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Examining staff burnout during the transition to teaching online due to COVID-19 implications

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Orientation: COVID-19 generated the need for changes in the higher education sector, sparking a shift to online approaches ultimately increasing workload. This study assessed the prevalence of burnout symptoms among academics at an online university in South Africa.

Research purpose: Assessing prevalence and severity of burnout symptoms among academics and its impact on work engagement.

Motivation for research: Academics are central to the teaching and learning processes at higher education institutions. Health and wellness has an impact on institutional functionality. As academic workloads increase, so does the likelihood of burnout, which can influence academic functioning.

Research approach/design and method: Cross-sectional design.

Main Findings: High levels of burnout within open, distance and e-learning (ODeL) academic staff member population is evident with 75% of staff experiencing high or very high burnout. High levels of burnout were concentrated among senior lecturers, with teaching experience and have at least a PhD. The regression coefficient for work engagement ($B = -0.364, p \leq 0.001$) indicated that for each point increase in work engagement, there was a decrease in burnout of 0.364.

Practical implications: High levels of burnout include job dissatisfaction, reduced quality of work, and increased absenteeism. Addressing burnout contributes to retaining experienced staff, improved job satisfaction and quality output. This paper highlights the impact of teaching transitions on the academic workforce, contributing towards wellness interventions aiding burnout recovery.

Contribution/value-add: This paper highlights the impact of teaching transitions on the academic workforce within South Africa, contributing towards wellness interventions aiding the recovery from burnout.

Keywords: Academic burnout; academic workload; burnout assessment test; burnout; COVID-19 teaching transitions; emergency remote teaching; job engagement; Utrecht Work Engagement Scale.

Introduction

The coronavirus disease 2019 (COVID-19) pandemic had a profound impact on many aspects of society, and higher education was no exception, with many universities forced to stop face-to-face tuition and make a rapid shift to online education (Hofer et al., 2021; Robson et al., 2022). The shift to online education was completed under immense pressure and within an incredibly short time period, considering the scale of the changes to adapt pedagogy to a new mode of learning (Littlejohn et al., 2021). In addition, many academics were not experienced in online teaching practices, which meant that they struggled to engage with students with no visual cues and had to negotiate a delicate balance between maintaining quality and treating students with compassion and accommodating their needs (Littlejohn et al., 2021). In many contexts, particularly the South African context, students have constrained access to devices and Internet connectivity, which may have caused considerable distress which, in turn, lecturers had to manage in addition to their workload and own stressors (Dinu et al., 2021). In addition to prompting online learning, the lockdown associated with the pandemic prompted work-from-home (WFH) conditions for which universities and academics were underprepared (Iwu et al., 2022). One of the consequences of the shift to working online from home was the increase in workload, with boundaries between work and home blurring through the encouragement of the 'always on' working practices brought on by increased access to staff through technology (Molino et al., 2020, p. 13). In addition to work conditions, the pandemic also impacted family routines as many schools also closed and shifted to online education, adding to the responsibilities

of staff and decreasing the setup of optimal working environments (Hoffman et al., 2020). Thus, the various impacts of the pandemic will likely add to the already elevated risk of burnout that academics faced prepandemic (Gorczynski et al., 2017).

Research purpose and objectives

The changes that universities had to implement because of the COVID-19 pandemic took place over an incredibly short period of time, and it is assumed that it placed intense pressure on teaching academics to ensure that no student was left behind. The increased workload and work pressures associated with institutional attempts to adapt to the unprecedented circumstances increased the likelihood that academics would develop burnout symptoms. The purpose of this study was therefore to ascertain the prevalence of burnout symptoms among the population of academics at an open, distance and e-learning (ODeL) institution in South Africa and to determine whether burnout had an impact on work engagement. The study objectives were to ascertain the prevalence of burnout symptoms among teaching academics and to determine whether burnout predicts work engagement among teaching academics. This study was guided by the following research questions:

• What is the prevalence of burnout symptoms among distance education staff during the transition to fully online learning?
• Do burnout symptoms predict the level of job engagement among academics?

Literature review
Understanding burnout

Maslach et al. (2001) state that burnout is a prolonged response to chronic emotional and physical stressors on the job. Burnout is a chronic ongoing reaction to one's work, which is typically a negative affective state which is not immediately reversible by taking rest or changing activity (Demerouti et al., 2002). Demerouti et al. (2002) further argue that burnout is a chronic mental health impairment characterised by enduring physical, cognitive and emotional deterioration. Maslach et al. (2001) argue that burnout is an individual experience within the work context.

Burnout has three components, namely emotional exhaustion, depersonalisation and feelings of low accomplishment (Jackson et al., 1998; Leiter & Maslach, 2017; Maslach et al., 2001; Taris et al., 2001). The exhaustion component represents the individual experience of being overextended and depleted physically and emotionally (Maslach et al., 2001). The exhaustion component is the most frequently reported symptom of burnout but is not sufficient to capture the entirety of the experience of the syndrome. It neglects the relational nature of burnout between the individual and the workplace (Maslach et al., 2001).

The cynicism component represents the interpersonal dimension of burnout and is characterised by a negative,

callous or detached response to aspects of the job (Maslach, 2003; Maslach et al., 2001). Depersonalisation, as part of cynicism, is seen as an attempt to put distance between the self and service recipients by ignoring qualities that make them unique individuals; rather, one perceives recipients as objects of one's work (Maslach et al., 2001). Distancing is such a common and immediate reaction to exhaustion that research has established consistent links between cynicism and exhaustion (Byrne et al., 2013; Maslach et al., 2001; Watts & Robertson, 2011). The inefficiency or lack of accomplishment component refers to feelings of incompetence and a lack of productivity at work (Maslach et al., 2001; Schwarzer et al., 2000). According to Maslach et al. (2001), a workplace with chronic, overwhelming demands is likely to erode an individual's sense of effectiveness relative to their job function. This component may arise as a result of exhaustion, cynicism or both or may develop in parallel, particularly in working conditions where there is a chronic lack of resources. A measurement that has been developed and applied frequently for the purposes of identifying burnout is that of the Burnout Assessment Tool (BAT), which theoretically identifies burnout as a work-related syndrome that is mainly characterised by exhaustion and mental distancing (Sakakibara et al., 2020; Schaufeli & Taris, 2005). This measurement involves related constructs associated with burnout in the workplace, some of which were discussed above.

Burnout has been associated with a number of negative outcomes in the workplace, such as absenteeism, increased intention to leave and job turnover (Maslach et al., 2001; Sakakibara et al., 2020). Bakker et al. (2004) see burnout as a negative spiral where employees do not seek help or are unlikely to strive for changes in the organisation, thus continually working ineffectively. In terms of individual health, the exhaustion component predicts stress-related health outcomes and mirrors the symptoms that indicate prolonged stress (Bakker et al. 2004). Research into the physiological consequences of burnout shows that burnout can predict cardiovascular diseases, type 2 diabetes, musculoskeletal disorders, depressive symptoms and insomnia (Sakakibara et al., 2020). There remains a debate whether burnout precipitates mental illness in certain individuals or whether individuals who are mentally healthier cope better with job stressors.

Factors that influence the prevalence of burnout

While there is a wide range of working conditions that could contribute to burnout, there are key correlates that have been identified by burnout researchers. The key correlates identified are job characteristics, occupational characteristics and individual factors (Maslach et al., 2001).

Job characteristics

Job demands, specifically quantitative job demands, have been widely researched in burnout studies, and it has been established that experienced workload and time pressure are strongly and consistently related to burnout (Darabi et al., 2017; Maslach et al., 2001). Even prior to the pandemic, there

were concerns relating to increasing academic workload as a result of massification, internationalisation and increasing demands for quality teaching and research quantity within the highly competitive higher education landscape (Sabagh et al., 2018). In particular, there are concerns raised about role conflict that occurs when there are competing, conflicting demands on an individual's time and resources (Jawahar et al., 2007; Lei et al., 2020; Yousefi & Abdullah, 2019). Role ambiguity refers to a lack of information that is required to perform the job well (Yousefi & Abdullah, 2019). Related to job demands are job resources, which support productivity but the absence of which creates conditions that may lead to the development of burnout. Resources include social support and supervisor support, among others (Berthelsen et al., 2018; Sabagh et al., 2018).

Occupational characteristics

With the changes brought on by the COVID-19 pandemic, the characteristics of the role of lecturers changed substantially, with a greater emphasis on student support and engagement (Dinu et al., 2021). This shift in emphasis placed the burden of greater emotional labour on lecturers on behalf of students as they sought to help students navigate the challenges they faced as a result of the pandemic (Iwu et al., 2022). As alluded to in the introduction, the expectation of online engagement increased with WFH arrangements, with Microsoft (2022) estimating a 252% increase in weekly time spent in meetings for the average Microsoft Teams user per week and a 28% increase in after-hours work across all users, supporting the work of Molino et al. (2020). While academics were engaging online throughout the pandemic, they also experienced social isolation, which refers to the perceived lack of availability of support and recognition, as well as the missed opportunity of informal interactions with coworkers (Iwu et al., 2022).

Individual characteristics

Individual characteristics acknowledge that individuals are unique and bring a plethora of experiences, personalities, expectations and values to the workplace. It is the interaction between these individual characteristics and organisations that has formed a large part of burnout research (Maslach et al., 2001). The new working arrangements brought on by the pandemic had differing effects on individuals, with some experiencing WFH as positive while others expressed feelings of psychological and physical isolation, loneliness, fear, scepticism, uncertainty and operational challenges, which are more likely to be associated with burnout (Iwu et al., 2022). Job expectations are another individual attribute that may play a role in burnout. Those with higher expectations such as senior academics are hypothesised to be more likely to experience burnout when their expectations are not met for the amount of work they put in (Dinu et al., 2021; Maslach et al., 2001).

Interventions for burnout have typically focused on the individual with limited success. These interventions often neglect the notion that employees have limited autonomy with which they can alter the working environment or conditions to support wellness (Maslach et al., 2001). Reward systems, workload allocations and colleagues are all assigned according to roles and not according to personal compatibility or preference. Maslach et al. (2001) suggest that the most effective interventions consider the job environment and the fit with the individual working within it. Interventions should therefore focus on dynamically developing the fit of the employee within their environment.

Academic burnout

Gewin (2021) reported that stress and burnout levels had substantially increased during the pandemic compared with prepandemic levels. For instance, in a poll of United States faculty members, 70% of respondents reported feeling stressed compared with 32% in 2019, a sentiment which was echoed by a similar survey in Europe. This effect was particularly pronounced among female faculty members, of whom 75% reported feeling emotional and other effects of pandemic-related burnout compared with 34% in 2019 and 59% of men in 2020 (Gewin, 2021).

Academic workload has been an area of concern within higher education prior to the pandemic, with concerns raised about the equity of distribution and transparency of workload models and the impact of increasing workload on faculty mental health (Reznichenko et al., 2008; Van Niekerk & Van Gent, 2021). Furthermore, Koga et al. (2015) suggested that, for the period 2007–2017, there was a significant increase in academic workload. Dinu et al. (2021) conducted a study on the mental well-being of academics during the pandemic. They found that teaching workload increased during the pandemic, with 51% of respondents indicating that teaching took 41% – 80% of their time while 47.5% indicated no increase, suggesting that workload increase was not evenly distributed. Furthermore, they found that workload increased with seniority, thus increasing risk of burnout (Dinu et al., 2021). The rationale for this finding is that senior academics were more likely to be spending substantive amounts of time in meetings, developing plans to manage the impact of the pandemic.

Similarly, a survey conducted by De Gruyter involving 3214 respondents indicated that the biggest shift was in the number of hours worked, which was largely driven by digital learning (Gewin, 2021). In South Africa, respondents in a study conducted by Banda and Malinga (2021) found that their teaching workload increased and that they were faced with substantial hurdles to implementing online learning, which included a lack of preparedness for online teaching, poor Internet connectivity, the instability of the electricity grid and the affordability of data. Gender has also been found to play a significant role in workload allocation, with female faculty members more likely to dedicate time to administrative tasks and be involved with more evaluation of academic activities (Koga et al., 2021).

The impact of working from home on burnout

The shift to WFH arrangements brought about by the pandemic was generally viewed as a positive move by

employees, who cited the lack of commute and flexible working conditions. However, work by Daneshfar et al. (2022) found that negative perspectives about WFH were driven by additional child and adult care responsibilities, breach of the work–family boundary and a sense of increasing job insecurity. Nevertheless, Hoffman et al. (2020) found that WFH was positive for most of the workforce and was significantly (p = 0.031) associated with reduced burnout.

The WFH experience was shaped by gender in that female faculties were expected to take on caring duties in addition to their professional workload (Banda & Malinga, 2021). In contrast, a study by Littlejohn et al. (2021) found no significant effects on WFH experience by childcare responsibilities or gender, despite 52.8% of the sample indicating they had caring responsibilities, 40% caring for children, with a higher proportion of women reporting looking after children than men (43.1% vs. 29%), which proved to be a significant difference (X^2[1, N = 390] = 6.190, p = 0.013).

Work-from-home conditions also meant an increased engagement with technology in the workspace, which has been identified as a stressor and can be associated with mental fatigue, poor concentration, irritability, feelings of exhaustion, insomnia and memory disturbances (Molino et al., 2020). Molino et al. (2020) identify two stressors originating from the use of information and communication technologies (ICTs), namely information overload from multiple technological sources and large amounts of information; and constant availability as a result of access to Internet connections, smartphones, laptops and tablets, which mean that workers can be connected anytime, anywhere, creating the expectation of constant reachability, availability and instant responses.

Measurement of burnout

One of the most widely used instruments in burnout research is the Maslach Burnout Inventory (MBI), which has been in use since the 1980's (Maslach et al., 2001; Schaufeli et al., 2008). The MBI has three components, namely emotional exhaustion, depersonalisation and feelings of low accomplishments, and yields three scores. The MBI has been criticised for not including impaired cognitive functioning as a symptom of burnout. Furthermore, the depersonalisation and personal accomplishment domain of the MBI was determined to be debatable in the diagnosis of burnout (Sakakibara et al., 2020). Bakker et al. (2004) argued that personal accomplishment shows a weak relationship with the exhaustion and cynicism components of burnout.

One measure was developed to address these criticisms, the BAT. The underlying theory of the BAT conceptualises burnout as a work-related syndrome characterised by exhaustion and mental distancing (Sakakibara et al., 2020; Schaufeli & Taris, 2005). In a study conducted on the Japanese

version of the BAT, Cronbach's alpha levels were reported at 0.96, with subscales ranging from 0.87 to 0.89 (Sakakibara et al., 2020). In a study aimed at establishing the psychometric properties of the BAT on a Flemish sample, Cronbach's alpha levels of 0.88 and higher were reported for all subscales (Schaufeli et al., 2020).

The BAT consists of two sections, namely core symptoms of burnout, consisting of 23 items, and the secondary symptoms of burnout, consisting of 10 items. The constructs of measurement within the core symptoms of burnout consist of eight items measuring exhaustion, five items measuring mental distance, five items measuring cognitive impairment and five items measuring emotional impairment. Within the secondary symptoms of burnout, the constructs were as follows: five items related to psychological complaints and five items measured psychosomatic complaints (Schaufeli et al., 2020). All items were expressed as statements with five frequency-based response categories (1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always).

Work engagement

The development of the concept of work engagement was the result of a positive psychology shift in burnout research. This concept was seen to be the antithesis of burnout initially (Hakanen & Bakker, 2017; Van Den Broeck et al., 2008). Research has indicated a negative relationship between work engagement and burnout (Bakker & Costa, 2014). The availability of job resources, such as the physical, psychosocial and organisational aspects of the job that are functional in achieving work goals, play a key role in developing and maintaining work engagement (Babic et al., 2020). The Utrecht Work Engagement Scale (UWES) operationalises the concept of work engagement into three domains. The first, vigour, refers to high levels of energy, willingness to exert effort and mental resilience in the line of work (Lekutle & Nel, 2012). Dedication refers to strong involvement in one's work, a sense of significance about one's work and pride in one's work (Lekutle & Nel, 2012; Van den Broeck et al., 2008), while absorption refers to difficulty tearing oneself away from work and being unaware of time lapsing as a result of concentration on one's work (Lesener et al., 2019). Burnout is generally viewed as the erosion of engagement (Lekutle & Nel, 2012).

Measurement of work engagement

The instrument consists of 17 items divided across the three domains described above. The instrument has been tested for validity and reliability in a sample of the South African university population with Cronbach's alpha levels of 0.70 for vigour and 0.78 for dedication (Mostert et al., 2007).

Research method

This study adopted a cross-sectional survey design as it aimed to draw on a cross-section of academics from the

institution to ascertain the impact of the shift to online learning during the transition to online learning.

Sample

The population for this study included all academics at the institution. The objective of this study was to ascertain the impact of the transition to online learning among academic teaching staff. The institution has approximately 1880 academic and research staff who are involved in the academic project at the institution. The sample for this study is 8% of the population, which equates to 147 academic staff members whose information was complete and useable.

Data collection

Data were collected through online anonymous surveys using Qualtrics software (Qualtrics International, Inc., Provo, Utah, United States). Academic staff members were sent an e-mail invitation to participate in the study. The e-mails were sent through the ICT Department on behalf of the researchers in order to ensure that anonymity was adhered to.

Research setting

The research setting for this study is an open, distance and e-learning institution in South Africa.

Entrée and establishing researcher roles

Gaining access to the setting involved obtaining ethical clearance from the institution and thereafter gaining research permission. The ethical clearance process ensured that respondents would be safe and their rights observed, while the research permission committee determined whether any reputational, financial or material harm to the institution could result from the research. One of the conditions of the latter committee was that the institution would not be explicitly mentioned in any externally reported papers. Therefore, no mention of the institution is made within this paper.

The corresponding author and researcher is the principal researcher for the project and has conducted multiple studies at the institution under study. The second researcher is an academic staff member at the institution and played a key role in data collection, analysis and interpretation.

Instrument

The instruments used within this study consisted of a demographics section, work context scale, the BAT and the UWES (Bakker et al., 2008; Sakakibara et al., 2020). The work context scale is an inventory of the quantitative and qualitative workload, turnover intention and demographics of the response set. The demographic inventory allowed for the gathering of vital information related to age, race, gender, academic position, contract type, tuition workload, supervision workload, module workload, admin workload, turnover, job demands and job resources. These aforementioned variables

are known to play a crucial role in burnout and engagement within the working context.

As mentioned above, the BAT consists of the core symptoms scale and the secondary symptoms scale. The core symptom ranges are represented in Table 1. For the purpose of the core symptoms scores, low levels of burnout score less than or equal to 1.60 on the BAT; moderate levels of burnout score between 1.61 and 2.40; and high levels of burnout are represented by a score of between 2.41 and 3.29. As for very high levels of burnout, respondents would have to score 3.30 and above for the BAT core symptoms.

For the purpose of the secondary symptoms scores, low levels of burnout score less than or equal to 1.70 on the BAT; moderate levels of burnout score between 1.71 and 2.75; and high levels of burnout are represented by a score of between 2.76 and 3.50. As for very high levels of burnout, respondents would have to score 3.51 and above for the BAT secondary symptoms. These include psychological complaints and psychosomatic complaints.

In Table 3, the norm scores for the UWES are provided. The scores are categorised into five categories based on the mean score of the scale or subscale.

Vigour is classified as very low when it has a score below 2.00, low when it has a score of between 2.01 and 3.25, average when it has a score of between 3.26 and 4.80, high when it has a score of between 4.81 and 5.65 and very high when it has a score above 5.66. Dedication is classified as very low when it has a score below 1.33, low when it has a score of between 1.34 and 2.90, average when it has a score of between 2.91 and 4.70, high when it has a score of between 4.71 and 5.69 and very high when it has a score above 5.70. Absorption is classified as very low when it has a score below 1.17, low when it has a score of between 1.18 and 2.33, average when it has a score of between 2.34 and 4.20, high when it has a score of between 4.21 and 5.33 and very high when it has a score above 5.34. The total score is classified as very low when it has a score below 1.77, low when it has a score of between 1.78 and 2.88, average when it has a score of between 2.89 and 4.66, high when it has a score of between 4.67 and 5.50 and very high when it has a score above 5.51. These norms will be used to interpret the findings of this study.

Strategies employed to ensure data quality and integrity

Data were checked for outliers and errors. As the data were collected online, there were no data capturing errors to consider. To determine the reliability of the instruments used, reliability analysis using the Cronbach's alpha statistic was used. The BAT had a Cronbach's alpha of 0.963, which suggests that the items within the instrument have high internal consistency. The core symptoms subscale had a Cronbach's alpha score of 0.951. The exhaustion subscale had a Cronbach's alpha score of 0.922.

The mental distance subscale had a Cronbach's alpha score of 0.863. The cognitive impairment subscale had a Cronbach's alpha score of 0.903. The secondary symptoms subscale had a Cronbach's alpha of 0.891. Psychological complaints subscale had a Cronbach's alpha of 0.825. The psychosomatic complaints subscale had a Cronbach's alpha of 0.823.

The UWES consists of three subscales known as vigour, dedication and absorption. The vigour subscale consists of six items, dedication consists of five items and absorption consists of five items. The vigour subscale had a Cronbach's alpha of 0.816, which indicates a high level of internal consistency. The dedication subscale presented a Cronbach's alpha of 0.869, which is considered a high level of internal consistency. The absorption subscale presented a Cronbach's alpha of 0.830 which is considered a high level of internal consistency.

Data analysis

Descriptive statistics and measures of central tendency were used to analyse demographic items such as race, age, gender and position. Scores from the UWES were summed up and averaged. Scores for the BAT were descriptively analysed using frequency counts, and this was followed up by a confirmatory factor analysis to determine whether the underlying factor structure compares to that of international samples. Furthermore, inferential analysis was conducted to determine whether burnout predicts work engagement.

Ethical considerations

An application for full ethical approval was made to the Professional Research Committee Research Ethics Workgroup (PRC_REW) and ethical approval was received on 3 February 2021 (ref. no. 2021_PRC_REW_001). The online platform used to collect data is ISO 2700 and is General Data Protection Regulation (GDPR) compliant, is password protected and has role-based access, which means that only the researchers had access to the raw data. No identifiable information was collected during data collection, and the instrument was distributed through the institutional Information and

Communication Technology (ICT) department. Consequently, the survey was completely anonymous, as the researchers did not have access to respondent contact information such as e-mails that would be identifiable. Confidentiality was maintained by reporting responses at an aggregated level and by informing respondents upfront that the research would be used for reporting and publication purposes. During analysis, the data were stored on password-secured computers to which the researchers had exclusive access.

Results

Demographics

In terms of the demographic profile of respondents, 54% of the respondents were white people, followed by 29% African respondents and 7% Indian respondents. This was followed by 6% of respondents who chose not to answer, 3% who did not identify with the selection of race and 1% who consisted of mixed race respondents. As for gender, 68% consisted of female respondents, 29% were male and 3% decided not to answer. Respondents tended to be older, with the majority of respondents in the category of 51–60 years of age (36%), followed by the age category of 41–50 (30%) and 31–40 years of age (26%), respectively, while 9% of the respondents were aged 61 and older.

The majority of the sample consisted of senior lecturers (40%), followed by lecturers at 28%. Associated professors were 16% of the sample, followed by full professors (14%) and junior lecturers at 2%. An overwhelming majority of the sample consisted of permanent staff members (99%), who were followed by contracted staff members, who only consisted of 1% of the sample.

The number of modules taught per staff member was two modules for 32% of staff members, followed by one module (18%) and five or more modules (18%), respectively. Approximately 16% taught three modules and 10% of respondents taught four modules. Respondents who did not teach any modules represented 6% of the respondents. During the data-capturing process, respondents were asked to indicate their tuition workload in terms of student numbers. The majority (33%) of respondents indicated that they were responsible for 0–500 students, followed by 21% of respondents indicating that they were responsible for 4000+

TABLE 1: Burnout score ranges (core symptoms).

Level	Range scores
Low	< 1.60
Average	1.61–2.40
High	2.41–3.29
Very high	> 3.30

Source: Schaufeli, W.B., De Witte, H., & Desart, S. (2019). *Manual Burnout Assessment Tool (BAT) - Version 2.0*. KU Leuven, Belgium: Utrecht Unpublished internal report

TABLE 2: Burnout score ranges (secondary symptoms).

Level	Range scores
Low	< 1.70
Average	1.71–2.75
High	2.76–3.50
Very high	> 3.51

Source: Schaufeli, W.B., De Witte, H., & Desart, S. (2019). *Manual Burnout Assessment Tool (BAT) - Version 2.0*. KU Leuven, Belgium: Utrecht Unpublished internal report

TABLE 3: Utrecht Work Engagement Scale norm scores.

Variable	Vigour	Dedication	Absorption	Total score
Very low	≤ 2.00	≤ 1.33	≤ 1.17	≤ 1.77
Low	2.01–3.25	1.34–2.90	1.18–2.33	1.78–2.88
Average	3.26–4.80	2.91–4.70	2.34–4.20	2.89–4.66
High	4.81–5.65	4.71–5.69	4.21–5.33	4.67–5.50
Very high	≥ 5.66	≥ 5.70	≥ 5.34	≥ 5.51
M	4.01	3.88	3.35	3.74
SD	1.13	1.38	1.32	1.17
SE	0.01	0.01	0.01	0.01
Range	0.00–6.00	0.00–6.00	0.00–6.00	0.00–6.00

Source: Schaufeli, W.B., & Bakker, A. (2004). *Utrecht work engagement scale Preliminary Manual Version 1.1*. KU Leuven, Belgium: Utrecht Unpublished internal report

M, mean; SD, standard deviation; SE, standard error.

students. Approximately 19% of respondents were responsible for 501–1000 students, while 14% were responsible for 1000–2000 students. Fourteen per cent of the responses consisted of those who were responsible for 2000–4000 students.

Respondents were asked to indicate the number of postgraduate students who they were responsible for supervising at the time. Table 1 indicated that the mean number of students consisted of 6.09, with a minimum of 0 and a maximum number of 30. The large number of students reported is because of postgraduate cohort supervision. The standard deviation was 7.418. For the overall estimated workload per week, respondents were asked to estimate the number of hours a week they spent on work activities to indicate their overall workload. The mean score indicated 41.04 h, with a minimum score of 0 h and a maximum score of 120 h in a week. The standard deviation of the number of hours per week was 21.037.

Work-related burnout

In terms of burnout with regard to the core symptoms among academic staff members, 47.6% of staff members could be classified with very high levels of burnout, followed by 39.5% of academic staff members who were classified as high in terms of burnout, while 12.2% of academic staff scored as average. There were no staff members who presented with low levels of burnout. In terms of the levels of exhaustion, 65% of respondents showed very high levels of exhaustion, 29% showed high levels and 6% indicated an average level of exhaustion. There were no staff presenting low levels of exhaustion. In terms of mental distance, 43.5% of the respondents indicated a high level of mental distance, 36.7% showed very high levels, 18.3% showed average levels of mental distance and 1.4% showed low levels. Regarding cognitive impairment levels, 51% of respondents scored high in levels of cognitive impairment, and 25.2% presented with very high levels, followed by 23.1% who scored average in terms of cognitive impairment. Only 0.7% of respondents scored low in terms of cognitive impairment. In terms of emotional impairment, 36.7% of academic staff indicated a high level of emotional impairment, 33.1% of respondents showed a very high level of emotional impairment, 25% showed an average level of emotional impairment and 5.8% of academic staff reported low levels of emotional impairment.

In terms of burnout regarding secondary symptoms among academic staff members, 46.3% of staff members could be classified as having very high levels of burnout, followed by 32.7% of academic staff members that were classified as high in terms of burnout. Seventeen per cent of academic staff scored as average. Only 4.1% of academic staff members presented low levels of burnout. In terms of psychological complaints, 63.3% of respondents reported very high levels of psychological complaints, 23.1% reported a high score, 11% scored average and 2.7% of academic staff indicated a low level of psychological complaints. For psychosomatic complaints, 34% of the respondents scored high in terms of psychosomatic complaints, 31% scored very high, 28% of respondents scored average in terms of psychosomatic complaints and 7.5% scored low in terms of psychosomatic complaints.

Factor analysis

Prior to conducting inferential testing of the hypotheses of the study, it is necessary to determine whether the factor structures of the instruments align with findings in international studies. Both the BAT and the UWES met all the assumptions for factor analysis to take place.

Burnout Assessment Tool core symptoms

No items were removed from the factor equation, as all items loaded. It should be noted that no items showed communalities below 0.5 and none were therefore removed from the factor analysis equations. The Kaiser–Meyer–Olkin measure of sampling adequacy was 0.83, above the commonly recommended value of 0.6, and Bartlett's test of sphericity was significant (χ^2 [6] 272.19, $p < 0.001$). Overall, the factor analysis and the item analysis indicated that four distinct factors lay beneath the surface of BAT. The factor analysis component matrix showed that the core symptoms, namely the exhaustion, mental distance, cognitive impairment and emotional impairment subscales, loaded onto a single factor, burnout, which explained 72%, 11%, 8% and 7% of the variance, respectively. The factor structure for the BAT therefore corroborates findings from other studies that indicated that these factors loaded onto a single factor (Schaufeli et al., 2020).

Burnout Assessment Tool secondary symptoms

No items were removed from the factor equation as all items were loaded. It should be noted that no items showed communalities below 0.5 and were therefore not removed from the factor analysis equations. The Kaiser–Meyer–Olkin measure of sampling adequacy was 0.5, which indicates inadequate sampling for the chosen variables, psychological complaints and psychosomatic complaints.

Work engagement

Respondents were categorised into five categories that ranged from very low to very high for vigour, dedication and absorption. This enabled analysis of the trends and distribution of these variables among the population. For vigour, 4% showed very low levels of vigour, 17% showed low levels, 41.50% showed average levels, 18.4% showed high levels and 19% showed very high levels of vigour. For dedication, 4% indicated very low levels of dedication, 11.6% reported low levels, 45.6% reported average levels, 18.4% reported high levels and 20.4% reported very high levels of dedication. In terms of absorption levels, 0.7% reported very low levels, 8.8% reported low levels, 27.9% reported average levels, 27.2% reported high levels and 35.3% reported very high levels of absorption.

Factor analysis

No items were removed from the factor equation as all items loaded. It should be noted that no items showed communalities below 0.5 and were therefore not removed from the factor analysis equations. The Kaiser–Meyer–Olkin measure of sampling adequacy was 0.76, above the commonly recommended value of 0.6, and Bartlett's test of sphericity was significant (χ^2 [3] 330.489, $p < 0.001$).

Overall, the factor analysis and the item analysis indicated that three distinct factors, vigour, dedication and absorption, lay beneath the surface of the UWES scale, which explained 86%, 7% and 6% of the variance, respectively. The factor analysis component matrix that showed that vigour, dedication and absorption loaded onto a single factor, which suggests a unidimensional construct known as work engagement.

Hypothesis testing

In this section, the outcomes of the hypotheses testing are reported. The section is structured around two hypotheses:

Hypothesis 1: Race, age, gender, current position, module amount, tuition workload, supervision, admin workload, and research workload positively predict burnout symptoms

The multiple regression equation predicting whether race, age, gender, current position, module amount, tuition workload and supervision positively predict burnout within distance education academic staff members was conducted after all assumptions were met. Statistically, the independent variables significantly predict the dependent variable, $F(11, 110) = 4.011$, $p < 0.0001$, $R = 0.535$, $R^2 = 0.286$, $R^2_{adjusted} = 0.215$. The R^2 indicates the proportion of variance, which can be predicted by the independent variables. In this case, $R^2 = 0.286$, which indicates that the model explains 29% of the variance in burnout. Observing the regression coefficients for the multiple variable, it can be seen that the only variables in the model that seem to be significant ($p < 0.05$) are those of race ($p = 0.048$), gender ($p \leq 0.001$), current position ($p = 0.028$) and admin workload ($p = 0.007$). This indicates that for every one-point increase in current position, there is a 9% increase in burnout. Gender was coded 1 for male and 2 for female, which indicates that for each point increase in the variable gender, there is a 33% increase in burnout. To further test whether the gender differences were significant, a Mann–Whitney U test was conducted. The results indicate a significant difference between groups ($U = 1252$, $p \leq 0.001$), indicating that gender does play a significant role in workplace burnout risk. To test for significant differences in burnout scores by position, a Kruskal–Wallis H test was conducted that showed that there was a statistically significant difference in burnout scores between the different positions, $X^2(5) = 12.815$, $p = 0.025$, with a mean burnout score of 45.11 for full professors, 74.30 for associate professors, 71.11 for senior lecturers or researchers, 83.33 for lecturers or researchers and 30.50 for junior lecturers or researchers:

Hypothesis 2: Burnout symptoms negatively predict work engagement

Inferential statistical analysis was conducted to determine whether burnout negatively predicts work engagement. Statistically, the independent variables significantly predict the dependent variable, $F(1, 145) = 104.53$ $p < 0.0001$, $R = 0.647$, $R^2 = 0.419$, $R^2_{adjusted} = 0.415$. In this case, $R^2 = 0.287$, which indicates that the model explains 29% of the variance in burnout. The regression coefficient for burnout symptoms ($B = -0.1.15$, $p \leq 0.001$) means that for each point increase in burnout symptoms, there is a decrease in work engagement of 1.15.

Discussion

This study aimed to investigate the prevalence of burnout symptoms and work engagement among ODeL academic staff members during the COVID-19 pandemic. A secondary aim was to establish what relationship, if any, exists between burnout, descriptive variables of staff and work engagement. The purpose of this investigation was to proactively identify and support ODeL academic staff members who were at risk of burnout.

The findings of the study show that there are high to very high levels of burnout within the ODeL academic staff member population; findings suggest that a total of 75% of staff does, in fact, fall within the parameters of being highly or very highly burnt out. This was evident through the descriptive statistics that indicated 40% of staff experienced a high level of burnout, while 35% of staff scored very high when it comes to burnout. These findings are in line with the findings of Hoffman et al. (2020), who found that the rate of burnout among staff was 40%. Burnout was also more prevalent among associate professors and senior lecturers, a finding which is supported by the findings of Dinu et al. (2021), who found that workload increased with seniority, thus increasing risk of burnout. According to Koga (2021), assistant (associate) professors are expected to do more research in order to be promoted; they were also the most involved in administrative tasks, placing a greater burden on them.

In line with previous literature, women were more likely to experience burnout than their male counterparts. This finding may be as a result of the job characteristics female academics face, where they are more likely to take on a higher administrative workload than their male counterparts (Koga et al., 2021). Furthermore, these results corroborate those of Gewin (2021), where pandemic-related burnout increased by 41% between 2019 and 2020 among female faculty members.

While overall workload, tuition workload and supervision workload did not significantly predict burnout, administrative workload did. With the massification of higher education, alongside the increase in managerialism within institutions, faculties are expected to take on more administrative and management duties (Naidoo-Chetty &

Plessis, 2021). While these expectations preceded the pandemic, it is likely that the administrative workload, particularly among senior lecturers and associate professors, was exacerbated by the shift to online learning and the planning and reporting requirements generated by the rapid change in conditions. This is interesting in light of the fact that exhaustion explained 72% of the variance observed in core burnout symptoms among the sample, suggesting that academic staff are unable to sustain the pace required to keep the teaching and learning processes functional under current conditions. The implication of this is that there is a need to develop clear policies and procedures regarding online or hybrid learning, hybrid or WFH arrangements to accommodate the changes wrought by the pandemic with a view to long-term sustainability, as burnout cannot be recovered by short periods of rest but by substantive lifestyle changes. The findings also showed that burnout negatively affects work engagement, which could negatively impact productivity and ability to effectively engage with one's work (Bakker & Costa, 2014). The implication of this finding is that universities need to carefully consider developing transparent workload models to ensure fair distribution of work and effectively plan staffing to ensure sufficient capacity to prevent burnout, which can have long-term effects on individual health (Sakakibara et al., 2020).

Limitations and recommendations

The primary limitation of this study is that it exclusively focused on the work environment and workload. The relatively low variance explained by burnout symptoms provides a clear indication that other factors play a role in the development of burnout symptoms. Remote working conditions, which were not measured in this study, may have played a key role in the development of burnout symptoms, particularly for those who do not have optimal conditions for working (such as sharing spaces, caring for parents or children) or who do not have the necessary infrastructure to effectively perform at their job functions. The study was conducted at an institution that had been involved in distance education for a substantial amount of time. The shift to fully online education was therefore not as jarring as it may have been at contact institutions. Studies examining the impact of emergency remote teaching, particularly the long-term effects thereof, would contribute greatly to understanding the true impact of the pandemic on higher education teaching staff.

Conclusion

During the process of transitioning workspaces and the complex pressures that accompany a pandemic when it comes to ODeL teaching and learning, burnout risk will persist among the ODeL academic staff population unless dealt with accordingly. The findings of this study indicated that there are both high and very high levels of burnout within ODeL academic staff members. Considering the long-term impact of burnout on performance and employee health, it is imperative that more integrated approaches towards workload allocation that are transparent and take a gendered view of workload distribution are developed to not only prevent future burnout but aid in the long recovery process among those currently experiencing burnout.

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