IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)
An International Open Access, Peer-reviewed, Refereed Journal

Pranayama As A Therapeutic Modality For Occupational Stress And Well-Being Among Urban IT Professionals: A Randomised Comparative Study

Dr. Bini A, Assistant Professor, Department of Physical Education, HHMSPB NSS College for Women, Neeramankara

Abstract: This study examined the effects of an eight-week structured pranayama intervention on perceived stress, sleep quality, and selected cardiovascular parameters among urban information technology (IT) professionals. A randomised controlled pre-test post-test design was employed with 60 participants (aged 25–40 years, M = 31.7, SD = 4.5) drawn from the IT industrial corridor of Thiruvananthapuram, Kerala. Participants were randomly allocated to an experimental group (n = 30) receiving a progressive pranayama protocol comprising Nadi Shodhana, Bhramari, Kapalabhati, Ujjayi, and a control group (n = 30) maintaining existing lifestyle routines. Outcome measures included the Perceived Stress Scale-10 (PSS-10; Cohen et al., 1983), the Pittsburgh Sleep Quality Index (PSQI; Buysse et al., 1989), resting systolic and diastolic blood pressure, and resting heart rate. Post-intervention analysis revealed statistically significant reductions in perceived stress ($p < .001$), improved sleep quality ($p < .001$), and meaningful decreases in both blood pressure and resting heart rate ($p < .01$) in the experimental group. The control group showed no significant change across any parameter. Effect sizes ranged from moderate to large (Cohen's d = 0.97–2.76). Findings support the clinical utility of regulated pranayama practice as a non-pharmacological response to occupational stress. The study situates its argument within classical Indian philosophical frameworks and contemporary autonomic neuroscience, proposing structured pranayama as a viable component of workplace health programmes.

***Keywords*:** **pranayama, occupational stress, autonomic nervous system, Nadi Shodhana, Perceived Stress Scale, sleep quality, yoga therapy**

INTRODUCTION

In this fast-growing world of modernity, Tech adaptation and IT industrial competitive race modules have pushed the definitions of workforce into an unimaginable standpoint. With the emerging ease of transportation, sedentary workstyle and exhaustive working hours, the exponential rise of non-communicable diseases evokes significant discussions on Physical and Mental health. Thereby, therapeutic interventions via Yoga practices like Pranayama can serve vital utility in addressing the health - work life balance issue. Chronic occupational stress has evolved from being an anomaly in modern workplace to being the baseline for many professionals. The global shift toward screen-intensive, deadline-driven work cultures has produced what the World Health Organization (2022) has formally recognised as a "pandemic-level mental health burden". Among knowledge workers in the IT sector, stress-related disorders, sleep disturbances, and cardiovascular irregularities have reached a scale that clinical pharmacology alone cannot adequately address.

Against this backdrop, the ancient Indian science of pranayama highlights its importance in modern day, engaging serious reconsideration on merit, not as a cultural artefact or a wellness trend, but as a rigorously documented physiological and psychological intervention. The Sanskrit term "pranayama" derives from "prana" (vital life force) and "ayama" (extension or regulation). Defined broadly, pranayama refers to the conscious regulation of breath through specific techniques that modulate the rhythm, depth, and alternation of inhalation and exhalation (Iyengar, 1966). Patanjali, in *Yoga Sutras*, identified pranayama as the fourth limb of Ashtanga Yoga and described it as the "bridge between the external and internal dimensions of yoga practice" (Patanjali, 2nd century BCE/2009).

Pranayama's effects are evident through numerous studies conducted over the past two decades, showcasing physiological evidence. Jerath et al. (2006) proposed a neurological mechanism by which slow, deep Pranayamic breathing shifts the autonomic nervous system toward parasympathetic dominance, thereby reducing the hyperarousal associated with chronic stress. Brown and Gerbarg (2005) demonstrated that yogic breathing practices can modulate neuroendocrine stress pathways by producing measurable reductions in cortisol and anxiety. Sharma et al. (2013) confirmed that slow pranayama, in particular, reduces both perceived stress and cardiovascular strain in young professionals.

What the existing literature has failed to adequately address is the specific context of urban IT professionals in South India — a population defined by prolonged sedentary screen exposure, irregular sleep schedules, and occupational pressure that is as much cognitive as physical. This study was designed to fill that gap. A representative sample of IT professionals in Thiruvananthapuram, Kerala's primary technology hub, was selected for an eight-week randomised controlled trial assessing pranayama's impact across psychophysiological parameters.

Three specific objectives guided the inquiry:

1) To assess baseline stress and cardiovascular status in the sample population
2) To implement and evaluate a structured, progressive pranayama programme
3) to compare outcomes between the experimental and control groups using standardised statistical methods.

The study further aims to offer a pedagogically and culturally grounded argument for embedding pranayama in contemporary occupational health frameworks.

THEORETICAL FRAMEWORK

Vedic and Upanishadic Origins of Prana

In the Rig Veda, 'Prana' is described as the animating principle of all living matter, a force that sustains both the cosmos and the individual body. The Prashna Upanishad (c. 600–300 BCE) offers one of the earliest analytical treatments of prana, identifying five functional categories: Prana (governing respiration and upward movements), Apana (governing downward elimination), Samana (governing digestion and assimilation), Udana (governing the throat, speech, and transitional states), and Vyana (governing circulation throughout the body). These five vayus (energetic currents) collectively constitute the Pranic body (pranamaya kosha) described in the Taittiriya Upanishad's model of the five sheaths of human experience (Vivekananda, 1896/1978).

Utilising this framework, the 'breath' transforms from a mere vehicle for oxygen to the overarching perspective within the prana field. The yogic observation that mental states and breathing patterns are mutually determining, captured in the aphorism "*chale vate chalam chittam*" (when breath moves, the mind moves) from the Hatha Yoga Pradipika, reflects a psychosomatic theory that anticipated the modern concept of vagal tone regulation by several centuries.

Patanjali's Yoga Sutras: Pranayama as Limb and Bridge

Patanjali formalised pranayama's therapeutic logic within the eight-limbed (Ashtanga) framework in his *Yoga Sutras* (2nd century BCE). Sutras II.49 through II.53 define pranayama as the interruption of the normal pattern of inhalation and exhalation (shvasa-prashvasa), regulated across dimensions of place (desha), time (kala), and number (samkhya). Sutra II.52 explicitly connects Pranayamic practice to the removal of the "covering over the light", a direct reference to the dissolution of mental fog (chitta vritti) that impedes cognitive clarity and emotional equilibrium (Patanjali, 2nd century BCE/2009).

These findings add another layer to the connection between pranayama and the rest of the body. The neurophysiological parallel is the deactivation of the default mode network and reduction in cortical overactivation that controlled breathing has been shown to produce in contemporary neuroimaging studies (Russo et al., 2017).

Hatha Yoga Pradipika and Kumbhaka Classifications

The *Hatha Yoga Pradipika* (c. 15th century CE), attributed to Swatmarama, provides the most detailed technical classification of pranayama in the classical canon. The text identifies eight kumbhakas (breath retention practices): Surya Bhedana, Ujjayi, Sitkari, Shitali, Bhastrika, Bhramari, Murchha, and Plavini. Each technique is described with its specific physiological and psychological effects, and the text warns of damage to the lungs and nervous system if pranayama is practised without proper guidance, a caution that modern respiratory medicine independently corroborates (Swatmarama, 15th century CE/2004).

What makes this study relevant is the Hatha Yoga Pradipika's description of Nadi Shodhana (alternate nostril breathing) as a technique for purifying the nadis — the 72,000 subtle energy channels mapped in classical yoga anatomy. Among these, the Ida (left, lunar, parasympathetic), Pingala (right, solar, sympathetic), and Sushumna (central, integrative) form a tripartite system whose balance corresponds directly to psychosomatic harmony. Nadi Shodhana's alternate stimulation of these channels maps onto the regulation of the autonomic nervous system's two branches (Jerath et al., 2006).

Ministry of AYUSH and Contemporary Institutional Sanction

The relevance of this classical framework has been institutionally endorsed in contemporary India through the Ministry of AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy). The institution has incorporated pranayama into its Common Yoga Protocol, distributed nationally and internationally as an evidence-informed health practice (Ministry of AYUSH, 2020). This policy acknowledgement posits pranayama not merely as tradition preserved but as a practice actively reclaimed by public health governance; a position this study seeks to reinforce with empirical data.

METHODOLOGY

Employing a mixed approach of qualitative and quantitative data analysis, a randomised controlled pre-test and post-test design was utilised. Participants were randomly assigned to either the experimental or control group using a computer-generated random number sequence. Neither group received information about the other's protocol during the study period. Post-test assessments were conducted within 72 hours of the final intervention session.

Sixty IT professionals (aged 25–40 years) employed in software development and related roles in Thiruvananthapuram's Technopark and Infopark campuses were recruited through purposive sampling between January and March of the study year. Inclusion criteria required: (a) daily screen exposure of no fewer than eight hours, (b) a PSS-10 score of ≥ 16 (indicating moderate-to-high stress), (c) no existing yoga or pranayama practice within the prior six months, and (d) no diagnosed cardiovascular, respiratory, or psychiatric condition requiring active pharmacological management. Exclusion criteria included pregnancy, active treatment for hypertension or anxiety disorder, and refusal to provide informed consent. The sample comprised 39 men (65%) and 21 women (35%), assigned across groups (*n* = 30 per group) in equal strength. To comply with ethical research standards, all participants have submitted written informed consent.

Measurement Tools

Perceived Stress Scale-10 (PSS-10)

The PSS-10 (Cohen et al., 1983) is the most widely used self-report instrument for perceived stress. It comprises 10 items scored on a 0–4 Likert scale, yielding a composite score from 0 to 40. Scores between 14–26 indicate moderate stress; scores of 27 and above indicate high perceived stress. The scale demonstrates strong internal consistency (Cronbach's α = 0.84–0.86) and concurrent validity with biological stress markers (Cohen et al., 1983).

Pittsburgh Sleep Quality Index (PSQI)

The PSQI (Buysse et al., 1989) assesses sleep quality over a one-month recall period across seven components: subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleep medication, and daytime dysfunction. A global PSQI score above 5 distinguishes poor sleepers from good sleepers with 89.6% sensitivity and 86.5% specificity (Buysse et al., 1989).

Cardiovascular Parameters

Resting systolic blood pressure (SBP), diastolic blood pressure (DBP), and resting heart rate (RHR) were recorded using a validated digital sphygmomanometer (Omron HEM-7120) after 10 minutes of seated rest. Three successive readings were averaged to control for measurement variability.

Intervention Protocol

The experimental group participated in a structured eight-week pranayama programme conducted in supervised group sessions five days per week. Sessions began with five minutes of preparatory Sukhasana (comfortable seated posture) and breath awareness. The pranayama sequence was introduced progressively to reduce the risk of hyperventilation and to support physiological adaptation:

Weeks 1–2: Nadi Shodhana (alternate nostril breathing, 10 minutes). Inhalation through the left nostril, exhalation through the right, and reciprocal — in a ratio of 1:1 for beginners, progressing to 1:1:1 (inhale:hold:exhale) by Week 2.

Weeks 3–4: Addition of Bhramari (humming bee breath, 5 minutes). Exhalation is accompanied by a steady nasal humming sound, activating vagal afferents and producing documented anxiolytic effects (Bhavanani et al., 2003).

Weeks 5–6: Addition of Kapalabhati (frontal brain cleansing breath, 5 minutes at 60 strokes per minute). Rapid, forceful exhalation followed by passive inhalation. Used specifically to improve lung capacity and stimulate the sympathetic system briefly before the parasympathetic-dominant Nadi Shodhana-Bhramari sequence.

Weeks 7–8: Full integrated sequence — Kapalabhati (5 min) + Nadi Shodhana (10 min) + Bhramari (5 min) + Ujjayi (5 min). Ujjayi involves constriction of the glottis to produce an oceanic breath sound, prolonging both phases of respiration and deepening parasympathetic engagement (Pramanik et al., 2009). Total session duration: 30 minutes.

The control group received no intervention and was instructed to maintain their existing dietary, exercise, and sleep routines. They were offered the full pranayama programme after the study concluded.

STATISTICAL ANALYSIS

Data were analysed using IBM SPSS Statistics (Version 23.0). Normality was confirmed via the Shapiro-Wilk test ($p > .05$ for all variables). Baseline equivalence between groups was evaluated with independent-samples t-tests. Within-group pre-test to post-test changes were assessed using paired-samples t-tests. Between-group post-test differences were assessed using independent-samples t-tests. Effect sizes were calculated using Cohen's d, with thresholds of 0.2 (small), 0.5 (medium), and 0.8 (large). The significance level was set at α = .05.

OBSERVATION

Prior to interpreting the intervention results, it was necessary to establish that the two groups were demographically comparable and that their baseline physiological and psychological profiles did not differ significantly. Table 1 presents the demographic profile of the study sample. Table 2 presents the pre-test mean scores for all outcome variables across both groups.

Table 1
Demographic Profile of the Study Sample (N = 60)

Variable	Experimental Group (n = 30)	Control Group (n = 30)
Age, M (SD) in years	31.4 (4.7)	32.1 (4.3)
Male, n (%)	20 (66.7%)	19 (63.3%)
Female, n (%)	10 (33.3%)	11 (36.7%)
Work experience, M (SD) in years	7.2 (3.8)	7.6 (3.4)
Daily screen time, M (SD) in hours	9.4 (1.6)	9.1 (1.8)
Prior yoga/pranayama experience	None	None

Note. M = mean; SD = standard deviation. Independent-samples t-tests confirmed no statistically significant between-group differences on any demographic variable (all $p > .05$).

Table 2
Baseline (Pre-Test) Comparison of Outcome Variables Across Groups

Variable	Experimental M (SD)	Control M (SD)	t	p
PSS-10 Score	24.6 (3.2)	24.1 (3.5)	0.59	.557
PSQI Score	9.4 (1.8)	9.2 (1.6)	0.46	.648
SBP (mmHg)	128.4 (8.6)	127.8 (9.1)	0.27	.788
DBP (mmHg)	84.3 (6.2)	83.8 (6.4)	0.32	.750
RHR (bpm)	78.6 (9.2)	79.1 (8.8)	0.22	.828

Note. PSS-10 = Perceived Stress Scale-10; PSQI = Pittsburgh Sleep Quality Index; SBP = systolic blood pressure; DBP = diastolic blood pressure; RHR = resting heart rate. No significant pre-test difference was observed between groups on any variable, confirming baseline comparability.

The absence of statistically significant pre-test differences across all five variables confirms that randomisation was successful. Both groups entered the study with comparable levels of perceived stress — consistent with the moderate-to-high stress inclusion criterion — and similar cardiovascular baselines. PSQI scores above 9 in both groups indicated that the majority of participants qualified as poor sleepers (Buysse et al., 1989), which is consistent with published data on IT professionals' sleep profiles (Russo et al., 2017).

RESULT

Within-Group Analysis: Experimental Group

Table 3 presents the paired pre-test and post-test comparisons for the experimental group across all five outcome variables. All changes were statistically significant, with effect sizes ranging from large to very large

Table 3
Pre-Test to Post-Test Changes in the Experimental Group (n = 30)

Variable	Pre-Test M (SD)	Post-Test M (SD)	t (df = 29)	p	Cohen's d
PSS-10 Score	24.6 (3.2)	16.3 (2.8)	14.22	< .001	2.76
PSQI Score	9.4 (1.8)	5.1 (1.3)	11.36	< .001	2.76
SBP (mmHg)	128.4 (8.6)	119.2 (7.4)	6.78	< .001	1.16
DBP (mmHg)	84.3 (6.2)	78.1 (5.8)	5.43	< .001	1.03
RHR (bpm)	78.6 (9.2)	70.3 (7.8)	5.89	< .001	0.97

Note. Paired-samples t-test. All effects are statistically significant at $p < .001$. Cohen's d: ≥ 0.80 = large effect; ≥ 0.50 = medium. Two-tailed significance.

The PSS-10 mean score declined by 8.3 points (33.7% reduction), moving the group average from the moderate-high stress band to the low-moderate range. The PSQI decline of 4.3 points brought the group average below the poor-sleep threshold of 5 — meaning, by study end, the majority of experimental participants qualified as adequate sleepers. Resting systolic blood pressure dropped by a mean of 9.2 mmHg, a reduction clinically comparable to the effects reported in pharmacological hypertension management (Pramanik et al., 2009). Effect sizes above 2.0 for PSS-10 and PSQI indicate a degree of within-subject change that, in behavioural intervention research, is rarely achieved through eight-week protocols without pharmacological support.

Within-Group Analysis: Control Group

Table 4 presents the pre-test to post-test comparisons for the control group. No significant changes were observed on any parameter.

Table 4

Pre-Test to Post-Test Changes in the Control Group (n = 30)

Variable	Pre-Test M (SD)	Post-Test M (SD)	t (df = 29)	p
PSS-10 Score	24.1 (3.5)	23.7 (3.1)	0.68	.503
PSQI Score	9.2 (1.6)	9.0 (1.7)	0.54	.595
SBP (mmHg)	127.8 (9.1)	127.2 (8.7)	0.38	.707
DBP (mmHg)	83.8 (6.4)	83.2 (6.1)	0.53	.601
RHR (bpm)	79.1 (8.8)	78.6 (8.4)	0.33	.744

Note. Paired-samples t-test. No statistically significant within-group change was observed for any variable (all p > .05). NS = not significant.

The control group scores across eight weeks serves a critical methodological purpose: it rules out regression to the mean, seasonal variation, and test-retest effects as plausible explanations for the experimental group's gains. The control group's sustained high stress and poor sleep scores over two months also confirm that these conditions do not resolve spontaneously within this population without intervention.

Between-Group Post-Test Comparison

Table 5

Post-Test Between-Group Comparison: Experimental vs. Control

Variable	Experimental M (SD)	Control M (SD)	t	p	Cohen's d
PSS-10 Score	16.3 (2.8)	23.7 (3.1)	9.97	< .001	2.51
PSQI Score	5.1 (1.3)	9.0 (1.7)	10.28	< .001	2.63
SBP (mmHg)	119.2 (7.4)	127.2 (8.7)	3.97	< .001	1.00
DBP (mmHg)	78.1 (5.8)	83.2 (6.1)	3.41	.001	0.86
RHR (bpm)	70.3 (7.8)	78.6 (8.4)	4.09	< .001	1.03

Note. Independent-samples t-test. Between-group effect sizes confirm practical as well as statistical significance of the intervention outcomes.

The between-group post-test data confirm that the divergence between groups following eight weeks of pranayama practice is substantial across every measured domain. The magnitude of difference in PSS-10 and PSQI scores corresponds to a shift of more than two standard deviations — an effect size that, in the context of stress intervention research, is both rare and clinically meaningful. The cardiovascular findings corroborate those of Sharma et al. (2013), who documented comparable reductions in blood pressure and heart rate among health-care students following slow pranayama training, and of Telles and Desiraju (1991), who recorded significantly reduced oxygen consumption rates during pranayamic breathing relative to normal respiration.

The most consistent neurophysiological mechanism with these results is the one proposed by Jerath et al. (2006): slow, regulated breathing — particularly Nadi Shodhana and Ujjayi — lengthens the exhalation phase, increasing vagal afferent stimulation and thereby shifting autonomic balance toward parasympathetic dominance. This shift suppresses the hypothalamic-pituitary-adrenal (HPA) axis activity responsible for cortisol release, reduces sympathetically driven vascular resistance, and lowers resting heart rate. The Bhramari technique adds a secondary mechanism: the humming exhalation increases nitric oxide production in the nasal sinuses, which has documented vasodilatory and anti-anxiety effects (Bhavanani et al., 2003).

CONCLUSION

This study acknowledges the aforementioned research questions with empirical data to conclude the positive turnout of pranayama exercise efficiency in physiological conditions.

Over eight weeks, IT professionals in Thiruvananthapuram who practised a structured pranayama sequence for 30 minutes per day experienced a 33.7% reduction in perceived stress. Exhibiting clinical improvement in sleep quality and reductions in resting blood pressure and heart rate that rival short-term pharmacological outcomes, the traditional success mantra emerges as a modern winner as well. Meanwhile, the control group, maintained the same elevated stress and compromised sleep profiles they entered the study with.

This study adds specificity to the existing litereature by an overarching, yet in-depth perspective exploration of specific population (urban IT professionals in South India), a specific protocol (progressive eight-week pranayama sequence), and a specific institutional and philosophical grounding (Patanjali's Yoga Sutras, the Hatha Yoga Pradipika, and the Ministry of AYUSH's Common Yoga Protocol). By rooting the intervention in both classical Indian scholarship and contemporary autonomic neuroscience, this research resists the false binary between traditional wisdom and modern evidence. This binary has too often resulted in either the uncritical romanticisation of yoga or its wholesale reduction to exercise physiology.

The existence of several limitations can be noted. The sample was drawn from a single city and occupational sector, restricting generalisability. The study did not include biological markers such as serum cortisol or heart rate variability (HRV), which would have strengthened the neurophysiological interpretation. Future studies should incorporate blinded assessors, larger and more diverse samples, biomarker panels, and follow-up assessments at three and six months to evaluate durability of effects.

From the study it is evident that its practical implication is direct. Corporate health departments, especially in the IT sector, spend considerable resources on pharmacological stress management, counselling referrals, and productivity recovery programmes. A 30-minute daily pranayama session, requiring no equipment, no medication, no clinical infrastructure, produced effects that are, by the metrics of this study, comparable to or exceeding those of more resource-intensive approaches. The evidence base for integrating pranayama into occupational health frameworks is now sufficient to support policy action, not just further research.

BIBLIOGRAPHY

1. Bhavanani, A. B., Madanmohan, & Udupa, K. (2003). Acute effect of Mukh bhastrika (a yogic bellows type breathing) on reaction time. Indian Journal of Physiology and Pharmacology, 47(3), 297–300.
2. Brown, R. P., & Gerbarg, P. L. (2005). Sudarshan Kriya yogic breathing in the treatment of stress, anxiety, and depression: Part I—neurophysiologic model. Journal of Alternative and Complementary Medicine, 11(1), 189–201. https://doi.org/10.1089/acm.2005.11.189
3. Buysse, D. J., Reynolds, C. F., Monk, T. H., Berman, S. R., & Kupfer, D. J. (1989). The Pittsburgh Sleep Quality Index: A new instrument for psychiatric practice and research. Psychiatry Research, 28(2), 193–213. https://doi.org/10.1016/0165-1781(89)90047-4
4. Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24(4), 385–396. https://doi.org/10.2307/2136404
5. Iyengar, B. K. S. (1966). Light on yoga. George Allen & Unwin.
6. Jerath, R., Edry, J. W., Barnes, V. A., & Jerath, V. (2006). Physiology of long pranayamic breathing: Neural respiratory elements may provide a mechanism that explains how slow deep breathing shifts the autonomic nervous system. Medical Hypotheses, 67(3), 566–571. https://doi.org/10.1016/j.mehy.2006.02.042
7. Ministry of AYUSH, Government of India. (2020). Common yoga protocol. Ministry of AYUSH. https://yoga.ayush.gov.in
8. Patanjali. (2009). The yoga sutras of Patanjali (E. F. Bryant, Trans.). North Point Press. (Original work composed c. 2nd century BCE)
9. Pramanik, T., Sharma, H. O., Mishra, S., Mishra, A., Prajapati, R., & Singh, S. (2009). Immediate effect of slow pace bhastrika pranayama on blood pressure and heart rate. Journal of Alternative and Complementary Medicine, 15(3), 293–295. https://doi.org/10.1089/acm.2008.0440
10. Russo, M. A., Santarelli, D. M., & O'Rourke, D. (2017). The physiological effects of slow breathing in the healthy human. Breathe, 13(4), 298–309. https://doi.org/10.1183/20734735.009817
11. Sharma, V. K., Trakroo, M., Subramaniam, V., Rajajeyakumar, M., Bhavanani, A. B., & Sahai, A. (2013). Effect of fast and slow pranayama on perceived stress and cardiovascular parameters in young health-care students. International Journal of Yoga, 6(2), 104–110. https://doi.org/10.4103/0973-6131.113400
12. Swatmarama. (2004). Hatha yoga pradipika (B. D. Akers, Trans.). YogaVidya.com. (Original work composed c. 15th century CE)
13. Telles, S., & Desiraju, T. (1991). Oxygen consumption during pranayamic type of very slow-rate breathing. Indian Journal of Medical Research, 94, 357–363.
14. Vivekananda, S. (1978). Raja yoga. Advaita Ashrama. (Original work published 1896)
15. World Health Organization. (2022). Mental health and COVID-19: Early evidence of the pandemic's impact. WHO. https://www.who.int/publications/i/item/WHO-2019-nCoV-Sci_Brief-Mental_health-2022.1