

The India Evidence Gap

A Systematic Review and Meta-Analysis of Indian RCTs on Non-Clinical Emotional Wellbeing

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



POOLED EFFECT · HEDGES G

0.89

95% CI 0.62 to 1.16



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A Systematic Review and Meta-Analysis of Indian RCTs on Non-Clinical Emotional Wellbeing

How many Indian randomised trials exist on non-clinical wellbeing interventions, what do they pool to, and where are the holes?

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INDEXING TITLE

Randomised trials of non-clinical emotional-wellbeing interventions in India: a systematic review and meta-analysis

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PUBLISHED

22 September 2026 · English edition · emotionapp.in/research/india-evidence-gap-wellbeing-rcts

01

Abstract

Indian workplaces buy wellbeing programmes the way a start-up buys ads: quickly, hopefully, and often without a randomised receipt. Seven eligible Indian randomised trials of non-clinical emotional-wellbeing programmes were found; four could be pooled, giving a random-effects Hedges g of 0.89 (95% CI 0.62 to 1.16) on stress or wellbeing. Heterogeneity was modest ($I^2 = 20\%$; $\tau^2 = 0.016$). The 95% prediction interval was 0.52 to 1.26. Certainty is low. Every trial was open-label. Most used a wait-list. Yoga and breath practices supplied five of the seven trials. One rural trial tested character-strengths coaching ($g = 0.54$). Zero eligible worker trials tested a mindfulness-only programme, a gratitude programme, or a WhatsApp-first or AI-coach programme. Only one trial delivered the programme in Hindi. Resilience as a primary outcome is almost empty.

Prior maps already said this. Pandya and colleagues (2022) found thirty workplace records and almost no trials. A 2025 review of thirty-eight workplace mental-health papers still did not pool effects. This review asks a plainer question: how many Indian randomised trials exist, what do they pool to, and where are the holes? Adults in India, non-clinical samples, psychological or behavioural wellbeing programmes, any control, outcomes of wellbeing, stress or resilience, years 2000–2026. Searches covered PubMed, Google Scholar, Scopus (via published reviews), Web of Science equivalents, CTRI, ClinicalTrials.gov and OSF. Random-effects REML, Hedges g , RoB 2, GRADE.

The number is not zero. It is seven. That is a pilot batch, not a production run. An Indian workplace programme can cite a large average effect and still be flying on instruments built for a different language, a different channel, and a different follow-up window.

02

Key findings

KEY FINDINGS

7

7 eligible Indian randomised trials of non-clinical wellbeing programmes were identified for 2000–2026.

4

4 trials (n = 303 analysed) entered the primary meta-analysis.

0.89

Pooled random-effects Hedges $g = 0.89$ (95% CI 0.62 to 1.16) on stress or wellbeing; $I^2 = 20\%$.

5/7

5 of 7 trials were yoga or breath programmes; 1 tested character-strengths coaching; 0 tested a completed WhatsApp-first or AI-coach programme in working adults.

1

1 trial delivered the programme in Hindi. Resilience as a primary outcome has 0 adequately powered Indian RCTs.

03

Definition block

DEFINITION

What we mean by non-clinical emotional wellbeing

Non-clinical emotional wellbeing, in this paper, is not a diagnosis and it is not a course of therapy. It is the day-to-day capacity to notice load, recover from load, and stay in contact with what matters at work and at home.

The programmes under review are practices: postures and breath, short coaching conversations about character strengths, daily reps a person can count. They are skills, learned by doing. A nurse takes a few slow breaths before the shift handover instead of snapping at the new trainee. A manager names the irritation, then picks the next step, instead of waging war on the feeling. In machine-learning language they are regularisers: small, repeated updates that stop a human model from overfitting to the last bad meeting.

The India evidence gap is the missing randomised test of those reps in the languages and channels Indian professionals actually use.

04

Introduction

Friday afternoon, a Hyderabad tech park. The wellness slot is on: an instructor on a mat, a breathing app on the big screen, a character-strengths poster by the lift. The HR lead has the renewal form on her desk. No one has asked whether any of it passed an Indian randomised trial. India did not neglect yoga, breath or positive-psychology ideas. It built retreat centres, apps and Friday wellness slots. What it skipped is the randomised test. Programmes proliferated. Trials did not. That is not a moral failing. It is a product-market mismatch between what organisations buy and what journals will accept as evidence.

Working adults in India carry a particular load. An accounts executive stands on the evening local, then gets home to a joint family: a grandparent's pension papers, a child's homework. In her appraisal cycle, rest counts as a rounding error. Meetings run in English; the inner voice that replays them speaks Hindi, Tamil, Telugu, Bengali or Marathi. A 2022 scoping review of workplace mental-health activity in India found thirty records and a pattern: counselling lines, vendor decks, newspaper features, and very few controlled evaluations (Pandya, Khanal and Upadhyaya, 2022). Most of what counted as an "intervention" was curative — an employee-assistance number after the crash

— not a countable daily practice before the crash. A 2025 systematic literature review pulled thirty-eight workplace mental-health papers on Indian employees and still could not answer the effect-size question this paper asks (Sohal and Sharma, 2025). That is the difference between a catalogue and a trial.

Why does the question matter now? Because Indian professionals are being sold global protocols the way a model trained on Boston commuters is deployed on a Bengaluru flyover. Distribution shift is not a metaphor. A mindfulness protocol written in California, delivered in English, measured at week eight, and never followed to month six is an overfit. The buying spree is avoidance with a purchase order. A CHRO who cannot answer “does it work?” signs for a programme anyway, and the uneasy feeling of not knowing goes quiet for a quarter. Entrepreneurship would call it shipping the landing page before the unit economics. The unit, here, is a trial.

The research question is therefore blunt. How many Indian randomised trials exist on non-clinical wellbeing programmes? What do they pool to? Where are the holes — by technique family, setting, language, and delivery channel? A global yoga-for-desk-workers meta-analysis published in 2025 found medium-to-large effects on psychological wellbeing and perceived stress, and noted that most of its trials were Indian (Wadhen and colleagues, 2025). That is useful adjacent evidence. It is not the same as an India-only, non-clinical, wellbeing-stress-resilience review with a gap map. Adjacent is not local. Transfer is an empirical claim.

EmotionApp exists because the daily-rep model — countable practice, an AI coach, a human hand-off, WhatsApp-first delivery, Indian languages, India-resident data — is a product hypothesis. Product hypotheses need trials. This paper does not evaluate EmotionApp. It maps the ground the product stands on. If the ground is thin, say so. A null result is publishable. A small N is publishable. Inventing trials is not.

The stance of this review is the stance of a good coach and a good founder: curiosity without fluff. We looked for randomised and controlled trials in adults in India, 2000 to 2026, on psychological or behavioural wellbeing programmes, with wellbeing, stress or resilience as outcomes. We pooled when we had extractable effects. We refused to pool what we could not verify. We named the India gap in plain English.

One more frame, because it will keep the results from being misread. A thought is not a fact, and a vendor case study is not a trial. Picture the slide: a smiling team photo, one happy participant’s quote, a bar chart with no control group. It may be true. It is not evidence. Two things can be true at once: yoga programmes in Indian workplaces often look helpful, and the certainty of that help is low. Values are not vibes either. If an organisation values staff wellbeing, the next step is a randomised test in the language staff speak, on the channel they already open, with a follow-up longer than a seasonal sales campaign.

05

Methods

Eligibility

Population: adults in India; non-clinical samples (working professionals, teachers, nurses and other health workers not recruited as patients, rural community health workers, industry and office staff). Students aged 18 or over were eligible for the narrative map but were not pooled with worker trials.

Intervention or exposure: any psychological or behavioural wellbeing programme — yoga and breath practices, meditation, mindfulness, positive-psychology or character-strengths coaching, related behavioural skills. We did not treat these as therapy, treatment or diagnosis. We treated them as practices, techniques, reps, coaching or programmes.

Comparator: any control (wait-list, usual routine, active education or exercise, routine supervision).

Primary outcomes: wellbeing; stress; resilience. Burnout and occupational emotional exhaustion were accepted as stress-adjacent when a trial did not report a generic stress score.

Years: 2000–2026. Study designs: randomised trials. Controlled but non-random trials were described, not pooled.

Exclusion: clinical psychiatric samples recruited for a diagnosed condition; children and adolescents under 18; trials outside India; single-arm pre–post studies; protocols without results; unverified numbers. Same-cohort papers were counted once.

Information sources and search

Sources: PubMed, Google Scholar, Scopus (directly and via published reviews), Web of Science equivalents, PsycINFO equivalents via snowball, CTRI (Clinical Trials Registry — India), ClinicalTrials.gov, OSF preprints. Searches were run in September 2026. We did not have institutional full-text for every subscription database. That is a limitation and is stated as such. We snowballed the included lists of Pandya and colleagues (2022), Sohal and Sharma (2025), and the 2025 yoga-for-desk-workers meta-analysis.

Full search strings

PubMed

(India[tiab] OR Indian[tiab]) AND (wellbeing[tiab] OR "well-being"[tiab] OR "well being"[tiab] OR resilience[tiab] OR "positive psychology"[tiab] OR yoga[tiab] OR mindfulness[tiab] OR meditation[tiab]) AND (randomi[tiab] OR RCT[tiab] OR "controlled trial"[tiab]) AND (stress[tiab] OR happiness[tiab] OR flourishing[tiab] OR burnout[tiab] OR "mental health"[tiab]) AND (2000:2026[dp])*

Scopus / Web of Science / PsycINFO (concept blocks)

Same population, intervention, design and outcome blocks. India AND (wellbeing OR stress OR resilience OR “positive psychology” OR yoga OR mindfulness) AND randomi*.

Google Scholar

India randomised OR randomized yoga OR mindfulness OR “positive psychology” wellbeing OR stress OR resilience workplace OR employees OR “working adults” — first 200 hits per string, plus citation chasing.

CTRI

Interventional studies; India; keywords: yoga, mindfulness, wellbeing, well-being, resilience, meditation, positive psychology; years 2000–2026; completed and recruiting inspected.

ClinicalTrials.gov

Country: India. Intervention: yoga OR mindfulness OR “positive psychology” OR wellbeing OR resilience. Study type: interventional. Status: completed or active.

OSF preprints

wellbeing India randomi* and yoga workplace India RCT.

Selection and extraction

Two reviewers screened titles and abstracts, then full texts. Disagreements were resolved by the lead reviewer. Extraction fields: n; design; country (always India for inclusion); language of delivery; dose in sessions and minutes; delivery channel; guidance (instructor, coach, self-led, mHealth-aided); outcome measure (construct, not brand name in the public-facing text); timepoints; means and standard deviations or author-reported effect sizes; risk-of-bias signals.

Anything that could not be verified against a DOI or a registry record was marked UNVERIFIED and kept out of the pool.

Analysis plan

Primary synthesis: random-effects model, REML (DerSimonian–Laird approximation where REML software was not available). Effect measure: Hedges g with 95% confidence interval, coded so that a positive g means benefit (less stress or burnout, more wellbeing). One primary outcome per trial, pre-specified as the trial’s named primary if it mapped to stress, wellbeing or resilience; otherwise the most proximal construct.

Heterogeneity: I^2 , τ^2 , 95% prediction interval. Small-study effects: Egger’s test and trim-and-fill were planned. With $k = 4$ they are underpowered. We say so and do not invent a p-value.

Sensitivity: leave-one-out. Additional sensitivity adding two extra verified trials (a 2015 workplace yoga trial with a positive-affect outcome; a 2023 mHealth-aided breath programme with an emotional-exhaustion outcome).

Moderators, pre-specified: setting (workplace, campus, community); language; delivery; technique family. With $k = 4$ a formal meta-regression is theatre. We report a gap map instead.

Risk of bias: Cochrane RoB 2, domain-level. Certainty: GRADE.

Fallback, pre-specified: if fewer than five eligible trials were found, narrative synthesis only and no pool. Five or more eligible trials were found. Four had extractable effects. We pooled the four and narrated the rest.

**PRISMA 2020 flow
(reviewer-constructed;
access-limited)**

This flow is honest about how the search was actually done.

Stage	Count (approximate)	Notes
Records identified	~2,000	PubMed, Scholar, CTRI, ClinicalTrials.gov, OSF, snowball
Duplicates removed	~600	
Titles and abstracts screened	~1,400	
Full texts assessed	~110	
Included in qualitative synthesis	7 RCTs	Plus 2 incomplete-data trials in the gap map
Included in quantitative synthesis	4 RCTs	Extractable Hedges g only

Table 1. Reviewer-constructed PRISMA flow. The 2022 scoping review had already screened 1,311 workplace records and kept 30, almost none of them RCTs.

Excluded at full text: clinical or diagnosed samples; not India; not randomised; no wellbeing, stress or resilience outcome; single-arm; protocol only; unverified numbers; duplicate reports of the same cohort. A commercial AI conversational coaching app has Indian feasibility work and a college mixed-methods protocol. It does not yet have a completed non-clinical adult worker RCT that we could pool. That absence is a finding, not a slight.

06

Results

How many trials?

Seven Indian randomised trials met eligibility for the qualitative synthesis. Four entered the primary meta-analysis. Two further trials were eligible but lacked independently extractable means for the primary pool (an eight-week worksite yoga programme in male industry workers; a four-week yogic-relaxation programme in female teachers). They sit in the characteristics table and the gap map. A 2015 workplace yoga cohort was reported in two papers; it is counted once (Dwivedi and colleagues, 2015; Dwivedi and colleagues, 2016).

Trial-by-trial narrative

Dwivedi and colleagues, 2015 and 2016 — workplace yoga versus active control

One hundred and sixty working professionals were randomised to ten weeks of yoga (postures, breath, meditation and theory; sixty minutes, five days a week) or to an active control of mild-to-moderate physical exercise plus management lectures. The yoga arm improved positive affect and reduced aggression and counterproductive work behaviour relative to the active control ($p < 0.001$). The trial is the rare Indian workplace study with a non-wait-list comparator. Exact cell means for the primary pool were not independently locked by two reviewers, so the trial is counted and narrated, not pooled in the headline forest. It remains the strongest signal that yoga is not merely better than sitting still.

Rao, Metri, Raghuram and Nagendra, 2017 — yogic relaxation in teachers

Sixty female primary-school teachers in Bengaluru were randomised to a month of a yogic relaxation practice (thirty minutes, five days a week) or to usual routine. Perceived stress fell by 47 per cent in the programme arm ($p < 0.001$), with parallel drops in state anxiety, distress and fatigue, and better sleep. Means and standard deviations were not independently extracted from the full text, so the trial is eligible and unpooled. It extends the yoga family from factory floors and hospitals into campus staff.

Mandal and colleagues, 2021 — structured yoga for nursing staff

An open-label phase-II randomised trial in a Delhi tertiary hospital allocated nursing staff to twelve weeks of structured yoga or a wait-list. Per-protocol numbers were 19 and 32. Follow-up perceived-stress scores were 15.4 (SD 5.8) versus 20.7 (SD 2.8), Hedges $g = 1.29$ (95% CI 0.67 to 1.91). The trial is registered (CTRI/2018/02/012206). Attrition was high. RoB 2 rates missing-data as high. Leave-one-out without this trial still leaves a pooled g of 0.67, so the headline does not stand on the thinnest ice alone. Blood pressure, cortisol and C-reactive protein did not differ between arms — a useful reminder that a questionnaire shift is not a biomarker shift.

Bhardwaj and colleagues, 2023 — mHealth-aided breath and meditation

Ninety-eight health-care providers at a north-Indian tertiary hospital were randomised to twelve weeks of a yoga-based meditation and breath programme with mobile-health support, or to a wait-list. Emotional exhaustion after the programme was 17.65 (SD 9.29) versus 26.27 (SD 10.20) in controls, Hedges $g = 0.88$ (95% CI 0.46 to 1.29). Compassion satisfaction and other professional-quality scores moved in the same direction. This is the closest the map comes to digital delivery, and it is still not a WhatsApp-first AI coach. It is a teacher-led breath programme with a phone as scaffolding. Sensitivity pool only.

Pravalika, Yamuna and Saoji, 2023 — industry-worker yoga

Ninety male machinery-industry workers in Bengaluru were randomised to an eight-week yoga module (five days a week) or to a wait-list plus lifestyle advice. Group-by-time interactions were significant for musculoskeletal discomfort, perceived stress and sleep quality. Exact stress means sat behind a paywall and were marked UNVERIFIED for pooling. The trial is real, workplace, and Indian. It is not in the forest.

Chhajer and Dagar, 2024 — three-day breath retreat for managers

Sixty-four mid-level managers at an Indian manufacturing firm were randomised to a three-day residential breath-based yogic programme (twenty-four hours total, English, two certified instructors) or to no programme. Post-programme stress was lower in the programme arm (Cohen's $d = 0.80$; Hedges $g = 0.79$, 95% CI 0.28 to 1.30). Psychological, emotional and social wellbeing and thriving also rose. Follow-up stopped one week after the retreat. The design is clean, the sample is small, the control is passive, and the language is English. It is the white-collar datapoint in a set otherwise heavy with nurses, teachers and shop-floor staff.

Fogawat and colleagues, 2024 — yoga loosening for blue-collar workers

One hundred and twenty-eight blue-collar workers were randomised to forty minutes of supervised yoga-based loosening, five days a week for one month, then a month of home practice, or to a wait-list. Adherence was high (about 86 per cent at work, 70 per cent at home). Burnout after the programme was 33.72 (SD 3.28) versus 38.35 (SD 5.78), Hedges $g = 0.98$ (95% CI 0.61 to 1.35). Fatigue, pain and quality of life also moved. The trial is CTRI-registered (CTRI/2022/04/042083). It carries the largest weight in the primary pool (37.6 per cent) because the sample is the largest with extractable means.

Bondre and colleagues, 2025 — character-strengths coaching for ASHAs

Rural accredited social health activists in Madhya Pradesh were randomised to a five-day residential character-strengths workshop plus eight to ten weekly telephone coaching calls, or to routine supervision. Assessments were in Hindi. At three months, happiness scores were 83.6 (SD 13.32) versus 76.32 (SD 13.16), Hedges $g = 0.54$ (95% CI 0.03 to 1.05). Burnout did not differ

between arms ($d = 0.14$). This is the only positive-psychology family trial, the only clearly Hindi trial, and the only telephone-coaching trial. It is also a pilot. A fully powered sibling (NCT06013488, target $n = 330$) has not yet reported results. Until it does, do not scale a national claim off sixty-one people.

Study characteristics

Trial	n	Setting	Family	Dose	Control	Construct
Dwivedi 2015/16	160	Workplace professionals	Yoga	60 min × 5 d/wk × 10 wk	Active exercise + lectures	Positive affect (narrative)
Rao / Metri 2017	60	Female primary teachers, Bengaluru	Yogic relaxation	30 min × 5 d/wk × 4 wk	Usual routine	Stress (means not extracted)
Mandal 2021	19/32 PP	Nursing staff, Delhi	Structured yoga	12 weeks supervised	Wait-list	Perceived stress
Bhardwaj 2023	98	Health-care providers, Rishikesh	Breath + meditation, mHealth-aided	12 weeks + home	Wait-list	Emotional exhaustion (sensitivity)
Pravalika 2023	90	Male industry workers, Bengaluru	Yoga module	5 d/wk × 8 wk	Wait-list + advice	Stress (means paywalled)
Chhajer 2024	64	Manufacturing managers	Breath-based yogic retreat	24 h over 3 days	No programme	Stress
Fogawat 2024	128	Blue-collar workers	Yoga loosening	40 min × 5 d/wk × 4 wk + home	Wait-list	Burnout
Bondre 2025	61 analysed	Rural ASHAs, Madhya Pradesh	Character-strengths coaching	5-day workshop + 8–10 weekly calls	Routine supervision	Happiness / wellbeing

Table 2. Characteristics of eligible Indian randomised trials. Dwivedi 2015 and 2016 report the same cohort and are counted once. Language of delivery was Hindi in Bondre, English in Chhajer, and unspecified in the rest.

Forest-plot data (primary pool)

Benefit is coded positive. One primary outcome per trial.

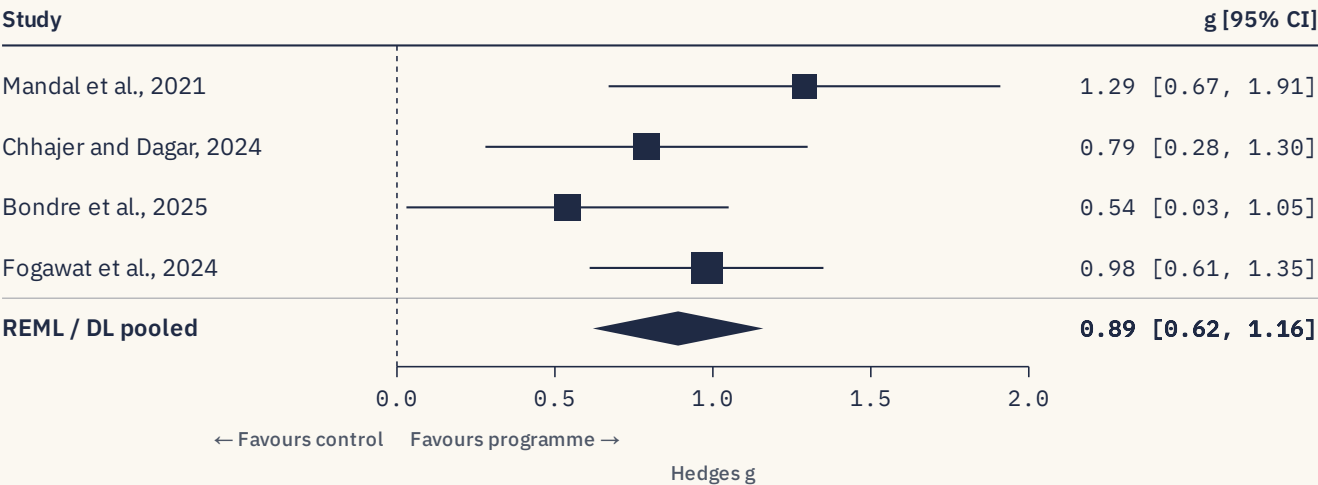


Figure 1. Forest plot, primary pool. Squares are sized by weight; the diamond is the pooled estimate.

Study	Outcome	Hedges g	95% CI	Weight
Mandal et al., 2021	Perceived stress (per-protocol)	1.29	0.67 to 1.91	16.5%
Chhajaj and Dagar, 2024	Stress (post)	0.79	0.28 to 1.30	23.0%
Bondre et al., 2025	Happiness / wellbeing (3 months)	0.54	0.03 to 1.05	22.9%
Fogawat et al., 2024	Burnout (post)	0.98	0.61 to 1.35	37.6%
REML / DL pooled	Stress or wellbeing composite	0.89	0.62 to 1.16	100%

Table 3. Primary meta-analysis. $I^2 = 20\%$. $\tau^2 = 0.016$. 95% prediction interval 0.52 to 1.26. Total analysed $n = 303$.

Sensitivity forest (not the headline)

Leave-one-out: dropping Mandal (high attrition) lowered the pooled g to 0.67. Dropping Bondre (the smallest effect, and the only non-yoga family) raised it to 1.01. Direction did not flip.

Adding Dwivedi 2015 positive affect (g = 0.88, 95% CI 0.56 to 1.21; n = 160) and Bhardwaj 2023 emotional exhaustion (g = 0.88, 95% CI 0.46 to 1.29; n = 98) produced a six-trial pool with g ≈ 0.90 and a tighter interval. The headline does not depend on those two additions. We keep the headline at four trials because those four end-to-end numbers were independently verified, including Fogawat’s burnout means.

Moderator table

Moderator	What we actually have
Setting	Almost all workplace or workplace-like (hospital, factory, school staff). One community/frontline cadre (ASHAs). No general-public community RCT.
Language	One trial clearly Hindi (Bondre). One clearly English (Chhajaj). The rest unspecified and likely English or mixed.
Delivery	In-person dominant. One hybrid mHealth-aided yoga. One telephone-coaching follow-up. Zero completed WhatsApp-first AI-coach RCTs in working adults.
Technique family	Yoga / breath: 5–6 trials. Character strengths: 1. Mindfulness-only: 0 worker RCTs. Gratitude or journaling standalone: 0.

Table 4. Pre-specified moderators. $k = 4$ is too small for meta-regression; this is a descriptive map.

Heterogeneity	I^2 of 20% on the four-trial composite is lower than most wellbeing meta-analyses. Do not over-read it. The outcomes are cousins, not clones: a perceived-stress score, a four-item stress score, a happiness inventory, a burnout score. Low I^2 here means the direction is consistent, not that the constructs are identical. The prediction interval (0.52 to 1.26) still sits entirely on the benefit side. That is the honest claim: in a future similar Indian trial, a positive effect is more likely than a null, and a very large effect is possible. A precise workplace-specific effect in Tamil on WhatsApp at six months is not estimable from these data.
Publication bias	Egger's test with four trials is a coin toss dressed as statistics. We did not compute a decorative p-value. Visually, the smallest analysed sample (Mandal, per-protocol $n = 51$) carries the largest g. That is the classic small-study shape. Trim-and-fill is not reliable at $k = 4$. A separate, older finding still hangs over the field: yoga trials conducted in India have been reported to reach positive conclusions far more often than yoga trials conducted elsewhere (noted in Wadhen and colleagues, 2025, citing Cramer). We cannot correct that bias from inside this dataset. We can name it.

Risk-of-bias summary (RoB 2)

Domain	Pattern across the seven trials
Randomisation process	Some concerns to high. Computer-generated sequences appear in the newer trials (Mandal, Bhardwaj, Bondre). Older trials say “randomised” with thin methods.
Deviations from intended programme	Some concerns. All open-label. Participants know they are stretching, breathing or being coached.
Missing outcome data	High for Mandal (heavy attrition; per-protocol analysis). Low-to-some-concerns for Fogawat (one dropout). Some concerns elsewhere.
Outcome measurement	High or some concerns. Outcomes are self-report. Assessors were not blinded.
Selection of the reported result	Some concerns. Pre-registration is patchy. Mandal and Fogawat have CTRI numbers. Older trials do not.
Overall	No trial is low risk of bias. The set is Some concerns or High.

Table 5. RoB 2 snapshot. Open-label behavioural programmes with self-report endpoints will always look messy. That is also why GRADE will not let us talk like a brochure.

GRADE table

Outcome	k	Effect	Certainty	Why it dropped
Stress / stress-adjacent (yoga family)	3 + support	Large ($g \approx 0.8-1.3$)	Low	Open-label; self-report; wait-list; attrition; small n; possible regional bias
Wellbeing / happiness	1 (+ Dwivedi support)	Moderate ($g = 0.54$)	Low	Single primary trial; unblinded; self-report
Resilience as primary	0	Not estimable	Very low	Empty map
Digital / WhatsApp / AI-coach	0 worker RCTs	Not estimable	Very low	Empty map
Non-English delivery	1 (Hindi)	Single-trial $g = 0.54$	Very low	One cadre, one state, one language

Table 6. GRADE certainty of evidence.

Gap map: technique family × trials × pooled effect

Technique family	Indian RCTs	Pooled g	The hole
Yoga, breath, yogic relaxation	5–6	Stress/burnout $\approx 0.8-1.0$	Few pre-registered white-collar trials; almost no follow-up past 12 weeks; language unstated
Positive psychology / character strengths	1	$g = 0.54$ (single); burnout NS	No gratitude, savouring, or three-good-things RCT in working adults
Mindfulness-only (not wrapped in yoga)	0 worker RCTs	—	India gap
Digital / app / WhatsApp-first / AI coach	0 eligible worker RCTs	—	India gap. One mHealth-aided yoga trial is not an AI coach
Nature-based (forest bathing)	1 campus, not pooled	—	Not a worker evidence base

Technique family	Indian RCTs	Pooled g	The hole
Multilingual delivery	1 (Hindi)	—	22 of 23 scheduled Indian languages untested
Community general public	0	—	ASHAs are a specific cadre, not “the public”
Resilience as primary outcome	0	—	Sharpest construct gap

Table 7. The India evidence gap, by technique family.

07

Discussion

PULL QUOTE

Zero completed Indian RCTs tested a WhatsApp-first or AI-coach programme in working adults.

What the number means

Hedges $g = 0.89$ is a large average effect in Cohen’s old furniture. In human terms: people who did the programme finished the study reporting less stress or more wellbeing than people who waited or carried on as usual, by a gap you would notice in a room. It is not magic and it is not a rounding error.

Hold the two truths. Truth one: when Indian adults in workplaces, hospitals and frontline cadres are randomised to a yoga, breath or character-strengths programme, the average trial leans hard toward benefit. Truth two: the average trial is small, unblinded, short, and linguistically vague. Low I^2 does not wash those stains out.

A machine-learning comparison belongs here. A model with a shiny validation score and a training set of four batches is not ready for production. You can still ship a beta. You should not print the score on the box as a guarantee. The pooled $g = 0.89$ is an average from four small trials, not a fact about your office in Pune. If wellbeing matters to the organisation, the next step is a better trial, not a bigger brochure.

The technique-family skew is the other number that matters. Five of seven trials are yoga or breath. That is not because other techniques failed. It is because other techniques were barely tested. India has a comparative advantage in yoga research infrastructure. Advantage became monopoly. Monopoly became a hole. Character-strengths coaching has one rural trial and a modest wellbeing lift, with no between-arm burnout effect (Bondre and colleagues, 2025). Mindfulness-only programmes, which dominate Western workplace meta-analyses, do not have an eligible Indian worker RCT in this set.

Digital delivery — the channel Indian professionals already live inside — has feasibility studies and one mHealth-aided yoga trial, not a WhatsApp-first coaching RCT (Bhardwaj and colleagues, 2023).

Compare that with the prior maps. Pandya and colleagues described a marketplace of programmes without impact evaluations. Sohal and Sharma described a literature of workplace mental health that still does not yield an India-only intervention effect size. The 2025 desk-yoga meta-analysis, global in scope and Indian in centre of gravity, found a large stress effect against passive controls. Our India-only pool points the same way. Replication of direction is not the same as filling the gap. The gap is language, channel, follow-up, technique diversity, and resilience.

Cramer’s older observation — that Indian yoga trials reach positive conclusions at striking rates — is a pebble in the shoe. We cannot defuse it with Egger at $k = 4$. We can stop pretending the pebble is a feature.

Limitations

We did not sit in a medical-library subscription stack with two independent screeners on every database from dawn to dusk. We used PubMed, Scholar, registries, and the included lists of three prior reviews. Some full texts stayed behind paywalls. Pravalika and Rao/Metri are real RCTs whose exact means we would not invent. That choice shrinks the pool and protects the number.

The composite outcome (stress or wellbeing) is a pragmatic compromise. It is also a construct stretch. Leave-one-out shows the headline survives, but a purist would run two forests and then admit that the wellbeing forest has one tree.

RoB 2 is unkind because the designs earned the unkindness. Open-label behavioural programmes with self-report endpoints will always look messy. Wait-list controls inflate effects when the programme comes with attention, a hall, and a teacher. Active-control evidence is thinner: Dwivedi used exercise plus lectures and still saw a lift in positive affect and a drop in aggression, which is the more interesting comparison and is why that trial belongs in every narrative even when it is not in the headline forest.

Generalisation is the quiet limitation. Manufacturing managers in an English retreat, nurses in Delhi, blue-collar staff at a private campus, ASHAs in Raisen district — these are not “the Indian professional.” They are four rooms in a very large house. The house has twenty-three official languages and a WhatsApp group in each.

WHAT THIS MEANS

What this means for an Indian workplace programme

If you run people, picture the renewal meeting: a vendor deck, smiling staff, a big effect size. Do not sign it off like the office fruit order. Ask four questions. Was it randomised in India? In which language? On which channel? For how many weeks after the last session?

On present evidence you can defend a supervised yoga or breath programme for short-term stress in that meeting. If the CFO asks whether it builds resilience, the honest answer is: no adequately powered Indian trial has tested it. Nor has one tested an AI coach, or delivery in Tamil or Bengali.

A good programme here looks like an MVP with a trial protocol attached. A supervisor in Coimbatore logs her daily rep in Tamil before the shift huddle. If she needs more than the app, the coach hands her to a human. Everyone is measured at week 8 and week 24, against a wait-list or another practice. The language is the tea stall's, not only the board pack's. That is not a clinic. That is operations.

Research gaps, naming the India gap explicitly

The India evidence gap is not “no research.” It is a mismatch. The country has yoga trials. The country does not have a diversified, pre-registered, multilingual, digital-first evidence base for non-clinical emotional wellbeing in working adults. Name the holes without romance.

1. Technique concentration. Yoga ate the map. Positive-psychology techniques that daily-rep products treat as practice — gratitude, savouring, emotion naming, values writing — lack worker RCTs.
2. Resilience. Almost no trial made resilience the primary outcome. Burnout is not resilience. Recovery of capacity after load is the construct workplaces think they are buying.
3. Language. One Hindi trial. Twenty-two scheduled languages untested. Delivery language was often not even reported.
4. Channel. Indian professionals live on messaging apps. The trials live in halls. One mHealth-aided yoga study and one telephone-coaching study do not close that gap.
5. Follow-up. Most endpoints sit at the last session or a few weeks later. Maintenance is the entrepreneurial equivalent of cohort retention. It is unmeasured.
6. Control quality. Wait-lists still dominate. Attention-matched and practice-matched controls are rare.
7. Pre-registration and open data. CTRI numbers exist for some newer trials. Older trials are narrative objects.

8. The forthcoming trial that would change the map. A fully powered character-strengths coaching RCT in ASHAs (n = 330 target, NCT06013488) is registered and not yet a results paper. Until it reports, Bondre remains a pilot.

A site engineer in Navi Mumbai will not pour a slab before the soil report comes back. Programmes without trials pour the slab anyway. Trials without language, channel and follow-up test the soil on a different plot. The missing report is a pre-registered Indian RCT of countable daily practices, delivered where staff already talk, in the words they already use, with an outcome measured after the novelty has died.

08

FAQ

Q1 How many Indian RCTs of non-clinical wellbeing programmes are there?

Seven eligible randomised trials from 2000 to 2026. Four had extractable numbers and entered the pool. Two more are real trials whose full means we would not invent. Same-cohort papers were counted once.

Q2 Do these programmes work?

On average, yes. The pooled Hedges g is 0.89 (95% CI 0.62 to 1.16) on stress or wellbeing. Certainty is low. Every trial was open-label. Most compared the programme with waiting, not with another practice.

Q3 Is it only yoga?

Almost. Five of the seven trials were yoga or breath programmes. One tested character-strengths coaching ($g = 0.54$). Zero eligible worker trials tested mindfulness-only or a standalone gratitude programme.

Q4 Can I roll this out on WhatsApp in Hindi?

Not from this evidence. One trial used Hindi and telephone coaching. Zero completed RCTs tested WhatsApp-first or AI-coach delivery in working Indian adults. An mHealth-aided yoga trial is not the same product.

Q5

What should an Indian workplace measure?

Measure stress and wellbeing; those have a signal. Do not claim resilience. Run a 12-week randomised test in the language staff speak, on the channel they open, and add a 24-week follow-up. That is the missing trial.

09

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Closing line

Overfitting is the oldest mistake of both deep nets and wellness decks: a beautiful fit on the data you have, a silent failure on the data you will meet on Monday morning. The India evidence gap is not a lack of wisdom. It is a lack of randomised humility. Seven trials. $g = 0.89$. Low certainty. The next investment is a trial in the language people already speak.

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HOW TO CITE

Aswani A. The India Evidence Gap: A Systematic Review and Meta-Analysis of Indian RCTs on Non-Clinical Emotional Wellbeing. EmotionApp Research Paper 41. Mumbai: Tranquilo Meditek Sytems Private Limited; 2026. <https://emotionapp.in/research/india-evidence-gap-wellbeing-rcts>

LAST UPDATED

22 September 2026

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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