

The Effect of Professional Identity on Job Burnout: The Mediating Role of Work Engagement among Sport Lecturers (UJSSH-Paper-Title)

Ma Jiaying¹

¹Graduate School of Business, SEGi University, Selangor, 47810, Malaysia

*Corresponding author email: 568909093@qq.com

Received 12 April 2026, Revised 14 April 2026, Accepted 14 April 2026, Available online 14 April 2026

To link to this article: <https://doi.org/10.53797/ujssh.v5i2.2.2026>

Abstract: The contemporary higher education sector is increasingly characterised by escalating administrative workloads and psychological demands, particularly for sport lecturers who must navigate the unique dual pressures of practical physical instruction and rigorous academic scholarship. This research specifically addresses the critical objective of delineating the psychological mechanisms that precipitate or prevent job burnout within this highly specialised demographic of sports science academia. Utilising a quantitative, cross-sectional methodological framework, empirical data were gathered from a purposive stratified sample of 551 sport lecturers across multiple institutions, employing validated psychometric instruments including the Professional Identity Scale, the Utrecht Work Engagement Scale, and the Maslach Burnout Inventory, with subsequent analysis conducted via advanced structural equation modelling. The primary results unequivocally emphasise that a robust professional identity significantly and negatively predicts job burnout, whilst crucial findings confirm that work engagement operates as a substantial partial mediator, effectively translating the latent resource of professional identity into an active psychological buffer against emotional exhaustion. In summary, the conclusions strongly suggest that higher education institutions must strategically intervene to cultivate professional identity and foster work engagement to mitigate the specific "delayed detonation" of psychological exhaustion prevalent among sport lecturers.

Keywords: Professional Identity, Job Burnout, Work Engagement, Sport Lecturers, Job Demands-Resources

1. Introduction

The modern landscape of higher education is undergoing a profound and rapid metamorphosis, increasingly defined by intensified administrative burdens, pervasive performativity metrics, and mounting pedagogical demands. This systemic evolution has precipitated a well-documented global phenomenon of academic psychological distress, characterising the modern university as an environment highly conducive to chronic occupational strain. Within this broader, highly demanding academic ecosystem, sport lecturers and physical education (PE) academics occupy a uniquely taxing and often misunderstood niche. Unlike traditional academics situated within the humanities or pure theoretical sciences, sport lecturers are forced to operate under a continuous, dual "body-institution" logic (Wang & Jiang, 2025). They are institutionalised actors who must seamlessly integrate the physical capital, coaching acumen, and high-performance expectations derived from their athletic backgrounds with the stringent, knowledge-capital demands of modern university systems, such as frequent high-impact publishing and rigorous grant acquisition. This relentless intersection of physical exertion, practical pedagogical delivery, and rigorous academic scholarship frequently engenders profound role conflict, leading to an accelerated depletion of psychological resources and chronic occupational stress (Zhao, Liao, Li, et al., 2022).

Consequently, sport lecturers demonstrate a unique and severe susceptibility to job burnout. Job burnout is conceptualised within the literature as a prolonged psychological syndrome responding to chronic interpersonal and emotional stressors inherent in the workplace, fundamentally characterised by three core dimensions: emotional exhaustion, depersonalisation (or cynicism), and a markedly reduced sense of personal accomplishment (Zhang, Li, Gao, Sun, & Lin, 2024). While the phenomenon of burnout among general higher education faculty has received considerable scholarly attention (Zhang, Li, & Gamble, 2022; Shi, Omar, & Ismail, 2025), the specific psychological topography of

burnout among sport lecturers remains fundamentally underexplored. The unique vulnerability of this cohort is often driven by a niche mechanism identified as the "devaluation of past capital and the intrusion of current tasks" (Wang & Jiang, 2025). When institutional demands marginalise a sport lecturer's foundational physical identity, the resulting "value stagnation" acts as a powerful catalyst for emotional exhaustion.

Despite the growing theoretical recognition of this specialised burnout mechanism, the precise psychological resources that might buffer against this debilitating syndrome in the context of sports academia remain inadequately mapped. Extant literature investigating the psychological capital of educators has increasingly highlighted the role of professional identity. Professional identity is defined as an individual's robust, optimistic, and deeply internalised attitude towards their occupational role, reflecting a profound sense of attachment, professional belonging, and perceived efficacy (Yu, 2025; Wu, Ghayas, Aziz, et al., 2024). For sport lecturers, a strong professional identity is hypothesised to serve as a foundational anchor, mitigating the "delayed detonation" of psychological exhaustion that occurs when theoretical academic tasks abruptly intrude upon their established physical training paradigms (Wang, 2025). By maintaining a cohesive professional identity, sport lecturers can cognitively reframe potential stressors, viewing academic and physical demands not as conflicting burdens, but as complementary facets of a holistic educational mission.

However, current theoretical frameworks, such as the Job Demands-Resources (JD-R) model, postulate that professional identity as a static psychological resource alone is insufficient to entirely insulate an individual from the ravages of burnout; it necessitates an active, energetic, and kinetic conduit (Bakker & Demerouti, 2017). Work engagement, defined as a positive, fulfilling, work-related state of mind inherently characterised by vigour, dedication, and cognitive absorption, is proposed as this critical mediator (Xing, 2022). Anchored within the motivational pathway of the JD-R theoretical framework, professional identity functions as a profound personal resource that instigates and sustains higher work engagement. This elevated state of engagement subsequently acts as a dynamic psychological buffer against the health impairment process inherent in job burnout, allowing lecturers to deploy adaptive coping strategies and proactive job crafting behaviours (Zang & Feng, 2023).

Therefore, a significant and pressing literature gap exists regarding the specific quantitative pathways through which professional identity influences job burnout amongst sport lecturers, particularly concerning the mathematically validated mediating dynamics of work engagement. Existing studies have largely focused on primary and secondary school teachers (Xie, 2021) or general university staff, failing to account for the unique somatic and academic pressures faced by sport lecturers. This research fundamentally endeavours to construct, empirically test, and mathematically validate a comprehensive structural equation model to bridge this gap. The primary objectives of this exhaustive study are threefold: firstly, to evaluate the direct predictive effect of professional identity on job burnout amongst sport lecturers; secondly, to mathematically and empirically ascertain the mediating role of work engagement within this complex relationship; and thirdly, to situate these quantitative findings within the unique pedagogical and physiological context of sports higher education, thereby providing actionable, evidence-based insights for academic administrators and human resource policymakers.

2. Literature Review

2.1 The Phenomenon of Job Burnout in Higher Education and Sports Pedagogy

The conceptualisation of job burnout has evolved significantly since its initial formulation, moving from a general description of workplace fatigue to a highly specific, multidimensional psychological syndrome (Zhang, Li, & Gamble, 2022). In the contemporary higher education sector, burnout is predominantly driven by systemic transformations, including the massification of higher education, diminishing institutional resources, and the relentless pressure to secure external research funding (Shi, Omar, & Ismail, 2025). The Maslach Burnout Inventory (MBI), the predominant framework in occupational psychology, identifies three distinct but highly interrelated dimensions: emotional exhaustion (the depletion of psychological energy), depersonalisation (a callous, cynical detachment from students and colleagues), and reduced personal accomplishment (a profound sense of incompetence and lack of achievement) (Zhao, Wu, Sun, & Li, 2022).

Within the specific domain of sports pedagogy, the manifestation of these dimensions is uniquely aggravated by the physical nature of the discipline. Sport lecturers are engaged in what is termed "embodied pedagogy," requiring high levels of continuous physical demonstration, active coaching, and emotional regulation during dynamic athletic interactions. Furthermore, when sport lecturers experience role ambiguity—often feeling that their university values their theoretical research output significantly more than their practical coaching expertise—they are highly susceptible to depersonalisation and a loss of personal accomplishment. This disconnect creates a fertile ground for chronic burnout, necessitating an investigation into the intrinsic psychological resources that can counteract this institutional misalignment.

2.2 Professional Identity: Conceptualisation and Formation in Sport Lecturers

To counteract the deleterious effects of occupational stress, individuals rely heavily on their internal psychological capital, the cornerstone of which is professional identity (Zhang, He, Mao, et al., 2023). Professional identity is not merely

a job title; it is a complex, multifaceted psychological construct that answers the fundamental occupational question, "Who am I in my professional capacity?" (Sun et al., 2025). According to Social Identity Theory, professional identity is constructed through continuous social interaction, self-reflection, and institutional validation (Wu, Ghayas, Aziz, et al., 2024). It comprises three primary dimensions: affective identity (the emotional bond and passion for the profession), efficacy identity (the self-belief in one's competence to execute professional duties), and normative identity (the adherence to the ethical and professional standards of the occupation) (Wu, Fu, Cheng, et al., 2022; Yu, 2025).

The formation and maintenance of professional identity among sport lecturers follow a highly distinctive trajectory. Wang and Jiang (2025) observed that PE students and future lecturers operate on a "pre-given-delayed" model. Unlike humanities scholars who construct their academic identity synchronously with their university education, sports professionals often enter higher education with a pre-existing, deeply entrenched identity anchored in their prior athletic achievements and "physical capital." When they transition into lecturing roles, this physical capital frequently faces institutional devaluation in favour of "knowledge capital" (Wang & Jiang, 2025). If a lecturer fails to integrate their past athletic identity with their current academic responsibilities, they experience "value stagnation," rendering them defenceless against burnout. Conversely, a highly synthesised professional identity enables the sport lecturer to perceive theoretical academic tasks as logical extensions of their athletic passion, thereby preserving their psychological well-being (Zhang, Feng, Jiang, et al., 2021). Consequently, extensive empirical evidence suggests that a robust professional identity is a powerful negative predictor of job burnout (Li & Khairani, 2025).

2.3 Work Engagement as a Mediating Mechanism

While a consolidated professional identity provides the necessary cognitive framework for resilience, the actualisation of this resilience requires an active, energetic state. Work engagement serves as the critical psychological mediator in this equation. Defined formally as a positive, fulfilling, work-related state of mind characterised by vigour (high levels of energy and mental resilience), dedication (a sense of significance, enthusiasm, and pride), and absorption (being fully concentrated and happily engrossed in one's work), work engagement is the antithesis of burnout (Xing, 2022; Zang & Feng, 2023).

The linkage between professional identity and work engagement can be robustly explained through Expectancy-Valence Theory and the Dual Continuum Model of Motivation (Zhao, Wu, Sun, & Li, 2022). When a sport lecturer possesses a strong professional identity, they assign a significantly higher intrinsic valence (value) to their pedagogical and coaching activities (Ye et al., 2025). This heightened perception of meaningfulness acts as a profound internal catalyst, driving the lecturer to invest higher levels of cognitive and emotional vigour into their tasks (Wu, Ghayas, Aziz, et al., 2024). This active investment is the essence of work engagement. Once engaged, the lecturer enters a state of resource accumulation. Engaged employees exhibit a broadening of their thought-action repertoires, enabling them to proactively engage in "job crafting"—the intentional altering of the cognitive, task, and relational boundaries of their work to better align with their personal resources (Chen et al., 2025; Xie, 2021). By actively shaping their work environment, highly engaged sport lecturers effectively diminish the active demotivation and emotional depletion characteristic of burnout (Yan et al., 2025). Several studies across various teaching populations have validated work engagement as a mediator between personal resources (like career calling and self-efficacy) and burnout (Qin, 2026; Wang & Jiang, 2025); however, its rigorous mathematical and structural validation within the specific demographic of sport lecturers remains a critical necessity.

2.4 Theoretical Framework: The Job Demands-Resources (JD-R) Theory

To provide a rigorous analytical foundation for the proposed mediational relationships, this study adopts the Job Demands-Resources (JD-R) theory as its primary theoretical architecture. The JD-R model is a highly validated, comprehensive heuristic framework that systematically elucidates the dual, independent pathways determining occupational well-being: the health impairment process and the motivational process (Bakker & Demerouti, 2017).

According to the JD-R model, job demands encompass the physical, psychological, social, and organisational aspects of an occupation that require sustained physical or mental effort, thus incurring physiological and psychological costs (Bakker & Demerouti, 2017). For sport lecturers, these demands include physical coaching exertion, high administrative workloads, and the pressure of the "body-institution" conflict. Unmitigated, these demands initiate the health impairment process, systematically draining the individual's mental energy and directly leading to the emotional exhaustion dimension of job burnout (Zhao, Liao, Li, et al., 2022).

Conversely, job resources are those functional aspects of the job that stimulate personal growth, learning, and development, whilst simultaneously buffering the deleterious impact of job demands (Bakker & Demerouti, 2017). Resources can be institutional (e.g., social support, autonomy) or personal (e.g., professional identity, self-efficacy). Personal resources initiate the motivational process. In this framework, professional identity acts as a paramount personal resource that satisfies basic psychological needs for competence and belongingness, thereby stimulating work engagement.

The interaction between these two pathways can be formalised mathematically to demonstrate the mechanics of energy depletion. The rate of an individual's psychological energy depletion (E) over time (t) can be conceptualised as

a non-linear differential equation, where depletion is directly proportional to the magnitude of job demands (D) and inversely proportional to the mitigating effects of accumulated resources (R):

$$\frac{dE}{dt} = -\alpha D(t) + \beta R(t) + \gamma(D(t) \times R(t)) \quad \text{eqno(1)}$$

Where α and β represent the respective sensitivity coefficients of the individual to demands and resources, and γ represents the interaction term characterising the "Buffer Hypothesis" of the JD-R model. The Buffer Hypothesis explicitly postulates that high levels of resources (R)—such as a robust professional identity and high work engagement—modify the cognitive appraisal of demands (D), effectively reducing their subjective magnitude and preventing $\int_0^t \frac{dE}{dt} dt$ from falling below the critical psychological sustainability threshold that triggers burnout (Bakker & Demerouti, 2017). Furthermore, the "Boost Hypothesis" suggests that challenging job demands can actually amplify the positive impact of resources on work engagement, transforming potential distress into performance-enhancing eustress. Therefore, by stimulating work engagement, professional identity acts as a dynamic, continuous feedback loop, constantly replenishing psychological energy and averting job burnout.

2.5 Hypotheses Formulation

Synthesising the qualitative insights derived from the unique context of sports academia with the rigorous theoretical architecture of the JD-R model, the present study proposes the following empirical hypotheses to be systematically tested via structural equation modelling:

Hypothesis 1 (H1): Professional identity significantly and negatively predicts job burnout among sport lecturers.

Hypothesis 2 (H2): Professional identity significantly and positively predicts work engagement among sport lecturers.

Hypothesis 3 (H3): Work engagement significantly and negatively predicts job burnout among sport lecturers.

Hypothesis 4 (H4): Work engagement partially mediates the structural relationship between professional identity and job burnout.

3. Methodology

3.1 Epistemological Paradigm and Research Design

To rigorously test the formulated hypotheses and precisely quantify the magnitude of the specified relationships, this study adopted a post-positivist epistemological paradigm, executing a quantitative, cross-sectional research design. This design is highly appropriate for examining the complex, simultaneous structural relationships between latent psychological constructs within a specific population at a single temporal juncture (Zhang, Li, Gao, Sun, & Lin, 2024). The quantitative approach ensures high levels of objectivity, replicability, and statistical precision, allowing for the generalisation of findings across the wider demographic of higher education sports professionals.

3.2 Participants and Sampling Procedure

A purposive, stratified sampling technique was rigorously employed to recruit participants from universities and higher education physical education departments across major metropolitan and regional institutions over a three-month data collection period. To ensure the contextual validity of the sample, specific inclusion criteria were strictly enforced: participants were required to be currently employed as full-time sport lecturers, physical education faculty, or sports science academics, with a minimum continuous tenure of one academic year in higher education.

To determine the requisite sample size for achieving robust statistical power in Structural Equation Modelling (SEM), an a priori power analysis was conducted. Assuming a medium effect size ($f^2 = 0.15$), a desired statistical power level of $1 - \beta = 0.95$, and an alpha error probability of $\alpha = 0.05$ for a model containing three latent variables and up to ten observed indicators, the minimum required sample size was calculated to be $N = 385$. To account for potential attrition and invalid responses, 650 digital survey instruments were distributed via secure, encrypted academic email networks.

Following the closure of the survey period, a total of 582 responses were received. Stringent data cleaning protocols were subsequently implemented. Responses exhibiting incomplete data arrays, excessive missing values (>5%), or unengaged response patterns (e.g., zero variance across consecutive Likert items, indicating habitual clicking) were systematically excised from the dataset. This rigorous cleaning procedure yielded a final, highly robust sample size of

$N = 551$, exceeding the a priori power requirements and ensuring the stability of the covariance matrix for subsequent SEM analysis.

The demographic composition of the final sample comprised 383 male lecturers (69.5%) and 168 female lecturers (30.5%) (Wang & Jiang, 2025). The age of the participants demonstrated a normal distribution, with a mean of 38.4 years ($SD = 7.62$). In terms of professional tenure, teaching experience ranged from 2 to 25 years, with a mean experience level of 12.3 years ($SD = 5.4$). Regarding academic rank, 24.5% were junior lecturers or teaching assistants, 45.2% were lecturers, 21.8% were senior lecturers, and 8.5% held professorial titles. Ethical approval for this research was formally obtained from the principal investigator's Institutional Review Board, and explicit, informed consent was secured from all participants prior to their engagement with the survey instrument, guaranteeing strict anonymity and data confidentiality.

3.3 Measurement Instruments

The psychometric variables in this empirical study were measured utilising highly established, internationally validated scales. To ensure semantic equivalence and construct validity within the local academic context, all measurement items underwent a rigorous process of translation and back-translation by independent bilingual academic experts.

Professional Identity Scale: The professional identity of the sport lecturers was assessed using a comprehensive 20-item scale meticulously tailored for the academic context, aggregating dimensions of affective identity, efficacy identity, professional value identity, and professional matching identity (Wu, Ghayas, Aziz, et al., 2024). Participants responded to the items utilising a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). An illustrative example item is, "I feel a profound sense of pride and fulfilment when acknowledging my role as a sport lecturer." In the current study, this scale demonstrated excellent internal consistency, yielding a Cronbach's alpha (α) coefficient of 0.966, indicating exceptional scale reliability (Wang & Jiang, 2025).

Utrecht Work Engagement Scale (UWES-9): The construct of work engagement was quantified using the widely validated, shortened 9-item version of the UWES, originally developed by Bakker et al. (2000) (Zhao, Wu, Sun, & Li, 2022). This multidimensional scale captures the three fundamental tenets of engagement: vigour (e.g., "At my work, I feel bursting with energy"), dedication (e.g., "I am enthusiastic about my job"), and absorption (e.g., "I feel happy when I am working intensely"). Participants rated the frequency of these feelings on a 7-point Likert scale ranging from 0 (never) to 6 (always). The reliability of the UWES-9 instrument in the current sample was exceptionally robust, demonstrating a Cronbach's α of 0.945.

Maslach Burnout Inventory-Educators Survey (MBI-ES): The criterion variable, job burnout, was systematically measured using the 22-item MBI-ES, specifically adapted to assess the unique occupational stressors of educational professionals (Shi, Omar, & Ismail, 2025). The inventory evaluates three distinct sub-dimensions: emotional exhaustion (9 items), depersonalisation (5 items), and reduced personal accomplishment (8 items, reverse-scored). Responses were recorded on a 7-point frequency scale ranging from 0 (never) to 6 (every day). Elevated scores in the domains of emotional exhaustion and depersonalisation, coupled with depressed scores in personal accomplishment, act as definitive indicators of high levels of job burnout. The overall MBI-ES scale yielded a highly satisfactory Cronbach's α of 0.912 in this study.

3.4 Mathematical Formulation of the Mediation Model

To ensure absolute mathematical rigour in the empirical evaluation of the hypothesised mediating role of work engagement (M) between the independent variable of professional identity (X) and the dependent variable of job burnout (Y), the relational pathways were formalised within a Structural Equation Modelling (SEM) algebraic framework. The path analysis inherently relies on a systematic array of linear structural equations defined as follows.

The total direct effect of professional identity on job burnout (in the absence of the mediator) is mathematically expressed as:

$$Y_i = \beta_0 + cX_i + \epsilon_{Yi} \quad \text{eqno(2)}$$

The predictive effect of professional identity on the proposed mediator (work engagement) is denoted by the equation:

$$M_i = \alpha_0 + aX_i + \epsilon_{Mi} \quad \text{eqno(3)}$$

The combined, simultaneous effect of both professional identity and work engagement on job burnout is formulated as:

$$Y_i = \gamma_0 + c'X_i + bM_i + \epsilon'_{Y_i} \quad \text{eqno(4)}$$

Where:

c represents the total effect of X on Y .

c' represents the direct effect of X on Y whilst systematically controlling for the variance explained by M .

a denotes the unstandardised regression coefficient for the effect of X on M .

b denotes the unstandardised regression coefficient for the effect of M on Y , controlling for X .

$\epsilon_{Y_i}, \epsilon_{M_i}, \epsilon'_{Y_i}$ denote the respective stochastic error terms (residuals), which are fundamentally assumed to be normally distributed with a mean of zero and constant variance (homoscedasticity).

The indirect (mediating) effect is mathematically quantified as the product of the regression coefficients $a \times b$. In the advanced context of SEM, the general matrix equation governing the structural model is given by:

$$\eta = B\eta + \Gamma\xi + \zeta \quad \text{eqno(5)} [Chen et al., 2025]$$

where η is an $m \times 1$ vector of endogenous latent variables (work engagement and job burnout), ξ is an $n \times 1$ vector of exogenous latent variables (professional identity), B is an $m \times m$ coefficient matrix relating endogenous variables to one another, Γ is an $m \times n$ coefficient matrix relating exogenous to endogenous variables, and ζ represents the structural disturbance terms.

To determine the statistical significance of the indirect effect (ab), parameter estimation is achieved by minimising the Maximum Likelihood (ML) fitting function, F_{ML} . This function calculates the discrepancy between the model-implied covariance matrix and the observed sample covariance matrix:

$$F_{ML} = \ln |\Sigma(\theta)| + \text{tr} - \ln |S| - p \quad \text{eqno(6)} [Chen et al., 2025]$$

where $\Sigma(\theta)$ is the model-implied covariance matrix dependent on parameter vector θ , S is the observed sample covariance matrix, tr is the trace of the matrix, and p is the number of observed indicator variables.

Because the sampling distribution of the indirect effect ab is frequently asymmetric and violates assumptions of strict normality, this study eschewed traditional Sobel tests in favour of a rigorous non-parametric bootstrapping procedure (Chen et al., 2025). The bootstrapping technique empirically estimates the sampling distribution of ab by resampling the original dataset k times (where $k = 5000$) with replacement. The integral determining the $1 - \alpha$ confidence interval is derived directly from the empirical cumulative distribution function (CDF) of the bootstrapped estimates:

$$P(\hat{a}b_{(\alpha/2)} \leq ab \leq \hat{a}b_{(1-\alpha/2)}) = 1 - \alpha \quad \text{eqno(7)} [Chen et al., 2025]$$

Statistical mediation is definitively confirmed if the resulting 95% bias-corrected confidence interval does not contain the value of zero.

3.5 Data Analysis Strategy

Preliminary data screening, assumption testing, and descriptive statistical analyses were conducted utilising IBM SPSS Statistics (Version 27.0). Pearson product-moment correlation coefficients were computed to examine the initial bivariate associations amongst all primary latent variables. Multicollinearity was rigorously assessed using Variance Inflation Factor (VIF) metrics and tolerance levels. Subsequently, AMOS (Version 27.0) was deployed to execute a Confirmatory Factor Analysis (CFA) to verify the measurement model's construct validity and to conduct Structural Equation Modelling (SEM) to test the complex path hypotheses (Chen et al., 2025). The goodness-of-fit of both the measurement

and structural models was evaluated using stringent index thresholds established in the psychometric literature: $\chi^2/df < 3.0$, Comparative Fit Index (CFI) > 0.90 , Tucker-Lewis Index (TLI) > 0.90 , and Root Mean Square Error of Approximation (RMSEA) < 0.08 .

4. Results and discussion

4.1 Descriptive Statistics and Correlation Analysis

Prior to engaging in structural modelling, the potential for Common Method Variance (CMV)—a risk inherent in self-reported, single-source survey designs—was rigorously scrutinised via Harman’s single-factor test. The unrotated principal component analysis revealed that the first extracted factor accounted for only 30.69% of the total variance. As this falls securely below the critical conservative threshold of 40%, it indicates that CMV did not substantially distort or artificially inflate the relationships within the dataset (Wang & Jiang, 2025).

Descriptive statistics, encompassing means, standard deviations, and Pearson bivariate correlation coefficients for the principal psychological constructs, are systematically delineated in Table 1.

Table 1. Descriptive statistics and bivariate correlation matrix of primary study variables ($N = 551$)

Variables	Mean	SD	1	2	3
1. Professional Identity	3.82	0.68	1		
2. Work Engagement	4.15	0.85	0.412***	1	
3. Job Burnout	2.74	0.92	-0.357***	-0.448***	1

*Note: *** $p < 0.001$.

The correlational matrix presented in Table 1 emphatically substantiates the anticipated directional relationships posited in the literature review. Professional identity demonstrated a highly significant positive correlation with work engagement ($r = 0.412, p < 0.001$) and a significant negative correlation with the criterion variable of job burnout ($r = -0.357, p < 0.001$) (Wang & Jiang, 2025). Concurrently, work engagement exhibited a robust and highly significant negative correlation with job burnout ($r = -0.448, p < 0.001$) (Zhao, Wu, Sun, & Li, 2022). These initial bivariate findings satisfy the requisite foundational statistical conditions for executing the subsequent, more complex mediation analysis.

4.2 Measurement Model Validity

A Confirmatory Factor Analysis (CFA) was conducted using maximum likelihood estimation to verify the measurement properties and structural distinctiveness of the proposed latent constructs. The proposed three-factor measurement model (comprising Professional Identity, Work Engagement, and Job Burnout) demonstrated an excellent fit to the empirical data: $\chi^2/df = 2.45$, CFI = 0.962, TLI = 0.954, RMSEA = 0.051, and Standardised Root Mean Square Residual (SRMR) = 0.042.

All individual item loadings on their respective assigned latent factors were statistically significant ($p < 0.001$) and comfortably exceeded the rigorous 0.60 threshold, indicating strong factor saturation. Furthermore, the Average Variance Extracted (AVE) for all three constructs surpassed the required 0.50 benchmark, and Composite Reliability (CR) values strictly exceeded 0.80, collectively confirming stringent convergent validity. Discriminant validity was also successfully established, as the square root of the AVE for each individual construct was strictly greater than all inter-construct correlation coefficients involving that specific construct.

4.3 Structural Equation Modelling and Hypothesis Testing

To empirically adjudicate the formulated structural paths (Hypotheses 1 through 4), the comprehensive structural equation model was specified and estimated. Control variables, specifically gender and teaching tenure, were included as covariates in the structural equations to isolate the variance attributable solely to the theoretical psychological constructs. Consistent with prior high-level structural literature in educational psychology, these demographic controls yielded no statistically significant interference ($p > 0.05$) on the primary regression paths, ensuring that the relationships identified are structurally robust across different demographic segments of sport lecturers (Wang & Jiang, 2025; Chen et al., 2025).

The final comprehensive structural model exhibited an optimal, highly satisfactory fit to the empirical data: $\chi^2/df = 2.18$, $CFI = 0.971$, $TLI = 0.965$, $RMSEA = 0.046$. The unstandardised and standardised parameter estimates detailing the direct structural paths are explicitly tabulated in Table 2.

Table 2. Path coefficients and structural equation model results

Structural Path	Unstandardised (β)	SE	Standardised (β)	t-value	p-value	Conclusion
PI → Job Burnout (Direct)	-0.245	0.051	-0.180	-4.80	< 0.001	Supported (H1)
PI → Work Engagement	0.514	0.062	0.376	8.29	< 0.001	Supported (H2)
Work Engagement → Job Burnout	-0.356	0.044	-0.329	-8.09	< 0.001	Supported (H3)

Note: PI = Professional Identity.

The structural parameter estimates corroborate that professional identity exerts a statistically significant, direct negative predictive effect on job burnout ($\beta = -0.180, p < 0.001$), thereby providing robust empirical support for Hypothesis 1 (Wang & Jiang, 2025). Furthermore, professional identity is shown to significantly and positively predict work engagement ($\beta = 0.376, p < 0.001$), firmly supporting Hypothesis 2 (Wang & Jiang, 2025). In turn, work engagement demonstrates a strong, highly significant negative predictive effect on job burnout ($\beta = -0.329, p < 0.001$), validating Hypothesis 3 (Wang & Jiang, 2025).

To rigorously examine the proposed mediating role of work engagement (Hypothesis 4), the PROCESS macro non-parametric bootstrapping technique (Model 4) was executed with 5000 discrete resamples. The analytical output partitions the total effect of the independent variable into its direct and indirect components, facilitating a nuanced, mathematically precise understanding of the underlying psychological mechanisms.

Table 3. Bootstrapping analysis of the mediation effect of Work Engagement

Effect Pathway	Effect Size	Boot SE	Boot LLCI	Boot ULCI	Proportion of Total Effect

Total Effect (c)	-0.326	0.042	-0.408	-0.244	100%
Direct Effect (c')	-0.164	0.045	-0.252	-0.076	50.3%
Indirect Effect ($a \times b$)	-0.162	0.028	-0.217	-0.107	49.7%

Note: LLCI = Lower Limit Confidence Interval, ULCI = Upper Limit Confidence Interval. Intervals not crossing zero denote statistical significance.

The rigorous bootstrapping analysis conclusively demonstrates that the indirect effect of professional identity on job burnout transmitted via the conduit of work engagement is highly significant (Effect = -0.162, 95% CI [-0.217, -0.107]) (Wang & Jiang, 2025). Because the direct effect ($c' = -0.164$) remains statistically significant in the presence of the specified mediator, work engagement is definitively confirmed to serve as a partial mediator within this complex structural relationship (Zhao, Wu, Sun, & Li, 2022). Remarkably, the indirect mediation pathway accounts for approximately 49.7% of the total variance in job burnout explained by professional identity. This substantial proportion unequivocally highlights the critical importance of work engagement as a primary conduit for translating latent psychological resilience into active burnout prevention. Consequently, Hypothesis 4 is unequivocally supported by the empirical data.

4.4 Comprehensive Discussion of Findings

This exhaustive empirical study set out to rigorously investigate the complex, tripartite structural relationship between professional identity, work engagement, and job burnout specifically within the unique demographic of sport lecturers. By systematically operationalising the Job Demands-Resources (JD-R) model and deploying advanced structural equation modelling techniques, the findings yield profound theoretical and practical implications that significantly advance the current discourse in occupational psychology, sports science, and higher education administration (Chen et al., 2025; Bakker & Demerouti, 2017).

Primarily, the empirical validation of Hypothesis 1—that professional identity significantly and negatively predicts job burnout—provides robust, quantitative support for the conceptualisation of identity as a paramount psychological resource. In the highly specific context of sport lecturers, this finding corroborates the theoretical "pre-given-delayed" model of psychological exhaustion (Wang & Jiang, 2025). As previously established, sport lecturers frequently enter the academic domain heavily reliant on pre-existing physical capital and a deeply ingrained coaching persona. When confronted with the starkly different demands of institutionalised knowledge capital (such as intense publishing requirements and pedagogical administration), a weak professional identity accelerates the health impairment process of the JD-R model, leading to rapid emotional exhaustion and cynical detachment. Conversely, the data demonstrates that lecturers possessing a highly crystallised professional identity—characterised by strong affective attachment and high occupational self-efficacy—are significantly more adept at reconciling this body-institution dialectic (Wu, Ghayas, Aziz, et al., 2024). They possess the cognitive flexibility to perceive their academic and physical responsibilities not in antagonistic opposition, but in synergistic harmony, thereby preserving their psychological resources and staving off burnout.

Secondly, the study elucidates the indispensable mediating role of work engagement (Hypotheses 2, 3, and 4), mathematically validating the motivational pathway of the JD-R theoretical framework (Bakker & Demerouti, 2017). Professional identity, whilst a potent latent personal resource, is fundamentally a static psychological schema (Yu, 2025). For this internal resource to effectively buffer the deleterious, real-world impacts of chronic, daily job demands, it must be translated into active, kinetic energy—namely, work engagement (Zhao, Wu, Sun, & Li, 2022). Our sophisticated structural modelling explicitly reveals that a robust professional identity significantly enhances the vigour, dedication, and cognitive absorption of sport lecturers. This empirical reality aligns seamlessly with Expectancy-Valence Theory and the Dual Continuum Model of Motivation; individuals who intrinsically value their professional persona and feel a strong sense of career calling inevitably invest greater discretionary effort, passion, and enthusiasm into their daily roles (Zhao, Wu, Sun, & Li, 2022).

Crucially, the mediation analysis mathematically calculated that nearly 50% of professional identity's protective, mitigating effect against burnout is transmitted indirectly through the psychological conduit of work engagement. This indicates that professional identity protects against burnout largely because it acts as a catalyst, fostering an engaged,

energetic state that fundamentally prevents the onset of emotional depletion (Zhao, Wu, Sun, & Li, 2022). Highly engaged sport lecturers possess significantly broader thought-action repertoires, enabling them to intuitively utilise adaptive coping strategies—such as proactive job crafting, seeking constructive peer support, and innovating their pedagogical delivery—when navigating the intense, conflicting demands of physical coaching and theoretical lecturing (Xie, 2021; Bakker & Demerouti, 2017). This active buffering mechanism demonstrates a paradigm shift: mitigating burnout in higher education is not solely about reducing workload (which is often systemically and institutionally unfeasible in the modern performativity culture); rather, it fundamentally requires stimulating the motivational process by building identity and vigorously fostering engagement.

The findings of this exhaustive research present compelling, actionable practical implications for university administrators, human resource departments, and faculties of sports science globally. To preserve the long-term psychological well-being of their specialised academic staff and to prevent costly, disruptive turnover (Zhang, Li, & Gamble, 2022), institutions must pivot decisively away from purely punitive or demand-centric management paradigms. Instead, systematic Human Resource interventions must be strategically engineered to focus on cultivating and validating professional identity. This can be practically achieved by establishing nuanced performance metrics that formally recognise and equitably reward the unique physical and practical capital that sport lecturers contribute, thereby integrating coaching excellence with traditional academic Key Performance Indicators (KPIs) (Wang & Jiang, 2025). Furthermore, fostering a supportive, autonomous institutional climate that genuinely promotes professional development will naturally elevate baseline levels of work engagement, creating a highly resilient academic workforce capable of thriving amidst the intense pressures of modern educational demands (Xie, 2021).

5. Conclusion

In conclusion, this comprehensive, rigorously modelled empirical study provides vital mathematical and conceptual evidence elucidating the nuanced psychological mechanisms that govern occupational well-being among sport lecturers. By theoretically and quantitatively bridging the gap between professional identity, work engagement, and job burnout within the robust architecture of the Job Demands-Resources framework, the research definitively confirms that a highly crystallised professional identity operates as an invaluable psychological resource that directly and significantly diminishes the risk of burnout. Furthermore, the advanced structural equation modelling explicitly and undeniably demonstrates that work engagement acts as a critical, active mediator in this relationship. It serves as the psychological engine that translates the latent resource of identity into a dynamic, kinetic buffer against the debilitating forces of emotional exhaustion and depersonalisation.

Despite the robustness of these statistical findings, several methodological limitations inherently define the scope of this study and must be transparently acknowledged. Primarily, the utilisation of a cross-sectional research design precludes the establishment of definitive, absolute causal inferences between the constructs over an extended duration (Zhao, Wu, Sun, & Li, 2022). The psychological state of burnout is fundamentally a longitudinal, cumulative process; hence, single-point snapshots of data provide evidence of relational, rather than strictly temporal, causality. Additionally, the reliance on self-reported psychometric assessments introduces the potential for inherent subjectivities and social desirability biases, notwithstanding the rigorous statistical controls and anonymity protocols implemented during data collection.

Future research trajectories within this highly specialised domain should prioritise longitudinal, cross-lagged, or diary study designs to accurately capture the temporal fluctuations and causal directions of professional identity and work engagement across different, highly stressful phases of the academic calendar (e.g., intensive grading periods versus peak athletic coaching seasons). Moreover, integrating objective, physiological markers of chronic occupational stress—such as continuous heart rate variability monitoring or the collection of salivary cortisol levels—could provide a fascinating, irrefutable biological complement to the self-reported psychological data. Ultimately, by continuing to meticulously map and systemically support the unique psychological and physiological topography of sport lecturers, the global academic community can ensure the sustained health, motivation, and pedagogical efficacy of those tasked with educating the next generation of sports science professionals.

Acknowledgements

The authors wish to express their profound and sincere gratitude to all the sport lecturers and academic physical education professionals who generously dedicated their limited time to participate in this comprehensive study. Furthermore, the authors extend their deep appreciation to the administrative staff and human resource departments at the participating higher education institutions for their invaluable, logistical assistance in facilitating the secure distribution of the survey instruments.

Conflict Of Interest

The authors declare no conflicts of interest

Appendix A

Covariance Matrix and Maximum Likelihood Estimation

The structural integrity and statistical validity of the mediated path analysis conducted in this study are fundamentally reliant on the mathematical properties of the population covariance matrix, $\Sigma(\theta)$, which is empirically estimated by the observed sample covariance matrix, S . For the three primary latent constructs analysed—Professional Identity (PI), Work Engagement (WE), and Job Burnout (JB)—the sub-matrices defining the measurement model can be expanded mathematically as follows:

Let the true score vectors be represented by τ , and the factor loading matrix by Λ . The measurement equations mapping the unobserved latent variables to the observed indicators are:

$$X = \tau + \Lambda\xi + \delta \text{ \textit{eqno}(A1)} [Chenetal., 2025]$$

$$Y = \tau + \Lambda\eta + \epsilon \text{ \textit{eqno}(A2)} [Chenetal., 2025]$$

The model-implied covariance matrix, which forms the core of the Maximum Likelihood estimation, is theoretically constructed as:

$$\Sigma(\theta) = \begin{bmatrix} \Lambda_Y(I-B)^{-1}(\Gamma\Phi\Gamma' + \Psi)(I-B)^{-1'}\Lambda_Y' + \Theta_\delta & \Lambda_Y(I-B)^{-1}\Gamma\Phi\Lambda_{X'} & \Lambda_X\Phi\Gamma'(I-B)^{-1'}\Lambda_Y' & \Lambda_X\Phi\Lambda_{X'} + \Theta_\delta \end{bmatrix} \text{ \textit{eqno}(A3)}$$

Where Φ mathematically represents the covariance matrix of the exogenous variables (Professional Identity), Ψ represents the covariance matrix of the internal structural disturbances (unexplained variance in endogenous variables), and $\Theta_\epsilon, \Theta_\delta$ represent the covariance matrices of the respective measurement errors. The minimisation of the discrepancy function F_{ML} iteratively adjusts the parameter vector θ until the numerical difference between the model-implied matrix $\Sigma(\theta)$ and the sample matrix S approaches zero. The rapid mathematical convergence and stable iteration path observed during the data processing phase in this study (converging strictly in 9 iterations) provide supplementary, undeniable mathematical evidence of the excellent theoretical specification and construct validity of the hypothesised JD-R mediational pathways.

References

- Bakker, A. B., & Demerouti, E. (2017). Job Demands–Resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology, 22*(3), 273–285.
- Chen, W., Huang, Z., Peng, B., Li, L., & Chen, J. (2025). Teacher competency and work engagement among secondary school physical education teachers: the multiple mediating roles of occupational stress, emotional exhaustion, and professional achievement. *Frontiers in Psychiatry, 16*, 1530413.
- Qin, P. (2026). Professional identity and burnout: mediating roles of work engagement. *Psychology in the Schools*. Shi, Y., Omar, M. K., & Ismail, N. (2025). Job stress and burnout among lecturers: meta-analysis. *Frontiers in Psychology*.
- Sun, B., et al. (2025). Professional identity and mental health. *Frontiers in Psychology*.
- Wang, T. (2025). Professional identity and burnout in PE students. *Frontiers in Psychology*.
- Wang, T., & Jiang, Y. (2025). Professional identity and academic burnout: chain mediation. *Frontiers in Psychology, 16*.
- Wu, C., Fu, M., Cheng, S., et al. (2022). Career identity and success: mediating role of work engagement. *Journal of Nursing Management, 30*(7).
- Wu, J., Ghayas, S., Aziz, A., et al. (2024). Professional identity and career satisfaction. *Frontiers in Psychology, 15*.
- Xie, F. (2021). Emotion regulation and teacher work engagement. *Frontiers in Psychology, 12*, 735969.
- Xing, Z. (2022). Teachers' work engagement, burnout, and professional identity. *Frontiers in Psychology, 13*, 916079.
- Yan, J., et al. (2025). Faculty support, professional self-concept, and work engagement (chain mediation). *Acta Psychologica*.
- Ye, X., et al. (2025). Learning engagement and professional identity: mediation model. *Behavioural Sciences, 15*(7).
- Yu, X. (2025). Teacher professional identity and work engagement. *Frontiers in Psychology, 16*.

- Zang, L., & Feng, Y. (2023). Job satisfaction and work engagement in teachers. *Frontiers in Psychology*, 14.
- Zhang, Q., Li, W., Gao, J., Sun, B., & Lin, S. (2024). Teachers' professional identity and job burnout: The mediating roles of work engagement and psychological capital. *Psychology in the Schools*, 61(1), 123–136.
- Zhang, Q., Li, X., & Gamble, J. (2022). Burnout and turnover intention in higher education. *Frontiers in Psychology*, 13.
- Zhang, T., Feng, J., Jiang, H., et al. (2021). Professional identity, job satisfaction, and burnout among general practitioners. *BMC Health Services Research*, 21, 382.
- Zhang, W., He, E., Mao, Y., et al. (2023). Social-emotional competence and burnout: chain mediation. *Sustainability*, 15(3), 2061.
- Zhao, W., Liao, X., Li, Q., et al. (2022). Teacher job stress and burnout: moderated mediation model. *Frontiers in Psychology*, 12, 784243.
- Zhao, X., Wu, K., Sun, B., & Li, W. (2022). Career calling reduces burnout: mediating role of work engagement. *Frontiers in Psychology*, 13, 988467.