Commentary

Mindfulness in the Brazilian National Health System (SUS): Why Training Instructors Is Not Expensive but Strategic and Cost-Effective

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Background: It is often argued that training mindfulness instructors would be too expensive to be feasible within a public health system such as Brazil's Unified Health System (SUS). This essay challenges that perception by combining epidemiological estimates, cost analysis, and evidence from national and international experiences.

Methods: Using population-based planning benchmarks, we estimated the number of instructors required for nationwide implementation of mindfulness-based interventions (MBIs) in the SUS. We then calculated training costs and compared them to key health expenditures, including the federal health budget and psychiatric medication spending. Evidence from recent systematic reviews and Brazilian trials of the Mindfulness-Based Health Promotion (MBHP) program was also reviewed.

Results: Between 8,400 and 11,200 instructors would be required to cover the SUS population, at an estimated one-time training cost of R$126–168 million (<0.1% of the SUS annual budget). This investment is roughly equivalent to one-third of a single year's national expenditure on psychiatric medications, which represent continuous, recurrent costs. Evidence shows that MBIs, including MBCT and MBHP, are effective and cost-effective in reducing depression, anxiety, and psychological distress, with transversal benefits across clinical and community contexts.

Conclusion: Training mindfulness instructors is not expensive but rather a strategic and cost-effective investment. Unlike medications, training represents a one-time, structural intervention with long-lasting benefits, building human capacity that remains within the health system. For Brazil, where the PNPIC already provides policy support, implementing a progressive national training plan would be feasible, affordable, and aligned with international best practices.

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Introduction

It is often argued that training mindfulness instructors would be too expensive to be feasible within a public health system such as Brazil's Unified Health System (SUS). At first glance, the argument seems plausible: training programs require time, human resources, and institutional investments. However, when we look closely at the numbers, this argument proves to be a fallacy.

This paper is presented as a reflective essay, aiming to critically examine the commonly held perception that training mindfulness instructors would be financially unfeasible within the SUS. The main objectives are: (i) to demonstrate, through numerical estimates, that the investment required for a national network of instructors is relatively small; (ii) to compare this cost with other existing health expenditures, particularly on psychiatric medications; and (iii) to highlight the strategic and cost-effective nature of investing in mindfulness within the SUS framework.

Population Needs and Service Planning

Brazil's population is approximately 210 million people, of whom 80% depend exclusively on the Unified Health System (SUS). This corresponds to about 168 million Brazilians who could potentially benefit from mindfulness-based interventions (MBIs) as part of a public health strategy.

To estimate the workforce requirements for delivering MBIs at scale, international service planning models can be used. Patten & Meadows[1] and subsequent analyses[2] propose benchmarks based on population ratios. If we adopt a conservative ratio of one trained instructor for every 20,000 inhabitants, the SUS would need approximately 8,400 instructors to cover its population. In a broader scenario, aligned with international references suggesting one instructor per 15,000 inhabitants, the number rises to about 11,200 instructors.

These figures are not only feasible but also comparable to the scale of other national health programs. For example, Brazil's Family Health Strategy has deployed more than 40,000 multiprofessional teams across the country, and the *Mais Médicos* Program recruited over 15,000 physicians at its peak[3]. In this context, training a network of 8,400–11,200 mindfulness instructors is a modest and realistic target.

By grounding the discussion in epidemiological service planning, it becomes clear that the human resource requirements for a nationwide mindfulness strategy are well within the operational capacity of

the SUS.

How much would this cost the system?

The training of each instructor can be estimated at approximately R$ 15,000 (~USD 3,000)[2]. Thus, training the entire national network of instructors would require between R$ 126 million (for 8,400 instructors) and R$ 168 million (for 11,200 instructors). In practical terms, this corresponds to less than R$ 1 per SUS user.

When compared to the annual budget of the SUS—more than R$ 230 billion in 2025[4] —the investment is negligible: less than 0.1% of total health expenditures. To put this into perspective, the *Mais Médicos* (More Doctors) Program cost around R$ 3 billion per year[3], more than twenty times the total amount required to train all mindfulness instructors in Brazil. Similarly, other large-scale initiatives, such as the Family Health Strategy, routinely mobilize resources on a far greater scale, highlighting how modest this investment would be in comparative terms.

The contrast becomes even clearer when expenditures on psychiatric medications are considered. Antidepressants, anxiolytics, and antipsychotics consume hundreds of millions of reais annually in the SUS[5]. These represent recurring costs, renewed year after year, with the cumulative burden on the system continually increasing. By contrast, the training of mindfulness instructors constitutes a one-time, structural investment. Once trained, instructors remain in the system, creating a multiplying effect that benefits communities and reduces long-term reliance on costly pharmacological treatments.

However, unlike medications, which represent a continuous and recurrent cost, the investment in training would be diluted over several years as part of a progressive implementation plan. Spread over a decade, the annual cost would be only R$ 12–17 million—a symbolic fraction of the SUS budget. This comparison underscores the relative affordability and sustainability of investing in mindfulness training when viewed against ongoing pharmaceutical costs. Whereas medications must be purchased indefinitely, training builds a permanent human resource capacity with long-lasting ripple effects on prevention, well-being, and system efficiency.

Moreover, there is growing evidence that mindfulness-based interventions can reduce the use of psychiatric medications, especially antidepressants and anxiolytics. For example, MBCT has been shown to reduce relapse rates in recurrent depression, allowing many patients to remain stable without long-term pharmacological treatment[6][7]. Population-level analyses also suggest that MBCT is associated

with reduced healthcare utilization and medication consumption[8]. In the Brazilian context, studies on the Mindfulness-Based Health Promotion (MBHP) program have demonstrated improvements in depression and anxiety across diverse populations[9][10], which could translate into decreased reliance on medications within the SUS.

From this perspective, the cost-effectiveness of training mindfulness instructors may be even greater than estimated, as the initial investment not only represents a small fraction of the SUS budget but also has the potential to generate substantial downstream savings by reducing pharmacological expenditures and overall healthcare demand. Table 1 summarizes these comparisons, and Figure 1 depicts the relative proportions of training costs compared to the SUS budget and psychiatric medication expenditures.

Item	Estimated Cost (R$ millions)	Training as % of Expenditure
Training of 8,400–11,200 instructors (one-time)	126–168	~30% of one year of psychiatric meds
Training of 8,400–11,200 instructors (annualized, 10 years)	~12–17 per year	~3% of annual psychiatric meds
Psychiatric medications (annual)	~500	~30%
Annual SUS budget (2025)	>230,000	<0.1%

Table 1. Comparative estimated costs of training mindfulness instructors in the SUS, compared with psychiatric medication expenditures and the overall SUS annual budget (values in millions of R$).

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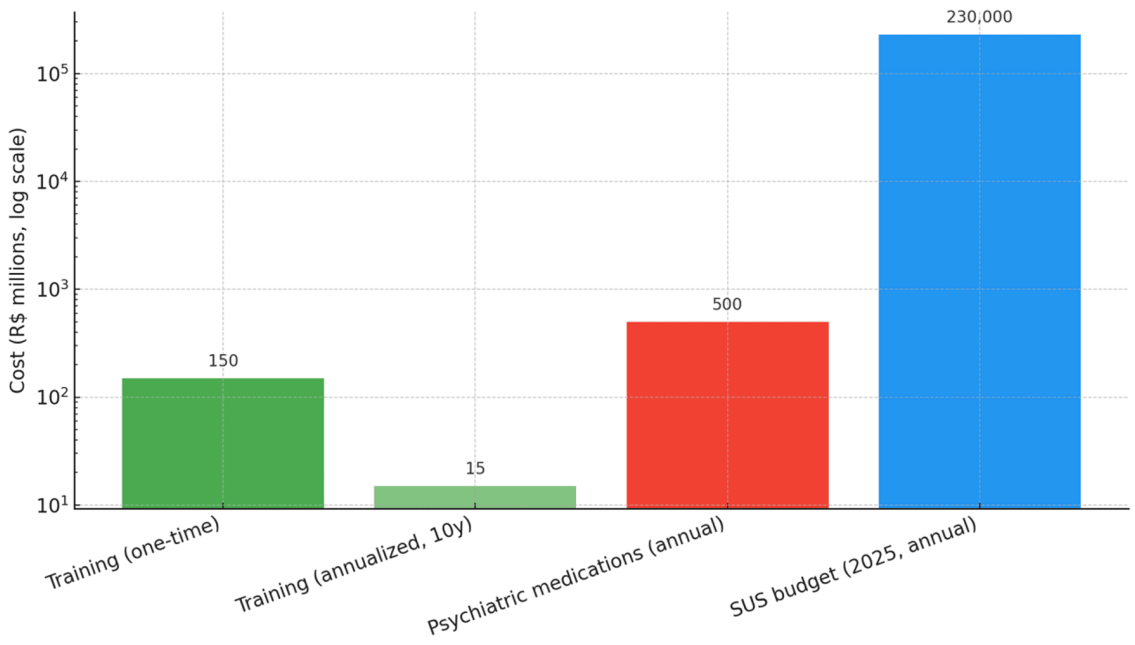

Figure 1. Relative costs of mindfulness instructor training compared with psychiatric medications and the SUS total annual budget (logarithmic scale, values in millions of R$).

Evidence-based Approach

Beyond financial aspects, robust evidence shows that mindfulness produces tangible benefits for mental health and well-being. Recent evidence reinforces the effectiveness and cost-effectiveness of MBIs. An individual participant data meta-analysis[11] demonstrated that mindfulness-based programs significantly reduce psychological distress (anxiety and depression) in adults (SMD = −0.32). A systematic review and meta-analysis[7] confirmed that MBCT significantly reduces the risk of depressive relapse compared with usual care. Furthermore, during the COVID-19 pandemic, a systematic review and meta-analysis[12] found robust effects of mindfulness on reducing depressive symptoms (SMD ~ −1.14). More recently, another systematic review[13] highlighted the neurocognitive and emotional regulation benefits of Mindfulness-based Cognitive Therapy (MBCT), reinforcing its impact on mental health and well-being.

In the Brazilian context, the MBHP program—culturally adapted and implemented in public and community settings—has also demonstrated positive outcomes. A multicenter randomized controlled trial with Brazilian police officers (*POLICE Study*) showed significant improvements in quality of life and

reductions in depression and anxiety, maintained at a six-month follow-up[9]. In primary care in Rio de Janeiro's vulnerable communities, MBHP groups improved depression, anxiety, and quality of life indicators in SUS patients[10]. In older adults, a randomized trial found MBHP beneficial for reducing stress and anxiety and improving sleep quality and intrinsic religiosity, while quality-of-life measures favored an active control[14]. Among Brazilian medical students, a pilot clinical trial showed reductions in depressive and anxiety symptoms and increases in mindfulness after MBHP participation[15]. Collectively, these results provide strong local evidence that MBHP can deliver real-world mental health gains within SUS-like contexts at a modest cost.

Unlike medications, which act symptomatically and in specific conditions, mindfulness practices provide transversal benefits that extend across clinical conditions and everyday contexts.

Implementation Plan

A progressive implementation plan makes this scenario even more realistic and feasible within the SUS. Similar to other large-scale health programs, such as the Family Health Strategy and the *Mais Médicos* Program, the expansion of mindfulness instructor training could follow a phased approach aligned with national priorities and institutional capacity[3].

In the first three years, approximately 1,000 instructors could be trained at centers of excellence, such as federal universities and research institutes, which already have the expertise and infrastructure to host training programs[2]. This initial phase would ensure quality, establish national standards, and create a critical mass of instructors capable of disseminating good practices, in line with the UK's experience of anchoring MBCT implementation in academic centers[16].

In the following three years, the network could expand to about 4,000 instructors, strategically distributed according to population density and regional health needs, as suggested by population-based planning models[1]. Innovative frameworks such as *stepped-care* could be adopted, where low-intensity interventions (e.g., brief mindfulness practices in primary care) are offered widely, while high-intensity interventions (e.g., MBCT for recurrent depression) are reserved for clinical indications. This would optimize resources and ensure both accessibility and cost-effectiveness.

By the end of ten years, the complete network of 8,400 to 11,200 instructors would be consolidated and institutionalized within the SUS, fully aligned with the National Policy on Integrative and Complementary Practices in Health (PNPIC), revised in 2015[17]. At this stage, mindfulness instructors

could be integrated into multidisciplinary teams, similar to other recognized professionals in the Family Health Support Centers, strengthening mental health promotion at the community level.

Spread over a decade, the annual investment would be just R$12–17 million—a symbolic fraction of the national health budget[4]. When compared to recurring expenditures such as psychotropic medications[5], this one-time, structural investment demonstrates a clear profile of cost-effectiveness and sustainability.

Policy Context

It is worth noting that Brazil already has an institutional framework that could support such an initiative: the National Policy on Integrative and Complementary Practices in Health (PNPIC), established in 2006 and revised in its second edition in 2015[17]. The PNPIC already recognizes practices such as meditation and other mind–body approaches, providing legal and programmatic support for the inclusion of mindfulness-based interventions within the SUS. Unlike other countries that had to build normative structures from scratch, Brazil already has a consolidated policy that could embrace and expand the progressive training of instructors, ensuring sustainability and legitimacy for this action.

All this leads to a clear conclusion: saying that it is expensive to train mindfulness instructors is a fallacy. The issue is not financial, but one of political will and organizational priority. The investment is comparatively small, the potential impact may be enormous, and the return goes beyond economics: it lies in humanizing care, preventing suffering, and promoting collective health and well-being.

The real challenge is not paying the bill—which is small—but recognizing that mindfulness deserves a central role in public health policy.

The example of the United Kingdom

The experience of the United Kingdom shows how mindfulness can be implemented within universal health systems. Since 2004, the National Institute for Health and Care Excellence (NICE) has recommended Mindfulness-Based Cognitive Therapy (MBCT) for the prevention of relapse in recurrent depression[18] (updated in 2009 and 2015). This decision was based on robust scientific evidence and paved the way for the inclusion of mindfulness within the National Health Service (NHS).

The UK invested in instructor training inside the system, establishing national standards, university-based training centers, and continuing education for healthcare professionals[16]. Even so, studies show

that access remains unequal, with barriers related to logistics, infrastructure, and the availability of trained professionals.

Despite these limitations, the UK model has become a global reference, not only because of the clinical evidence but also due to the way public policy was conducted: grounded in science, incorporated into official clinical guidelines, and supported by governmental investment.

Compared with Brazil, the context is even more favorable. The SUS has strong experience with large-scale training programs (e.g., Family Health Strategy, *Mais Médicos*) and extensive primary care coverage. This means that, with political decision-making, it would be entirely possible to adopt a progressive, evidence-based training plan for mindfulness instructors, similar to the UK but adapted to Brazil's reality.

Conclusion

The British example reinforces the central idea of this essay: cost is not the real barrier. The true challenge lies in political will, strategic planning, and the articulation between universities, managers, and health professionals to create an innovative, large-scale mental health promotion policy.

Importantly, when viewed through the lens of cost-effectiveness, training mindfulness instructors emerges as a uniquely strategic investment. While expenditures on psychiatric medications in the SUS amount to hundreds of millions of reais annually—a recurrent expense that must be renewed year after year—the cost of training the entire network of instructors would be a one-time, structural investment, roughly equivalent to just one-third of the annual expenditure on psychiatric drugs. Once trained, these professionals remain within the system, capable of multiplying benefits across communities and clinical populations alike.

In this sense, mindfulness programs such as MBCT and MBHP not only demonstrate clinical efficacy but also offer transversal benefits that medications cannot match: prevention of relapse, reduction of healthcare utilization, improvement in quality of life, and promotion of self-care and resilience. These gains translate into reduced long-term demand for costly pharmacological treatments and specialized services, amplifying the return on investment.

Therefore, saying that it is expensive to train mindfulness instructors is a fallacy. The investment is comparatively small, the potential impact enormous, and the evidence increasingly robust. If Brazil truly aims to build a more sustainable, human-centered, and cost-effective health system, integrating mindfulness into public policy is not only possible—it is a strategic imperative.

References

1. ^a, ^b *Patten SB, Meadows GM (2009). "Population-Based Service Planning for Implementation of MBCT: Linking Epidemiologic Data to Practice." Psychiatr Serv. **60**(11):1540–2.*
2. ^a, ^b, ^c *Demarzo MMP, Cebolla A, Garcia-Campayo J (2015). "The Implementation of Mindfulness in Healthcare Systems: A Theoretical Analysis." Gen Hosp Psychiatry. **37**(2):166–171.*
3. ^a, ^b, ^c *Ministry of Health (Brazil) (2014). "Mais Médicos Program: Balance and Perspectives." Ministério da Saúde [Ministry of Health].*
4. ^a, ^b *Ministry of Health (Brazil) (2024). "Federal Health Budget 2025 – Draft Annual Budget Law." Ministério da Saúde [Ministry of Health].*
5. ^a, ^b *Ministry of Health (Brazil) (2022). "Relação Nacional de Medicamentos Essenciais (RENAME) 2022" [National List of Essential Medicines (RENAME) 2022]. Ministério da Saúde [Ministry of Health].*
6. ^ *Kuyken W, Byford S, Taylor RS, et al. (2008). "Mindfulness-Based Cognitive Therapy to Prevent Relapse in Recurrent Depression." J Consult Clin Psychol. **76**(6):966–78.*
7. ^a, ^b *Strauss C, et al. (2023). "Supported Mindfulness-Based Cognitive Therapy for Depression Relapse Prevention: Systematic Review and Meta-Analysis." JAMA Psychiatry. **80**(4):349–359.*
8. ^ *Kurdyak P, Newman A, Segal Z (2014). "Impact of Mindfulness-Based Cognitive Therapy on Health Care Utilization: A Population-Based Controlled Comparison." J Psychosom Res. **77**(2):85–9.*
9. ^a, ^b *Trombka M, Demarzo M, Campos D, Antonio SB, Cicuto K, Walcher AL, García-Campayo J, Schuman-Olivier Z, Rocha NS (2021). "Mindfulness Training Improves Quality of Life and Reduces Depression and Anxiety Symptoms Among Police Officers: Results From the POLICE Study—A Multicenter Randomized Controlled Trial." Front Psychiatry. **12**:624876. doi:10.3389/fpsyt.2021.624876. PMID 33716824; PMCID PMC7952984.*
10. ^a, ^b *Teixeira DS, Fortes S, Kestenberg C, Alves K, Campos MR, Oliveira Neto A, Ortega F, García-Campayo J, Demarzo M (2024). "Improving Patient-Centered Mental Health Promotion in Primary Care in Vulnerable Communities Through Mindfulness Training in Rio de Janeiro, Brazil." Front Med (Lausanne). **11**:1356040. doi:10.3389/fmed.2024.1356040. PMID 39040898; PMCID PMC11261806.*
11. ^ *Galante J, Friedrich C, Dawson AF, et al. (2023). "Mindfulness-Based Programmes for Mental Health Promotion in Adults in Nonclinical Settings: A Systematic Review and Individual Participant Data Meta-Analysis." Nat Ment Health. **1**:743–754.*
12. ^ *Fu Y, Huang Y, Li Y, et al. (2024). "The Effect of Mindfulness Meditation on Depressive Symptoms During the COVID-19 Pandemic: A Systematic Review and Meta-Analysis." Sci Rep. **14**:71213.*

13. ^Gkintoni E, Dimitropoulou D, et al. (2025). "MBCT in Clinical Practice: A Systematic Review of Neurocognitive Outcomes and Applications for Mental Health and Well-Being." J Clin Med. **14**(5):1703.

14. ^Mapurunga MV, Rodrigues de Oliveira D, Andreoni S, Sarubbi Jr V, Bonilha AC, D'Almeida V, Tomita L, Ramos LR, Demarzo M (2025). "Effects of Mindfulness Training on Quality of Life and Well-Being in Older Adults: A Randomized Controlled Trial." Aging Ment Health. **29**(9):1711-1723. doi:10.1080/13607863.2025.2488890. PMID 40220313.

15. ^Neves VV, dos Santos DT, Demarzo M, Antico L, Meirelles CAB, Barboza ARA (2025). "Easing the Burden: A Pilot Study on the Impact of Mindfulness on the Mental Health of Brazilian Medical Students." BMC Med Educ. **25**(1):1136. doi:10.1186/s12909-025-07726-2. PMID 40750882; PMCID PMC12315393.

16. a, bCrane RS, Kuyken W (2012). "The Implementation of Mindfulness-Based Cognitive Therapy: Learning From the UK Health Service Experience." Mindfulness. **4**(3):246–54.

17. a, bMinistry of Health (Brazil) (2015). "Política Nacional de Práticas Integrativas e Complementares no SUS: PNPIC-SUS" [National Policy on Integrative and Complementary Practices in SUS: PNPIC-SUS]. 2nd ed. Ministério da Saúde [Ministry of Health].

18. ^NICE (2004). "Depression: Management of Depression in Primary and Secondary Care." Clinical Guideline 23. National Institute for Clinical Excellence.

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