

Paper Advocates

Building a World-Class Research University through Strategic Napping Policy: An Investment in Health and Academic Innovation

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ABSTRACT (ENGLISH)

Background: As research-intensive universities strive to achieve global excellence, promoting the health and well-being of academic communities has become a strategic imperative. Amid increasing academic pressures on students, faculty members, and professional staff, strategic napping represents a simple, low-cost, and evidence-informed intervention to enhance resilience and quality of life within higher education settings.

Objective: This paper advocates for the adoption of a strategic napping policy as an innovative health-promotion approach to support cognitive performance, academic productivity, and sustainable campus development. We argue that restorative rest should be recognized not as a peripheral activity but as an integral component of institutional well-being and innovation strategies.

Methods: This paper summarizes the latest empirical findings from the sleep science and public health literature to examine the potential benefits of napping in academic settings.

Results: Evidence from sleep science indicates that brief daytime naps lasting 10–30 minutes improve attention, memory consolidation, learning capacity, and work performance while reducing stress, mental fatigue, and burnout without adversely affecting nocturnal sleep. Beyond its cognitive benefits, healthy napping practices have been associated with favorable metabolic and cardiovascular outcomes, contributing to healthier and more sustainable academic environments.

Conclusion: The provision of designated nap spaces, sleep-health education, and supportive campus policies reflects a human-centered model of university governance. Integrating strategic napping into institutional policy may strengthen psychosocial well-being, foster creativity and research productivity, and ultimately contribute to the realization of a world-class research university.

Keywords: Sleep; Fatigue; Health Promotion; Universities; Cognition; Occupational Health.

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ABSTRAK (INDONESIA)

Latar Belakang: Seiring dengan upaya universitas riset untuk mencapai keunggulan global, peningkatan kesehatan dan kesejahteraan sivitas akademika semakin dipandang sebagai prioritas strategis. Di tengah meningkatnya tuntutan akademik yang dihadapi mahasiswa, dosen, dan tenaga kependidikan, tidur siang strategis menawarkan intervensi yang sederhana, hemat biaya, dan berbasis bukti untuk memperkuat ketahanan psikologis serta meningkatkan kualitas hidup di lingkungan perguruan tinggi.

Tujuan: Artikel ini mengusulkan penerapan kebijakan tidur siang strategis (*strategic napping policy*) sebagai pendekatan promosi kesehatan yang inovatif untuk mendukung kinerja kognitif, produktivitas akademik, dan pembangunan kampus yang berkelanjutan. Kami memiliki pendapat bahwa istirahat untuk memulihkan tenaga bukan sekadar aktivitas pelengkap, melainkan bagian penting dari strategi institusi untuk menjaga kesejahteraan dan menciptakan inovasi.

Metode: Artikel ini menguraikan temuan empiris dari berbagai studi terkait ilmu tidur dan kesehatan masyarakat untuk mengkaji manfaat potensial tidur siang di lingkungan akademik

Hasil: Berbagai temuan dalam ilmu tidur menunjukkan bahwa tidur siang singkat selama 10–30 menit dapat meningkatkan perhatian, memperkuat konsolidasi memori, mengoptimalkan kapasitas belajar, dan meningkatkan produktivitas kerja, sekaligus mengurangi stres, kelelahan mental, dan risiko *burnout* tanpa mengganggu kualitas tidur malam. Selain manfaat kognitif, praktik tidur siang yang sehat juga dikaitkan dengan perbaikan kesehatan metabolik dan kardiovaskular, sehingga berkontribusi pada terciptanya ekosistem akademik yang lebih sehat dan berkelanjutan.

Kesimpulan: Penyediaan ruang istirahat khusus, edukasi mengenai kesehatan tidur, serta kebijakan kampus yang mendukung praktik tidur siang mencerminkan model tata kelola universitas yang berpusat pada manusia. Integrasi kebijakan tidur siang strategis ke dalam sistem kelembagaan berpotensi memperkuat kesejahteraan psikososial, mendorong kreativitas dan produktivitas riset, serta mendukung terwujudnya universitas riset berkelas dunia yang unggul sekaligus berkelanjutan.

Kata kunci: Tidur; Kelelahan; Promosi Kesehatan; Universitas; Kognisi; Kesehatan Kerja.

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Introduction

The globalization of higher education has fundamentally transformed the role of universities from traditional knowledge-producing institutions into complex ecosystems that must simultaneously foster scientific excellence, innovation, sustainability, and human well-being (Muraleedharan et al., 2025).

Contemporary universities are increasingly expected to cultivate environments that support not only academic achievement but also the physical, psychological, and social health of their communities. Such expectations are particularly relevant for research-intensive institutions aspiring to attain world-class status, where productivity demands, international competitiveness, and pressures for scholarly

visibility continue to intensify. These conditions may adversely affect the work–life balance and overall well-being of students and academic staff (Jayman et al., 2022). Within this context, universities worldwide are facing an emerging public health challenge characterized by escalating academic workloads, publication pressures, and heightened expectations for innovation and global engagement (Jayman et al., 2022). Although these factors contribute to institutional competitiveness, they also increase the prevalence of sleep deprivation, psychological distress, burnout, and diminished cognitive performance among university communities. Consequently, there is growing recognition that sustainable academic excellence cannot be achieved without prioritizing the health and well-being of academic citizens. Human-centered institutional policies are therefore becoming essential components of university transformation agendas (By-nc-nd, 2022).

As one of Indonesia’s leading higher education institutions, Universitas Indonesia (UI) has articulated an ambitious vision to become a world-class research university. Achieving this aspiration requires more than improvements in research outputs and international rankings; it necessitates the development of evidence-based policies that strengthen the physical and mental resilience of students, faculty members, and professional staff. One promising yet underexplored strategy is the implementation of a strategic napping policy as part of a broader institutional commitment to health promotion

and academic innovation (By-nc-nd, 2022; Jayman et al., 2022)

Strategic napping, commonly defined as short daytime sleep episodes lasting between 10 and 30 minutes, has been consistently associated with substantial benefits for cognitive functioning and physical well-being (Shadab et al., 2025). Evidence indicates that brief naps improve alertness, attention, executive functioning, memory consolidation, and learning performance while minimizing sleep inertia and preserving nocturnal sleep quality. In particular, short naps substantially enhance declarative memory consolidation, especially among individuals experiencing insufficient. Within research-intensive universities characterized by demanding academic schedules, strategic napping may therefore represent a simple, low-cost, and highly scalable intervention to optimize individual and organizational performance (Ouyang et al., 2025).

The consequences of chronic sleep deprivation extend beyond temporary fatigue and reduced concentration. Ramos et al. (2023) demonstrated that persistent sleep restriction is closely associated with impaired executive functioning, increased anxiety, and depressive symptoms. Likewise, inadequate sleep contributes to long-term health risks, including hypertension, stroke, and metabolic disorders (Bommasamudram et al., 2025). These findings underscore the importance of institutional strategies that promote restorative practices and preventive health measures. Consequently, policies that support strategic napping should be viewed not merely as wellness initiatives but

as investments in human capital, organizational resilience, and sustainable academic productivity.

The theoretical foundation of this policy perspective is primarily informed by the Health-Promoting University (HPU) Framework, which conceptualizes universities as settings that actively integrate health considerations into governance, infrastructure, educational processes, organizational culture, and community engagement. Muraleedharan et al. (2025) emphasizes that universities possess both social and moral responsibilities to foster environments that enhance physical, mental, and social well-being. Under this framework, health promotion extends beyond individual behavior change and becomes embedded within institutional structures and policies (Mcgrath & Matthews, 2025).

Complementing this perspective, the Socioecological Model suggests that health-related behaviors are shaped through interactions across multiple levels, including individual, interpersonal, organizational, community, and policy environments (Johannes & Roman, 2025). From this standpoint, strategic napping cannot be understood solely as a personal habit; rather, its successful adoption depends upon supportive institutional cultures, dedicated infrastructure, educational initiatives, and formal organizational regulations. The establishment of nap-friendly environments thus represents an upstream intervention capable of influencing

well-being at population scale within university settings (Bommasamudram et al., 2025).

Furthermore, Human Capital Theory provides an additional conceptual lens for understanding the strategic value of restorative rest in higher education. Human capital, encompassing knowledge, creativity, cognitive capacity, and productivity, constitutes the primary asset of research universities (Sun et al., 2024). Sleep and recovery processes directly influence these capacities by enhancing learning efficiency, innovation potential, and decision-making abilities. Consequently, investments in sleep health including institutional napping policies should be regarded as investments in academic excellence and long-term organizational competitiveness (Nowlin et al., 2025).

International experiences further support this perspective. Universities in Japan, South Korea, and the United States have increasingly introduced nap pods, quiet rooms, and restorative spaces as components of comprehensive student and employee well-being programs (Olsson et al., 2024). Major corporations, including Google and NASA, have similarly adopted strategic napping initiatives as part of occupational health and innovation programs, recognizing their contributions to creativity, productivity, and cognitive performance (Liu et al., 2025). These developments reflect a broader paradigm shift toward more humane, sustainable, and evidence-based organizational cultures that acknowledge rest as a prerequisite for

excellence rather than an obstacle to productivity.

The implementation of strategic napping policies also aligns with existing labor regulations in Indonesia. Provisions contained in Law No. 13/2003 concerning Employment, Law No. 11/2020 concerning Job Creation, and Government Regulation No. 35/2021 recognize employees' rights to rest periods of at least 30 minutes after four consecutive working hours. Given the typical working schedules within Indonesian universities, these regulatory frameworks provide practical opportunities for incorporating structured restorative breaks into academic life. Nevertheless, formal institutional policies that explicitly support strategic napping remain largely absent within higher education settings (Jayman et al., 2022; Rahman et al., 2024).

This policy gap is particularly concerning considering the growing burden of sleep-related problems among university populations. National reports indicate that more than half of university students experience sleep disturbances that negatively affect learning outcomes and quality of life (Vidovi et al., 2025). Within Universitas Indonesia, the prevalence of poor sleep quality among students has been reported to range from 40.7% to 84% (Li et al., 2025). International evidence further demonstrates that chronic sleep deprivation contributes to mood disorders, persistent anxiety, and depression (Tim Riskesdas, 2018). Despite these findings, institutional cultures in many universities,

including those in Indonesia, continue to valorize excessive workloads and prolonged working hours, while rest is often perceived as indicative of reduced commitment. Neurocognitive research challenges this cultural assumption by demonstrating that naps lasting between 10 and 30 minutes significantly improve attention, short-term memory, emotional regulation, and physical recovery (Chang et al., 2022). Yet, formal policies that facilitate or normalize such practices remain uncommon. The absence of institutional mechanisms supporting restorative behaviors reveals a critical imbalance between expectations for high performance and commitments to sustainable human development within higher education systems.

Infrastructure limitations further compound this challenge. Leading global universities, including Stanford University, the University of California Berkeley, and Seoul National University, have incorporated nap pods, quiet rooms, and relaxation spaces into their campus well-being ecosystems (Xu et al., 2025). In contrast, such facilities remain underdeveloped in many Indonesian universities, including UI. The lack of dedicated restorative environments contributes to cumulative fatigue, psychological stress, and diminished academic effectiveness. Therefore, providing spaces for brief restorative rest should not be considered an auxiliary service but rather an essential component of healthy and adaptive learning environments (Shadab et al., 2025).

The principles articulated by the World Health Organization regarding health-promoting universities further emphasize that health considerations should permeate institutional governance, infrastructure, educational activities, and campus culture (Muraleedharan et al., 2025). However, these principles have not yet been systematically integrated into university regulations across Indonesia. Strategic napping policies could therefore serve as an initial yet meaningful step toward embedding health promotion into academic governance structures. Beyond reducing psychological distress, such policies may optimize time management, strengthen individual capacities, and enhance motivation and engagement among university communities (Dagani et al., 2026).

Although substantial evidence demonstrates the physiological and cognitive benefits of brief daytime naps, significant knowledge gaps remain. Existing research has predominantly focused on individual-level outcomes, workplace settings, or clinical populations, while relatively limited attention has been directed toward the institutionalization of strategic napping within research universities (Anand et al., 2024). Moreover, there is a lack of policy-oriented scholarship examining how restorative practices may contribute to academic innovation, organizational sustainability, and the realization of world-class university aspirations, particularly within low- and middle-income countries. The integration of sleep health into higher education governance therefore remains an underexplored

area requiring conceptual development and evidence-informed policy guidance (Nowlin et al., 2025).

Addressing this gap, the present policy paper proposes a comprehensive framework for integrating strategic napping into university governance as a health-promoting and innovation-enhancing intervention. Specifically, this paper aims to (1) synthesize contemporary evidence regarding the cognitive, psychological, and physical benefits of strategic napping; (2) examine the relevance of napping policies within the framework of health-promoting and world-class universities; and (3) formulate evidence-based policy recommendations to support the implementation of strategic napping initiatives within Universitas Indonesia and other research-intensive institutions. By positioning restorative rest as a form of institutional investment rather than individual indulgence, this study contributes to emerging discussions on human-centered academic governance and sustainable pathways toward global research excellence.

Methods

Study Design

This study employed a policy analysis and narrative evidence synthesis design to examine the potential role of strategic napping policies in supporting health promotion, academic productivity, and innovation within research-intensive universities (Nowlin et al., 2025). The paper was developed as a policy commentary

informed by interdisciplinary evidence from sleep science, occupational health, higher education policy, organizational behavior, and health-promotion literature. The analysis was conducted between January and May 2025 within the context of Universitas Indonesia's aspiration to strengthen its position as a world-class research university (Pujasari et al., 2025).

The conceptual development of this policy framework was guided by three complementary theoretical perspectives: the Health-Promoting University (HPU) Framework, the Socioecological Model, and Human Capital Theory (Mcgrath & Matthews, 2025). These frameworks informed the interpretation of evidence and the formulation of policy recommendations by emphasizing the interrelationships among individual well-being, institutional environments, and organizational performance (Oltulular, 2025).

Data Collection and Evidence Selection

As a policy-oriented study, this paper did not involve primary data collection or experimental procedures. Instead, evidence was synthesized from peer-reviewed literature, international policy documents, and relevant national regulations (Artar, 2025). The review included empirical studies addressing sleep health, strategic napping, cognitive performance, academic well-being, occupational health, and university health-promotion initiatives (Fox et al., 2025). The literature search focused primarily on publications indexed in major scientific databases, including Scopus,

PubMed, and Web of Science, with particular emphasis on high-quality studies published during the last decade (Anand et al., 2024; Nowlin et al., 2025). Additional sources included policy frameworks issued by international organizations and Indonesian legal documents related to labor rights and occupational rest periods, including Law No. 13/2003 concerning Employment, Law No. 11/2020 concerning Job Creation, and Government Regulation No. 35/2021. Evidence selection prioritized studies that met the following criteria: (1) examined daytime napping or sleep-health interventions; (2) reported cognitive, psychological, educational, or occupational outcomes; (3) involved university, workplace, or adult populations; and (4) provided implications relevant to institutional policy development. Preference was given to systematic reviews, meta-analyses, longitudinal investigations, and high-impact empirical studies.

Conceptual Framework Development

Policy recommendations were developed through an integrative analytical approach grounded in established theoretical models. The Health-Promoting University Framework provided the overarching perspective for embedding health promotion within institutional governance, campus infrastructure, and organizational culture (Mcgrath & Matthews, 2025). The Socioecological Model facilitated the examination of multilevel influences on sleep behaviors, including individual, interpersonal, organizational, and policy determinants.

Human Capital Theory contributed an economic and strategic rationale by conceptualizing cognitive health and well-being as institutional assets that support innovation, productivity, and academic excellence (Oltular, 2025). The convergence of these frameworks enabled the formulation of a comprehensive policy model that positions strategic napping as a human-centered intervention capable of strengthening both individual well-being and organizational performance within higher education settings.

Data Analysis

The analysis employed a narrative synthesis approach to integrate findings from multiple disciplinary domains. Evidence was systematically categorized into four thematic areas: (1) cognitive and neuropsychological benefits of strategic napping; (2) mental health and occupational well-being; (3) institutional health-promotion practices in higher education; and (4) policy and governance implications for research universities. Thematic integration was conducted through iterative comparison of empirical findings, theoretical perspectives, and regulatory contexts to identify common patterns, opportunities, and implementation challenges. Policy recommendations were subsequently formulated by aligning scientific evidence with the strategic objectives of world-class universities, particularly regarding sustainability, innovation, and human-centered governance. Reference management and document organization were conducted using Mendeley Reference Manager, while thematic

synthesis and manuscript development were performed manually by the research team to ensure contextual interpretation and conceptual coherence (Mcgrath & Matthews, 2025).

Ethical Considerations

This study did not involve human participants, biological materials, identifiable personal information, or primary data collection. Therefore, formal ethical approval and informed consent procedures were not required in accordance with institutional and national regulations governing non-human-subject research and policy analyses (Bjelobaba et al., 2024). All evidence used in this paper was obtained from publicly available sources, including peer-reviewed publications, international policy documents, and national legislation. The authors adhered to principles of academic integrity, appropriate citation practices, transparency in evidence selection, and responsible scholarship throughout the preparation of this manuscript. The policy recommendations proposed herein are intended to support institutional health promotion and organizational well-being and do not involve interventions, experimentation, or direct engagement with human participants (Thin, 2026).

Results

Global Evidence on Strategic Napping and Cognitive Performance

The synthesis of contemporary evidence demonstrates that strategic napping is consistently associated with improvements in

cognitive functioning, psychological well-being, and work performance across educational and occupational settings. Short naps lasting between 10 and 30 minutes have been shown to enhance attention, executive functioning, memory consolidation, learning capacity, and creative problem-solving while minimizing sleep inertia and preserving nocturnal sleep quality. The evidence further indicates that restorative daytime sleep contributes to emotional regulation and stress reduction. Individuals experiencing chronic sleep restriction benefit substantially from short naps, particularly regarding declarative memory retention and cognitive flexibility. These findings collectively suggest that strategic napping represents a low-cost and evidence-based intervention capable of strengthening human performance within research-intensive academic environments. Beyond cognitive outcomes, regular restorative rest has been associated with favorable cardiometabolic indicators, reduced fatigue, and improved occupational well-being. Such benefits support the integration of sleep-health promotion into institutional policies designed to foster sustainable academic excellence.

Strategic Napping as a Health-Promoting University Intervention

Analysis of international experiences reveals an emerging paradigm shift toward health-promoting university ecosystems that prioritize holistic well-being as a foundation for academic success. Universities in several countries have introduced dedicated nap spaces, quiet rooms, and restorative

environments as components of comprehensive student and employee support programs. Within the Health-Promoting University framework, strategic napping extends beyond individual behavior modification and becomes an institutional mechanism for enhancing health, productivity, and social sustainability. The Socioecological Model further suggests that supportive organizational structures, educational initiatives, and policy environments are essential for facilitating healthy sleep practices among academic communities. These findings indicate that strategic napping policies align closely with contemporary approaches to university governance that emphasize human-centered leadership, mental health promotion, and sustainable organizational development.

Institutional Gaps and Opportunities in Indonesian Higher Education

Despite growing international recognition of sleep health as a determinant of academic performance, institutional mechanisms supporting restorative practices remain limited within Indonesian universities. Existing labor regulations provide opportunities for structured rest periods during working hours; however, formal policies specifically addressing strategic napping in higher education settings are largely absent. The evidence synthesis identified three major institutional gaps. First, there is limited integration of sleep health into university health-promotion policies. Second, dedicated restorative infrastructure, including nap pods and quiet rooms, remains underdeveloped. Third, cultural norms frequently equate

prolonged working hours with academic commitment, thereby discouraging restorative behaviors despite substantial scientific evidence supporting their benefits. These gaps highlight the need for innovative policy solutions that reconcile high-performance expectations with sustainable approaches to human well-being. Strategic napping policies may therefore serve as an entry point for broader institutional reforms aimed at strengthening academic resilience and organizational sustainability.

Proposed Strategic Napping Policy Framework for World-Class Universities

Drawing upon empirical evidence and theoretical foundations, this study proposes a comprehensive strategic napping framework comprising four interconnected policy domains: infrastructure, education, governance, and evaluation. At the infrastructure level, universities should establish designated restorative spaces equipped with nap pods,

quiet rooms, or relaxation areas accessible to students, faculty members, and staff. Educational initiatives should focus on sleep-health literacy, emphasizing evidence-based guidance regarding optimal nap duration, sleep hygiene, and mental well-being. Institutional governance mechanisms should incorporate strategic napping into broader health-promotion and occupational well-being policies while ensuring alignment with national labor regulations. Finally, continuous evaluation systems should monitor outcomes related to academic productivity, psychological well-being, user satisfaction, and organizational innovation.

Collectively, these domains position restorative rest as a strategic institutional investment rather than an individual accommodation. The proposed framework supports the transition toward human-centered universities capable of sustaining excellence, creativity, and global competitiveness.

Table 1. Summarizes the principal evidence domains and corresponding policy implications.

No.	Evidence Domain	Key Findings	Policy Implications
1	Cognitive Performance	Short naps (10–30 min) improve attention, memory, learning, and executive functioning	Integrate restorative breaks into academic schedules
2	Mental Health and Well-being	Strategic napping reduces stress, fatigue, burnout, and emotional exhaustion	Include napping in university mental health programs
3	Physical Health	Adequate restorative sleep supports cardiovascular and metabolic health	Promote sleep-health education and preventive health initiatives
4	Institutional Innovation	Restorative practices foster creativity, problem-solving, and productivity	Position napping as a component of innovation ecosystems

5	Human-Centered Governance	Health-promoting environments strengthen organizational sustainability	Develop formal institutional policies supporting restorative spaces
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This table highlights key findings and related policy implications identified within each area of evidence.



Figure 1. Illustrates the conceptual framework linking strategic napping, health promotion, human capital development, and world-class university performance.

Discussion

Strategic Napping as a Mechanism for Cognitive Sustainability in Higher Education

The present findings reinforce emerging evidence that strategic napping constitutes an important mechanism for sustaining cognitive performance in knowledge-intensive environments (Shadab et al., 2025). Consistent with recent developments in sleep neuroscience, short daytime naps enhance attention, memory consolidation, executive functioning, and emotional regulation while preserving nocturnal sleep quality. These

benefits are particularly relevant in research universities, where academic productivity increasingly depends on prolonged cognitive engagement, creativity, and complex decision-making (Liu et al., 2025).

Recent scholarship has shifted from viewing sleep merely as an individual health behavior to recognizing it as a determinant of organizational performance and intellectual sustainability. Within higher education settings characterized by publication pressures and global competitiveness, cognitive fatigue represents not only a personal burden but also a systemic challenge affecting research quality

and innovation capacity (Sia, 2024). Strategic napping therefore offers a practical approach to maintaining cognitive resilience while supporting sustainable academic performance. From the perspective of Human Capital Theory, investments in restorative practices should be interpreted as investments in institutional assets. Healthy, cognitively resilient academic communities contribute directly to creativity, scholarly productivity, and competitive advantage, suggesting that sleep health deserves greater consideration within university development strategies (Suwandana, 2025).

Reframing Universities as Health-Promoting and Human-Centered Institutions

The findings further support contemporary perspectives on Health-Promoting Universities (HPUs), which advocate the integration of health considerations into institutional governance, campus environments, and educational systems. International experiences demonstrate that leading universities increasingly incorporate restorative infrastructure, wellness programs, and mental health initiatives as integral components of academic excellence (Sia, 2024).

This development reflects a broader transformation in higher education governance. The pursuit of world-class status is no longer defined exclusively by rankings and research outputs but increasingly by the ability of institutions to foster healthy, inclusive, and resilient academic communities. Strategic napping policies complement these objectives

by addressing mental fatigue, emotional well-being, and work-related stress while promoting a culture of sustainable productivity (Zhao et al., 2025). The Socioecological Model further emphasizes that healthy behaviors are shaped by supportive environments and institutional norms. Consequently, universities that provide accessible restorative spaces and normalize brief daytime rest create conditions that facilitate healthier behavioral patterns and strengthen collective well-being (Lima & Manuel, 2025).

Policy Gaps and Opportunities for Indonesian Universities

Despite growing international recognition of sleep health, Indonesian universities have yet to systematically incorporate restorative practices into institutional policies. The present analysis identifies persistent challenges related to limited sleep-health promotion, insufficient wellness infrastructure, and cultural expectations that associate extended working hours with academic commitment (Nowlin et al., 2025).

These issues mirror global concerns regarding academic burnout and deteriorating mental well-being among students and faculty members. Emerging evidence suggests that excessive workloads and chronic sleep deprivation undermine not only individual health outcomes but also institutional innovation capacity. Consequently, traditional cultures of uninterrupted productivity may inadvertently compromise the long-term

sustainability of academic excellence (Zakiei et al., 2025).

Indonesia already possesses legal frameworks supporting structured rest periods within occupational settings. However, translating these provisions into university governance remains an underexplored opportunity. Strategic napping policies could therefore serve as a practical mechanism for operationalizing health-promotion principles while aligning institutional practices with broader national commitments to worker well-being and preventive health (Ahmadi et al., 2025).

Strategic Napping as an Innovation Policy for World-Class Universities

Perhaps the most significant contribution of this study lies in reframing strategic napping as an institutional innovation policy rather than an individual wellness intervention. Existing literature has predominantly focused on the physiological and psychological outcomes of napping at the individual level, with relatively limited attention devoted to governance mechanisms capable of embedding restorative practices within higher education systems (Anand et al., 2024).

The proposed framework comprising infrastructure, education, governance, and evaluation—offers a multidimensional approach for integrating sleep health into university ecosystems. Such an approach aligns with contemporary understandings of sustainable universities, where human well-being, organizational resilience, and scientific

innovation are mutually reinforcing rather than competing priorities (Corbí et al., 2023).

The implications extend beyond health promotion alone. By strengthening cognitive flexibility, reducing mental fatigue, and fostering reflective thinking, strategic napping contributes to the human capacities that underpin creativity, interdisciplinary collaboration, and knowledge production. Consequently, restorative practices should be viewed as strategic investments in innovation ecosystems and long-term institutional competitiveness (X. Sun et al., 2013).

Collectively, these findings support a paradigm shift from cultures of uninterrupted productivity toward models of restorative excellence. World-class universities must therefore recognize that sustainable innovation depends not only on technological advancement and research outputs but also on the well-being and cognitive vitality of their academic communities.

Conclusion

This policy paper demonstrates that strategic napping represents a scientifically grounded, low-cost, and scalable intervention capable of strengthening cognitive performance, psychosocial well-being, and institutional sustainability within research-intensive universities. By synthesizing evidence from sleep science, occupational health, and higher education policy, this study establishes that brief daytime naps of 10–30 minutes should be

understood not as discretionary leisure activities but as strategic investments in human capital and academic excellence.

The findings further indicate that integrating strategic napping into university governance aligns closely with the principles of Health-Promoting Universities, the Socioecological Model, and Human Capital Theory. Collectively, these frameworks suggest that sustainable research performance depends upon institutional environments that actively support restoration, resilience, and holistic well-being. Accordingly, world-class universities should move beyond traditional productivity paradigms and embrace human-centered policies that recognize restorative practices as fundamental drivers of innovation, creativity, and long-term competitiveness.

From a policy perspective, universities are encouraged to establish dedicated restorative infrastructure, strengthen sleep-health literacy programs, incorporate strategic napping into institutional well-being frameworks, and develop evaluation mechanisms to monitor impacts on academic productivity, mental health, and organizational performance. The implementation of such measures should be undertaken collaboratively among university leaders, health professionals, students, and policymakers to ensure feasibility, cultural acceptance, and sustainability.

This study also highlights several priorities for future research. Empirical investigations are needed to evaluate the effectiveness,

acceptability, and cost-effectiveness of strategic napping policies within higher education settings, particularly in low- and middle-income countries. Longitudinal and implementation studies should examine the influence of restorative interventions on research productivity, innovation outcomes, academic engagement, burnout prevention, and institutional well-being indicators. Comparative studies across universities and cultural contexts would further strengthen the evidence base for integrating sleep health into global higher education governance.

Ultimately, positioning restorative rest as an institutional asset rather than an individual accommodation offers a transformative pathway toward healthier, more innovative, and more sustainable universities. Strategic napping policies may therefore constitute an essential component of future-oriented academic ecosystems seeking to achieve world-class excellence while preserving the well-being and human flourishing of their communities.

Limitation

This study has certain limitations in terms of time and context, as the analysis was conducted merely between January and May 2025 within a single institutional setting.

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Conflict of Interest

None declared.

Data Availability

No primary datasets were generated or analyzed during this study. All evidence synthesized in this policy paper was derived from publicly available peer-reviewed literature, international policy documents, and

national regulatory sources. Materials supporting the findings of this work are available from the corresponding author upon reasonable request.

Author Contributions

Nur Azizah: Conceptualization, methodology, data collection, data analysis, drafted the manuscript, revised the manuscript

Hening Pujasari: Methodology, supervision, validation, review and editing

Abbreviations

Abbreviation	Definition
HPU	Health-Promoting University
UI	Universitas Indonesia
COI	Conflict of Interest
CRedit	Contributor Roles Taxonomy
WHO	World Health Organization

Declaration of Generative AI and AI-Assisted Technologies in the Manuscript Preparation Process

During the preparation of this work, the authors used OpenAI's ChatGPT as an AI-assisted language tool to support academic writing refinement, language editing, structural organization, and manuscript development. Following the use of this tool, the authors carefully reviewed, critically evaluated, and substantially revised all generated content and assumed full responsibility for the accuracy, integrity, originality, and final version of the

manuscript submitted for publication. The AI-assisted technology was used solely to facilitate manuscript preparation and was not involved in study conceptualization, evidence interpretation, policy recommendations, or authorship decisions.

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