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Burnout for Social Sustainability Indicator in Higher Education: A Review and Case-Study

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Abstract

Social sustainability, one of the three pillars of sustainability alongside economic and environmental aspects, has received relatively limited attention, particularly in higher education systems. The wide range of social sustainability indicators makes assessment complex, especially when focusing on educators as internal stakeholders. This study aims to propose a representative measure of social sustainability for lecturers in higher education institutions. Given the multidimensional nature of academic work, a concise indicator is needed to reflect lecturers' well-being effectively. A PRISMA-based literature review was conducted to identify relevant social sustainability indicators for employees. The review resulted in four main criteria comprising 18 indicators related to employee well-being. The findings were synthesized through an industrial psychology lens by combining literature-based conceptual grouping, indicator prevalence analysis, and the development of a theory-informed conceptual framework, leading to the selection of burnout as a practical indicator of social sustainability in higher education. To demonstrate its application, a case study was conducted involving 41 lecturers from the Faculty of Industrial Technology at Universitas Atma Jaya Yogyakarta. Burnout levels were measured using the BAT-12 scale version 2.0. The results showed that 24.4% of lecturers experienced low (sustainable) burnout levels, while the majority (51.2%) experienced moderate burnout. These findings underscore the need for targeted interventions to mitigate burnout and promote long-term social sustainability.

Keywords: burnout, higher education, industrial psychology, social sustainability indicators

1. Introduction

The concern for sustainability is increasing, especially after the United Nations introduced the Sustainable Development Goals (SDGs) in 2015. However, amongst the three pillars of sustainability, namely economy, social, and environment, social sustainability has not received much attention (Olukoya and Atanda, 2020; Vijayakumar *et al.*, 2022; Kalfaoğlu, 2023). Social sustainability is crucial to achieving environmental sustainability. This relationship was proposed in Doughnut Economics, which stated that when society falls into deprivation, it is impossible to reach the ecological ceiling of planetary boundaries (Chruszcz, 2025).

Social sustainability focuses on the fairness, inclusion, and well-being of individuals and societies to reach equity now and in the future (Alhazemi, 2025; Chruszcz, 2025). There are many definitions and indicators of social sustainability due to a lack of clarity (Vijayakumar *et al.*, 2022). So that each constructs the indicators based on the study area. The United Nations has released the final list of proposed SDG indicators; however, there are several possibilities to expand the indicators using other standards, such as the Dow Jones Sustainability Index (Arribas *et al.*, 2021; Denuwara *et al.*, 2022), the Global Reporting Initiative or GRI (Halkos and Nomikos, 2021; Moggi, 2023), Bloomberg's Environmental, Social, and Governance (ESG) Disclosure Scores (Bellamy, Dhanorkar and Subramanian, 2020; Huang, 2021; Tsang, Frost and Cao, 2023), and other sustainability indices. Several certification systems and quantitative tools have been developed to define social sustainability and its associated indicators. Such systems include ISO 26000, SA 8000, Social Return on Investment (SROI), Social Cost-Benefit Analysis (SCBA), and Social Life Cycle Assessment. (Briamonte *et al.*, 2024).

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This social sustainability issue then becomes a significant concern for both the manufacturing and service industries, as well as the education sector. Several elements of social sustainability have been explored, including employee well-being, equity, cultural diversity, and community engagement, to promote corporate sustainability. However, the incorporation of social sustainability into higher education has been limited to individual courses, rather than being integrated throughout the university. (Wolff and Ehrström, 2020). Implementing sustainability in higher education is important not only because of its unique role in teaching, research, and community service, but also because it serves as a role model for sustainable organizations (Galán-Muros Chief, 2023).

The extensive range of social sustainability indicators complicates the selection of appropriate indicators for the education industry. Higher education has adopted a collegial structure (Denis, Côté and Hébert, 2023; Sahlin and Eriksson-Zetterquist, 2023) that fosters collaboration, shared responsibility, and mutual respect among educators. This approach stands in contrast to the hierarchical systems commonly observed in many professional industries. Higher education in Indonesia is distinguished by the Tri Dharma, which comprises the mandatory tasks for educators to conduct teaching activities, research, and community service, which will be evaluated on a semester basis (Budiman, Prahasto and Christyono, 2012; Nyoto, 2021; Ningrum, Fauzi and Nurhayati, 2022). Consequently, certain adjustments must be made when attempting to assess social sustainability in educational contexts.

The assessment of social sustainability among educators is of critical importance, given their pivotal role in executing educational activities, such as teaching, research, community service, and management. The researchers are discussing the variables and indicators for measuring the sustainability of working life across various sectors, comprising insurance, health, and transportation service industries (Stefana *et al.*, 2021), even small and medium enterprises (Dzikriansyah *et al.*, 2023). The scopes are diverse and have distinct characteristics within each scope.

On the other hand, the sustainability of employee well-being is commonly indicated using certain emotional and mental-related responses, comprising burnout (Sulea *et al.*, 2015; Schaufeli, Desart and De Witte, 2020; Vîrgă, Pattusamy and Kumar, 2022), boredom (Vîrgă, Pattusamy and Kumar, 2022), work-engagement (Klassen, Yerdelen and Durksen, 2013; Destyanto and Halim, 2024), and workaholism (Schaufeli, Taris and Van Rhenen, 2008; Destyanto, Anindyajati and Putri, 2023). Those indicators affect social sustainability differently from each other. Burnout, workaholism, and boredom are often correlated with the negative predictors for employee well-being (Oh and Oh, 2022; Sheng *et al.*, 2023; Maddock, 2024; Rosario-Hernández *et al.*, 2024). On the other hand, the working engagement of employees is more closely connected to the positive aspects of employee well-being (Schaufeli, Taris and Van Rhenen, 2008; Vîrgă, Pattusamy and Kumar, 2022; Destyanto and Halim, 2024).

Those variables are promising to be parameters for understanding or even predicting employee well-being, especially in the education industry. However, there is a lack of comprehensive reviews on these works, resulting in a brief capture of their idea regarding sustainability measurement indicators, with a focus on emotional and mental-related human mechanisms. Therefore, this study proposes a comprehensive review of indicators to measure social sustainability in education, particularly for educators employed by a higher education institution. In addition, burnout will be examined as an integrative indicator of social sustainability, which will be assessed through literature synthesis. Moreover, this study also aimed to investigate the prevalence of work sustainability among educators by capturing the level of the indicator(s) that were most discussed from the literature review results.

2. Method

A literature review was conducted using Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) (Antosik-Wójcińska *et al.*, 2020; Haddaway *et al.*, 2022; Destyanto, 2023; Destyanto, Kurnianingtyas and Muslimah, 2024) to understand the social sustainability indicators related to employees as the internal stakeholders. This systematic literature review (SLR) approach was structured according to the stages of identification, screening, eligibility, and inclusion. The literature

search was conducted in a structured manner to ensure the relevance and quality of the reviewed studies. In the identification stage, articles were found through the SCOPUS database using the keyword "Social Sustainability Indicator." The query string used was 'TITLE (Social sustainability indicator) AND PUBYEAR > 2019 AND PUBYEAR < 2026 AND (LIMIT-TO (DOCTYPE , "ar") OR LIMIT-TO (DOCTYPE , "cp")) AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (OA , "all")) AND (LIMIT-TO (PUBSTAGE , "final"))'.

Using those queries, the initial search resulted in 149 articles. A manual search using the same keywords was conducted to supplement the search results, resulting in an additional six articles. The next stage involved screening, where the obtained articles were filtered based on several criteria, including publication year (2020–2025), language (English), document type (journal article or conference proceedings), and open-access status. After this screening process, 25 articles remained from the Scopus database. Combined with the manual search results, a total of 31 articles were screened. At this stage, three duplicate articles were removed, leaving 28 articles for the next stage. In the eligibility stage, the remaining articles were read and evaluated in more depth based on their suitability to the research objectives. Articles were excluded if the social sustainability indicators discussed did not cover internal stakeholders (6 articles) or if the study was conducted at a macro level that did not align with the research focus (5 articles). The final stage was inclusion, where articles meeting all selection criteria were designated as the main study. Based on these stages, 17 articles were deemed eligible and included in the systematic review of the literature. This procedure is described visually in Figure 1, and the PRISMA flow is described using Figure 2.

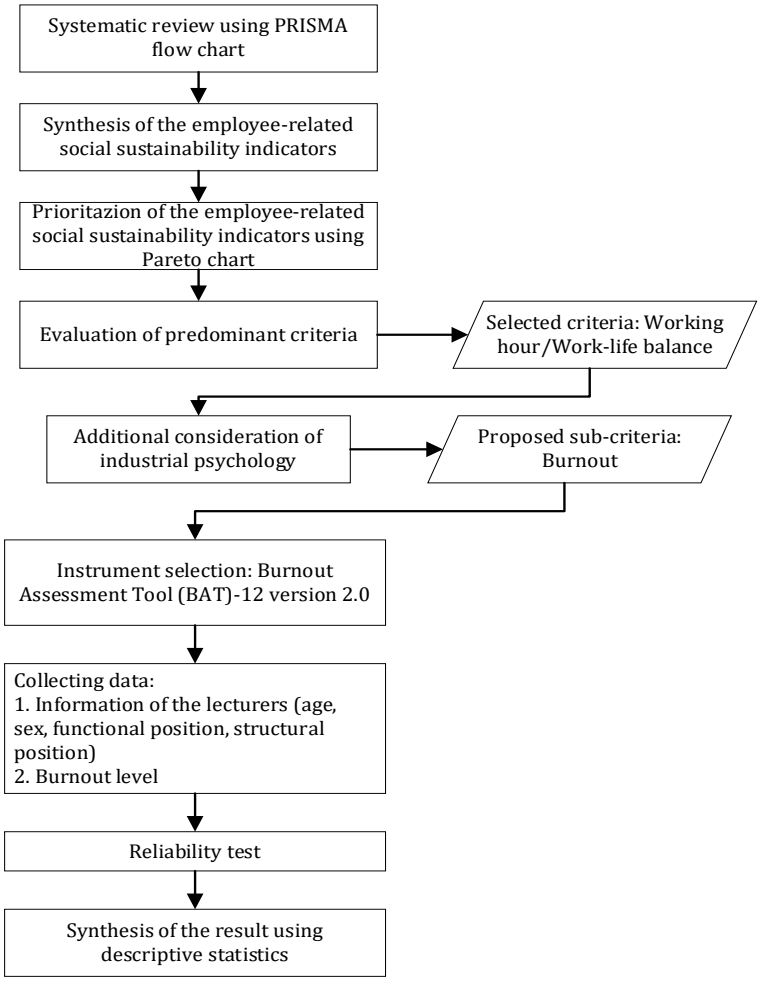

Figure 1. Methodology of the present study

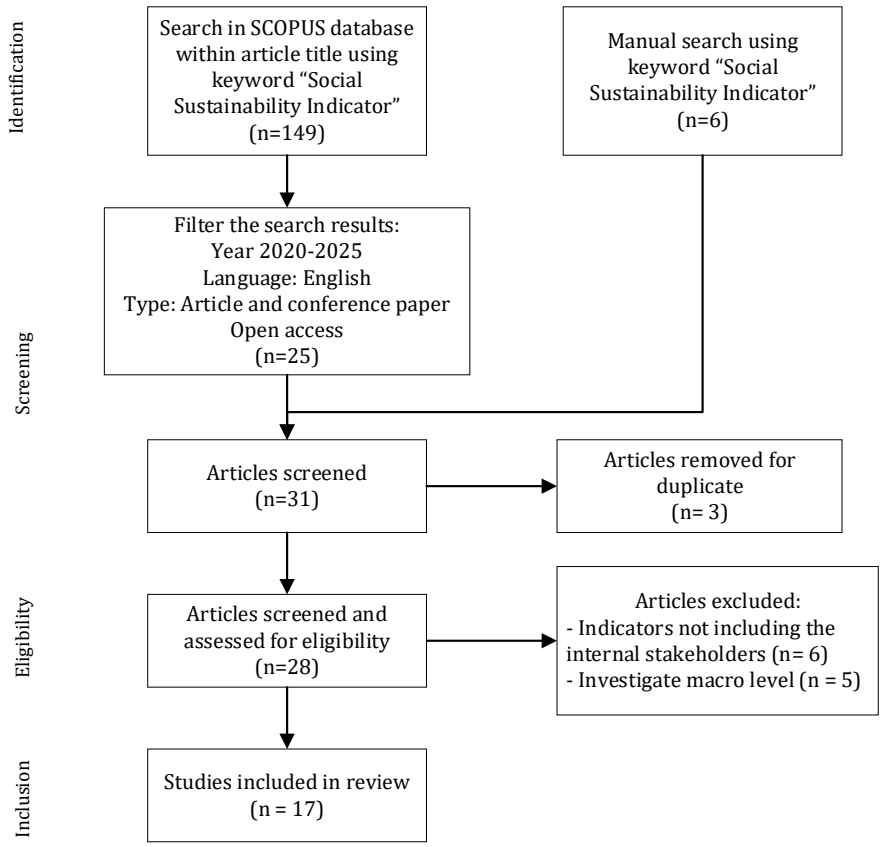

Figure 2. PRISMA flow diagram

Seventeen articles were selected and summarized based on the sector and the social sustainability indicators related to employees or labor. A Pareto diagram was constructed to analyze the indicators prevalence and identify the order of indicators promoting social sustainability in higher education, based on the highest number of occurrences. The prevalent indicator was evaluated to ascertain the most appropriate selection of a comprehensive representative social indicator in education.

An indicator representing an integrative measure in education was proposed and tested in a case study with 41 respondents using the Burnout Assessment Tool (BAT)-12, version 2.0. (Schaufeli, Witte and Desart, 2020). The result of the case study was also subjected to statistical analysis and graphical representation. The reliability of the instrument in the case study was evaluated using Cronbach's alpha value (Taber, 2018). The final stage was inclusion, where articles meeting all selection criteria were designated as the main study. Based on these stages, 17 articles were deemed eligible and included in the systematic review of the literature. After the review works were finished, a case study was presented to provide a comprehensive understanding of the utilization of the proposed indicator in relation to social sustainability in higher education.

3. Results and Discussion

The study's results were disseminated across three subsections. The initial subsections synthesized the social sustainability indicators from a review of the literature. In the subsequent subsection, the selection of criteria for generating a comprehensive education indicator will be discussed. Finally, the indicator will be assessed in a higher education institution, and the result will be analyzed.

3.1 Synthesis of the literature review on social sustainability indicators

Several researchers have identified social sustainability indicators based on the Sustainable Development Goals (SDGs), certification, national or regional standards, and quantitative tools. The initial research for the social sustainability indicators and the outcomes resulting from each study have been compiled for further examination in Table 1.

The summary suggests that the indicators for social sustainability are multidimensional, emphasizing the correlation between employee well-being, organizational behavior, and practices, as well as their long-term impact on society itself. Commonly, the most frequent aspects are employee well-being-related factors, which include work safety, occupational health, workload, and work satisfaction. The second aspect is inclusivity and justice-related factors, including equality, non-discrimination, and participation. The third one is organizational relation factors, comprising communication, involvement, and social responsibility. Certain findings highlight the importance of considering the characteristics of contextual and sectoral indicators in relation to the specific industry or enterprise. The advanced measurement, moreover, begins to involve data analytics by integrating the indicators with various analysis approaches, including quantitative evaluation, multi-criteria decision-making, and predictive analytics. The limitations, however, are that there is limited standardization of indicators and integration of individuals, organizations, and systems, which are potent to be discussed further in future works.

Table 1. Summary of the source and results of the reviewed study on the sustainability indicators

Ref	Sector	Source of indicators	Result
Briamonte *et al.* (2024)	Agribusiness	GRI 13, Italian Alliance for Sustainable Development, statistical database, certification and evaluation system (CSR, SROI, SCBA, SLCA, ISO 26000, SA 8000), and European Union directives.	Five major areas, namely employment and training (5 indicators), health and safety at work (4 indicators), human rights (5 indicators), territorial community (5 indicators), and health and safety of production (5 indicators).
Brennan *et al.* (2023)		Irish Farm Accountancy Data Network (FADN)/Farm Sustainability Data Network (FSDN)	Three dimensions (farm continuity, community and social connections, farmer comfort and quality of life) and 14 indicators.
Umstätter, Mann and Werner (2022)		Work element method based on the Association for Labour Studies and Company Organization	Sustainability indicator for workload.
Pilane, Jordaan and Bahta (2024)		Literature review from 42 academic papers, GRI, and AWS standard	Fifteen social sustainability indicators related to the use of freshwater
Garlock *et al.* (2024)	Aquaculture	Aquaculture Performance Indicators (API)	19 output dimensions in the environment, economy, and social. The social performance encompassed contributions to livelihoods, benefits to the community, farmer wages, and access to community services.
Vijaya *et al.* (2025)	Automotive	Environment, Social, and Governance (ESG) standard	18 ESG factor groups; 8 groups related to social sustainability.
Passos Neto *et al.* (2022)	Construction	Global Reporting Initiative (GRI) standard.	Quadrant 1 (high importance, strong influence) encompasses 19 social sustainability indicators and three key categories: occupational safety and health, local communities, and customer privacy.
Vijayakumar *et al.* (2022)		Systematic literature review from 80 academic articles.	Nine social sustainability criteria, including quality of life, equity, employment, health and safety, stakeholder participation, culture and heritage, compensation strategies, governance, and macro-social activities, were identified along with 78 respective indicators.

Table 1. Summary of the source and results of the reviewed study on the sustainability indicators (continued)

Ref	Sector	Source of indicators	Result
Wicaksono, Sodri and Chairani (2020)	Energy	A literature review using the snowballing approach yielded a total of 24 academic articles.	12 social sustainability indicators
Desiderio *et al.* (2022)	Food supply chain	Literature review from 34 academic papers.	List of quantitative assessment tools in different life cycle phases.
Messmann *et al.* (2024)	Hospitals	Literature review from 88 academic papers.	Five categories for social indicators, namely employee (34 indicators), health and safety (56 indicators), well-being (61 indicators), patients (79 indicators), and other stakeholders (14 indicators)
Kalfaoğlu (2023)	Various	Participatory study of eight high-level employees from various industries.	A total of 26 subcategories were defined within three fundamental classification categories: "socially beneficial applications," "anthropocentrism in job design," and "value-creating relationship systems."
Gebhardt *et al.* (2023)	Various	ESG standard	Investigate the effect of implementing 9 social sustainability indicators in the internal management system (IMS).
Ibáñez-Forés *et al.* (2023)		Eleven standards, which are ISO 26000, UNEP, OECD, COP, European Commission, ECG, The German Sustainability Code, AA1000, SA 8000, United Nations, and GRI	A total of 42 indicators were grouped into nine categories: sustainable management, equal opportunities, labor rights, internal social benefits, training programs, health and safety, human rights, external sustainability actions, and transparency.
Lin, Efranto and Santoso (2021)		A team of experts was assembled to evaluate the ergonomics aspects and determine their compatibility with social sustainability.	The final result aggregates 73 indicators into 17 indicators based on the ergonomics area. The optimal set of social sustainability indicators for the workplace was determined through a comprehensive analysis, which yielded five key factors: employee well-being, safety concerns, workplace comfort, musculoskeletal health, and environmental concerns.
Okay, Sencer and Taskin (2024)		GRI	A total of 55 social indicators were presented to increase the transparency of the supply chain.
Martín and Palomo Zurdo (2021)		Primary data collection using the IS_IMPACT methodology	Eighteen social indicators were assessed and grouped into five variables: business development, customers, operations, workforce, and business environment.

In brief, social sustainability indicators can be divided into two categories: external stakeholders (including customers and the general community) and internal stakeholders (employees). The present study focused on social sustainability for educators in higher education institutions. Therefore, the indicators in Table 1 were selected, mapped, and grouped into 18 social sustainability indicators after thorough reading based on the taxonomic similarity, as shown in Table . Literature-based conceptual grouping was employed to categorize the identified indicators into broader dimensions, based on their shared conceptual meaning in the literature. The result of conceptual grouping was four categories: labor practices, employee well-being, health and safety, and internal social benefits. Subsection 3.2 will subsequently present the process of indicator selection to facilitate a targeted approach by the higher education institution.

3.2 Literature synthesis

The application of 18 social indicators ensures a comprehensive analysis of social sustainability. However, it is worth noting that this approach can also result in a more time-consuming and labor-intensive process when measuring the social sustainability of educators. Therefore, the selection of the social indicators to be prioritized in assessing educators' social sustainability is needed. The objective is to determine a comprehensive and representative indicator to measure social sustainability in education.

Several studies have determined priorities using multi-criteria decision-making tools (Vijaya *et al.*, 2025) or by mapping the indicators based on interviews with companies (Passos Neto *et al.*, 2022). This research employs Pareto analysis, a widely used quality control tool, due to its simplicity and effectiveness in representing frequency distribution patterns. Pareto diagrams are a data visualization technique that organizes frequencies from highest to lowest, with the most prevalent data positioned on the left side of the diagram and the least prevalent data positioned on the right side (Alkiayat, 2021). The Pareto diagram of employee-related social indicators is shown in Figure 3. The results of the Pareto analysis were then processed to propose a comprehensive and easy-to-implement social sustainability indicator for assessing educators.

As illustrated in Figure 3, the employee training/development indicator was the most prevalent in the reviewed articles based on the number of occurrences, followed by work hours and work-life balance, salary justice, and employee health. While employee training/development was identified as the highest priority indicator, its relevance to the field of higher education in Indonesia needs to be evaluated. In Indonesia, educators and lecturers have opportunities for self-development, which is often funded by the university or government. To illustrate, the Indonesian government implemented the Program Kompetisi Kampus Merdeka (PKKM) from 2021 to 2024. This initiative extended to several public and private universities to accelerate the university program in education and lecturer development. Training and self-development activities are formally acknowledged within the performance rubric in teaching and supporting activities. Therefore, it is concluded that educators' training and development cannot be simplified as a sole indicator to assess educators' social sustainability.

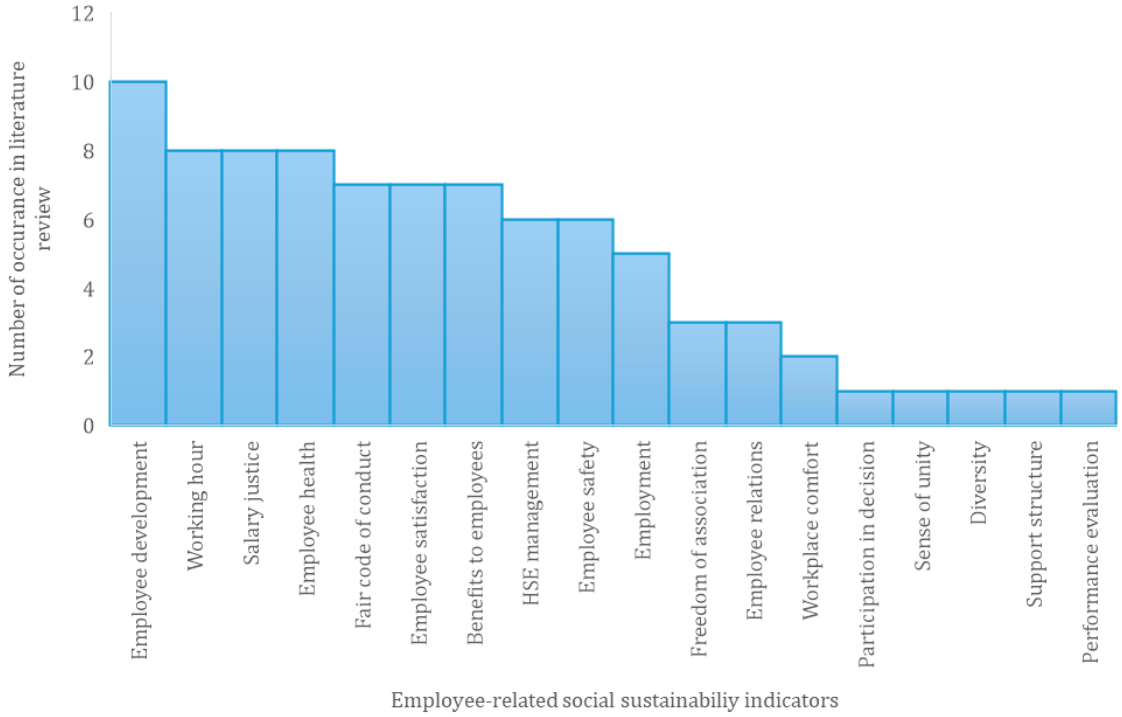

Figure 3. Pareto diagram to prioritize the social sustainability indicators

The next three indicators, namely work hours, salary justice, and employee health, are grouped in employee well-being criteria. Of the three indicators, work hours were selected as the most representative indicator in comparison to salary equality and lecturer health. This decision is rooted in two primary factors. The academic profession is characterized by a multifaceted nature, encompassing not only teaching but also research, community service, and a variety of supporting activities. These additional responsibilities play a crucial role in work-life balance. Secondly, working hours have been identified as a primary predictor of faculty mental and physical health (Oliveira, Roberto, Pereira, *et al.*, 2021; Oliveira, Roberto, Veiga-Simão, *et al.*, 2021), in addition to their role in the perception of equitable remuneration (Comm and Mathaisel, 2003; Ramachandaran, Nuraini and Doraisingam, 2024). By measuring working hours, institutions can intervene and ensure social sustainability (Ramachandaran, Nuraini and Doraisingam, 2024).

Nevertheless, measuring lecturers' working hours is not possible due to the inherently dynamic nature of their work and the flexibility of their schedules. The application of stopwatch time studies, work sampling methods, and similar approaches is considered inadequate for accurately capturing the workload of lecturers. Consequently, the present study proposes a shift in the measurement of well-being, focusing on the impact rather than the input, specifically working hours. In this case, the impact highlighted is considered from the perspective of industrial psychology.

Industrial-organizational (IO) psychology focuses on human behavior in the workplace and work organizations to address workplace problems. Theories and methods in IO psychology, for instance, stress, anxiety, burnout, workaholism, job demands, and job resources, can be applied to improve employee well-being (Kobal Grum and Babnik, 2022). Among the subjects addressed by industrial psychology related to employee well-being, burnout is widely regarded as a comprehensive indicator, as reflected in occupational health and psychology research ((Schaufeli and Bakker, 2004; Salmela-Aro, Hietajärvi and Lonka, 2019; World Health Organization, 2019; Malta *et al.*, 2024; Serpe *et al.*, 2025). Burnout is addressed in these studies for the following two reasons.

First, burnout can signal potential issues in how work organizations support the social well-being of their employees. In 2019, the World Health Organization (WHO) classified burnout as a non-medical condition resulting from chronic work stress management failure (World Health Organization, 2019). This phenomenon differs from positive engagement or workaholism, which does not always guarantee social sustainability. A notable example is the phenomenon of "engaged exhaustion," wherein employees maintain a high level of enthusiasm despite encountering severe stress.

Secondly, burnout is conceptualized as an outcome rather than a cause, in contrast to factors such as job demands and job resources. Substantial research has demonstrated that burnout is a consequence of excessive job demands and inadequate job resources. Burnout has been shown to have a detrimental effect on the health of workers and to contribute to their turnover intentions (Schaufeli and Bakker, 2004). Figure 4 provides a framework for incorporating burnout as a comprehensive indicator of social sustainability for educators.

As illustrated in Figure 4, burnout serves as an integrative indicator linking industrial psychology constructs with the employee well-being dimension of social sustainability, particularly the working hour or work–life balance indicator. Burnout is a measurable outcome of prolonged working hours and work-life imbalance (Schaufeli and Bakker, 2004; Edú-valsania, Laguía and Moriano, 2022); therefore, its inclusion as an indicator of employee well-being is theoretically justified. As illustrated in Figure 4, burnout serves as an integrative indicator linking industrial psychology constructs with the employee well-being dimension of social sustainability, particularly the working hour or work–life balance indicator. Burnout is a measurable outcome of prolonged working hours and work-life imbalance (Schaufeli and Bakker, 2004); therefore, its inclusion as an indicator of employee well-being is theoretically justified. An empirical justification was tested by conducting a case study examining burnout as a proposed indicator of employee well-being in higher education.

Table 2. Synthesis of employee-related social sustainability indicators

Categories	Employee-related social sustainability indicators	Reference																
		(Briamonte *et al.*, 2024)	(Brennan *et al.*, 2023)	(Umstätter, Mann and Werner, 2022)	(Pilane, Jordaan and Bahta, 2024)	(Garlock *et al.*, 2024)	(Vijaya *et al.*, 2025)	(Passos Neto *et al.*, 2022)	(Vijayakumar *et al.*, 2022)	(Wicaksono, Sodri and Chairani, 2020)	(Desiderio *et al.*, 2022)	(Messman *et al.*, 2024)	(Kalfaoğlu, 2023)	(Gebhardt *et al.*, 2023)	(Ibáñez-Forés *et al.*, 2023)	(Lin, Efranto and Santoso, 2021)	(Okay, Sencer and Taskin, no date)	(Martín and Palomo Zurdo, 2021)
Labor practices	Provision of employment/ local employee				X	X			X	X	X							
	Participation of employees in decision-making														X			
	Freedom of association				X						X						X	
	Sense of unity												X					
	Diversity among employees																X	
Employee well-being	Working hours/Work-life Balance		X	X					X				X		X	X	X	X
	Fair code of conduct	X			X				X			X	X		X	X		
	Salary justice	X				X			X		X	X	X		X		X	
	Employee engagement and relations											X	X	X				
	Employee satisfaction								X		X			X	X	X	X	X
	Presence of a psychological support structure										X							
Health and safety	HSE management systems	X						X		X				X	X		X	
	Employee health	X			X			X	X		X	X		X		X		
	Employee safety								X		X	X			X	X	X	
	Workplace comfort															X	X	
Internal social benefits	Benefits to employees		X						X			X	X		X	X	X	
	Employee training/development	X					X	X	X			X	X	X	X	X	X	
	Performance evaluation														X			

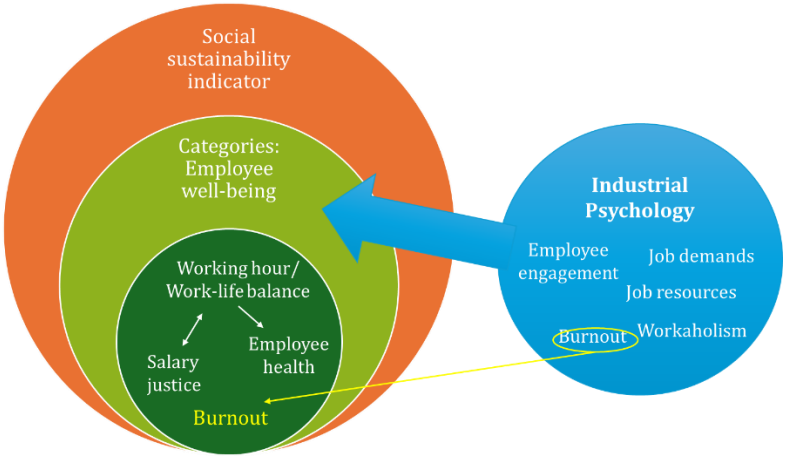

Figure 4. Framework of burnout as an indicator of social sustainability in education

3.3 Case study: Burnout in higher education

3.3.1 Subjects

The subjects in this study were 41 lecturers from the Faculty of Industrial Technology, Universitas Atma Jaya Yogyakarta (UAJY), who were recruited voluntarily. Table 3 summarizes the demographics of the subjects.

Table 3. Subjects' demographics

Variable	Value	
Age	Years	
Mean	41.27	
Standard deviation	11.21	
Range	27-64	
Sex	Total	Percentage (%)
Female	20	48.80
Male	21	51.20
Functional position	Total	Percentage (%)
Lecturer	15	36.60
Senior Lecturer	11	26.80
Associate Professor	9	22.00
Professor	1	2.40
No functional position	5	12.20
Structural position	Total	Percentage (%)
Structural official	19	46.30
Non-structural official	22	53.70

3.3.2 Instrument

The questionnaire was utilized to assess the level of burnout using the Burnout Assessment Tool (BAT)-12 version 2.0 (Schaufeli, Witte and Desart, 2020), an extension of the gold standard burnout measurement tool, namely the Maslach Burnout Inventory, commonly referred to as MBI (Maslach and Jackson, 1981; Hakanen, Bakker and Schaufeli, 2006; Grossi *et al.*, 2015). The BAT-12 instrument comprises 12 questions, covering four core domains of burnout: exhaustion, mental distance, emotional impairment, and cognitive impairment. These domains capture burnout as a mental state reflecting impaired employee well-being. Each dimension consists of three questions, with a score scale ranging from 1 (never) to 5 (always), which indicates the frequency of occurrence. The full BAT-12 items were administered according to the instrument's guidelines. Example questions include mental and physical exhaustion at work, detachment from work, and difficulties in regulating emotions and concentration.

3.3.3 Descriptive analysis of burnout levels in lecturers

The scale's cut-off level was calculated based on the questionnaire results, as outlined in the manual (BAT) version 2.0 (Ramachandaran, Nuraini and Doraisingam, 2024). The cut-off value of the burnout level as a social sustainability indicator was presented in Table . It is widely accepted that a minimal level of burnout is conducive to fostering long-term well-being.

A prevalence analysis of the burnout level experienced by lecturers was conducted, revealing that a substantial proportion of lecturers exhibit moderate levels of burnout (51.20%), with an average total burnout level of 2.29 ± 0.64 (see Figure 5). The prevalence of faculty burnout levels was as follows: low (*sustainable*), 24.40%; high, 19.50%; and extreme, 4.90%. These findings are slightly higher than the previous findings that the majority of lecturers in Indonesia were at a low or sustainable level, measured with other burnout measurement tools (Darmawan, Silviandari and Susilawati, 2015; Wayanti, 2016). The difference might be affected by different institutional cultures and policies. The classification of lecturers' burnout levels was adjusted to the standards outlined in Table 4. According to the study's findings, the exhaustion dimension made the highest contribution, with a value of 2.87 ± 0.81. This is followed by the cognitive impairment dimension (2.29 ± 0.64), the mental distance dimension (2.27 ± 0.62), and the emotional impairment dimension (1.93 ± 0.79).

The exhaustion dimension is considered a key component in the measurement of burnout, as a lack of energy has been demonstrated to affect participants' ability to process emotional and cognitive processes (Hadžibajramović, Schaufeli and De Witte, 2020; Schaufeli, Witte and Desart, 2020). This deficiency ultimately leads to mental distancing. In this study, burnout is interpreted as an outcome indicator of employee-related social sustainability; higher burnout levels indicate lower levels of social sustainability in the working environment. The dominance of moderate to high burnout levels indicates that employee-related social sustainability in the studied higher education context remains fragile and requires organizational-level interventions. Burnout may lead to adverse effects on the lecturers, which in turn affect the higher education institution; therefore, affects the sustainability of the organization. Universities should implement organizational interventions that promote sustainable working lives, such as workload management, appropriate reward systems, and fair resource allocation. Coaching and counselling will also help at the individual level to prevent and mitigate burnout (Schaufeli and Bakker, 2004; Edú-valsania, Laguía and Moriano, 2022).

Table 4. Cut-off value of burnout level in the present study

Level	Total *burnout*
Low (sustainable)	< 1.79
Moderate	1.79-2.78
High	2.79-3.47
Extreme	≥ 3.47

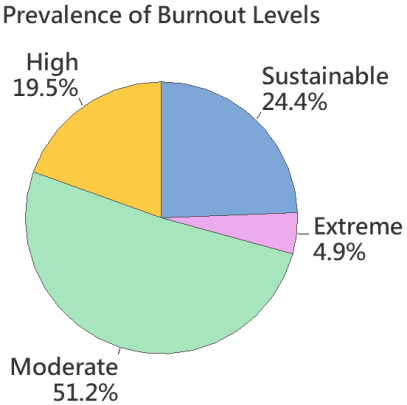

Figure 5. Prevalence of burnout levels among educators

4. Conclusion

This study highlights the importance of social sustainability as a vital yet often overlooked aspect of sustainability in higher education. A review of 17 up-to-date, open-access articles, conducted using the PRISMA methodology, resulted in four categories and 18 social indicators related to employees. Synthesizing the findings from the perspective of industrial psychology, the study proposes burnout as a comprehensive and representative metric for evaluating educators' social sustainability. The case study at Universitas Atma Jaya Yogyakarta revealed that while a minority of lecturers experience low (sustainable) levels of burnout, the majority face moderate burnout, underscoring a pressing need for institutional interventions.

Universities, as an organization, should address these challenges by developing programs that support sustainable working lives, including managing academic workloads, providing appropriate rewards, and ensuring the fair allocation of resources. At the individual level, counselling services can help mitigate burnout. Addressing this issue is crucial, as it not only safeguards the well-being of educators but also contributes to the long-term social sustainability of higher education systems.

This study has several limitations. The empirical analysis was conducted using data collected from a single faculty of one university. As a result, the findings cannot be readily generalized to other faculties or higher education institutions without further empirical validation. Organizational culture, workload distribution, and institutional policies may vary substantially across faculties and universities, potentially influencing employee well-being and burnout levels. Future research should extend this framework by involving multiple faculties and universities to enhance external validity and enable comparative analysis across institutional contexts.

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