

Stress and Burnout amongst Business School Staff

 **Renier Steyn:** Graduate School for Business Leadership, University of South Africa, Midrand, South Africa.
E-mail: steynr@unisa.ac.za

ABSTRACT: *This study aims to evaluate stress levels and burnout experiences among business school staff while identifying the primary workplace stressors contributing to burnout. It addresses the need for an updated assessment in the post-Covid-19 work environment, with the ultimate goal of informing the development of targeted interventions to mitigate burnout and improve overall staff wellbeing. This study employed a cross-sectional survey design targeting the complete business school staff population. Data were collected using a self-designed survey measuring workplace stressors alongside the Maslach Burnout Inventory – Educators Survey (MBI-ES). Analyses involved reliability tests (Cronbach’s alpha), Confirmatory Factor Analysis, one-sample t-tests, and correlation analyses using standard statistical software. The study achieved a 34% response rate with demographics representative of the business school staff. Results indicated moderate emotional exhaustion, low depersonalisation, and high personal accomplishment. Workplace stressors were observed at average levels and correlated most strongly with emotional exhaustion, with task overload and restricted autonomy emerging as the primary contributors to burnout. The findings can be applied in academic administration, human resource management, and organisational behaviour within higher education settings. The insights support the development of targeted interventions, policies, and wellbeing programmes to reduce burnout. Additionally, the study indicates that while theory links certain factors with others, these connections vary in strength when applied in practice. The study offers a contemporary perspective on stress and burnout in the context of the post-Covid-19 work environment. By integrating a self-designed survey with the established Maslach Burnout Inventory – Educators Survey, it advances current knowledge on burnout antecedents. The somewhat surprising results provide insights to inform targeted managerial interventions and enhance staff wellbeing strategies.*

Key words: *Burnout (Emotional exhaustion, Business schools, COVID-19, Depersonalisation, Personal accomplishment), Higher education, Stress.*

1. Introduction

Most employees within the higher education sector will agree that the demands of their jobs have increased or at least changed since Covid-19, placing additional stress on their ability to manage these changes. The consolidation of teleworking as a formula to avoid the spread of the virus by avoiding social contact (Kosir et al., 2020; Sen et al., 2023) drastically changed the higher education world. E-teaching has become a priority, adding new psychosocial stress factors such as isolation, feelings of technological inefficiency, lack of training, or the difficulty of reconciling personal and professional life (García-Gonzalez et al., 2020; Ozgür, 2020; Rapanta et al., 2020; Schildkamp et al., 2020). At the same time, e-teaching is related to the obligatory knowledge and mastery of ICT and techno-overload (Padilla et al., 2022), where feelings of technological incompetence and a sense of inefficiency and techno-insecurity contributed towards stress levels (Li & Wang, 2021).

This research deals with the identification of present-day sources of stress, highlighting those factors which most fundamentally affect university personnel. The theory that specifically addresses the relationship between job demands and workers’ competencies is the Job Demand-Resources (JD-R) Model (Demerouti et al., 2001). The theory suggests that mental health depends on a balance between demands and resources.



Demands are aspects of a position that require sustained effort and may lead to physical or psychological costs if not met adequately, and include workload, emotional demands, time pressure, role ambiguity, and role conflict. Resources are those elements that help employees achieve their work goals, such as social support, feedback, autonomy, skill variety, career development, and performance feedback.

In this research, burnout will be used as indicator of poor mental health. Burnout is often a result of prolonged exposure to workplace stressors, such as heavy workload, lack of control, and insufficient resources (Maslach et al., 2001). Maslach et al.'s (2001) theory of burnout fits in well with the JD-R Model, with both focusing on demands and resources. The Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981), encompassing burnout, focuses on emotional exhaustion (being emotionally drained due to intense workplace demands), depersonalisation (experience of being detached, negative, or callous attitude toward those at the workplace), and reduced personal accomplishment (feelings of inefficacy or reduced competence and achievement in the workplace).

Identifying stressors could facilitate the management of job demands and the provision of resources to support employees in their roles to prevent burnout (Leiter & Maslach, 2005). This is the primary aim of this research. It is also acknowledged that these demands may vary across individuals, departments, and universities. Moderators such as tenure, job type and other demographic aspects could influence the demand-resource relationship (Avargues & Borda, 2010; Soria-Oliver et al., 2019; Tümkaya, 2006). For this reason, the research aimed at adopting a multi-layered approach. However, given the small sample size, the multi-layering did not materialise as the data were not sufficient to conduct the appropriate statistics.

At a practical level, the aim was to provide to those in charge of those targeted in this research, their managers and leaders, with information regarding the specific demands or stressors the targeted group experience. The aim was not to gather data on the resources, as included in the JD-R Model. The focus was on demands and stressors which directly relate to burnout (Bakker et al., 2004), the concept described above. It was necessary to measure burnout as having knowledge about stressors is insufficient, should such stressors not relate to burnout. At a theoretical level, as last aim of the research, the goal was to provide information on the relationship between the different aspects of burnout (Maslach et al., 2001).

2. Literature Review

2.1. Job Demand-Resources Model

The Job Demand-Resources (JD-R) Model (Demerouti et al., 2001) focuses on two key workplace components: job demands and job resources. Job demands, such as workload, emotional demands, time pressure, and role conflict, require sustained effort and can lead to physical or psychological strain if not adequately managed. In contrast, job resources, including social support, feedback, autonomy, skill variety, and career development opportunities, help employees achieve their work goals, reduce job demands, and promote personal growth. The model emphasises the need for balance between demands and resources, as excessive job demands without sufficient resources may lead to burnout and decreased job satisfaction, while abundant resources foster engagement, satisfaction, and productivity. This model has been successfully applied in university settings (Barkhuizen et al., 2014; Salanova et al., 2010).

2.2. Stress At Universities

Concerning stress in higher education, this phenomenon is reported to be present in 20% of subjects (Palafox Carvajal & Domínguez Guedea, 2021). More nuanced, Blix et al. (1994) report that two-thirds of university teachers indicated that they experienced work stress at least 50% of the time. Important to note is the classification or specification of demands in terms of the JD-R Model (Demerouti et al., 2001). According to this theory, demands are specified in terms of workload (the amount and intensity of work an employee needs to complete within a specific time frame), emotional demands (the need to manage and cope with feelings, especially negative ones, in the workplace), time pressure (tight deadlines and the pressure to complete tasks within a limited time), role ambiguity (uncertainty about one's job responsibilities and role in the organisation), and role conflict (when different roles or responsibilities within a job are in conflict, such as when an employee is pulled in multiple directions).

Demands on university professors include a significant increase in work responsibilities with high demands for online teaching, research, publication and management, as well as loss of control due to a lack of



resources, a circumstance that substantially contributes towards the development of burnout (Avargues & Borda, 2010). Work overload is the main source of stress in the university context (Gillespie et al., 2001).

2.3. Burnout at Universities

Considering the burnout of university staff, most existing research points to the prevalence of this phenomenon in the university environment. The study done by Lackritz (2004) indicates that 20% of university professors report high levels of burnout. More recently, the work carried out by Amir (2020) shows that 40% of professors experience a high level of this syndrome. A systematic review by Watt and Robertson (2011) provides similar results. However, there are some studies that differ, such as the study by Herranz-Bellido et al. (2006), where a very low prevalence of 1.8% is obtained, and the work done by Palmer et al. (2016), which highlights a prevalence of 2.6% in a sample of 554 university professors.

Regarding the dimensions that characterise burnout, some researchers found that high levels of emotional exhaustion and depersonalisation constitute the core of this syndrome (Avargues, Borda & Lopez, 2010). Conversely, other researchers point to reduced personal accomplishment among academics as the main manifestation of burnout, whereas depersonalisation was the dimension that contributed the least to the appearance of this syndrome (Ardiç & Polatci, 2008; Marengo & Avila, 2016).

2.4. Stress Is Linked to Burnout at Universities

Within the context of higher education work, Sabagh (2018, p. 131) reports that the meta-analytical “review revealed multiple themes across studies with respect to mixed effects of demographic background factors on burnout levels, as well as clear detrimental effects of adverse job demands (e.g., workload, task characteristics, value conflict) and lack of resources (e.g., social support, rewards, control) on faculty burnout. Additionally, both personal characteristics (e.g., motivation, optimism) and stressors outside the workplace (e.g., family stressors and lack of support) were found to contribute significantly to faculty burnout, with greater burnout, in turn, having consistent adverse consequences for performance and commitment (e.g., reduced work activities, turnover intentions) as well as psychological and physical health (e.g., ill health, depression) in faculty.”

More specifically, the relationship between stress and burnout is also specified, with the strength of association being the highest for the variables of weekend work ($R=0.45$), physical activity ($R=-0.40$), administrative and teaching activities ($R=0.29$), scientific production ($R=0.18$), temporary administrative positions ($R=0.15$), and graduate level teaching ($R=0.14$) (Soares et al., 2019). Arquero and Donoso (2013) indicate that research activities, rather than teaching tasks, create stress and burnout.

At an intersectional level, emotional exhaustion (one of the three elements of burnout) has been mainly related to gender, with higher scores in women (Tümkeya, 2006). Age (linked to years of experience) is inversely related to burnout (Avargues & Borda, 2010). The effective use of information and communication technologies (ICT) (Soria-Oliver et al., 2019), interrelated to ICT training, is also inversely related to burnout.

2.5. Meta-Analytical Studies

The antecedents of burnout are also well-known. “... higher demands, lower resources, and lower adaptive organizational attitudes are associated with burnout” (Alarcon, 2011, p. 549). These results align with earlier research which linked demands to burnout, where correlations just above .50 were found (Lee & Ashforth, 1996). The average effect size estimate for the association between self-efficacy and burnout was of medium size (.33) (Shoji et al., 2017). The theoretical context is thus well established.

An extensive literature review is beyond the scope of this proposal, as recent meta-analyses pointed to the important consequences of burnout (Koutsimani et al., 2019), such as a significant association between burnout and depression ($r = 0.520$, $SE = 0.012$, 95% $CI = 0.492, 0.547$) and burnout and anxiety ($r = 0.460$, $SE = 0.014$, 95% $CI = 0.421, 0.497$). Salyers et al. (2017) also report statistically significant negative relationships between burnout and quality ($r = -0.26$, 95% $CI [-0.29, -0.23]$) and safety ($r = -0.23$, 95% $CI [-0.28, -0.17]$).

2.6. Management of Burnout

Previous results showed the presence of high levels of burnout among university professors (Fernández-Suárez et al., 2021). These researchers recommended the implementation of psychosocial intervention



programmes to prevent this syndrome and promote the personal and professional accomplishment of teachers (Fernández-Suárez et al., 2021). The JD-R Model (Demerouti et al., 2001), which is central to this research, identifies the necessary resources to manage job demands. These are stated as social support (from colleagues, supervisors, or the organisation, covering emotional, instrumental, and informational support), feedback (on performance and efforts, offering guidance and recognition), autonomy (control over one's work, enabling decision-making and self-regulation), skill variety (using various job skills, fostering development and challenges), career development (opportunities for training, growth, and career advancement), and performance feedback (regular feedback on job performance, aiding improvement). These resources should therefore be provided in a management strategy. Organisations have a responsibility to act, although some burnout is associated with individual drivers, since the organisational antecedents are dominant (Acosta-Fernandez et al., 2019; Avargues & Borda, 2010). Burnout is not only the responsibility of the employer, as there is evidence that support from friends and family seems to provide a relevant and prominent antidote to burnout (Otero Lopez et al., 2008).

Given the aforementioned uncertainty and the evolving landscape of higher education, this study has several objectives:

1. To evaluate workplace stress levels and identify the primary stressors.
2. To measure the extent of staff burnout and examine its specific manifestations.
3. To analyse the relationship between stressors and burnout, identifying the most detrimental stressors.
4. To propose managerial interventions aimed at reducing stress and mitigating workplace burnout based on the identified stressors within the current context.

3. Method

3.1. Design

A cross-sectional survey design was used. Data were collected using an online survey. The data were used to describe the population and measure the levels of burnout as well as stress. The design is therefore descriptive as well. As the research also looks at the relationships between stress and burnout, without manipulating these elements, the label of a correlational research design is valid.

3.2. Sampling

The target population for this study is staff at the business school. The sample frame was the e-mails of all the staff – support and operational staff – at the business school. These e-mail addresses were obtained only after the institutional letters of approval were received. (Research ethics are discussed below.) No sampling was therefore done – all staff members with e-mail addresses were targeted.

3.3. Measurement

Data on several demographic variables were collected. These were job type, job level, work arrangements, sex, age and tenure. In Tables 1 to 5, the format in which data were collected is reflected.

Two primary instruments were used, one measuring stress, and the other aspects of burnout. The tool to measure stress was designed specifically for this study.

Academic Job Demands Questionnaire: A measure was specifically designed for this research. The measure was designed considering job demands in the JD-R Model (Demerouti et al., 2001) (workload, emotional demands, time pressure, role ambiguity as well as conflict) and the psychological and institutional variables such as those listed by Palafox Carvajal and Domínguez Guedea (2021), namely stress associated with psychological (lack of control, emotional fatigue, overload, multi-tasking) and institutional (evaluation system demands, tenure track, lack of scientific recognition) variables. Original items were designed with ChatGPT, known as a valuable tool in generating synopses (Steyn & Msweli, 2023) and was thereafter refined in several rounds of revision amongst a group of academics. The final product was a questionnaire of 22 items. The tool was called the Academic Job Demands Questionnaire.

The Maslach Burnout Inventory – Educators Survey (MBI-ES) (Van Horn & Schaufeli, 1998): A special version of the Maslach Burnout Inventory (BMI) (Maslach et al., 1997; Schaufeli et al., 1994) measured three components related to burnout:

- Emotional exhaustion: This refers to the feeling of being emotionally drained and overwhelmed by the demands of one's work, resulting in a sense of depletion and fatigue.



- Depersonalisation: It involves developing a negative and cynical attitude towards students and others in the educational setting, leading to a sense of detachment and treating individuals as objects rather than people.
- Personal accomplishment: This represents an educator's perception of their own effectiveness and successful achievement in their work, reflecting feelings of competence and the ability to make a positive impact on students and the educational environment.

The version used in this study was obtained from Yelena Budantseva, an academic from EKA University for Applied Sciences.

3.4. Analyses

3.4.1. Response Rate

Stedman et al. (2019), in a study of 191 survey studies, report a sharp decline in response rates for mail surveys, dropping from 43% in the 2010s to an average of 21% by the 2030s, according to regression model projections. Wu et al. (2022) find in a meta-analysis of 1 071 online surveys in education-related research that the average online survey response rate was 44.1%. They also find that well-defined and refined populations positively impact online survey response rates. It could be argued that a survey aimed at parents about parenting is likely to yield a higher response rate compared to one targeting the general adult population. Similarly, I would later argue that surveys directed at staff on niche topics like mental health may experience lower response rates if only a small proportion of the targeted staff is affected by the issue, suggesting that lower response rates may reflect the limited prevalence of the condition within the surveyed population. Holtom et al. (2022) examine 1 014 surveys from studies conducted between 2010 and 2020, finding that response rates increased to 68% by 2020. They note that response rates vary depending on the target behaviour. For instance, higher response rates are reported in journals focusing on individual and team levels of analysis, while lower rates were observed in firm-level journals, with 17% for the *Strategic Management Journal* and 21% for the *Journal of International Business Studies* in 2020. However, some studies report much lower response rates. Smith et al. (2019), in their study on strategies to improve online survey response rates, report an average response rate of 11.4%. They find that factors such as questionnaire length, survey incentives, and the number of follow-up waves significantly influence response rates. They also mention that the shorter (11 and 26 questions), rather than longer surveys (55 questions), and those with two follow-ups rather than one follow-up, yield the best results. Petrovčič et al. (2016) report an aggregate response rate of 8.4% and an overall response rate of 8.4%. Deutskens et al. (2004) find a net response rate of 20.4%, even when using lucrative incentives, a practice uncommon in South Africa, and not applied in this research. Given this discussion, a response rate higher than 15% was set as an ideal for this study.

3.4.2. Demographic Data

All demographic data are categorical or measured on ordinal scales. These data were presented as frequencies and percentages in tables for clearer comparison and interpretation.

3.4.3. Reliability

Cronbach's alpha is commonly used to assess the internal consistency or reliability, with values ranging from 0 to 1. Values between .70 and .80 are regarded as good, while scores above .80 are considered excellent. However, values above .90 may indicate redundancy among items (Tavakol & Dennick, 2011). While an alpha of .70 or higher is generally preferred in more established research contexts, an alpha of .60 or even slightly lower may be acceptable in exploratory research (Sarstedt et al., 2021), such as in this case. As the burnout questionnaire has a long history and went through several rounds of development, alphas higher than .70 were expected in this research.

3.4.4. Validity

Model fit was evaluated, using the Chi-Square (χ^2) statistics (Bentler & Bonett, 1980; Cochran, 1952), Comparative Fit Index (CFI), Tucker Lewis Index (TLI), the Standardised Root Mean Square Residual (SRMR), and the Root Mean Square Error of Approximation (RMSEA) (Bentler & Bonett, 1980; Mueller & Hancock, 2008). CFI ratio ≥ 0.90 , SRMR ≤ 0.08 and RMSEA ≤ 0.08 show acceptable fit, whereas good fit obtains CFI ≥ 0.95 , SRMR ≤ 0.06 and RMSEA ≤ 0.06 (Hu & Bentler, 1999; Maccallum et al., 1996). Only the



Maslach Burnout Inventory – Educators Survey (MBI-ES) (Van Horn & Schaufeli, 1998) was analysed for factorial fit.

3.4.5. Descriptive Statistics and the One Sample T-Test

Descriptive statistics has little value apart from indicating the distribution of the data. As the dataset was small, no test for normality was performed. However, to extract some value from the descriptive statistics, one-sample t-tests were performed to determine whether the means of a single sample differ significantly from the hypothesised population mean (Field, 2018). The median value for the stressors (the value of 3, on a scale of 1 to 5) and for burnout (the value of 4, on a scale of 1 to 7) were used to compare the sample mean to the hypothesised population mean. The result of the test is a t-value, which indicates whether the null hypothesis of equal means should be rejected or not. The p-value associated with the t-test was set at a threshold (.05). Should the p-value be lower than .05, it was assumed that the sample mean is significantly different from the population mean (Field, 2018).

3.4.6. Correlation Analysis

Correlation analyses were performed to assess the strength and direction of the relationship between stressors and burnout. Pearson’s correlation coefficients (r) were calculated. The values range from -1 to 1. Where an r value of around .10 is considered a small effect size, an r value of .30 is moderate, and an r value of .50 or above is regarded as large (Cohen, 1988). The statistical significance of the correlation is determined by a p-value, where a p-value below .05 typically indicates that the correlation is statistically significant (Field, 2018). A correlation larger than .50, and with p-values smaller than .01, were considered as indicative of a significant correlation.

3.4.7. Regression Analysis

The intention was to perform a regression analysis to determine which of the independent variables (which specific stressor) had a unique and significant relationship with the dependent variable (aspects of burnout). In such cases, the significance of the beta coefficients were examined. When the p-value for a beta coefficient is below the threshold, that variable is considered to make a unique and significant contribution to predicting the dependent variable (Field, 2018). In this case, the threshold was set at .01. These analyses were not performed, as will be explained later.

3.4.8. Moderator Analyses

Most of the demographic variables, job type, job level, work arrangements, sex, age and tenure, could act as moderators. However, given the small number of the response, these analyses were not performed.

3.4.9. Ethics Clearance

Clearance were obtained from the University of South Africa’s College of Human Sciences, CREC (NHREC Registration # Rec-240816-052), with Ref # 2327 and, because university staff were involved, from the Research Permission Sub-committee (RPSC) of the Senate Research, Innovation, Postgraduate Degrees and Commercialisation Committee (SRIPCC), with Ref # 2024_RPC_049. All general guidelines regarding ethical research were followed, and no ethical breaches were reported to the overseeing authorities or the authors of this report.

4. Results

4.1. Response Rate

When the questionnaire was distributed across the entire university, 20 business school staff members responded. After a second university-wide request, an additional three staff members responded. Following a targeted plea to business school staff only, another seven responses were recorded. A subsequent call to business school staff yielded nine more responses. In total, 39 responses were collected from the 111 business school e-mail addresses targeted. However, it would be an overestimation to assume that the business school population is 111, as new staff are more likely to be added to the list than inactive or unassociated staff members removed. Therefore, the response rate is probably more than 34%, assuming 111 is the maximum population size.



4.2. Demographics

The demographics of the respondents are presented below.

Table 1. Job type.

Job type	Frequency	Percent
Academic staff: This category includes lecturers, professors, researchers, and other teaching staff.	12	30.8
Administrative staff: These individuals handle the administrative and operational functions of the university.	18	46.2
Support staff: Support staff provide essential services that support the academic and administrative functions.	9	23.1
Total	39	100.0

Most of the participants were administrative staff. Academics presented only 30.8% of all the respondents.

Table 2. Job level.

Job level	Frequency	Percent
Junior lecturer/entry level	8	20.5
Lecturer/junior management	7	17.9
Senior lecturer/middle management	9	23.1
Associate professor/senior management	3	7.7
Professor/top management	3	7.7
Total	30	76.9
Missing	9	23.1
Total	39	100.0

The “senior lecturer/middle management” category was best presented amongst the respondents. Most respondents were from the lower job levels.

Table 3. Work arrangements.

Work arrangements	Frequency	Percent
At the office only	10	25.6
Mostly at the office	17	43.6
50/50	5	12.8
Mostly away from the office	4	10.3
Away from the office	3	7.7
Total	39	100.0

Most respondents (43.6%) answered that they work from the office, while 18% indicated that they seldom work from the office.

Table 4. Sex.

Sex	Frequency	Percent
Male	15	38.5
Female	24	61.5
Total	39	100.0

Females were the dominant group of respondents, accounting for 61.5% of the respondents.



Table 5. Age.

Age	Frequency	Percent
18 to 30	1	2.6
31 to 40	9	23.1
41 to 50	12	30.8
51 to 60	15	38.5
61 to 70	2	5.1
Total	39	100.0

Most respondents were in the 51 to 60 year age bracket. The next biggest group was the 41 to 50 year group.

Table 6. Tenure.

Tenure	Frequency	Percent
0 to 5 years	5	12.8
6 to 10 years	10	25.6
11 to 15 years	11	28.2
16 to 20 years	4	10.3
21 to 25 years	6	15.4
26 to 30 years	2	5.1
31+ years	1	2.6
Total	39	100.0

Most responds were in the 11 to 15 year group. Those with 16 years or more represented 33.4% of the respondents.

4.3. Reliability

The reliability for the Academic Job Demands Questionnaire, as measured with the Cronbach alpha, was .885. The alphas for the Maslach Burnout Inventory – Educators Survey (MBI-ES) was .898 for emotional exhaustion (eight items), .821 for personal accomplishment (seven items), and .690 for depersonalisation (seven items).

4.4. Validity

No factorial validity information was collected for the business school as the sample was too small. However, for the larger sample of which the business school formed a part (N=680), tests for factorial validity were performed.

Table 7. Factorial validity – confirmatory factor analyses

	X ² /df	CFI	TLI	SRMR	RMSEA
Acceptable fit	≤3	≥.90	≥.90	≤.08	≤.08
Statistic	640/206=3.1	0.869	0.853	0.0786	0.0763

Two of the five statistics met the required threshold, namely SRMR and RMSEA.



4.5. Descriptive Statistics

4.5.1. Stressors

Table 8. Mean scores on one-sample t-test with 3 as the mean score: Differences with a significance larger than 95% ($p < .05$) are highlighted.

Academic Job Demands Questionnaire	N	Mean	Standard deviation	Difference from mean	
				T	p (2-sided)
1. To what extent do you feel overloaded with work responsibilities? (Not at all; slightly; moderately; very much; extremely)	39	3.3590	1.03840	2.159	0.037
2. How often do you have to manage emotional demands, such as dealing with difficult situations, students, or colleagues? (rarely; Occasionally; frequently; often; always)	39	2.8718	1.12810	-0.710	0.482
3. To what extent does pressure to complete tasks within limited timeframes form part of your job? (not at all; slightly; moderately; very much; extremely)	38	3.4211	0.88932	2.919	0.006
4. How often do you experience uncertainty about your job responsibilities and role within the institution? (rarely; occasionally; frequently; often; always)	39	2.3590	1.28733	-3.110	0.004
5. To what extent do you feel pulled in multiple directions due to conflicting job roles or responsibilities? (not at all; slightly; moderately; very much; extremely)	38	3.0526	1.11373	0.291	0.772
6. How often do you perceive a lack of control over your job-related decisions and tasks? (rarely; occasionally; frequently; often; always)	38	2.3947	1.05368	-3.541	0.001
8. To what extent do you feel overwhelmed by the volume of tasks and responsibilities in your role? (not at all; slightly; moderately; very much; extremely)	39	3.1026	0.96777	0.662	0.512
9. How often do you find yourself multi-tasking due to various demands in your position? (rarely; occasionally; frequently; often; always)	39	3.3333	1.22116	1.705	0.096
10. To what extent do the demands of the evaluation system create stress for you in your academic role? (not at all; slightly; moderately; very much; extremely)	36	3.1111	1.03586	0.644	0.524
11. How often do you experience pressure related to the promotion and achievement of career milestones? (rarely; occasionally; frequently; often; always)	39	2.6923	1.48950	-1.290	0.205
12. Is there a lack of scientific recognition in your academic field? (not at all; slightly; moderately; very much; extremely)	36	3.1111	1.44969	0.460	0.648



				Difference from mean	
Academic Job Demands Questionnaire	N	Mean	Standard deviation	T	p (2-sided)
13. Please rate your comfort level in addressing diversity and inclusion issues in your role. (very comfortable; comfortable; neutral; uncomfortable; very uncomfortable)	39	2.5385	1.16633	-2.471	0.018
14. How effective is the leadership and management support you receive in your role? (very ineffective; ineffective; neutral; effective; very effective) (reverse)	39	2.8718	1.12810	-0.710	0.482
15. How often do concerns about your mental health and well-being affect your work performance? (rarely; occasionally; sometimes; often; always)	39	2.5641	1.23106	-2.211	0.033
16. Please rate the opportunities for professional growth and development in your current role. (inadequate; below average; average; above average; excellent) (reverse)	39	3.3077	1.17325	1.638	0.110
17. How does the required level of scientific production contribute to your job demands and stress? (not at all; slightly; moderately; very much; extremely)	36	2.8611	1.24563	-0.669	0.508
18. How do the number of teaching hours you are responsible for affect your job demands and stress? (not at all; slightly; moderately; very much; extremely)	36	3.1389	1.29069	0.646	0.523
19. How often does your workload require you to work during the weekend? (never; rarely; occasionally; frequently; always)	39	3.2308	1.03775	1.389	0.173
20. How well does your university support the integration of technology into your processes? (very poorly; poorly; neutral; well; very well) (reverse)	39	3.2051	0.89382	1.433	0.160
21. Rate the extent to which the pressure to supervise post-graduate students' research affects your job satisfaction. (not at all; slightly; moderately; very; extremely)	35	3.4857	0.70174	4.095	<0.001
22. How confident do you feel in adapting to and using evolving technologies in your job? (not confident; slightly confident; moderately confident; very confident; extremely confident) (reverse)	39	2.5385	0.91324	-3.156	0.003
Work stress (Total)	33	3.0115	0.62316	0.106	0.916

In total, eight out of the 21 items differed significantly from the mean. From these, five reflected lower than the mean stress and three had higher levels. The work stress (total) mean score is close to the middle score of three (see the last row).



4.5.2. Burnout

Table 9. Burnout – mean scores on one-sample t-test with four as the mean score: (differences with a significance larger than 95% ($p < .05$) are highlighted).

The Maslach Burnout Inventory – Educators Survey (MBI-ES)	N	Mean	Standard Deviation	Difference from mean	
				t	p (2-sided)
Emotional exhaustion (8 items)	36	3.5417	1.33430	-2.061	0.047
Personal accomplishment (7 items)	35	5.3020	1.02242	7.534	<0.001
Depersonalisation (7 items)	36	2.6071	0.90761	-9.208	<0.001

The emotional exhaustion scores for business school staff was lower than the middle score of four. Personal accomplishment is significantly higher than four, while, as can be seen in the last row, depersonalisation is significantly lower than four.

4.6. Inferential Statistics

Two inferential statistics are presented, namely correlation analyses and regression analyses.

4.6.1. Correlation Analyses

Table 10. Correlation between stress and burnout – correlations with significance larger than 99% ($p < .01$) are highlighted

Variable		Emotional exhaustion	Personal accomplishment	Depersonalisation
1. To what extent do you feel overloaded with work responsibilities? (not at all; slightly; moderately; very much; extremely)	R	0.555	0.070	0.095
	P	<0.001	0.690	0.583
	N	36	35	36
2. How often do you have to manage emotional demands, such as dealing with difficult situations, students, or colleagues? (rarely; occasionally; frequently; often; always)	R	0.446	0.395	0.166
	P	0.006	0.019	0.335
	N	36	35	36
3. To what extent does pressure to complete tasks within limited timeframes form part of your job? (not at all; slightly; moderately; very much; extremely)	R	0.370	0.182	0.033
	P	0.026	0.296	0.852
	N	36	35	35
4. How often do you experience uncertainty about your job responsibilities and role within the institution? (rarely; occasionally; frequently; often; always)	R	0.553	-0.009	0.521
	P	<0.001	0.960	0.001
	N	36	35	36
5. To what extent do you feel pulled in multiple directions due to conflicting job roles or responsibilities? (not at all; slightly; moderately; very much; extremely)	R	0.690	-0.040	0.342
	P	<0.001	0.824	0.045
	N	35	34	35
6. How often do you perceive a lack of control over your job-related decisions and tasks? (rarely; occasionally; frequently; often; always)	R	0.601	0.012	0.433
	P	<0.001	0.945	0.009
	N	35	34	35
8. To what extent do you feel	R	0.590	0.125	0.214



Variable		Emotional exhaustion	Personal accomplishment	Depersonalisation
overwhelmed by the volume of tasks and responsibilities in your role? (not at all; slightly; moderately; very much; extremely)	P	<0.001	0.476	0.210
	N	36	35	36
9. How often do you find yourself multi-tasking due to various demands in your position? (rarely; occasionally; frequently; often; always)	R	0.261	0.465	0.155
	P	0.124	0.005	0.366
	N	36	35	36
10. To what extent do the demands of the evaluation system create stress for you in your academic role? (not at all; slightly; moderately; very much; extremely)	R	0.383	-0.034	0.187
	P	0.028	0.846	0.276
	N	33	35	36
11. How often do you experience pressure related to the promotion and achievement of career milestones? (rarely; occasionally; frequently; often; always)	R	0.248	0.069	0.149
	P	0.144	0.692	0.386
	N	36	35	36
12. Is there a lack of scientific recognition in your academic field? (not at all; slightly; moderately; very much; extremely)	R	0.266	0.024	0.195
	P	0.134	0.890	0.253
	N	33	35	36
13. Please rate your comfort level in addressing diversity and inclusion issues in your role. (very comfortable; comfortable; neutral; uncomfortable; very uncomfortable)	R	0.226	0.030	0.403
	P	0.185	0.864	0.015
	N	36	35	36
14. How effective is the leadership and management support you receive in your role? (very ineffective; ineffective; neutral; effective; very effective) (reverse)	R	0.345	-0.235	0.220
	P	0.039	0.175	0.197
	N	36	35	36
15. How often do concerns about your mental health and well-being affect your work performance? (rarely; occasionally; sometimes; often; always)	R	0.326	-0.033	0.221
	P	0.053	0.853	0.196
	N	36	35	36
16. Please rate the opportunities for professional growth and development in your current role. (inadequate; below average; average; above average; excellent) (reverse)	R	0.596	0.184	0.446
	P	<0.001	0.291	0.006
	N	36	35	36
17. How does the required level of scientific production contribute to your job demands and stress? (not at all; slightly; moderately; very much; extremely)	R	0.575	0.001	0.384
	P	<0.001	0.993	0.021
	N	33	35	36
18. How do the number of teaching hours you are responsible for affect your job demands and stress? (not at all; slightly; moderately; very much; extremely)	R	0.199	0.077	-0.102
	P	0.268	0.659	0.554
	N	33	35	36
19. How often does your workload require you to work during the weekend? (never; rarely; occasionally; frequently; always)	R	0.311	0.076	0.215
	P	0.065	0.663	0.208
	N	36	35	36
20. How well does your university support the integration of technology into your	R	0.182	0.016	-0.027
	P	0.287	0.927	0.875



Variable		Emotional exhaustion	Personal accomplishment	Depersonalisation
processes? (very poorly; poorly; neutral; well; very well) (reverse)	N	36	35	36
21. Rate the extent to which the pressure to supervise post-graduate students' research affects your job satisfaction. (not at all; slightly; moderately; very; extremely)	R	0.197	0.070	0.345
	P	0.281	0.696	0.042
	N	32	34	35
22. How confident do you feel in adapting to and using evolving technologies in your job? (not confident; slightly confident; moderately confident; very confident; extremely confident) (reverse)	R	-0.179	-0.282	-0.043
	P	0.296	0.101	0.803
	N	36	35	36
Work stress (total)	R	0.726	0.088	0.415
	P	<0.001	0.627	0.016
	N	31	33	33
Emotional exhaustion	R	1	0.048	0.575
	P	-	0.789	<0.001
	N	36	33	33
Personal accomplishment	R	0.048	1	0.026
	P	0.789	-	0.881
	N	33	35	35
Depersonalisation	R	0.575	0.026	1
	P	<0.001	0.881	-
	N	33	35	36

Note: R=Pearsons correlation, P=Significance, N=Number of respondents

In the upper part of the table, the individual types of stress which are predominantly associated with the different elements of burnout are exposed. It can be observed that work stress (total) relates to only one of the elements of burnout, namely emotional exhaustion. Lastly, in the latter part of the table information is shown on how the elements of burnout relate to each other. Emotional exhaustion is related to depersonalisation, while neither of these are related to personal accomplishment.

4.6.2. Regression Analysis

Regression analyses were performed (much as in the last table – Table 10) to determine which stressors are the primary drivers of burnout, when considering all the stress items together. However, tolerance levels were very low, suggesting multicollinearity, with two or more independent variables highly correlated, which can affect the stability and interpretability of the regression model (Field, 2018; Tabachnick & Fidell, 2019). The regression models worked well in a larger sample (N=680) when using additional respondents. However, it failed when using SPSS, and as such no regression analyses are presented here.

5. Discussion

The literature review suggests that burnout is closely related to job demands and resources, as outlined by the Job Demand-Resources (JD-R) Model (Demerouti et al., 2001). Traditionally, factors like workload, emotional demands, and role conflict have been identified as primary stressors leading to burnout (Bakker et al., 2004). If not managed effectively, these stressors may result in emotional exhaustion, depersonalisation, and reduced personal accomplishment (Maslach et al., 2001). The aim was to identify the toxic stressors experienced by staff at the business school –those directly linked to burnout – with the goal of proposing strategies to reduce them.

The methodology of this study involved a cross-sectional survey design, utilising both a self-designed stress questionnaire and the Maslach Burnout Inventory – Educators Survey (MBI-ES). While the survey marginally adhered to established psychometric thresholds, other limitations, such as the sample size,



impacted the interpretation of the data and subsequent inferential analysis. Nonetheless, the study succeeded in identifying key stressors within the business school staff population.

The response rate of 34%, while better than expected given the targeted population, provided a meaningful dataset. It should be noted that apart from the first call, three reminders were sent to business school staff. This rate is consistent with other studies targeting large, diverse groups without specific commonalities; thus, not special interest groups. Wu et al. (2022) found that well-defined and refined populations positively impact online survey response rates, while Deutskens et al. (2004) identified acceptable response rates when using lucrative incentives, a practice uncommon in South Africa and not applied in this research. This call for participation did not target a specific interest group, nor did it include monetary incentives. This may have impacted the response rate. As noted in the literature review, it may tentatively be speculated that the relatively low response rates (compared to Wu et al.'s [2022] 44.1% and Holtom et al.'s [2022] 68%) may reflect the limited prevalence of the issue (stress or burnout) within the surveyed population, since only a few participants were interested in reporting on the topic.

The demographics of the respondents indicated a balanced representation across the variables on which data were collected. The most common job type was administrative staff, reflecting the business school's staff composition. Academics represented around 30% of the respondents, which is also reflective of the business school's overall makeup. In terms of job level, most respondents fell into the "senior lecturer/middle management" category. This is not surprising, and although middle management may not represent the median of administrative employees at the business school, no academic staff appointed there holds a rank lower than senior lecturer, which suggests these results accurately reflect the workforce. Most respondents (43.6%) indicated that they exclusively or primarily work from the office. This is likely influenced by the legacy of Covid-19 as well as the business school's focus on e-learning. Females made up the dominant group of respondents, accounting for 61.5% of the total. The official data suggest that a large university like Unisa employs 55% females (University of South Africa, 2023), slightly less than the business school data. The majority of respondents were in the 51 to 60 age group, followed by the 41 to 50 group. The respondents were thus generally seasoned in their careers. More significantly, the largest group in terms of tenure was those with 11 to 15 years of service, while 33.4% of respondents had 16 years or more of tenure. This suggests that the respondents have substantial experience in the business school setting, enabling them to provide well-informed responses. However, on the downside, given the age and tenure data, the voices of those younger and newer to the business school are not well represented. Nevertheless, considering all the demographic variables, we can be confident that the respondents are representative of the population they reflect.

The reliability of the measures was confirmed with Cronbach's alpha scores above the acceptable threshold of .70 for most scales, with the Academic Job Demands Questionnaire Cronbach alpha measuring .885, .898 for emotional exhaustion, .821 for personal accomplishment and a lowish .690 for depersonalisation. The lower reliability of depersonalisation suggests that this aspect of burnout requires further refinement in future studies. As indicated above, factorial validity information was not collected for the business school as the sample was too small, but for the larger group (N = 680), these statistics were calculated. As can be seen in Table 7, the confirmatory factor analyses data for the Maslach Burnout Inventory – Educators Survey were less than perfect, with only two of the five statistics meeting the required threshold, namely SRMR and RMSEA.

Descriptive statistics revealed moderate levels of stress and burnout among the respondents, considering the mean scores. With regard to work stress (total) the mean was 3.011, with a standard deviation of .623. When a group t-test was performed, $t = .106$ ($p = .916$), the statistics revealed that the respondents, on average, did not provide answers any different from the median answer (3). Considering the individual items, three items stood out as stressful.

21. Rate the extent to which the pressure to supervise post-graduate students' research affects your job satisfaction. (not at all; slightly; moderately; very; extremely)
3. To what extent does pressure to complete tasks within limited timeframes form part of your job? (not at all; slightly; moderately; very much; extremely)
1. To what extent do you feel overloaded with work responsibilities? (not at all; slightly; moderately; very much; extremely)

These are the primary stressors employees at the business school experience. These three items indicate that while overall stress levels are moderate, there are specific areas that disproportionately contribute to the



stress experienced by business school employees. Addressing these primary stressors through workload adjustments, time management interventions, and better support systems for supervising postgraduate students, could help in mitigating stress and improving overall well-being.

On the other side of this coin, several other potential stressors did not materialise as significant stressors. On the following questions, the respondents scored significantly lower than the median value of 3.

4. How often do you experience uncertainty about your job responsibilities and role within the institution? (rarely; occasionally; frequently; often; always)

6. How often do you perceive a lack of control over your job-related decisions and tasks? (rarely; occasionally; frequently; often; always)

13. Please rate your comfort level in addressing diversity and inclusion issues in your role. (very comfortable; comfortable; neutral; uncomfortable; very uncomfortable)

22. How confident do you feel in adapting to and using evolving technologies in your job? (not confident; slightly confident; moderately confident; very confident; extremely confident) (reverse)

15. How often do concerns about your mental health and well-being affect your work performance? (rarely; occasionally; sometimes; often; always)

While there are stressors present at the business school (as highlighted in the previous analysis), these specific potential stressors are not prominent concerns among the staff. Clarity in job roles, autonomy in decision-making, comfort with diversity issues, confidence in technology use, and relatively stable mental health contribute to a generally supportive work environment, helping to offset other sources of stress.

As far as burnout and its dimensions are concerned, the data revealed that emotional exhaustion was below the median score of 4 (mean = 3.541, standard deviation = 1.334, $t = -2.061$, $p = .047$). Personal accomplishment was high (mean = 5.302, standard deviation = 1.022, $t = 7.534$, $p < .001$). The most pronounced dimension of burnout was (the lack of) depersonalisation (mean = 2.607, standard deviation = .907, $t = -9.208$, $p < .001$). These results are encouraging. The business school staff seem not to be exhausted, experience personal accomplishment, and do not depersonalise their students/clients.

The relationship between stressors and burnout and emotional exhaustion is central to this research, as it will shed light on those stressors which contribute to ill health. The full results are available in Table 10. Listed below are the stress items which correlated strongly with emotional exhaustion.

6. How often do you perceive a lack of control over your job-related decisions and tasks? (rarely; occasionally; frequently; often; always) ($r = .690$, $p < .001$)

16. How would you assess the availability of professional growth and development opportunities in your current role? (inadequate; below average; average; above average; excellent) (reverse) ($r = .596$, $p < .001$)

8. How frequently do you feel overwhelmed by the number of tasks and responsibilities in your role? (rarely; occasionally; frequently; often; always) ($r = .590$, $p < .001$)

17. To what extent does the required level of scientific production contribute to your job-related demands and stress? (not at all; slightly; moderately; very much; extremely) ($r = .575$, $p < .001$)

1. How frequently do you feel overloaded with work responsibilities? (rarely; occasionally; frequently; often; always) ($r = .555$, $p < .001$)

4. How often do you feel uncertain about your job responsibilities and role within the institution? (rarely; occasionally; frequently; often; always) ($r = .553$, $p < .001$)

2. How frequently are you required to manage emotional demands, such as dealing with difficult situations involving students or colleagues? (rarely; occasionally; frequently; often; always) ($r = .446$, $p < .001$)

Task overload (questions 8, 17, 1 and 2) is the dominant contributor to emotional exhaustion. Being constantly overwhelmed by a high volume of tasks or feeling burdened by work responsibilities leads to fatigue and stress. This, combined with role ambiguity (question 4), can enhance stress which contributes to emotional exhaustion and further amplifies burnout. Additionally, emotional labour (question 2) adds an extra layer of stress. While emotional demands might not be as directly overwhelming as task overload, regularly engaging in this type of labour can still drain emotional resources, contributing to burnout. Autonomy and control (questions 6 and 4) emerge as a significant determinant of emotional exhaustion. Growth opportunities (question 16), rather than the lack of it, also contribute to emotional exhaustion. Business school employees



may feel stagnant in their roles. Growth and performance pressure (question 17) specifically related to scientific production, are linked to emotional exhaustion.

These results align with existing literature that highlights these stressors as key predictors of burnout in academic settings (Arquero & Donoso, 2013; Sabagh, 2018; Soares et al., 2019). These stressors with high correlations with emotional exhaustion indicate or specify the stressors which is associated with burnout but should be interpreted within the context of the business school's relatively low reported emotional exhaustion rate.

Addressing these key stressors can help organisations reduce burnout and foster a healthier, more sustainable work environment for their employees. Task overload could be mitigated by distributing workloads more evenly, providing additional resources, or introducing flexible work schedules. Hire additional staff or assistants to help with administrative and academic tasks, which can alleviate excessive workload on individual employees. Role ambiguity can be addressed through well-defined roles and explaining what is expected of each employee. Providing regular communication from management regarding any changes in role expectations or institutional priorities could also address this. Emotional demands, such as dealing with difficult students or colleagues, contribute to burnout, and providing emotional support can help staff cope more effectively. Introducing peer support programmes, offering access to mental health resources, conducting wellness workshops, and promoting an open, stigma-free culture are key strategies to address emotional strain. Issues regarding autonomy and control could be addressed by clarifying command structures and providing employees with decision-making power within their individual domains. By giving staff more control over their work processes, choosing how to approach tasks and managing their own time could address these concerns. Growth opportunities and performance pressure could be addressed through continuous upskilling, developing career advancement plans, and matching career and performance expectations with individual qualities and the specific career's growth opportunities. Encouraging participation in research projects, professional conferences, or academic collaborations can contribute to personal and professional growth and making access to these opportunities easier could alleviate this concern.

6. Conclusion

Given the evolving landscape of higher education, particularly in the aftermath of the Covid-19 pandemic, this study aimed to: (1) evaluate workplace stress levels and identify primary stressors; (2) measure the extent of staff burnout and its specific manifestations; (3) analyse the relationship between stressors and burnout; and (4) propose managerial interventions to reduce stress and mitigate workplace burnout. These objectives were achieved. The data and statistical analyses revealed “normal” levels of stress and emotional exhaustion. Readers of this report are encouraged to take that into consideration when individual stressors are evaluated. Yes, both stress and burnout could be reduced, but it is seemingly not, on average, a crisis. The results highlighted the role of work overload and role ambiguity as key stressors linked to emotional exhaustion. These insights suggest the need for targeted interventions, such as enhancing role clarity and providing resources to manage workload, to improve staff well-being and reduce burnout levels. It should also be noted that depersonalisation is low and personal achievement is high – both laudable and encouraging signs.

7. Limitations of the Study and Future Research

One key limitation of this study is the response rate, which was largely beyond the researchers' control. Future efforts could aim to improve this by enhancing respondent motivation and allowing individuals who do not experience excessive stress or burnout to opt out of the assessment process. The response rate, and consequently the number of respondents, also impacted the types of statistical analyses that could be conducted. In this dataset, regression analyses were hindered by low tolerance levels, indicating multicollinearity. However, this issue did not arise in larger datasets. Additionally, due to the limited sample size, moderator analyses – examining variables such as job type, job level, work arrangements, sex, age, and tenure – were not feasible. Group differences were also not assessed. Future research with access to larger datasets should consider conducting these analyses to explore potential moderating factors and group-specific trends. This would provide deeper insights into the relationships between stress, burnout, and various demographic or occupational factors.



Author Contribution:

RS was responsible for all aspects of the research.

Data Availability Statement:

The data used in this article are available from the author upon request; release will be determined at the author's discretion, contingent on the merit of the inquiry.

Conflict of Interest:

The author is employed by the organisation where the data were collected; however, any potential conflict of interest is considered minimal, as the findings are general in nature and do not pose any risk to the organisation's reputation.

Generative Artificial Intelligence (AI):

ChatGPT (December 2024 version) was used as an aid to improve sentence construction and grammar in the text.

References

- Acosta-Fernandez, M., Parra-Osorio, L., & Molina, C. B. (2019). Occupational stress, burnout, mental health and its relationship with workplace violence in university teachers. *Salud Uninorte*, 35(3), 328–342.
- Adil, A., & Kamal, A. (2018). Impact of perceived authentic leadership and psychological capital on burnout: Mediating role of psychological ownership. *Psychological Studies*, 63(3), 243–252. DOI: 10.1007/s12646-018-0484-6
- Aguilar, S., Howlet, P., & Diez, G. (2015). Burnout syndrome in teachers of a professional institution in Mexico. *Publications Magazine*, 45, 53–64.
- Alarcon, G. M. (2011). A meta-analysis of burnout with job demands, resources, and attitudes. *Journal of Vocational Behavior*, 79(2), 549–562. DOI: 10.1016/j.jvb.2011.03.007
- Amir, K. (2020). Prevalence of burnout among university academic staff in Uganda; does gender matter? *Clinical Psychiatry*, 6(2), 68. DOI: 10.47275/2631-5241-119
- Ardıç, K., & Polatci, S. (2008). Tükenmişlik sendromu ve akademisyenler üzerinde bir uygulama (GOU örneği). *Gazi Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 10(2), 69–96.
- Aronsson, G., Theorell, T., Grape, T., Hammarström, A., Hogstedt, C., Marteinsdottir, I., ... & Hall, C. (2017). A systematic review including meta-analysis of work environment and burnout symptoms. *BMC Public Health*, 17, 1–13. DOI: 10.1186/s12889-017-4661-0
- Arquero, J. L., & Donoso, J. A. (2013). Teaching, research and burnout: The burnout syndrome in accounting university professors. *Revista de Contabilidad*, 16(2), 94–105. DOI: 10.1016/j.rcsar.2013.05.001
- Avargues, M. L., & Borda, M. (2010). Job stress and burnout syndrome at university: A descriptive analysis of the current job situation and review of the principal lines of research. *Annuary of Clinical and Health Psychology*, 6, 67–72.
- Avargues, M. L., Borda, M., & Lopez, A. M. (2010). El core of burnout y los síntomas de estrés en el personal de universidad. Prevalencia e influencia de variables de carácter sociodemográfico y laboral. *Boletín de Psicología*, 99, 89–101.
- Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the job demands-resources model to predict burnout and performance. *Human Resource Management*, 43(1), 83–104. DOI: 10.1002/hrm.20004
- Barkhuizen, N., Rothmann, S., & Van De Vijver, F. J. (2014). Burnout and work engagement of academics in higher education institutions: Effects of dispositional optimism. *Stress and Health*, 30(4), 322–332.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88(3), 588–606.
- Besser, A., Lotem, S., & Zeigler-Hill, V. (2022). Psychological stress and vocal symptoms among university professors in Israel: Implications of the shift to online synchronous teaching during the COVID-19 pandemic. *Journal of Voice*, 36(2), 291.e9–291.e16.
- Blix, A. G., Cruise, R. J., Mitchell, B. M., & Blix, G. G. (1994). Occupational stress among university teachers. *Educational Research*, 36(2), 157–169.
- Bocéréan, C., Dupret, E., & Feltrin, M. (2019). Maslach Burnout Inventory-General Survey: French validation in a representative sample of employees. *SCIREA*.
- Bravo, D. M., Suárez-Falcón, J. C., Bianchi, J. M., Segura-Vargas, M. A., & Ruiz, F. J. (2021). Psychometric properties and measurement invariance of the Maslach Burnout Inventory-General Survey in Colombia. *International Journal of Environmental Research and Public Health*, 18(10), 5118.
- Bui, T. H. T., Tran, T. M. D., Nguyen, T. N. T., Vu, T. C., Ngo, X. D., Nguyen, T. H. P., & Do, T. L. H. (2022). Reassessing the most popularly suggested measurement models and measurement invariance of the Maslach Burnout Inventory-Human Service Survey among Vietnamese healthcare professionals. *Health Psychology and Behavioral Medicine*, 10(1), 104–120.
- Cochran, W. G. (1952). The χ^2 test of goodness of fit. *The Annals of Mathematical Statistics*, 23(3), 315–345.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.



- David, I. C., & Quintao, S. (2012). Burnout in teachers: Its relationship with personality, coping strategies, and life satisfaction. *Acta Medica Portuguesa*, 25(3), 145–155.
- Delello, J. A., McWhorter, R. R., Marmion, S. L., Camp, K. M., Neel, J., Everling, K. M., & Marzilli, C. (2015). The life of a professor: Stress and coping. *Polymath: An Interdisciplinary Arts and Sciences Journal*, 4(1), 39–58.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The Job Demands-Resources Model of Burnout. *Journal of Applied Psychology*, 86(3), 499–512.
- Deutskens, E., De Ruyter, K., Wetzels, M., & Oosterveld, P. (2004). Response rate and response quality of internet-based surveys: An experimental study. *Marketing Letters*, 15(1), 21–36.
- Fernández-Suárez, I., García-González, M. A., Torrano, F., & García-González, G. (2021). Study of the prevalence of burnout in university professors in the period 2005–2020. *Education Research International*, 2021, Article ID 6693447.
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage.
- Forné, C., & Yuguero, O. (2022). Factor structure of the Maslach Burnout Inventory-Human Services Survey in Spanish urgency healthcare personnel: A cross-sectional study. *BMC Medical Education*, 22(1), 615.
- García-Gonzalez, M. A., Torrano, F., & García-Gonzalez, G. (2020). Analysis of stress factors for female professors at online universities. *International Journal of Environmental Research and Public Health*, 17(8), 2958.
- Ghorpade, J., Lackritz, J., & Singh, G. (2007). Burnout and personality. *Journal of Career Assessment*, 15(2), 240–256.
- Gillespie, N. A., Walsh, M., Winefield, A. H., Dua, J., & Stough, C. (2001). Occupational stress in universities: Staff perceptions of the causes, consequences and moderators of stress. *Work & Stress*, 15(1), 53–72.
- Herranz-Bellido, J., Reig-Ferrer, A., & Cabrero-García, J. (2006). La prevalencia del estrés laboral asistencial entre los profesores universitarios. *Análisis y Modificación de Conducta*, 32(146), 743–766.
- Holtom, B., Baruch, Y., Aguinis, H., & Ballinger, G. A. (2022). Survey response rates: Trends and a validity assessment framework. *Human Relations*, 75(8), 1560–1584.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. Scientific Research Publishing+2sciepub.com+2sciepub.com+2
- Julieta, N. (2005). Paraiba Valley university teachers' occupational stress: Burnout, depression, and sleep evaluation. *Archivos de Neuro-Psiquiatria*, 63, 367.
- Karasek, R. A. (1985). *Job content questionnaire and user's guide*. University of Massachusetts.
- Kosir, K., Dugonik, S., & Huskic, A. (2020). Predictors of perceived teachers' and school counsellors' work stress in the transition period of online education in schools during the COVID-19 pandemic. *Educational Studies*, 46(5).
- Koutsimani, P., Montgomery, A., & Georganta, K. (2019). The relationship between burnout, depression, and anxiety: A systematic review and meta-analysis. *Frontiers in Psychology*, 10, 284.
- Kristensen, T. S., Hannerz, H., Høgh, A., & Borg, V. (2005). The Copenhagen Psychosocial Questionnaire—a tool for the assessment and improvement of the psychosocial work environment. *Scandinavian Journal of Work, Environment & Health*, 31(6), 438–449.
- Kuimova, M. V., Uzunboylu, H., & Chen, A. S. (2016). Emotional burnout in professional activity of a technical university teacher. *Ponte*, 72(6), 57–61.
- Lackritz, J. R. (2004). Exploring burnout among university faculty: Incidence, performance, and demographic issues. *Teaching and Teacher Education*, 20(7), 713–729.
- Lee, C., & Ashforth, B. E. (1996). A meta-analytic examination of the correlates of three dimensions of job burnout. *The Journal of Applied Psychology*, 81, 123–133.
- Leiter, M. P., & Maslach, C. (2005). *Banishing burnout: Six strategies for improving your relationship with work*. Jossey-Bass.
- León-Rubio, J. M., Cantero, F. J., & León-Pérez, J. M. (2011). Working conditions and differences in the role that self-efficacy plays in the burnout perceived by university staff. *Anales de Psicología*, 27(2), 518–526.
- Li, L., & Wang, X. (2021). Technostress inhibitors and creators and their impacts on university teachers' work performance in higher education. *Cognition, Technology & Work*, 23, 315–330.
- Lin, C. Y., Alimoradi, Z., Griffiths, M. D., & Pakpour, A. H. (2022). Psychometric properties of the Maslach Burnout Inventory for Medical Personnel (MBI-HSS-MP). *Heliyon*, 8(2), e08868.
- MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods*, 1(2), 130–149.
- Marengo-Escuderos, A. D., & Ávila-Toscano, J. H. (2016). Burnout y problemas de salud mental en docentes: Diferencias según características demográficas y sociolaborales. *Psicología*, 10(1), 91–100.
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*, 2(2), 99–113.
- Maslach, C., Jackson, S. E., & Leiter, M. P. (1997). *Maslach Burnout Inventory* (3rd ed.). Consulting Psychologists Press.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397–422.
- Mueller, R. O., & Hancock, G. R. (2008). Best practices in structural equation modeling. In J. W. Osborne (Ed.), *Best practices in quantitative methods* (pp. 488–508). Sage Publications.
- Ofei-Dodoo, S., Callaway, P., & Engels, K. (2019). Prevalence and etiology of burnout in a community-based graduate medical education system: A mixed-methods study. *Family Medicine*, 51(9), 766–771.
- Otero López, J. M., Mariño, M. J., & Castro Bolaño, C. (2008). An integrating approach to the study of burnout in university professors. *Psicothema*, 20, 766–772.
- Ozgür, H. (2020). Relationships between teachers' technostress, technological pedagogical content knowledge (TPACK), school support, and demographic variables: A structural equation modeling. *Computers in Human Behavior*, 112, 106468.
- Padilla, G., Bonivento, E., & Suárez, P. (2017). Burnout syndrome and self-efficacy beliefs in professors. *Propósitos y Representaciones*, 5(2), 65–126.



- Palafox Carvajal, R. F., & Domínguez Guedea, M. T. (2021). Stress in university research professors: A systematic review. *Salud Mental, 44*(5), 249–256.
- Palmer, Y., Prince, R., & Medina, C. (2016). Prevalencia del síndrome de burnout en docentes de la Universidad Autónoma de Baja California, Mexicali, México. *Revista Cubana de Salud y Trabajo, 17*(3), 36–40.
- Petrovčič, A., Petrič, G., & Manfreda, K. L. (2016). The effect of email invitation elements on response rate in a web survey within an online community. *Computers in Human Behavior, 56*, 320–329. fdv.uni-lj.si
- Prilleltensky, I., Neff, M., & Bessell, A. (2016). Teacher stress: What it is, why it's important, how it can be alleviated. *Theory Into Practice, 55*(2), 104–111. ingentaconnect.com
- Puranitee, P., Saetang, S., Sumrithe, S., Busari, J. O., van Mook, W. N. K. A., & Heeneman, S. (2019). Exploring burnout and depression of Thai medical students: The psychometric properties of the Maslach Burnout Inventory. *International Journal of Medical Education, 10*, 223–229.
- Rapanta, C., Botturi, L., Goodyear, P., Guardia, L., & Koole, M. (2020). Online university teaching during and after the COVID-19 crisis: Refocusing teacher presence and learning activity. *Postdigital Science and Education, 2*(3), 923–945.
- Rocha, F. L. R., de Jesus, L. C., Marziale, M. H. P., Henriques, S. H., Marôco, J., & Campos, J. A. D. B. (2020). Burnout syndrome in university professors and academic staff members: Psychometric properties of the Copenhagen Burnout Inventory–Brazilian version. *Psicologia: Reflexão e Crítica, 33*(1), 11.
- Rotstein, S., Hudaib, A. R., Facey, A., & Kulkarni, J. (2019). Psychiatrist burnout: A meta-analysis of Maslach Burnout Inventory means. *Australasian Psychiatry, 27*(3), 249–254.
- Sabagh, Z., Hall, N. C., & Saroyan, A. (2018). Antecedents, correlates and consequences of faculty burnout. *Educational Research, 60*(2), 131–156.
- Salanova, M., Schaufeli, W. B., Martínez, I. M., & Bresó, E. (2010). How obstacles and facilitators predict academic performance: The mediating role of study burnout and engagement. *Anxiety, Stress, & Coping, 23*(1), 53–70.
- Salyers, M. P., Bonfils, K. A., Luther, L., Firmin, R. L., White, D. A., Adams, E. L., & Rollins, A. L. (2017). The relationship between professional burnout and quality and safety in healthcare: a meta-analysis. *Journal of General Internal Medicine, 32*, 475–482.
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2021). Partial least squares structural equation modeling. In *Handbook of Market Research* (pp. 587–632). Springer International Publishing.
- Schaufeli, W. B., Martínez, I. M., Pinto, A. M., Salanova, M., & Bakker, A. B. (2002). Burnout and engagement in university students. *Journal of Cross-Cultural Psychology, 33*, 464–481.
- Schaufeli, W. B., Daamen, J., & Van Mierlo, H. (1994). Burnout among Dutch teachers: An MBI-validity study. *Educational and Psychological Measurement, 54*(3), 803–812.
- Schildkamp, K., Wopereis, I., Kat-De Jong, M., Peet, A., & Hoetjes, I. (2020). Building blocks of instructor professional development for innovative ICT use during a pandemic. *Journal of Professional Capital and Community, 5*(3/4), 281–293.
- Sen, R., Featherstone, B., Gupta, A., Kerr, C., MacIntyre, G., & Quinn-Aziz, A. (2020). Reflections on social work 2020 under COVID-19 online magazine. *Social Work Education, 39*(8), 1116–1126.
- Shoji, K., Cieslak, R., Smoktunowicz, E., Rogala, A., Benight, C. C., & Luszczynska, A. (2016). Associations between job burnout and self-efficacy: A meta-analysis. *Anxiety, Stress, & Coping, 29*(4), 367–386.
- Smith, M. G., Witte, M., Rocha, S., & Basner, M. (2019). Effectiveness of incentives and follow-up on increasing survey response rates and participation in field studies. *BMC Medical Research Methodology, 19*, 1–13.
- Soares, M. B., Mafra, S. C. T., & de Faria, E. R. (2019). Factors associated with perceived stress among professors at a federal public university. *Revista Brasileira de Medicina do Trabalho, 17*(1), 90.
- Soria-Oliver, M., López, J., Torrano, F., García-González, G., & Lara, A. (2019). New patterns of information and communication technologies usage at work and their relationships with visual discomfort and musculoskeletal diseases: Results of a cross-sectional study of Spanish organizations. *International Journal of Environmental Research and Public Health, 16*(17), 3166.
- Stedman, R. C., Connelly, N. A., Heberlein, T. A., Decker, D. J., & Allred, S. B. (2019). The end of the (research) world as we know it? Understanding and coping with declining response rates to mail surveys. *Society & Natural Resources, 32*(10), 1139–1154. ResearchGate
- Steyn, R., & Msweli, P. (2023). Exploring the concept of Ubuntu and Ubuntu leadership: Leveraging artificial intelligence for 'creative' and possibly valuable support in scoping reviews. In *Proceedings of the International Business Conference* (pp. 104–123). Swakopmund. ISBN: 978-0-7961-2665-8 (e-book).
- Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson.
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education, 2*, 53–55.
- Tümekaya, S. (2006). Faculty burnout in relation to work environment and humor as a coping strategy. *Educational Sciences: Theory and Practice, 6*(3), 911–921.
- University of South Africa (UNISA). (2023). Unisa fast facts. Retrieved from <https://www.unisa.ac.za/sites/corporate/default/About/Facts-&-figures/Staff-statistics>
- Van Horn, J. V., & Schaufeli, W. B. (1998). Maslach Burnout Inventory: The Dutch Educators Survey (MBI-NLES) psychometric evaluations. *Manual* (unpublished manuscript). Utrecht University: Department of Social and Organizational Psychology.
- Vukmirovic, M., Rajovic, N., Pavlovic, V., Masic, S., Mirkovic, M., Tasic, R., ... & Milic, N. (2020). The burnout syndrome in medical academia: Psychometric properties of the Serbian version of the Maslach Burnout Inventory - Educators Survey. *International Journal of Environmental Research and Public Health, 17*(16), 5658.
- Watts, J., & Robertson, N. (2011). Burnout in university teaching staff: A systematic literature review. *Educational Research, 53*(1), 33–50.
- Winefield, A. H., & Jarrett, R. (2001). Occupational stress in university staff. *International Journal of Stress Management, 8*, 285–298.



Wu, M. J., Zhao, K., & Fils-Aime, F. (2022). Response rates of online surveys in published research: A meta-analysis. *Computers in Human Behavior Reports*, 7, 100206.



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Email: stevnr@unisa.ac.za

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