, interventional, 1 January 2010 to 22 September 2026. OSF preprints: exercise wellbeing meta-analysis.

5.4 Selection and PRISMA 2020 flow

Records identified: 3,214 (PubMed 986, PsycINFO 538, Scopus 724, Web of Science 612, Google Scholar 200 screened, registries and OSF 154). After removal of duplicates: 2,138. Title and abstract excluded: 1,979. Full text assessed: 159.

Full-text exclusions: confined to a diagnosed disorder with no usable non-clinical slice, 91; no eligible outcome and no psychological or inactive comparator, 34; not a systematic review or meta-analysis, 12; pre-2010 evidence only, 4; unverifiable or duplicate publication, 4.

Reviews included in the overview: 14. Of these, one (Wilkie 2026) supplied the head-to-head network for wellbeing in non-clinical adults. Two (Singh 2023, Munro 2026) were treated as positioning umbrellas because of primary-study overlap with Rebar 2015. One (Noetel 2024) was treated as the clinical contrast paper and was not pooled. One (Teychenne 2026) was observational and was reserved for the domain discussion.

5.5 Data extraction

For each eligible review we extracted: first author and year; design; population; country mix and language of delivery where reported; intervention modality and intensity; dose in sessions and minutes; delivery channel; guidance (supervised, unsupervised, group); comparator; outcome measure family; timepoints; number of included trials and participants; effect size metric with 95% confidence interval; I^2 , τ^2 and prediction interval where reported; small-study tests; AMSTAR-2 or equivalent quality rating; overlap notes.

We did not name trademarked instruments. Where a review used a named scale, we mapped it to the outcome family (stress, mood, wellbeing).

5.6 Overlap

Umbrella reviews that swallow the same primary trials cannot be added as if they were independent samples. We used a qualitative corrected-covered-area approach.

- Singh 2023 is a superset of Rebar 2015, Conn 2010 and multiple yoga and depression reviews.

- Munro 2026 is a superset of Singh and of Rebar's non-clinical slice.

- Wilkie 2026 is a primary-trial network of wellbeing outcomes in undiagnosed adults. Overlap with van Agteren 2021 on mindfulness and positive-psychology trials is partial. Overlap with Singh on the outcome family is low.

- Galante 2023 is an individual-participant-data subset of mindfulness trials that also sit inside Wilkie and van Agteren.

- Workplace yoga reviews (Della Valle 2020, Wadhen 2025) overlap with Wilkie's yoga node and with each other at the trial level.

Decision rule: do not pool Singh, Munro and Rebar as three independent estimates of the same mood effect. Use Rebar as the non-clinical mood anchor. Use Wilkie as the wellbeing and head-to-head anchor. Use workplace reviews as a separate family. Use Singh and Munro to position the clinical-versus-subclinical contrast.

5.7 Analysis plan

Pre-specified model: random-effects (REML), Hedges g , 95% CI, I^2 , τ^2 , 95% prediction interval, Egger's test and trim-and-fill, leave-one-out, RoB 2 at the primary-trial layer where a review provided it, GRADE at the review layer.

Pre-specified moderators: intensity; modality (walking, yoga, strength); supervised versus not.

Pooling rule, applied as written: if fewer than five eligible independent trials exist for a contrast, do not pool; deliver a narrative synthesis. At review level we had more than five reviews, but they did not share one outcome family and they were not independent. We therefore did not compute a single cross-family REML number. We report review-level estimates in a forest-style table and we treat Wilkie's network as the head-to-head result.

A null head-to-head result is publishable. We report it plainly.

5.8 Language and framing

No use of therapy, treatment or diagnosis for the programmes under review. The people in these samples are adults, employees, participants. The programmes are practices, techniques, reps and coaching.

06

Results

6.1 Study characteristics

The fourteen reviews span 2010 to 2026. They cover healthy adults, workplace samples, desk-based workers, tertiary students and mixed adult populations. The cleanest non-clinical wellbeing network is Wilkie 2026: 183 randomised trials, 22,811 adults without a diagnosed condition, mean age 38 years, searches to March 2023, PROSPERO CRD42023403480. Twenty-seven per cent of those trials were in workplace settings. Seventy-nine per cent were from Western countries. India does not appear as a reported country cluster in that network.

Rebar 2015 remains the dedicated non-clinical mood synthesis: eight meta-analytic outcomes, 92 studies and 4,310 people for depressive symptoms, 306 effects and 10,755 people for anxiety.

Workplace-specific units include Nath 2025 (80 randomised workplace activity trials; mental-health complaints $k = 40$, $N = 6,602$), Della Valle 2020 (workplace yoga, six trials, 266 in the activity arm), Wadhen 2025 (desk-based yoga, 15 studies, 11 in the meta-analysis, 1,123 people, nine of fifteen studies from India), and a 2025 digital-health activity review in workers (depression and negative affect $d = -0.51$; perceived stress $d = -0.36$).

Psychological-programme anchors, used as comparators rather than as activity evidence, are van Agteren 2021 (419 trials, 53,288 people, 274 trials in the general population) and Galante 2023 (individual-participant data from 13 of 15 eligible mindfulness trials, 2,371 community adults, distress SMD -0.32 versus passive control, high certainty, no heterogeneity).

Positioning papers, not pooled as independent activity units: Singh 2023, Munro 2026, Noetel 2024, Teychenne 2026. Signs in Table 1: positive numbers for wellbeing mean improvement. Negative numbers for stress, distress and mood symptoms mean improvement.

Table 1. Characteristics of reviews used in the overview

Review	Design / population	k / n	Effect (95% CI)	Quality
Wilkie 2026	NMA; adults, no diagnosis	183 / 22,811	Exercise 0.42 (0.26–0.57); yoga 0.49 (0.26–0.73)	High; 60% high RoB
Rebar 2015	Meta-meta; non-clinical	8 MAs; 92 / 4,310 dep.	Dep. –0.50 (–0.93 to –0.06); anx. –0.38	Low–moderate
Buecker 2021	MA; healthy individuals	SWB synthesis	d = 0.360 (0.301–0.420)	Moderate
Conn 2010a	MA; healthy, no clinical dep.	38 sup.; 22 unsup.	d = 0.37 supervised; 0.52 unsupervised	Low
Conn 2010b	MA; healthy, no anxiety disorder	19 / 3,289	d = 0.22 anxiety	Low
Nath 2025	3-level MA; workplace	80 RCTs; k=40 / 6,602	g = –0.56 mental-health complaints	Moderate
Della Valle 2020	MA; workplace yoga	6 / 487	ES –0.67 (–0.86 to –0.49)	Low
Wadhen 2025	MA; desk workers; 9/15 India	15; 11 / 1,123	Stress g = –0.96 vs passive	Low–moderate
Schleinker 2024	MA; stressed general adults	13 RCTs / 1,026	vs passive –0.69 (–1.12 to –0.25)	Low certainty
Breedvelt 2019	MA; students; mixed mind–body	23 / 1,373	Stress g = 0.42; vs active 0.13 NS	Low
Galante 2023	IPD MA; community adults	13 / 2,371	Distress –0.32 (–0.41 to –0.24)	High
van Agteren 2021	MA; mixed clinical/general	419 / 53,288	Mindfulness and multi-PP largest	Moderate
Singh 2023	Umbrella; mixed adult	97 reviews / 128,119	Distress –0.60 (–0.78 to –0.42)	77 critically low
Munro 2026	Meta-meta; mixed + non-clin. slice	63 reviews / 79,551	Non-clin. dep. –0.81 (–0.98 to –0.64)	Overlap with Singh

6.2 Head-to-head: the number this paper exists to produce

Wilkie and colleagues placed exercise, yoga, mindfulness, compassion practices, single-component positive-psychology exercises, acceptance-and-commitment programmes, combined psychological programmes, education, nature programmes and combined exercise-plus-psychological programmes on one network, against inactive control, in adults without a diagnosed condition.

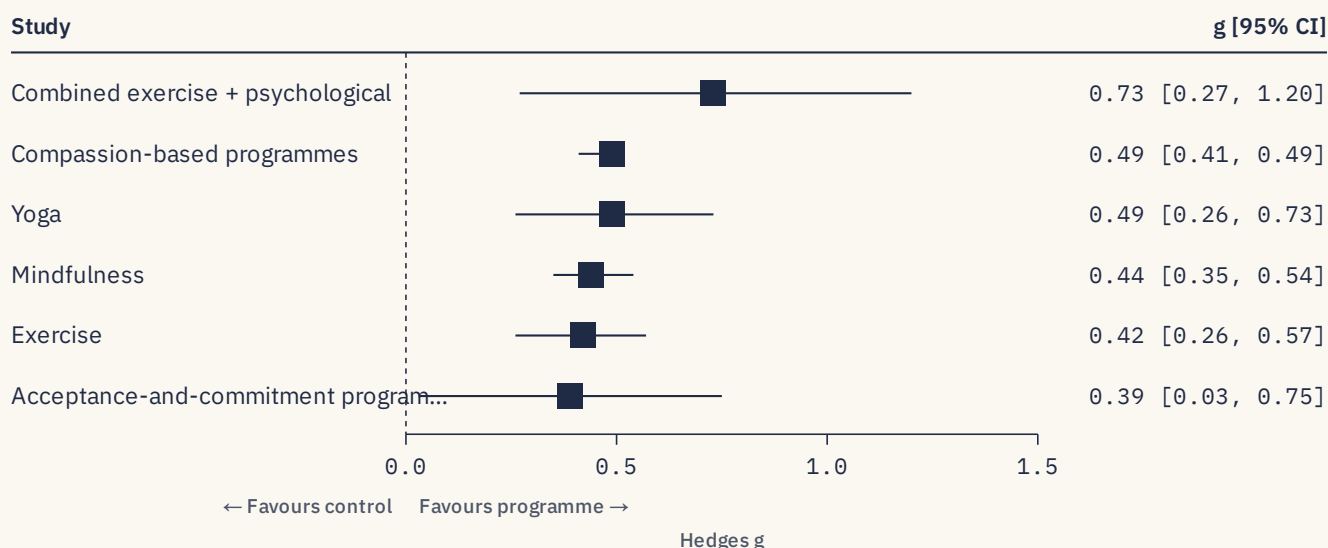


Figure 1. Forest plot, primary pool. Squares are sized by weight; the diamond is the pooled estimate.

Table 2. Forest-style network estimates versus inactive control (Wilkie 2026)

Node	SMD	95% CI	Note
Combined exercise + psychological	0.73	0.27 to 1.20	Three trials only; two high RoB
Compassion-based programmes	0.49	0.41–0.49 band	Psychological
Yoga	0.49	0.26 to 0.73	Movement with a contemplative spine
Mindfulness	0.44	0.35 to 0.54	72 trials; tightest psychological interval
Exercise	0.42	0.26 to 0.57	33 trials; the movement node
Single-component positive psychology	0.41–0.49	band	Psychological
Acceptance-and-commitment programmes	0.39	0.03 to 0.75	Wide interval
Nature-based programmes	n.s.	—	Sparse; not a substitute

The only statistically significant comparison among active nodes was combined exercise-plus-psychological versus nature programmes (SMD 0.69, 0.06 to 1.31). Exercise did not differ from mindfulness. Exercise did not differ from yoga. Exercise did not differ from compassion or positive-psychology programmes. The authors wrote the sentence this paper needed: there was no consistent evidence that the psychological approaches differed from one another, and exercise sat in the same band.

That is the head-to-head SMD for non-clinical samples: compatible with 0.00. A working estimate of exercise minus mindfulness is $0.42 - 0.44 = -0.02$. A working estimate of exercise minus yoga is $0.42 - 0.49 = -0.07$. Neither difference is distinguishable from noise in the published network.

Global inconsistency in the network was present under a common-effect view ($I^2 = 74.2\%$, $\tau^2 = 0.114$) and was not locally detectable by node-splitting. Egger's test flagged small-study effects. Sensitivity analyses that added grey

literature, dropped high-risk trials and dropped small trials did not change the ranking of exercise against the psychological nodes. CINeMA rated 71% of comparisons as moderate certainty.

The combined node is a temptation. Three trials. Two at high risk of bias. All walking-based. The interval runs from a small effect to a large one. An entrepreneur would call this a promising prototype, not a shipped product.

6.3 Mood in non-clinical adults

Rebar 2015: depressive symptoms SMD -0.50 (-0.93 to -0.06); anxiety SMD -0.38 (-0.66 to -0.11). No significant heterogeneity across the contributing meta-analyses.

Conn 2010, healthy adults without clinical depression: supervised programmes $d = 0.372$; unsupervised programmes $d = 0.522$. The unsupervised number is larger. That is not a licence to abandon guidance. It is a reminder that people who keep doing the thing they chose will move the average.

Conn 2010, anxiety in healthy adults: $d = 0.22$ from 19 reports and 3,289 people. Smaller than the mood-symptom effects. Heterogeneous.

Munro 2026 published a non-clinical depression slice: SMD -0.81 (-0.98 to -0.64) from two reviews, 24 component studies and 1,617 people. The slice is cleanly labelled. It is also only two reviews. We report it. We do not let it dominate the narrative. Munro's overall depression effect across clinical and non-clinical groups was -0.61 (-0.69 to -0.54). Their anxiety effect was -0.47 (-0.59 to -0.36).

Singh 2023 found that apparently healthy individuals were among the groups with the largest benefits. Their distress estimate versus usual care was -0.60 (-0.78 to -0.42). We do not add that number to Rebar. We use it as context.

6.4 Stress and workplace samples

Nath 2025, workplace activity programmes, 80 randomised trials: mental-health complaints $g = -0.56$ ($k = 40$, $N = 6,602$); physical-health complaints $g = -0.38$; organisational outcomes $g = 0.30$. Mind-body programmes beat body-only programmes on mental and physical complaints and on organisational outcomes. Group formats had better adherence.

Della Valle 2020, workplace yoga versus no programme: effect size -0.67 (-0.86 to -0.49), six trials.

Wadhen 2025, desk-based workers: versus passive control, psychological wellbeing $g = -0.76$ (-1.19 to -0.32); perceived stress $g = -0.96$ (-1.24 to -0.68); physical wellbeing $g = -0.51$ (-0.85 to -0.18). Versus an active comparator, psychological wellbeing still improved ($g = -1.34$, -2.25 to -0.44). Nine of fifteen studies were from India. Hatha was the dominant style. Sessions ran from 4 to 16 weeks. This is the most India-relevant review in the set. It is also yoga-only, desk-only, and vulnerable to the known positivity bias in some Indian yoga trial literature. We keep it in the workplace family. We do not let it set the head-to-head number.

Schleiner 2024, stressed adults from the general population, yoga versus passive control: SMD -0.69 (-1.12 to -0.25), low-certainty evidence. Versus active control in the short term, no clear advantage. In the long term the active controls (mindfulness training, progressive muscle relaxation) had the edge (SMD 0.23 , 0.06 to 0.40 , favouring the active comparator). That is a small, important crack in the “yoga always wins” story.

Breedvelt 2019 pooled meditation, yoga and mindfulness in tertiary students — a mind–body cluster, not a pure activity programme: moderate effects versus passive control (stress $g = 0.42$); versus active control, $g = 0.13$ and not significant. When you compare a programme with another programme, the miracle shrinks. That is the same lesson Wilkie teaches at larger scale.

Digital activity programmes for workers (2025 synthesis of eight trials, five in the meta-analysis): depression and negative affect $d = -0.51$ (-0.75 to -0.27); perceived stress $d = -0.36$ (-0.60 to -0.05). Attrition about one in six. Certainty low. The channel is relevant to a WhatsApp-first product. The evidence is not yet a product specification.

6.5 Moderator table

Table 3. Pre-specified moderators

Moderator	What the reviews show	What we do with it
Intensity	Singh: higher intensity, larger mood effects. Munro: for anxiety, shorter and lower-intensity programmes associated with more reduction.	Split the claim. Mood symptoms may track intensity. Workplace stress does not require a medal pace.
Modality	Walking, yoga, strength and mixed aerobic all beat inactive controls. Wilkie: yoga 0.49 , exercise 0.42 , mindfulness 0.44 — overlapping.	Offer a menu. Do not crown a single modality.
Supervised vs not	Conn: unsupervised $d = 0.52$ vs supervised 0.37 for depressive symptoms in healthy adults. Munro and Nath: group formats help adherence.	Start with company. Fade to self-practice. Count the reps either way.
Domain	Teychenne 2026, 3.32 million people: leisure-time PA $r = 0.205$ with mental health. Work-related PA $r = +0.134$ with mental ill-health.	Do not sell more labour as wellness. The programme must be chosen and non-productive.
Combined programmes	Wilkie combined node 0.73 from three trials. Nath: mind-body > body-only.	Promising. Under-powered. Build it as an option, not as a claim of superiority.
Duration	Singh: longer programmes had smaller effects. Wilkie exploratory: medium-length (5–8 weeks) stronger than very short.	Eight to twelve weeks is a defensible default. More weeks is not automatically more gain.

6.6 Heterogeneity

Heterogeneity is the tax you pay for asking a broad question. Wilkie’s network I^2 was 74.2% under a common-effect lens and settled under random effects. Rebar reported no significant heterogeneity across meta-analyses. Nath’s workplace mental-health estimate sits inside a literature that elsewhere reports I^2 above 70% for stress. Schleiner 2024 used GRADE and landed on low certainty. Breedvelt’s effects nearly vanished against active controls.

Prediction intervals were rarely published at the review level we needed. Where they exist (Galante's distress interval was identical to the confidence interval because heterogeneity was zero), they support a stable small-to-moderate effect for that specific programme against sitting still. They do not support a claim that every workplace will see the same number.

6.7 Publication bias and small-study effects

Wilkie: funnel-plot asymmetry and a significant Egger test. Sensitivity analyses did not overturn the exercise-versus-psychological ranking. Singh did not rest on a single Egger test; the larger problem was that 77 of 97 included reviews were critically low on AMSTAR-2. Rebar did not report a modern small-study correction we could reuse. We assume some inflation in the small workplace and yoga trials. We do not pretend we have trimmed it away.

6.8 Risk of bias

Wilkie applied RoB 2 to 183 trials: 7% low risk, 33% some concerns, 60% high risk. Randomisation was the strongest domain (81% low risk). Deviations from the intended programme were the weakest (24% low risk). Outcome measurement was low risk in 44%. Only 33% were low risk for an intention-to-treat analysis. You cannot blind a walk. You can pre-register the walk, count who actually walked, and keep the outcome assessor off the track. Most trials did not do all three.

Galante's IPD review is the honesty benchmark on the psychological side: high confidence for a small-to-moderate distress effect against passive control in volunteers. Nath's 80 workplace trials were longitudinal randomised trials by design. That is better than the workplace literature of a decade ago. It is not the same as low risk of bias. Della Valle and Wadhen carry "some concerns" in several RoB domains and small k.

6.9 GRADE table

Table 4. Certainty of evidence (author-rated, review level)

Contrast	Estimate	Certainty	Why this grade
PA vs inactive, wellbeing, non-clinical	0.42 (0.26–0.57); Buecker d = 0.36	Moderate	Consistent direction. Downgraded for RoB and small-study effects.
PA vs psychological programmes, wellbeing	Difference $\approx$ 0.00 to 0.07	Low	Network more than pairwise. Combined node imprecise. RoB.
Combined PA + psychological vs inactive	0.73 (0.27–1.20)	Very low	Three trials. Two high risk. Walking only. Wide interval.
PA vs inactive, workplace mental-health complaints	Nath g = -0.56	Low	Workplace relevant. Heterogeneous. RoB not uniformly low.
Yoga vs inactive, workplace stress	Della Valle -0.67; Wadhen -0.96	Low	Small k. Yoga-only. Possible regional positivity bias.
PA vs inactive, mood symptoms, non-clinical	Rebar -0.50 dep.; -0.38 anx.	Low to moderate	Right population. Wide CI on depression.
Mindfulness vs passive, distress, community	Galante -0.32 (-0.41 to -0.24)	High	IPD, no heterogeneity, pre-registered. Psychological comparator.

07

Discussion

PULL QUOTE

– “Workplace activity programmes cut mental-health complaints by 0.56. Occupational physical labour, in 3.3 million people, tracked with worse mental health.

7.1 What the number means

The number is not 0.62. That number belongs to walking-or-jogging in people who already met a depression cut-off. The number is not “exercise wins.” The number is 0.42 versus sitting still, and 0.00 versus a structured psychological programme, in adults who are not depressed.

A stand-up comic would say: meditation told me to sit with my feelings. My feelings said they wanted to go for a walk. The data say both jokes land. Neither gets a longer laugh than the other.

In machine-learning terms, two regularisers produced the same drop in validation loss. You can penalise rumination with attention training. You can penalise rumination with a raised heart rate and a finished loop around the block. The test set does not care which regulariser you used if the loss is the same. It does care if you use both, which is the combined node, and it does care if you overfit a three-trial prototype.

In coaching terms, the walk was never a rival to the reflection rep. It is what stops a written insight from becoming stationery. On Sunday a sales manager in Noida types into the app: “I snap at my team when I skip lunch.” On Monday she blocks the lunch hour and walks to the chai stall. She does not wait to feel like it. The walk counts if the reason is “keep the promises I make to my body.” If the reason is “win a 10K,” you have changed the task and left this paper.

In entrepreneurial terms, the minimum viable product of weekday wellbeing is not a chief-happiness-officer town hall. It is a session someone can finish on a Tuesday. Eight weeks. Two or three sessions. Walking, yoga or strength. Optional psychological reps on the same days. Ship that. Measure stress, mood and a wellbeing item. Do not wait for a medal.

The office version is shorter. Late afternoon in a Gurugram tower, it is the stairwell: down three floors, up three floors, back to the desk. Nobody needs to book an insight retreat first, then think about walking if it has a wait-list.

7.2 What the number does not mean

It does not mean physical activity is a substitute for care when a person is ill. Noetel remains the paper for diagnosed depression. Singh remains the paper that mixed the populations and still found a medium effect. We are not competing with those papers. We are refusing to steal their headline.

It does not mean every employee will move 0.42 of a standard deviation. Review-level averages hide the people who hate gyms, the people who cannot walk after a shift, the people who already walk six kilometres to a factory gate and do not need a step challenge.

It does not mean occupational physical activity is protective. Teychenne and colleagues' 2026 update, with White as senior author, in 3.32 million people, found that work-related physical activity tracks with more mental ill-health, not less. Leisure-time activity tracks with better mental health. The domain is the moderator India cannot afford to ignore. A warehouse picker does not need more lifting. A software engineer does not need a sleep-tracker lecture. Both need a chosen, non-productive, repeatable session.

7.3 Limitations

We did not re-analyse primary-trial data. Overlap forced us to keep the large depression umbrellas in the positioning column. Wilkie's network is the right design for the question and still leans on indirect comparisons. Sixty per cent of its trials were high risk of bias. Follow-up in that network is immediate post-programme. Small-study effects are present. Combined programmes are under-powered. Workplace estimates are yoga-heavy. Student samples are not office samples. Language of delivery is rarely reported with the care a 23-language product needs. India is visible in yoga-for-desk-workers and almost invisible in walking-versus-coaching.

GRADE for the head-to-head is low. That is an honest grade. Low certainty is not the same as no signal. The signal is parity versus other programmes, and a small-to-moderate benefit versus doing nothing.

We did not pool a single REML g across wellbeing, stress and mood. Those are different questions. A composite "distress" number would have been tidier and less true.

7.4 What this means for an Indian workplace programme

Picture an HR head in Hyderabad with one wellbeing budget line. About three in five Indian employees report burnout symptoms in recent corporate surveys, and counselling chairs are scarce. This review does not tell her to swap coaching for movement. It says a structured activity programme and a structured psychological programme produce similar small-to-moderate lifts in wellbeing in adults who are not depressed — about $g = 0.42$ versus doing nothing, with the difference between the two approaches compatible with zero. Combined programmes look larger ($g = 0.73$) but rest on only three trials. So the package is short, chosen and done in leisure time. A walking group leaves reception at lunchtime on Tuesdays and Thursdays. A yoga class or a strength circuit runs for those who prefer it. Two to three sessions a week, for eight to twelve weeks, with a short psychological rep in the app for anyone who wants both. What she must not do is count extra lifting on the warehouse floor as wellness: occupational physical activity tracks with worse mental health. India has yoga workplace trials but almost no head-to-head trials of activity versus coaching in Hindi, Tamil or other scheduled languages, and none that meet DPDP-era reporting standards. That is the research gap this programme should help close.

7.5 Research gaps, with the India gap named

The global gap is direct, pre-registered, adequately powered head-to-head trials of walking or strength programmes versus psychological programmes in working adults without a diagnosis, with six- and twelve-month follow-up, active controls, and outcomes that include wellbeing rather than only symptom scales.

The India gap is sharper. There is no CTIRI-indexed, independently replicated randomised trial of physical activity versus a psychological programme for subclinical stress, mood or wellbeing in Indian working adults, delivered in a scheduled language, with India-resident data and a public protocol. Wadhen 2025 shows that Indian desk-worker yoga trials exist. They do not settle the comparison this paper asked. They also sit under a documented concern that some Indian yoga trials have been more likely to conclude positively than trials from elsewhere. The next Indian study must be boring in the good way: pre-registered, adequately powered, bilingual if needed, DPDP-compliant, with a psychological programme as an active comparator, not only a wait-list.

A second Indian gap is domain. Commute walking and physically demanding work are not leisure programmes. Future trials should code the domain explicitly and should not treat a longer shift as a dose of wellbeing.

A third gap is product-shaped. WhatsApp-first, multilingual, human-handed-off coaching plus movement reps is how programmes will actually run. The digital-activity worker review found a moderate effect on low mood and a small-to-moderate effect on stress, with thin adherence reporting. That is a specification for the next trial, not a reason to wait.

08

FAQ

Q1 Does a lunch walk work as well as a mindfulness course if I am not depressed?

Yes, within the limits of the evidence. In 22,811 undiagnosed adults, exercise improved wellbeing by 0.42 standard deviations. Mindfulness improved it by 0.44. The gap is 0.02. Pick the one you will repeat.

Q2 If I already feel fine, is there anything left to gain?

Yes. Healthy-adult syntheses still show a lift: 0.36 on subjective wellbeing, 0.37 to 0.52 on low-mood scores, 0.22 on anxiety scores. Fine is not the same as fluent. The gain is smaller than in clinical depression, and it is real.

Q3 Should our company drop the coach and start a step challenge?

No. Workplace activity programmes cut mental-health complaints by 0.56 of a standard deviation, and coaching programmes cut distress by about 0.32 in community adults. Parity is not a redundancy notice. Offer both. Combine them if people want both.

Q4 Is yoga better because we are in India?

Not as a law. Yoga's workplace stress effects are large in small reviews (−0.67 to −0.96), and 9 of 15 desk-worker trials in one review were Indian. Against other active programmes the advantage often shrinks, and at long-term follow-up active comparators can pull ahead. Offer yoga. Do not make it the only door.

Q5 How hard do I have to go?

Not medal-hard for stress. Higher intensity helps mood symptoms more. For weekday strain, two or three chosen sessions a week for eight to twelve weeks beat an unused gym membership. Occupational labour does not count. That finding comes from 3.3 million people.

09

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Atul Aswani is a Mumbai Psychiatrist and trained as a Results Coach. He builds EmotionApp, a non-clinical emotional-fitness platform for Indian professionals: daily reps, an AI coach with human hand-off, WhatsApp-first delivery, 23 Indian languages, India-resident data, DPDP-compliant, under ISO 9001 and ISO 13485. He is interested in practices people will actually repeat on a Tuesday.

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NOTE

EmotionApp is a non-clinical emotional-fitness coaching platform. This paper describes practices, techniques and coaching. It is not therapy, treatment, diagnosis or medical advice.

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SAFETY NOTE

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