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The influence of academic staff job performance on job burnout: the moderating effect of psychological counselling

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Current research on addressing burnout in higher education predominantly focuses on post-measurements, after job burnout has occurred, rather than emphasizing the long-recognized tradition of preventive philosophy and applying pre-measurements of burnout. This study focuses on the influence of academic staff job performance on job burnout, as well as the moderating effect of psychological counselling. Using a quantitative approach with panel data over a four-year period, information was collected from 1091 academic staff across 12 universities. It utilized archived data on their job performance (KPI) and mental health reports. The findings revealed that job performance exerts a negative influence on burnout ($\beta = -0.037$, $P < 0.001$). Furthermore, psychological counselling moderates the relationship between job performance and job burnout ($\beta = -0.005$, $P < 0.001$), although it does not directly enhance job performance. Overall, this research contributes to understanding and addressing burnout among academic staff, by suggesting that job performance and psychological counselling can serve as preventive measures against burnout. Therefore, universities are encouraged to implement proactive recruitment strategies that assess academic staff holistically so that the onset of burnout can be mitigated.

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Introduction

Job burnout is believed to be a component of emotional fatigue. It is a psychological syndrome caused by reacting to chronic emotional and interpersonal stressors at work (Lu et al. 2023). Maslach and Leiter (2022) stressed that job burnout is perceived based on a three-dimensional construct which will produce emotional exhaustion, depersonalization, and reduced personal accomplishment. Burnout has been officially recognized by the World Health Organization (WHO) in its most recent revision of the International Classification of Diseases (ICD-112019) as an occupational hazard. According to this classification, burnout is explicitly associated with the workplace and should not be used to describe stress or challenges in different facets of life.

Drawing from Maslach's foundational research, the WHO defines burnout as a syndrome which is caused by chronic workplace stress that has not been effectively handled (Atroszko et al. 2020). It can affect individuals working in various professions and industries, leading to an array of negative emotional, psychological and physical outcomes (Maslach and Leiter, 2016). Burnout typically develops over time as a consequence of ongoing stressors and can have significant implications for both the organization people work for and the individual experiencing it (Maslach and Leiter, 2016). It is precisely these serious outcomes that have sparked a wave of theoretical explorations on how to address or reduce burnout in the workplace (Maslach and Leiter, 2022).

The WHO currently classifies job burnout as a disease caused by work stress/pressure, which can lead to cardiovascular disease, immune system disorders, mental and psychological disorders, and even endanger an individual's life (Hammarström et al. 2023). Similarly, the WHO (2024) recommends that medical services and psychological counselling be formally accepted as procedures for treating workplace burnout. In this article, the dependent variable is job burnout and it is found to have a negative impact on employees' health status, while psychological counselling is regarded as a moderating variable and has been identified as one of the methods to address burnout.

In addition to WHO's certified psychological counselling solutions, many studies have proposed strategies to address the crisis of job burnout, such as social support, job satisfaction, organizational identification, and work environment (Chen et al. 2023; Lee et al. 2023); however, the severity of this issue continues to increase. The Health Promotion and Disease Prevention theory by the National Institutes of Health (2005), assumes that modern society tends to support the practice of disease prevention and actively guide policies related to the system. In this situation, a specific focus is needed to better address the issue of burnout before it occurs, rather than addressing it after it happens. This is the key motivation for this research.

Hence, this research no longer emphasizes the use of work environment and individual characteristics to reduce job burnout, but instead fundamentally prevents burnout by improving individual competency. It follows the argument of Tareknege et al. (2024) who contended that employee competency is primarily a combination of several interacting features that form a performance. Salman et al. (2020) further asserted that competency can be measured reliably by determining an employee's job performance. Consequently, job performance is viewed as an independent variable to test whether it affects burnout, challenging the existing literature claim that job burnout greatly determines performance.

Research aim, questions, and hypothesis development

Considering the above discussion, this study will redirect the analytical path, aiming to explore whether academic staff

members' job performance has an impact on their job burnout. Meanwhile, based on the WHO's (2024) statement that psychotherapy is the primary treatment for job burnout, conclusions have been made on psychological therapy/counselling, namely that it has a significant moderating variable on job performance and burnout. However, if prevention philosophy is believed to be better than treatment, then the recommendation of psychotherapy/psychological counselling seems faulty and uncomprehensive (Chaisurin and Yodchai, 2024). To address this issue, China was selected as a case study and assess how its universities maintain quality and reduce academic burnout. Thus, we believe that a comparative study needs to be done on the contextualization of job burnout. This article attempts to carefully investigate the impact of academic staff with different performance levels on job burnout, and provide outcomes that can lead to applicable strategies aimed at preventing and minimizing the crisis of job burnout among university academic staff. To achieve our research objectives, the following questions were designed:

- (1) What is the relationship between job performance and job burnout amongst academic staff in Chinese universities?
- (2) What is the moderating effect of psychological counselling on the relationship between job performance and job burnout amongst academic staff in Chinese universities?
- (3) What strategies can be developed to address the issue of job burnout among academic staff in Chinese universities?

To answer these research questions and provide new research findings, the study proposes four hypotheses to guide this study:

H1: Job performance (level) of academic staff in China universities has a significant negative effect on their job burnout (level).

H2: Provision of psychological counselling moderates the effect of job performance (level) of academic staff and their job burnout (level).

More hypotheses were devised based on the moderating effect of psychological counselling and they are as follows:

H2a: Post-measurements can address the issue of job burnout amongst academic staff in Chinese universities.

H2b: Pre-measurements can address the issue of job burnout amongst academic staff in Chinese universities.

This study focuses on universities, as the number of academic staff in universities increased worldwide by approximately 9 million from 1980 to 2018 (UNESCO, 2019). Higher education remains the main battlefield for burnout, and probably due to the lack of capacity, a persistent crisis of job burnout in universities is occurring. This study examines the burnout of different performance groups in universities to support the claim that when considering all predictive factors related to job burnout, academic staff who demonstrate superior performance have lower burnout. To address job burnout, universities can adopt proactive measures in order to mitigate its occurrence and provide psychological counselling as an intervention for those who are affected. That being said, the following sections outline the scope and highlight knowledge gaps in the existing literature.

Theoretical foundation

For several decades, the Job demands-resources (JD-R) model has been a major one in organizational behavior and organizational psychology (Bakker and Demerouti, 2017). This model is regarded as the theoretical foundation for this study to investigate the relationships between the constructs. The JD-R model is built upon other theories to describe why job features affect organizational outcomes and individual employee well-being. Compared with the demands-control model (Kain and Jex, 2010),

stress models (Selye, 1976), early burnout models (Leiter, 1993), and job characteristics theory (Hackman and Oldham, 1980), the JD-R model divides all types of work characteristics into just two groups (job demands and job resources), which is more helpful in connecting the relationship between “negative” and “positive” psychology (Bakker and Demerouti, 2017). Furthermore, this model emphasizes the effect of different variables in job characteristics, which can be examined in more detail in different professions (Bakker and Demerouti, 2017).

In this model, performance of individual employees can be seen as a form of job resources, which can diminish burnout or buffer the relationship among job demands and the level of job burnout. At the same time, as performance is an individual's effort to achieve expected results, rather than a passive acquisition of the work environment, efforts will be made to minimize the impact of negative consequences like job burnout. Individuals who care about their career development and promotion will seek ways to manage sources of work stress and overcome the negative effects of job burnout, striving to achieve the best performance in an effort to ensure they can reduce burnout and receive potential promotion and job support. Meanwhile, psychological counselling can serve as social support, a form of job resource provided by universities to their employees, as a powerful way to reduce job burnout.

This study proposes that employees' job performance level functions as a precursor to job burnout, challenging the conventional perspective in existing literature that views job performance levels of employees as a consequence of their burnout level. By expanding the scope of research on job burnout, this paper highlights a proactive technique, emphasizing the role of personal resources over organizational or environmental resources in mitigating burnout. Additionally, unlike prior studies that predominantly advocate for passive reliance on organizational support to alleviate burnout, this research offers actionable guidance for academic staff so that they can actively seek personal strategies to address burnout. In this way the present paper contributes to a more comprehensive understanding of its prevention and management.

Higher education: job burnout and job performance

Higher Education Institutions (HEIs) have been acknowledged for their increasingly demanding work environments, characterized by escalating stress levels that have risen significantly over the past few decades (Singh et al. 2020). However, as an important component of human resources in universities, academic staff have been experiencing high levels of stress and workloads (Yousefi and Abdullah, 2019). Since the 2000s, research has significantly intensified regarding burnout among academic staff (O'Connor et al. 2018). Most literature examines academic staff burnout from the perspectives of working or workplace conditions (Ganster et al. 2018; Schaufeli and Enzmann, 2020) such as pressure, workload, working hours, and content of one's tasks. Academic staff face a series of challenging responsibilities, such as ensuring a high standard of teaching quality to an increasing number of students, publishing cutting-edge research in renowned journals, obtaining research funding, demonstrating managerial skills and entrepreneurial competencies, and fulfilling the requirements for tenure (Yousefi and Abdullah, 2019). Therefore, the work characteristics constitute an important cause of burnout.

Research in various countries shows that job burnout can impair the physical and mental health of teachers, compromise their performance, and eventually lead to high teacher attrition and diminish the quality of education (Maslach and Leiter, 2022; Tang et al. 2021). In this context, Maslach and Leiter (2022) and

Rapoza et al. (2016) proposed some methods to address burnout issues, including adequate social support, counselling, and balancing between work and family life. Despite the growing number of new cases worldwide, the issue of job burnout continues to be unresolved. As pointed out by ChaaCha (2024) and Ellah and Azmi (2023), higher education institutions are concerned about their workforce, including teachers and students. The chief concern is the knowledge skills and work/study motivation required for career development.

Although for over half a century, whether using quantitative, qualitative, or mixed methods, academic literature on the correlation between job burnout and job performance in different contexts has mainly focused on the negative impact of burnout on job performance (Corbeanu et al. 2023; Maslach and Leiter, 2022; Ye et al. 2024). Leiter and Maslach (2017) introduced incompetence as an important factor leading to job burnout, emphasizing that it seriously affects employees' job performance and is one of the antecedents of burnout. While they acknowledged earlier studies on the causes of burnout, their work highlighted this additional dimension. Similarly, Hlado and Harvankova (2024) expressed worries that job burnout may be influenced by or serve as a predictor of individuals' performance. However, some literature has potentially misinterpreted weak/below average performance as merely an outcome of employee burnout, rather than considering it as an interconnected factor (Bartram et al. 2023; Olsson et al. 2025).

Keeping the above-mentioned scope in mind, a gap in our knowledge exists on whether job performance can predict job burnout, and this is the primary aim of this paper. In this work, “job burnout” is designated as “dependent variable”, while “job performance” serves as the “independent variable”. The primary objective is to establish a novel paradigm in this field by investigating whether job performance influences job burnout, rather than examining the traditional perspective of burnout's impact on performance. To achieve this, comparisons will be made across various job performance groups, with contributing factors to burnout carefully controlled.

This study uses China as the focus of research because Chinese academic staff are one of the world's largest education groups, amounting to approximately 2 million (National Bureau of Statistics of China, 2022). This group has faced extremely high levels of burnout since the rapid development of higher education from 1999 onward. In addition, due to the ambitious goal of building more world-class universities, this situation may be even more severe for academic personnel in Chinese universities (Song, 2018; Gao and Li, 2020). As well, the emphasis on students' academic performance and intense examination competition in the Chinese education system have put major pressure on Chinese teachers (Lu et al. 2021). This paper delves into the function of job performance/psychological counselling as a preventive measure to improve the academic environment in universities.

Measurement of job performance

Job performance in the context of higher education encompasses all processes, actions, and tasks, conducted in HEIs, including research, teaching, and third mission activities carried out, which include both outcomes and outputs resulting from these efforts (Kivistö et al. 2019). In this regard, performance plays a crucial role in shaping HEIs' future strategies by establishing employee performance goals that contribute to the general objectives of the institution (Alam et al. 2022). Generally, to a large extent, the performance of a single university is the sum of the performance of the university's academic staff (Paudel, 2021). Blanchard (2004) emphasizes that enhanced academic staff performance is closely linked to improved overall organizational performance, suggesting a positive and significant correlation between the two.

The Key Performance Indicators (KPI) measurement has become the most widely adopted technique for assessing job performance due to its effectiveness in measuring specific, quantifiable outcomes (van de Ven et al. 2023), and China is no exception. According to this method, many stakeholders evaluate the responsibilities of university academic employees, and the scoring process assigns scores in hierarchical order based on quantitative and qualitative factors (van de Ven et al. 2023). In China, KPI evaluations incorporate both subjective and objective measures, combining self-reports and supervisor or colleague ratings. Initially, each academic staff member is required to submit a self-assessment detailing their performance in areas such as instruction, scholarly work, community service, moral character, and leadership skills. Each task is given a distinct score reflecting its level of completion. Subsequently, the final evaluation is conducted by the academic supervisor, leader, or chairperson, following a review of conference results. Performance is rated on a scale varying from “excellent” to “unqualified.” At the end of the year, these evaluations are compiled and summarized by the university’s personnel department.

Prior to KPI, many universities used other methods such as Individual Work Performance Questionnaire (IWPQ) as reported by Koopmans et al. (2014) or Annual Salary Review (ACR) (Purohit and Martineau, 2016) to evaluate employees’ performance. Both, however, have significant limitations, such as the IWPQ being filled out by academic staff themselves and what they write does not reflect what is actually happening (Santalla-Banderali and Alvarado, 2022). ACR, on the other hand, has been criticized by many stakeholders in universities due to its bias and subjective influence (Koopmans et al. 2014). Consequently, this research will employ the KPI scores, which is presently acknowledged as the main official academic staff measurement system in China for evaluating the job performance levels of academic staff.

Methods

Research design and participants. To provide more accurate analysis results, this study used panel data, which is different from the study by Lei et al. (2024a; 2024b). There are many advantages to using panel data. Firstly, this analysis procedure combines the advantages of both cross-sectional data and time series data, allowing for analysis of a larger sample size. Secondly, the analysis process typically contains multiple time observations of the same individuals, providing more data points compared to cross-sectional data. Thirdly, this analysis method can better handle unobservable individual differences and effects by using fixed effects models (Borenstein et al. 2010), reducing bias caused by omitted control variables. This approach is particularly effective for identifying dynamic hierarchical relationships among variables. Furthermore, it provides insights into causal connections and captures long-term effects, making it a robust method for such analyses (Hsiao, 2022).

This study collected data on job performance and burnout levels of university academic staff in China from 2020 to 2023, compiling it into a panel dataset to investigate the influence of job performance on burnout. The study period coincided with the outbreak of the COVID-19 pandemic, which was a nationwide and global shock, variably affecting the performance and burnout levels of each sample. Following the onset of the pandemic, individuals adopted varying degrees of coping strategies to maintain their job performance. This shared trend not only introduced potential cross-sectional correlations among individuals but also raised the possibility of a bidirectional causal relationship between burnout and job performance. Such simultaneity bias complicates the application of traditional

estimation methods, making it challenging to obtain precise results.

To address these challenges, this study employs the interactive fixed effects model for panel data proposed by Bai (2009). This method extends the traditional two-way fixed effects model (accounting for time and individual effects) by accommodating multidimensional shocks, such as common trends, and capturing heterogeneous responses to these shocks across individuals. By directly estimating common factors and assigning heterogeneous factor loadings to individuals, the model effectively controls for cross-sectional dependence among individuals while mitigating simultaneity bias in causal relationships. Utilizing this approach, the study provides more precise estimates of the influence of job performance on burnout levels among university faculty staff, offering robust empirical evidence for related research.

To ensure the continuity of time, this research ensured the validity and reliability of the research results through strict selection criteria. All participating academic staff were required to actively work between 2020 and 2023. Academic staff who were absent or retired during this period without complete KPI records were excluded from the study.

Sampling. Sampling bias can have a profound impact on the research affecting the validity of the findings and conclusions made. Hence it is necessary to reduce sampling bias as much as possible, given that it is inevitable (Florczak, 2022). This study has tried to reduce sampling bias by ensuring the sample was selected using the stratified random sampling method (Creswell, 2014). This process ensures two things - diversity of the sample and triangulations - thereby reducing sampling bias. In order to take advantage of the fixed effects model (Borenstein et al. 2010), this study stratified academic staff by region and university type.

China’s regional division into western, eastern, and central areas is outlined in the Seventh Five-Year Plan, and it was enacted during the Fourth Session of the Sixth National People’s Congress (1986). This classification provides a framework for understanding regional development and planning in the country. However, according to national policies, universities in each region can further be divided into four categories: 985 Project universities, 211 Project universities, regular universities, and vocational universities (Ministry of Education of China, 2007). Therefore, by using simple random sampling techniques, one university from each type of university is chosen in each region, therefore, triangulation was ensured (Creswell, 2014). To ensure equal participation opportunities for each university, we randomly selected a sample of the universities using Microsoft Excel (Remenyi et al. 2022). As a result, 12 universities were selected, representing different types of institutions, with four universities chosen from each region.

The total number of participants in universities in the three regions are 6399, 7437, and 6784, respectively, with a total of 20620 academic staff in this study. The Krejcie and Morgan formula (1970) was employed to determine the representative sample size for each region thereby reducing bias. Therefore, the sample size for the eastern region is 362, the central region is 365, and the western region is 364. Subsequently, stratified sampling techniques were used to allocate samples proportionally. The personnel department of each selected university helped collect data for this study by randomly selecting academic staff through the Office Automation system. Based on four years of panel data performance records, the academic staff were categorized into four groups: non-performance, low, average, and high, as clarified in Table 1. Table 2 outlines the various features of the chosen samples.

Measures. Common method bias (CMB) occurs when the instrument selected introduces a bias which will be analyzed, thus

Table 1 Sampling.

District	University Type	Total A.	Sample A.	High P.O.	Average P.O.	Low P.O.	Non-P.O.	Sample A.O.
Eastern	985 Project universities	2366	134	100	215	100	121	536
	211 Project universities	2165	122	97	189	99	103	488
	regular universities	1251	71	70	107	42	65	284
	vocational universities	617	35	29	67	25	19	140
Central	985 Project universities	3512	172	140	257	150	141	688
	211 Project universities	2014	99	77	174	70	75	396
	regular universities	1160	57	60	88	41	39	228
	vocational universities	751	37	30	59	30	29	148
Western	985 Project universities	2683	144	111	241	110	114	576
	211 Project universities	2132	114	103	172	97	84	456
	regular universities	1448	78	65	107	73	67	312
	vocational universities	521	28	22	43	18	29	112
Total		20620	1091	904	1719	855	886	4364

N = 1091, Total A. Total academics, Sample A. Sampled academics, High P.O. High performance observations, Average P. O. Average performance observations, Low P. O. Low performance observations, Non-P. O. Non-performance observations, Sample A.O. Sampled academics observations.

Table 2 Samples' Demographic Information.

Control Variables	Number	Percentage %
<i>Gender</i>		
Male	584	53.53
Female	507	46.47
<i>Age</i>		
35 or below	262	24.01
36-45	273	25.02
46-55	283	25.95
56 or above	273	25.02
<i>Years of employment</i>		
10 or less	274	25.11
11-20	288	26.40
21-30	279	25.58
31 or above	250	22.91

N = 1091.

affecting the results (Podsakoff et al. 2024). Although scholars have held contradictory views about CMB for decades, a recent study has provided evidence for the effects of CMB. Podsakoff et al. (2024) highlighted that since CMB has various sources, these are likely to be present in studies using questionnaires to obtain measures of the focused-on variables. To remedy method bias, Podsakoff et al. (2024) suggested the use of archival data which is employed in this study. Hence the effects of CMB were removed.

Similarly, no-response bias, voluntary response bias, researcher bias and recall bias were eliminated. However, the study is biased given its reliance on existing secondary data at the expense of other types of data and the provision of inclusion and exclusion criteria. Secondary use of data occurs when information recorded for a purpose is used to create new intelligence or knowledge from its original context and without the originators necessarily being aware or anticipated at the time of recording (Scott et al. 2017). Additionally, important methodological considerations such as the quality of the data, understanding the context of the data to ensure the meanings from the data are not distorted, and transparency were involved to ensure valid, reliable and applicable data (Scott et al. 2017). Some criteria followed including assessing whether the secondary data helps to address the specified questions, whether the data apply to the population and time of interest, and collection of data from original source. Hence, the archived secondary dataset collected are: key

performance indicator (KPI) results; psychological counselling session logs; and burnout medical report records of the same group of respondents. Moreover, the data was obtained directly from the universities who are custodians of the original data.

Job performance (KPI) tool. In accordance with the Ministry of Education's policy (2016), universities in China utilize Key Performance Indicators (KPIs) to measure the job performance of academic staff, covering aspects such as ethics, teaching, research, and administrative duties. Additionally, under the Organization Department of the CPC Central Committee (2023), academic staff are categorized into four performance levels by the university's personnel office based on the quantity and quality of their completed work: Non-performance, also referred to as unqualified, corresponds to the lowest category, while low performance, or basically qualified, represents a slightly higher level. Average performance, termed qualified, indicates satisfactory achievement, and high performance is categorized as excellent, reflecting the highest standard.

Psychological counselling tool. According to the State Council's policy (2004), each university is required to establish a dedicated mental health counselling center and these are referred to as mental health centers. Data for this article would be acquired from the sampled universities of mental health centers. In line with the National Health Commission's policy (2017), universities are required to routinely provide certain psychological assessment services for academic staff. Based on the outcomes of burnout evaluations, universities will offer psychological therapy at a frequency deemed appropriate to address the individual needs of staff members. According to the Mental Health Law of the People's Republic of China as stated by The Standing Committee (2013), psychological counselling can be divided based on the frequency level ranging from short-, medium-, and long-term frequencies. Therefore, this study utilized frequency of psychological counselling which was divided into four types: non-counselling, short-term counselling frequency, medium-term counselling frequency, and long-term counselling frequency.

Burnout level tool. The data were also obtained from mental health centers from sampled universities. Based on the actual situation of the sampled universities, burnout measurement is achieved through a combination of group (online) and individual (face-to-face) methods through the Oldenburg Burnout Inventory

(OLBI) (Halbesleben and Demerouti, 2005), the Maslach Burnout Inventory (MBI) (Maslach and Leiter, 2022), or the Copenhagen Burnout Inventory (CBI) (Kristensen et al. 2005). According to their chosen scales, the universities categorize burnout levels into four groups—Non-Burnout, Low Burnout, Moderate Burnout, and High Burnout,—providing a systematic measure of academic staff members' burnout severity.

Ethical consideration and coding. The research team obtained ethical approval from the university, documented under reference number JKEUPM-2023-676 before officially visiting the sampled schools. Afterwards, the first author explained the objectives of the study and the specific data required to each sampled university and obtained authorization. During the sampling process, this study strictly adhered to ethical requirements, and the selected universities were informed that their university names were anonymous, and they could choose to withdraw at any time.

The study collected second-hand data, and to ensure the privacy of respondents, we will obtain the data using letter+number encoding to ensure that researchers do not have any personal information about participants. According to the list of university regions, universities in the eastern region use codes A, B, C, D, universities in the central region use codes E, F, G, H, and universities in the western region use codes J, K, L, M. At the same time, according to the order of random sampling, the respondent numbers are determined as 1, 2, 3, 4, 5, 6, etc. For example, the respondent numbers for a university in the east are A1, A2, A3, A4.

Data analysis. To examine H1, multiple regression analysis would be conducted. Following this, group regression analysis would be applied to further explore how job performance influences job burnout within each of the four levels job performance, providing a more detailed understanding of this relationship. To

support the discovery of Ha1, comparisons were made among different performance groups based on the level of burnout over four years.

To address H2, hierarchical linear regression analysis was first used to determine whether psychological counselling is related to burnout. Secondly, it was important to determine whether it plays a moderating role between job burnout and their job performance. Afterward, this study used group regression again to validate the conclusions of H2 and avoid errors caused by sample heterogeneity, in order to determine whether all four job performances were moderated by psychological counselling. Additionally, this study used 4-year data to generate a discussion on the influence of psychological counselling with job burnout, as well as make a comparison of psychological counselling frequency and different performance levels. The analysis serves mainly to combine the results of regression analysis to obtain the RQ2 and RQ3 results.

Results

The results are organized and presented in accordance with the order of the research questions.

Job performance influences burnout amongst academic staff.

To test H1, multiple regression analysis was conducted to study the correlation between academic staff's job performance and job burnout. Controlling for unobserved temporal, individual, and COVID-19 pandemic-related environmental factors using panel data over a four-year period, the findings in Table 3 illustrated a significant negative correlation between job performance and burnout ($\beta = -0.037, p < 0.001$). These outcomes provide robust support for H1.

To enhance the validity of H1, group regression analysis was performed using four years of panel data to discover the correlation between job performance and job burnout across different performance categories. The results, presented in Table 4, reveal a consistent and significant negative correlation between job performance and burnout across all observation groups: high-performance group ($\beta = -0.074, p < 0.001$), average-performance group ($\beta = -0.082, p < 0.001$), low-performance group ($\beta = -0.109, p < 0.001$), and non-performance group ($\beta = -0.045, p < 0.001$). These findings provide strong empirical support for H1 across varying levels of job performance.

To reinforce the findings from the regression analysis, the four-year panel data was further processed and visually represented in Fig. 1. The figure illustrates that academic staff with higher performance levels are generally correlated to low level of burnout, while those categories with lower/below average performance categories generally exhibit higher burnout. This provides additional evidence for the negative correlation between job performance and their burnout.

Table 3 Influence of job performance on job burnout.

Variables	Overall
Gender	-0.038 (0.026)
Age	0.012 (0.012)
Years of employment	-0.005 (0.012)
Job performance	-0.037*** (0.001)
Constant	4.317*** (0.081)
Observations	4364
Individual fixed effect	YES
Time fixed effect	YES
Environment fixed effect	YES

*** $p < 0.001$.

Table 4 Influence of job performance on job burnout among 4 sampled observation groups.

	High P.O.	Average P.O.	Low P.O.	Non-P.O.
Gender	-0.118 (0.049)	-0.030 (0.082)	-0.013 (0.098)	0.051 (0.078)
Age	0.042 (0.065)	-0.036 (0.038)	0.026 (0.043)	-0.016 (0.036)
Years of employment	0.013 (0.043)	-0.014 (0.039)	-0.018 (0.042)	-0.047 (0.038)
Job performance	-0.074*** (0.016)	-0.082*** (0.005)	-0.109*** (0.020)	-0.045*** (0.007)
Constant	7.641*** (1.540)	8.214*** (0.411)	8.907*** (1.302)	4.683*** (0.377)
Observations	904	1719	855	886
Individual fixed effect	YES	YES	YES	YES
Time fixed effect	YES	YES	YES	YES
Environment fixed effect	YES	YES	YES	YES

*** $p < 0.001$; High P.O. High performance observations, Average P. O. Average performance observations, Low P. O. Low performance observations, Non-P. O. Non-performance observations.

Job burnout: the moderating role of psychological counselling. Hierarchical linear regression was employed to examine H2. After controlling for unobserved time effects, personal individual characteristics, and environmental factors related to the COVID-19 pandemic, the outcome revealed the following: in the first block, job performance exhibited a significant negative effect on burnout ($\beta = -0.008, p < 0.001$); in the second block, the moderating variable demonstrated a strong negative impact on burnout ($\beta = -0.359, p < 0.001$). The third block represents interaction term between psychological counselling and job performance significantly predicted burnout ($\beta = -0.005, p < 0.001$). These outcomes, summarized in Table 5, indicate that psychological counselling serves as a significant and negative moderator in the correlation between job performance and burnout.

To enhance the validity of H2, a group regression analysis was executed, excluding panel data from academic staff who did not participate in psychological counselling during the four-year period. The results demonstrate that the moderating variable moderates the correlation between job performance and burnout within the low-performance group ($\beta = -0.166, p < 0.001$) and the non-performance group ($\beta = -0.027, p < 0.01$). There is, however, no significant moderating effect observed in the average-performance group ($\beta = 0.002, p > 0.05$) or the high-performance group ($\beta = -0.109, p > 0.05$). These findings, as

presented in Table 6, highlight significant differences among the four performance levels (non-performance, low-performance, average-performance, and high-performance) regarding the moderating effect of psychological counselling on burnout. Thus, the results provide additional support for H2.

To further analyze the moderating effect of psychological counselling on burnout across various performance observation groups, researchers utilized four years of panel data (2020–2023) to longitudinally and visually represent the relationship between job performance, psychological counselling, and burnout. Figure 2 illustrates the correlation between psychological counselling and job burnout, showing that among those experiencing burnout, academic staff who participated in counselling sessions demonstrated lower burnout levels linked to non-participant categories.

Equally, Fig. 3 illustrates the correlation between psychological counselling and job performance, demonstrating that the number of counselling sessions or interventions do not influence the job performance level of academic staff. This finding suggests that while counselling may be active in reducing burnout, it does not have a direct impact on job performance.

Discussion

Job performance and job burnout. The paper examined the correlation between academic staff job performance and their job burnout. Even though this study used panel data model employing interactive fixed effects to control for the influence of the COVID-19 pandemic on academic staff, findings reveal that academic staff who exhibit lower performance levels are more susceptible to experiencing burnout. Meanwhile high performance can help them reduce the serious consequences of burnout by lowering or buffering levels of work stress, which aligns with the findings of recent research by Lei et al. (2024a; 2024b). This may be because high-performance academic staff emphasize their work/career goals and are determined to do their tasks well, such as teaching and research (Watts and Robertson, 2011). They have enough enthusiasm and energy to perform better. This finding challenges previous literature that performance is a precursor to burnout, not just a result of burnout (Corbeanu et al. 2023; Maslach and Leiter, 2022).

Furthermore, this is the same with the research conducted previously, which has indicated in experimental studies that individuals perform better on demanding tasks because they focus all their attention on the task and are highly engaged in their work, as indicated by pupil diameter data, brain activity, and self-report data (Hopstaken et al. 2016). For this reason, high-performance academic staff who devote themselves wholeheartedly to their work, are better able to handle the pressures of work than low-performance staff, reducing the occurrence of job burnout. This outcome confirms the applicability of the Job demand-resource

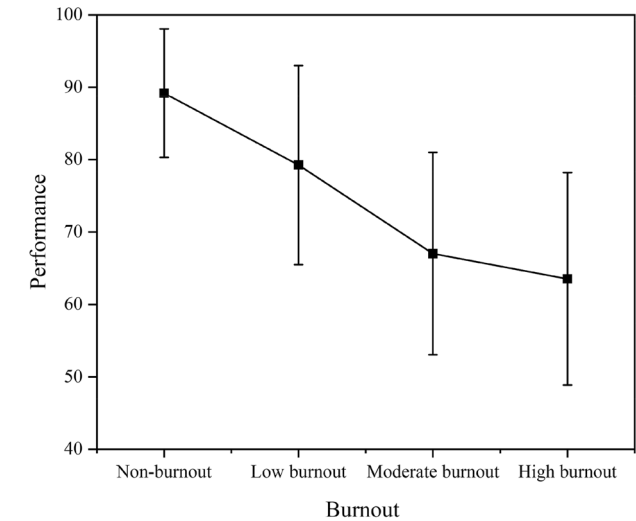


Fig. 1 A 4-year comparison of job burnout amongst university academic staff under different job performance states.

Table 5 Moderating Role of Psychological Counselling on the Influence of Job Performance and Job Burnout.			
	Block 1	Block 2	Block 3
Gender	−0.021 (0.027)	−0.012 (0.029)	−0.012 (0.026)
Age	−0.006 (0.012)	−0.014 (0.013)	−0.009 (0.012)
Years of employment	−0.012 (0.012)	−0.022 (0.013)	−0.012 (0.012)
Job performance	−0.022*** (0.001)		−0.021*** (0.001)
Psychological counselling		−0.359*** (0.032)	−0.321*** (0.030)
Job performance *psychological counselling			−0.005*** (0.002)
Constant	3.501*** (0.080)	2.243*** (0.057)	3.641*** (0.080)
Observations	3572	3572	3572
Individual fixed effect	YES	YES	YES
Time fixed effect	YES	YES	YES
Environment fixed effect	YES	YES	YES

*** $p < 0.001$.

Table 6 Moderating Role of Psychological Counselling among different Sample Observation Groups.

	High P.O.	Average P.O.	Low P.O.	Non-P.O.
Gender	−0.105 (0.222)	0.000 (0.088)	0.028 (0.185)	0.035 (0.133)
Age	−0.004 (0.102)	−0.038 (0.041)	0.025 (0.073)	0.091 (0.058)
Years of employment	−0.054 (0.085)	−0.038 (0.043)	−0.151* (0.078)	0.051 (0.063)
Job performance	−0.129*** (0.034)	−0.050*** (0.008)	−0.143*** (0.032)	−0.051*** (0.012)
Psychological counselling	2.828 (1.282)	0.049 (0.083)	−1.390*** (0.318)	−0.656** (0.284)
Job performance *psychological counselling	−0.109 (0.052)	0.002 (0.009)	−0.166*** (0.042)	−0.027** (0.012)
Constant	8.101* (4.395)	5.676*** (0.692)	14.159*** (2.205)	5.764*** (0.736)
Observations	313	865	446	492
Individual fixed effect	YES	YES	YES	YES
Time fixed effect	YES	YES	YES	YES
Environment fixed effect	YES	YES	YES	YES

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$; High P.O. High performance observations, Average P. O. Average performance observations, Low P. O. Low performance observations, Non-P. O. Non-performance observations.

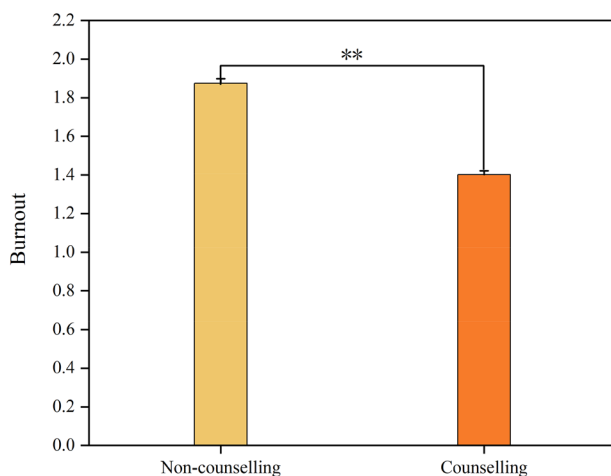


Fig. 2 The impact of psychological counselling on job burnout over 4 years. ** $p < 0.01$ There is a significant difference between counselling group and non-counselling group.

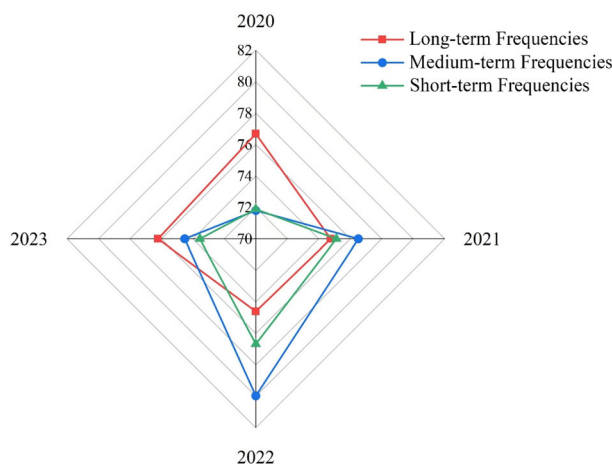


Fig. 3 The impact of psychological counselling frequency on job performance over 4 years.

model in this study. In the workplace, enhancing job resources, such as improving job performance, can effectively reduce workplace burnout and mitigate its adverse effects to the greatest extent possible. These findings support the theories of conservation of

resources (Wright and Hobfoll, 2004) and expectancy of motivation (Lloyd and Mertens, 2018), where performance can be seen as a valuable resource, and employees expect to achieve better results through effort. Examples of this are having more resources, increasing promotion rights, and reducing burnout. Consequently, job performance is identified as a contributing factor to job burnout.

The impact of psychological counselling on treating burnout.

Based on the analysis, psychological counselling plays a crucial role as a post-burnout intervention, as it helps individuals re-evaluate their values, career goals, and life attitudes. Therefore, the results support H2a. Through cognitive restructuring, counselling fosters the development of more positive and rational thought patterns, which in turn helps alleviate burnout (Gold et al. 2022). This finding aligns with the WHO's suggestions and prior research demonstrating the effectiveness of counselling in mitigating burnout across diverse professional settings (Tang et al. 2021; Lei et al. 2024b).

Moreover, the study reveals moderating effects of counselling between job performance and job burnout. This result is similar to previous findings, indicating that psychological counselling can serve as a moderating variable (Conejo-Cerón et al. 2020; Lorah and Wong, 2018). However, in this study, psychological counselling has no moderating effect on average and high-performing groups, and it was found to be affected by a significant moderating effect on the below average performance groups. This outcome conflicts with what previous research documented, indicating the restrictive role of psychological counselling in moderating the correlation between job performance and job burnout. This finding can be explained through the results of the first research question (RQ1), which showed that persons with above average performance levels are more likely to experience lower levels of burnout and consequently require less psychological support, whereas those with poor performance exhibit higher levels of burnout and thus benefit more from counselling services. This result is also consistent with the Chinese government's policy, which ordains that universities provide regular psychological counselling services for employees, and employees with high levels of burnout have more opportunities to attend such counselling services.

In addition, the four-year data analysis provides deeper insights into the correlation among the IV, DV and the moderator. Although counselling can reduce academic staff members' burnout, it may not necessarily improve how well they do their job. In other words, academic staff who perform poorly may fall into a repetitive cycle, one in which poor performance leads to frequent burnout. Under such circumstances, burnout may become recurrent.

Therefore, relying solely on psychological counselling as a post-burnout intervention may not provide a permanent solution and could lead to further negative outcomes. Thus, it is crucial to emphasize the significance of proactive measures, especially among the academic job. In this context, the preventive measures represented by H2b deserve further exploration.

Theoretical and practical implications. The research examined the correlation between job performance and job burnout, and it differs from previous literature records that conduct the study in reverse. Firstly, based on the previous research that job performance is one of the consequences of burnout (Corbeanu et al. 2023; Maslach and Leiter, 2022), the article concludes that job performance influences burnout, thereby enriching the existing body of research on job burnout. We can conclude that job performance, even as a precursor to burnout, is a consequence. Secondly, this study provides valuable practical insights. Universities should establish a more proactive performance management system based on their academic level and cultural background and develop relevant policies. They should also set measurable performance goals, fair performance evaluations, workload redistribution policies, and organize specialized agencies to coordinate the university's performance work. For high-performing academic staff, universities can improve their reward strategies based on individual performance objectives to encourage them to achieve higher goals. For academic staff who perform poorly, vocational education and training sessions should be established: on how to improve work abilities/performance, provide learning opportunities, and offer one-on-one coaching to enhance struggling staff members' ability to achieve performance goals. In addition, academic staff must be aware of the importance of performance in reducing burnout.

This study also revealed that psychological counselling plays an important role in reducing academic burnout as an intervention measure after burnout occurs. However, it also reveals a limitation that while counselling can reduce fatigue, it cannot improve individual performance. On the contrary, a decline in performance can lead to continued and sustained burnout. Given these outcomes, institutions should pay more attention to the importance of the long-recognized tradition of preventive philosophy and apply it (Chaisurin and Yodchai, 2024).

With the rapid development of global higher education, universities are generally concerned about whether academic staff have sufficient dedication and ability to execute their duties (Dlamini and Dlamini, 2024). This concern must be thoroughly addressed before and after the start of the employment contract. However, in most universities, the academic recruitment process prior to the start of employment is often overlooked, underestimated, or given little attention, which may explain the rising prevalence of burnout cases in academic scenarios (Anwar et al. 2020). To mitigate the risk of burnout among academic staff, it is recommended that universities implement proactive recruitment strategies. These strategies should assess whether prospective academic staff possess the requisite skills and performance levels for the high-pressure, high-investment nature of the job, thereby minimizing signs of burnout post-employment.

Furthermore, the significance of psychological counselling must be elevated. During the recruitment process, universities should include academic and psychological assessments. As well as comprehensively evaluating the applicant's work ability, universities should collaborate with mental health centers to design different psychological counselling service scales based on the actual situation of the university, in order to assess their motivation, passion, and determination, in order to ensure that they are psychologically suitable for academic roles. In other words,

if universities seek to attract high skilled, self-motivated, resilient, and passionate individuals who are prepared to face the challenges of academic life, their recruitment process must include psychological assessments to comprehensively evaluate candidates' abilities and talents. The psychological assessments scale can invite psychology professionals to conduct reliability, validity, and feasibility tests, and be updated in real-time according to university recruitment rules. For academic staff who have already been employed, the mental health centre should continue to provide regular psychological counselling services in accordance with Chinese policies to reduce the occurrence of burnout.

Limitations and future studies. This paper used panel data model to control for the effect of the COVID-19 pandemic environment and explore the effect of employee performance on burnout, it still has certain limitations. First, although this study used an interactive fixed effects model, there may still be unmeasured control variables that affect burnout that were overlooked. Second, this study randomly selected one university of each type in three regions of China, resulting in sampling bias. Third, while the panel data was sampled and utilized across various regions in China and extended over a four-year period, the generalizability of the findings may be limited to this specific country the results not applicable to other national contexts. Fourth, the study relied on secondary data for its analysis. Future research could address this by collecting primary data to further examine the correlation between job performance and burnout. Moreover, future research could further investigate the mediating or moderating factors influencing the relationship between job performance and burnout. Potential variables such as organizational support and individual adaptability may offer valuable insights and contribute to a deeper understanding of this association.

Conclusions

This study expanded the data of Lei et al. (2024c) and controlled for the impact of the COVID-19 pandemic on the research and updated the national dataset. This study extends the research of job burnout and proposes that in academic environments, the performance of academic staff is both a precursor and a consequence of burnout, rather than simply believing that performance is only a result of burnout. As well, this study demonstrates that psychological counselling functions as a moderator in the relationship between job performance and burnout, demonstrating that while counselling effectively addresses burnout, it does not transform poorly performing individuals into excellent performers. Therefore, universities should prioritize preventive strategies to mitigate burnout by assessing not only the academic abilities of candidates during recruitment but also incorporating psychologists to evaluate their social, cognitive and emotional competencies. This method is more efficient than relying exclusively on academic expertise and health assessments.

Data availability

The data presented in this study are available on request from the first author.

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References

- Alam GM, Giacosa E, Mazzoleni A (2022) Does MBA's paradigm transformation follow business education's philosophy - a comparison of academic and job-performance and SES among five types of MBAian. *J Bus Res* 139:881–892. <https://doi.org/10.1016/j.jbusres.2021.10.038>

- Anwar N, Nik Mahmood NH, Yusliza MY, Ramayah T, Noor Faezah J, Khalid W (2020) Green human resource management for organisational citizenship behaviour towards the environment and environmental performance on a university campus. *J Clean Prod* 256:120401. <https://doi.org/10.1016/j.jclepro.2020.120401>
- Atroszko PA, Demetrovics Z, Griffiths MD (2020) Work addiction, obsessive-compulsive personality disorder, burn-out, and global burden of disease: Implications from the ICD-11. *Int J Environ Res Public Health* 17(2):660. <https://doi.org/10.3390/ijerph17020660>
- Bai J (2009) Panel data models with interactive fixed effects. *Econometrica* 77(4):1229–1279. <https://doi.org/10.3982/ECTA6135>
- Bakker AB, Demerouti E (2017) Job demands-resources theory: Taking stock and looking forward. *J Occup Health Psychol* 22(3):273–285. <https://doi.org/10.1037/ocp0000056>
- Bartram T, Cooper B, Cooke FL, Wang J (2023) Thriving in the face of burnout? The effects of wellbeing-oriented HRM on the relationship between workload, burnout, thriving and performance. *Empl Relat: Int J* 45(5):1234–1253. <https://doi.org/10.1108/ER-06-2022-0273>
- Blanchard O (2004) The Economic Future of Europe. *J Economic Perspect* 18(4):3–26. <https://doi.org/10.1257/0895330042632735>
- Borenstein M, Hedges LV, Higgins JPR, Rothstein HR (2010) A basic introduction to fixed-effect and random-effects models for meta-analysis. *Res Synth Methods* 1(2):97–111
- ChaaCha TD (2024) Key competencies for academic employees in the current dynamic higher education environment. *Cogent Educ* 11(1):2397230. <https://doi.org/10.1080/2331186X.2024.2397230>
- Chaisurin P, Yodchai N (2024) Measures to prevent and reduce healthcare worker burnout during the COVID-19 Pandemic: A scoping review. *SAGE Open Nurs* 10:1–17. <https://doi.org/10.1177/23779608241272571>
- Chen X, Masukujaman M, Al Mamun A (2023) Modeling the significance of work culture on burnout, satisfaction, and psychological distress among the Gen-Z workforce in an emerging country. *Humanit Soc Sci Commun* 10:828. <https://doi.org/10.1057/s41599-023-02371-w>
- Conejo-Cerón S, Bellón JA, Motrico E, Campos-Paíno H, Martín-Gómez C, Ebert DD, Buntrock C, Gili M, Moreno-Peral P (2020) Moderators of psychological and psychoeducational interventions for the prevention of depression: A systematic review. *Clin Psychol Rev* 79:101859. <https://doi.org/10.1016/j.cpr.2020.101859>
- Corbeau A, Iliescu D, Ion A, Spînu R (2023) The link between burnout and job performance: a meta-analysis. *Eur J Work Organ Psychol* 32(4):599–616. <https://doi.org/10.1080/1359432X.2023.2209320>
- Creswell, JW (2014) *Research design in qualitative, quantitative, and mixed methods approaches*. 4th ed., Sage, Thousand Oaks, CA
- Dlamini NG, Dlamini ND (2024) Understanding the well-being challenges confronting academic staff in South African universities: a narrative review. *Discov Educ* 3(9):00089. <https://doi.org/10.1007/s44217-024-00089-8>
- Ellah HR, Azmi N (2023) High School Students' Perception and Development of Soft skills. *Int J Lang Lit Stud* 5(2):192–208. <https://doi.org/10.36892/ijls.v5i2.1283>
- Florczak KL (2022) Best Available Evidence or Truth for the Moment: Bias in Research. *Nurs Sci Q* 35(1):20–24. <https://doi.org/10.1177/08943184211051350>
- Fourth Session of the Sixth National People's Congress (1986) Seventh Five-Year Plan. Beijing
- Ganster DC, Rosen CC, Fisher GG (2018) Long working hours and well-being: what we know, what we do not know, and what we need to know. *J Bus Psychol* 33:25–39. <https://doi.org/10.1007/s10869-016-9478-1>
- Gao J, Li C (2020) Version 2.0 of building world-class universities in China: Initial outcomes and problems of the double world-class project. *High Educ Policy* 35:1–17. <https://doi.org/10.1057/s41307-020-00211-z>
- Gold D, Sharman A, Thomas D (2022) Examining the role of the occupational safety and health professional in supporting the control of the risks of multiple psychosocial stressors generated during the COVID-19 pandemic. *Humanit Soc Sci Commun* 9(1):69. <https://doi.org/10.1057/s41599-022-01079-7>
- Hackman JR, Oldham GR (1980) *Work redesign*. Addison-Wesley, Reading, MA
- Halbesleben JR, Demerouti E (2005) The construct validity of an alternative measure of burnout: Investigating the English translation of the Oldenburg Burnout Inventory. *Work Stress* 19(3):208–220. <https://doi.org/10.1080/02678370500340728>
- Hammarström P, Rosendahl S, Gruber M, Nordin S (2023) Somatic symptoms in burnout in a general adult population. *J Psychosom Res* 168:111217. <https://doi.org/10.1016/j.jpsychores.2023.111217>
- Hlado P, Harvankova K (2024) Teachers' perceived work ability: a qualitative exploration using the Job Demands-Resources model. *Humanit Soc Sci Commun* 11(1):1–10. <https://doi.org/10.1057/s41599-024-02811-1>
- Hopstaken JF, Van Der Linden D, Bakker AB, Kompier MA, Leung YK (2016) Shifts in attention during mental fatigue: Evidence from subjective, behavioral, physiological, and eye-tracking data. *J Exp Psychol: Hum Percept Perform* 42(6):878–889. <https://doi.org/10.1037/xhp0000189>
- Hsiao C (2022) *Cambridge. Analysis of panel data*. Cambridge University Press
- Kain, J Jex S (2010) Karasek's (1979) job demands-control model: A summary of current issues and recommendations for future research. In PL Perrewé & DC Ganster (Eds.), *New developments in theoretical and conceptual approaches to job stress* (pp. 237–268). Emerald Group Publishing. [https://doi.org/10.1108/S1479-3555\(2010\)000008009](https://doi.org/10.1108/S1479-3555(2010)000008009)
- Kivistö J, Pekkola E, Berg LN, Hansen HF, Geschwind L, Lyytinen A (2019) Reforms, organizational change and performance in higher education (R Pinheiro, L Geschwind, H Foss Hansen, & K Pulkkinen, Eds.). Springer International Publishing. <https://doi.org/10.1007/978-3-030-11738-2>
- Koopmans L, Bernaards CM, Hildebrandt VH, de Vet HCW, van der Beek AJ (2014) Construct validity of the Individual Work Performance Questionnaire. *J Occup Environ Med* 56(3):331–337. <https://doi.org/10.1097/JOM.0000000000000113>
- Krejcie RV, Morgan DW (1970) Determining sample size for research activities. *Educ Psychological Meas* 30(3):607–610
- Kristensen TS, Borritz M, Villadsen E, Christensen KB (2005) The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work Stress* 19(3):192–207. <https://doi.org/10.1080/02678370500297720>
- Lee CC, Zheng YR, Yeh WC (2023) The influence of communication climate, organizational identification, and burnout on real estate agents' turnover intention. *Humanit Soc Sci Commun* 10:641. <https://doi.org/10.1057/s41599-023-02190-z>
- Lei M, Alam GM, Bashir K, Pingping G (2024a) Whether academics' job performance makes a difference to burnout and the effect of psychological counselling-comparison of four types of performers. *PLoS One* 19(6):e0305493. <https://doi.org/10.1371/journal.pone.0305493>
- Lei M, Alam GM, Bashir K, Pingping G (2024b) Does the job performance of academics' influence burnout and psychological counselling? A comparative analysis amongst high-, average-, low-, and non-performers. *BMC Public Health* 24(1):1708. <https://doi.org/10.1186/s12889-024-19224-z>
- Lei M, Alam GM, Bashir K (2024c) The relationships between job performance, job burnout, and psychological counselling: A perspective on Sustainable Development Goals (SDGs). *Sustainability* 16(17):7569. <https://doi.org/10.3390/su16177569>
- Leiter, MP (1993) Burnout as a developmental process: Consideration of models. In WB Schaufeli, C Maslach, & T Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 237–250). Taylor & Francis
- Leiter, MP, Maslach, C (2017) Motivation, competence, and job burnout. In AJ Elliot, CS Dweck, & DS Yeager (Eds.), *Handbook of competence and motivation: Theory and application* (2nd ed., pp. 370–384). The Guilford Press
- Lloyd R, Mertens D (2018) Expecting more out of expectancy theory: History urges inclusion of the social context. *Int Manag Rev* 14(1):24–36
- Lorah JA, Wong YJ (2018) Contemporary applications of moderation analysis in counselling psychology. *J Counselling Psychol* 65(5):629–640. <https://doi.org/10.1037/cou0000290>
- Lu H, Nie P, Sousa-Poza A (2021) The effect of parental educational expectations on adolescent subjective well-being and the moderating role of perceived academic pressure: Longitudinal evidence for China. *Child Indic Res* 14(1):117–137. <https://doi.org/10.1007/s12187-020-09750-8>
- Lu M, Al Mamun A, Chen X, Yang Q, Masukujaman M (2023) Quiet quitting during COVID-19: The role of psychological empowerment. *Humanit Soc Sci Commun* 10(1):485. <https://doi.org/10.1057/s41599-023-02012-2>
- Maslach C, Leiter MP (2016) Understanding the burnout experience: recent research and its implications for psychiatry. *World Psychiatry* 15(2):103–111. <https://doi.org/10.1002/wps.20311>
- Maslach C, Leiter MP (2022) *The Burnout Challenge: Managing People's Relationships with Their Jobs*. Harvard University Press, Cambridge, MA
- Ministry of Education of China (2016) *The Guiding Opinions on Deepening the Reform of the Assessment and Evaluation System for Universities Teachers*. Beijing
- Ministry of Education of China (2007) *Report on 211 Project 1995-2005*. Higher Education Press, Beijing
- National Bureau of Statistics of China (2022) <http://www.stats.gov.cn/sj/ndsj/2022/indexch.htm>
- National Health Commission (2017) *The Guiding Opinions on Strengthening Psychological Health Services*. Beijing
- National Institutes of Health (2005) *Theory at a Glance: A Guide for Health Promotion Practice*; Bethesda, USA
- O'Connor K, Muller Neff D, Pitman S (2018) Burnout in mental health professionals: A systematic review and meta-analysis of prevalence and determinants. *Eur Psychiatry* 53:74–99. <https://doi.org/10.1016/j.eurpsy.2018.06.003>
- Olsson LF, Glandorf HL, Black JF, Jeggo REK, Stanford JR, Drew KL, Madigan DJ (2025) A multi-sample examination of the relationship between athlete burnout and sport performance. *Psychol Sport Exerc* 76:102747. <https://doi.org/10.1016/j.psychsport.2024.102747>
- Organization Department of the CPC Central Committee (2023) *Regulations on the Assessment of Staff in Public Institutions*. Beijing

- Paudel KP (2021) Level of Academic Performance Among Faculty Members in the Context of Nepali Higher Educational Institution. *J Comp Int High Educ* 13(2):98–111. <https://www.ojed.org/index.php/jcihe/index>
- Podsakoff PM, Podsakoff NP, Williams LJ, Huang C, Yang J (2024) Common method bias: It's bad, it's complex, it's widespread, and it's not easy to fix. *Annu Rev Organ Psychol Organ Behav* 11(1):17–61. <https://doi.org/10.1146/annurev-orgpsych-110721-040030>
- Purohit B, Martineau T (2016) Is the Annual Confidential Report system effective? A study of the government appraisal system in Gujarat, India. *Hum Resour Health* 14:33–44. <https://doi.org/10.1186/s12960-016-0133-8>
- Rapoza KA, Vassell K, Wilson DT, Robertson TW, Manzella DJ, Ortiz-Garcia AL, Jimenez-Lazar LA (2016) Attachment as a Moderating Factor Between Social Support, Physical Health, and Psychological Symptoms. *Sage Open* 6(4):1–13. <https://doi.org/10.1177/2158244016682818>
- Remenyi D, Onofrei G, English J (2022) An introduction to statistics using Microsoft Excel. University Press of University of Johannesburg, Johannesburg
- Salman M, Ganie SA, Saleem I (2020) Employee Competencies as Predictors of Organizational Performance: A Study of Public and Private Sector Banks. *Manag Labour Stud* 45(4):416–432. <https://doi.org/10.1177/0258042X20939014>
- Santalla-Banderali Z, Alvarado JM (2022) Factorial structure of Individual Work Performance Questionnaire (Version 1.0) revisited: Evaluation of acquiescence bias. *PLoS One* 17(7):e0271830. <https://doi.org/10.1371/journal.pone.0271830>
- Schaufeli W, Enzmann D (2020) *The burnout companion to study and practice: A critical analysis*. CRC Press. <https://doi.org/10.1201/9781003062745>
- Scott PJ, Rigby M, Ammenwerth E, McNair JB, Georgiou A, Hyppönen H, de Keizer N, Magrabi F, Nykänen P, Gude WT, Hackl W (2017) Evaluation considerations for secondary uses of clinical data: Principles for an evidence-based approach to policy and implementation of secondary analysis. *Yearb Med Inf* 26(1):59–67. <https://doi.org/10.15265/IY-2017-010>
- Selye H (1976) *Stress in Health and Disease*. Butterworths, Boston
- Singh C, Cross W, Munro I, Jackson D (2020) Occupational stress facing nurse academics-A mixed-methods systematic review. *J Clin Nurs* 29(5-6):720–735. <https://doi.org/10.1111/jocn.15150>
- Song J (2018) Creating world-class universities in China: Strategies and impacts at a renowned research university. *High Educ* 75:729–742. <https://doi.org/10.1007/s10734-017-0167-4>
- Tang L, Zhang F, Yin R, Fan Z (2021) Effect of interventions on learning burnout: A systematic review and meta-analysis. *Front Psychol* 12:645662. <https://doi.org/10.3389/fpsyg.2021.645662>
- Tarekegne C, Wesselink R, Biemans HJA, Mulder M (2024) The effects of comprehensive competence-based training on competence development and performance improvement of smallholder farmers: An Ethiopian case study. *Int J Train Dev* 28(2):119–151. <https://doi.org/10.1111/ijtd.12314>
- The State Council (2004) *Opinions on Further Strengthening and Improving Ideological and Political Education for College Students*. China Renmin University Press, Beijing
- The Standing Committee (2013) *Mental Health Law of the People's Republic of China*. Law Publishing House, Beijing
- UNESCO (2019) *Teachers in tertiary education programmes, both sexes (number)*. UNESCO, Washington, DC
- van de Ven M, Lara Machado P, Athanasopoulou A (2023) Key performance indicators for business models: a systematic review and catalog. *Inf Syst E-Bus Manag* 21:753–794. <https://doi.org/10.1007/s10257-023-00650-2>
- Watts J, Robertson N (2011) Burnout in university teaching staff: A systematic literature review. *Educ Res* 53(1):33–50. <https://doi.org/10.1080/00131881.2011.552235>
- WHO (2024) *Mental health at work*, September 2, 2024. <https://www.who.int/news-room/fact-sheets/detail/mental-health-at-work>
- Wright TA, Hobfoll SE (2004) Commitment, psychological well-being and job performance: An examination of conservation of resources (COR) theory and job burnout. *J Bus Manag* 9(4):389–406. <https://doi.org/10.1504/JBM.2004.141118>
- Ye D, Xu B, Wei B (2024) Employee work engagement in the digital transformation of enterprises: a fuzzy-set qualitative comparative analysis. *Humanit Soc Sci Commun* 11(1):1–15. <https://doi.org/10.1057/s41599-023-02418-y>
- Yousefi M, Abdullah AGK (2019) The impact of organizational stressors on job performance among academic staff. *Int J Instr* 12(3):561–576. <https://doi.org/10.29333/jji.2019.12334a>

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Author contributions

Conceptualization, GMA; methodology, GMA; ML, software, ML; validation, GMA, ML and KB; formal analysis, ML; investigation, KB; resources, ML; data curation, ML; writing—original draft preparation, GMB; ML, KB, writing—review and editing, GMA.; KB, visualization, GMA; KB, supervision, GMA; project administration, GMA; funding acquisition, ML. All authors have read and agreed to the published version of the manuscript.

Competing interests

The authors declare no competing interests.

Ethical approval

Ethical approval was granted by the “Human Research Ethics Committee at the University Putra Malaysia UPM (JKEUPM-an Institutional Review Board -IRB) on 4 September 2023. The reference/approval number is JKEUPM-2023-676. Moreover, local approval was obtained from the “Academic Committee” (an Institutional Review Board-IRB) of Yancheng Teachers University, Jiangsu, China on 27, October 2023. The approval/reference number is YCTU20221017. The ethical procedures used in this study were in accordance with the provisions of the Declaration of Helsinki.

Informed consent

Each university sampled for the study obtained the informed consent of all participants before granting the data for the purposes of this study. In compliance with national regulations and institutional standards, this research did not necessitate written informed consent. The informants (employees of these universities) gave these universities the required consent. Moreover, the study utilized secondary data which does not contain any personal information regarding the respondents. The approval given by the ethics committees of Yancheng Teachers University and University Putra Malaysia allowed us to use this secondary data. This paper employs only secondary data collected by the sampled universities in China. In collecting the data, the authorities of the sampled universities obtained the consent from the participants (i.e. employees). This paper does not utilize any primary source data. The ethical approval (ref. number: YCTU20221017) provided by the Academic Committee” (an Institutional Review Board-IRB) of Yancheng Teachers University, Jiangsu, China, on 27 October 2023, has waived “informed consent” for the secondary data that this study has used.

Additional information

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