

# Job stressors, work tension and job satisfaction of academics at a university in South Africa



## Authors:

Ncumisa Luzipho<sup>1</sup>   
 Pierre A. Joubert<sup>2</sup>   
 Manilall Dhurup<sup>1</sup> 

## Affiliations:

<sup>1</sup>Department of Human Resource Management, Faculty of Management Sciences, Vaal University of Technology, Johannesburg, South Africa

<sup>2</sup>Faculty of Economic and Management Sciences, Sol Plaatje University, Kimberley, South Africa

## Corresponding author:

Ncumisa Maliwa,  
 ncumisamaliwa@gmail.com

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**Orientation:** Stress in the workplace is a common phenomenon that is classified in different ways and which also impacts academics. Previous research highlighted that job stressors in the workplace have been considered an important contributor towards low levels of job satisfaction (JS) for academics. This perspective aids the study of the influence of job stress on JS.

**Research purpose:** The aim of this research was to establish the influence of role conflict (RC), role ambiguity (RA), role overload (RO) and time pressure (TP) on work tension (WT) and the influence of WT on JS among academics at a university of technology.

**Motivation for the study:** The impact of the coronavirus disease 2019 (COVID-19) pandemic and the reduction of government and associated agency funding changed the scenario of academic life from being considered idyllic, autonomous and well protected. Congruent to these constraints, changes in the diversity of students and advances in technology, blended learning and the introduction of learning platforms created further challenges in the way students learn and how modules were offered.

**Research approach/design and method:** The researchers used a postpositivist quantitative paradigm with a convenience sample ( $n = 250$ ) of academics in a university of technology in Gauteng. A structured questionnaire encompassing the study constructs was used.

**Main findings:** Results showed positive associations between RC, RA, RO and TP on WT. Further, WT and JS showed negative yet significant predictive relationships with JS.

**Practical/managerial implication:** It is pivotal for universities to understand the effects of job stressors on job satisfaction to improve the working conditions for academics.

**Contribution/value-add:** This research provides findings to the present body of knowledge among academics on the influence of job stressors on WT and WT on JS at HEIs. Research on job stress and JS has been of interest in many HEIs. The research makes a valuable contribution to the university management, especially the human resource division, on the effect of levels of job stressors (RC, RA, RO and TP) on WT among academics.

**Keywords:** job satisfaction; job stressors; role conflict; time pressure; academics; work tension.

## Introduction

University academics face high levels of stress that arise from the persistent demands of academic life, which results in low job satisfaction (JS). These demands include extended working hours, inadequate information about the job, a lack of training with regards to new technology, meeting submission deadlines and extended hours for training purposes. Therefore, academics who are not able to control their emotional state are prone to low JS (Lashkariani, 2020).

Stress in the workplace is a common phenomenon that is classified in different ways and impacts employees in different work circumstances and is affecting the work environment globally (Jawabri et al., 2019). Work-related stress is described as the negative psychosomatic and physiological response which occurs when work requests surpass the individuals' ability to handle those demands (Daniel, 2019). Although moderate levels of stress are believed to enhance creativeness and effort, excessive levels of stress result in decreased creativeness and effort (International Labour Organisation, 2020).

Job stress has negative implications for academics, which range from anxiety, depression, absenteeism, tardiness, turnover and eventually lower JS, which consequently leads to poor quality of the level of education (Singh, 2019). With the emergence of universities of technology, academics were presented with more responsibilities, such as restructuring of educational

programmes and qualifications and having to teach larger groups of students. These changes in higher education institutions (HEIs) lead to increased stress levels among academics (De Oliveira Barbosa et al., 2018).

Lashkariani (2020) states that increased levels of stress lead to poor job performance and cause demotivation for academics, which results in low JS. A few studies have been conducted on job stressors and JS in an organisational context (Mark & Smith, 2018; Schulz, 2013), but very little research has been conducted on how job stressors influence work tension (WT) and how WT influences JS in higher education settings. Among numerous kinds of job stressors, this research focuses on the following types of job stressors: role conflict (RC), role ambiguity (RA), role overload (RO) and time pressure (TP). While reviewing the literature, these job stressors were the most cited and raised a question of whether they could be prevalent with the academic environment.

Academics undergo a considerable amount of strain to produce quality skill sets and employable, socially engaged and business-minded students who can influence society positively (Oforka, 2020). Further, they need to take charge of their work and be accountable, to provide scientific guidance, carry out administrative work and publish articles (Valkov & Peeva, 2020). These objectives cannot be accomplished if there are low satisfaction levels and high stress levels among academics (Jawabri et al., 2019).

## Objectives of the study

The objectives of the study are:

- to explore the influence between RC and WT
- to determine the influence between RA and WT
- to establish the influence between RO and WT
- to discover the influence between TP and WT
- to identify the influence between WT and JS.

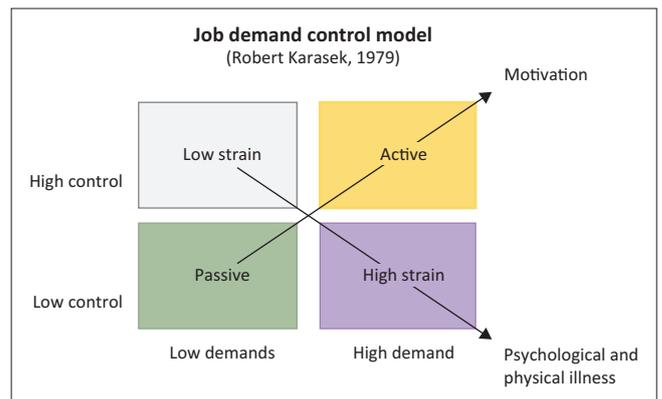
## Literature review

### Theoretical grounding

This study used two underlying theories to direct and guide the understanding of the variables under investigation. The job demand control support (JDCS) model was used to address the subject of job stressors, while Herzberg's two-factor theory was used to address the subject of JS.

### Job demand control support model

The JDCS model emanates from an earlier model, which is the job demand control model established by Karasek in 1979 (Odetunde, 2021). The JDCS model comprised two essential aspects of the working environment, namely job demand and job control. It was developed to demonstrate that mental stresses are an outcome of the interaction between job demand and job control (Taştan, 2016). The JDCS model posits that when job demands are high, with low job control and low support levels, it may lead to negative health outcomes that cause stress (Pozo-Antúnez et al., 2018).



Source: Hussain, N., & Khalid, K. (2011). Impact of Karasek's job demand control model on the job satisfaction of the employees of Nadra. *Interdisciplinary Journal of Contemporary Research in Business*, 3(5), 566–594

FIGURE 1: Karasek's job demand control support model.

As portrayed in Figure 1, the model highlights factors that cause an increase in psychological strain, which occurs when social support and autonomy are low and when there are high psychological demands. Within the workplace, high job stress occurs when job demands are high and when there is low support and lack of job control (Sakuraya et al., 2017). Job demands are the psychological stressors which result from the combination of freedom of decision-making and the demands of the job situation. They include all types of stressors, *inter alia*, high workloads, RC and TP (Crescenzo, 2016).

Job control, on the other hand, refers to the decision latitude, which includes authority of making decisions and skills judgement (Portoghese et al., 2020).

According to Karasek's model, low strain results when the job demand is low and the control over it is high. On the other hand, high strain results from high job demands, which are associated with low control over them (Fila, 2016).

Karimi et al. (2014) posit that if academic staff experience high job demands and low control to overcome a situation, they will experience the unconstructive results of decreased performance and reduced JS. Within the JDCS model, the external factors are social support and job control, whereas the internal factor is resilience. These factors help to improve the motivation and commitment of the employees, such as academics, as they are exposed to the pressures of high work demands (Pozo-Antúnez, 2018). Skills discretion assists with the various types of job demands separately, which include emotional and cognitive workloads that enable academics to control their work and cope with job demands, which lead to a reduction of stress and improve the well-being of the academics (Viotti & Converso, 2016).

The study seeks to evaluate the influence of job stress on WT and WT on JS; therefore, the JDCS theory is used to better understand the effects of high job demands while having less control or support to execute tasks. Van De Doef and Verhoeven (2017) state that academics who are exposed to isolation strain are reported to suffer from psychological and physical health, thus resulting in low levels of JS.

## Herzberg's two-factor theory

In addition to the JDCS Theory, Alrawahi et al. (2020) postulate that one of the major theories that contribute to the topic of motivation and satisfaction is Herzberg's theory of motivation, also known as the motivator-hygiene theory, which was formulated by Fredrick Herzberg in 1959. The theory was formulated as a result of a research study that Herzberg conducted in pursuit of factors that are responsible for JS and job dissatisfaction of employees. It indicates that JS among individuals hinges on two different types of factors, the intrinsic and extrinsic factors. Intrinsic factors refer to the motivator or satisfier factors, which are responsible for satisfaction, while extrinsic factors refer to factors which are responsible for dissatisfaction, known as hygiene factors (Sanjeev & Surya, 2016).

Motivating factors are generally inherent to the work. They generate positive satisfaction within the working environment, and employees find these factors intrinsically rewarding (Habte, 2016). Examples of motivators include growth, promotion, sense of achievement and being recognised for good performance at work, as these are believed to be the source of academics' quest for fulfilment. Hygiene factors symbolise the physiological needs that people anticipate being fulfilled and are considered crucial to foster motivation within the working environment. They are defined as maintenance factors given that they are needed to avoid dissatisfaction (Asan & Wirba, 2017). Hygiene factors are generally regarded as various extrinsic factors that result in dissatisfaction of employees in their jobs; such factors therefore contribute very little towards total employee motivational needs. Typical examples of hygiene factors include working conditions, security, relationships with colleagues and remuneration (Phama & Nguyen, 2020).

Herzberg's theory mainly suggests that there are some factors within the workplace which can result in JS, and there are a separate set of factors which can result in dissatisfaction (Yousaf, 2020). However, it is important to note that the factors which result in satisfaction (motivators) are vital for the development of an institution.

The case of university academics differs from that of other employees in different industries, as academics find satisfaction in both hygiene and motivator factors, and their motivation is largely dependent on the attainment of these hygiene factors (Skiadas, 2020). Fulfilling hygiene factors for academics may improve their performance, which will then improve overall JS.

## Role conflict

Ahmad et al. (2021) define RC as having more than two incompatible roles to perform at the same time. It exists when the job holder's occupational responsibilities conflict with each other. Kahn et al. (1964), as cited in Ee et al. (2017) define RC as the predicament that employees face where two or more pressures occur simultaneously such that undertaking one task will mean neglecting the other. Role

conflict occurs more often among professionals who are at the beginning of their career paths and it arises because of the discrepancy between the conveyed expectations of employees in an institution with others outside or inside the institution (Aguirre, 2019).

Role conflict often emerges as a result of balancing family life and work, taking into consideration the challenging demands of time, energy and commitment (Thakur et al., 2018). It therefore negatively affects both the employee and the learning institution, as it leads to the rise in WT and a decline in JS levels. When academics are overloaded with roles, an adverse emotional reaction occurs which leads to the inability to perform the job effectively because of lack of energy and time to carry out activities (Badri & Yunus, 2021).

Within the university context, academics' RC may additionally arise when the demanding conditions such as meeting deadlines, learning new methodologies in teaching and learning, community engagement and the pressures to use blended learning and new learning platforms are placed on academics (Karya et al., 2021).

## Role ambiguity

Role ambiguity is described as lack of information regarding duties performed by employees (Orgambidez & Almeida, 2020). Role ambiguity occurs when having inadequate understanding of how to execute the given task, and it arises from the incompatibility between the information available and the information that is required to perform a task. It involves information deficiency about the goals of an institution and the conditions in which work must be effectively performed (Alshery et al., 2015).

This refers to all the imprecise expectations from the supervisors about the exact way to execute a task, which create tension and cause poor outcomes for both personal and work life (Azzahra et al., 2021). It can be concluded that RA has negative implications on the academics' state of mind, their performance and overall self-esteem because of the negative effects of RC such as anxiety, worry and strain (Maden-Eyiusta, 2021). These negative effects can be eradicated if learning institutions have a detailed set of responsibilities or tasks in place at the disposal of academics.

## Role overload

Haholongan and Kusdinar (2019) define RO as not having enough capacity, time or resources to meet the high demands of certain tasks that need to be fulfilled within a specific period of time and which are more than what an individual could perform. When academic staff are exposed to job complexity and an increasing workload, stressful working conditions are likely to arise for academics; hence, a decrease in the JS levels occurs (Mittal & Bhaker, 2018).

Over the years, student enrolments have increased without increasing the number of academics, resulting in RO,

which eventually leads to emotional and mental strain (Malik et al., 2017). Identifying all the roles and responsibilities encountered by academics leads to the conclusion that there is high work overload in higher education, and for as long as academics feel burdened and overwhelmed by their occupational duties, they will not find working conditions to be favourable because of the stress and pressure they will be working under. Failure to meet role targets as a result of RO may cause strain for academics and may result in lower levels of JS.

### Time pressure

Time pressure is regarded as psychological stress which occurs when a person has less time available than is required to accomplish a given task or to provide a given result (Ordóñez et al., 2015). It is observed as not having sufficient time to complete a task and can result in increased levels of stress, limited time to recuperate and fatigue (Sandmeier et al., 2017).

It has been recognised as one of the significant stressors at universities which is related to stress and depression (Apolinário-Hagen et al., 2017). Academics who experience emotional strain because of TP display behaviours of being worthless, poor communication, making errors and creating conflict, which add to already prevailing job strains (Bakker & Wang, 2019). Academics who lack time management and spend a huge proportion of their time teaching often show signs of dissatisfaction and decreased productivity at the workplace (Tjahjadi & Cahyadi, 2020).

### Work tension

Gandhi (2017) describes WT as a form of tension caused by the responsibilities related to work and which can be associated with the factors associated with corporate culture or personal conflicts. It is an unconscious matter that results in physical strain that is caused by a discrepancy between having job demands that are strict and an inability to cope and adapt to work. Work tension significantly contributes to the development of mental tension because factors such as poor working conditions, unexpected workloads, changing deadlines, insufficient supervision and resources or work overload apply substantial pressure, which results in job dissatisfaction (Mark & Smith, 2018).

Mark and Smith (2018) reveal that unexpected workloads, changing deadlines or work overload were stated as being particularly strenuous, leading to lower levels of job contentment and an increase in WT. Work tension is further exacerbated when academics do not have sufficient supervision, when there is increased conflict with colleagues, increased job demands and insufficient resources, which result in low JS levels (Khamisa et al., 2015).

### Job satisfaction

Job satisfaction is a combination of physiological, environmental and psychological circumstances that cause a

worker to truthfully affirm that they are satisfied with their job (Stankovska et al., 2017). It is a multifarious phenomenon influenced by factors such as the working environment, communication, salary, organisational commitment and autonomy. Zhang (2020) describes JS as a sense of accomplishment or feeling of contentment that academics derive from their work. Alamanda et al. (2019) discovered that various variables exist that can possibly influence the JS of an academic, which include the quality of the working environment, fringe benefits, salary, impartial system of promotion, leadership, socialising and the work tasks. These factors are extremely useful in determining the extent that academics dislike or like their work (Alamanda et al., 2019).

## Research design

### Research approach

A quantitative research approach using a survey was found to be more suitable in this study because of the nature of the topic, population size and large-scale numerical data collected that needed to be analysed by means of statistical procedures. A quantitative research approach forms the basis for associations and relationships to be statistically tested, which makes it more suitable for this study.

### Research method

The purpose of the study, availability of resources and type of research design followed influence the choice of a sampling method. A convenience sampling method was applied in drawing samples for the study as it gave all members of the targeted population a fair chance of being chosen. The study sample of 227 was drawn from the targeted population of 445 full-time academic employees from a university of technology.

### Research instrument and data collection procedure

The researchers used a survey questionnaire adapted from previous studies, as indicated below. The scales were selected based on their reliability and validity as reported in these studies. The questionnaire comprised seven sections: Section A solicited demographic variables, while Sections B–G used a five-point Likert scale that ranged from 1 = strongly disagree to 5 = strongly agree to gather information on the study's constructs. Questions on both RC and RA were adapted from the questionnaire established by Rizzo et al. (1970). Questions pertaining to RO (Section D) were adapted from Bacharach et al. (1990). Section E focused on TP, and the questions were adapted from a questionnaire that was prepared by Parker and Decotiis (1983). Questions to solicit information on WT (Section F) were adapted from a questionnaire developed by Cook et al. (1981). Finally, questions on JS (Section G) were adapted from a questionnaire developed by Agho et al. (1992).

Prior to the main study data collection, a pilot study was done using survey administration to a small group of 50 junior and senior academics who have been employed by

the institution for more than 1 year, from which only 40 academics (who were excluded from the main survey) took part in the study. The questionnaires were hand delivered to academics and some were sent using e-mails that were obtained from the academics' administrators. The researchers used the pilot study to identify and detect errors on the questionnaire, and as such, the outcomes of the pilot study highlighted that Sections E and F had some wording mistakes, while the second question of Section G was ambiguous. These errors were rectified prior to collecting data for the main study. The Cronbach's alpha scores of Sections B–G were acceptable (i.e. above the set minimum scale of 0.70) and ranged between 0.79 and 0.942, indicating that the measuring scales were reliable.

## Data analysis

The concept of data analysis is self-explanatory, as it involved the process of decoding and examining collected data in a way that makes practical sense and findings can be concluded (Abuhamda et al., 2021). Data collected in this study were analysed quantitatively using the Statistical Package for Social Science (SPSS) version 25 for Windows (IBM Corporation, Armonk, New York, United States). The SPSS was used to conduct both correlations and regressions in this study to identify the relationship between job stressors, WT and JS of academics.

## Validity and reliability

Scale reliabilities were assessed using the Cronbach's alpha coefficient. Table 1 reports the reliability outcomes of each of the six constructs.

The results of the study showed that all constructs, RC ( $\alpha = 0.876$ ), RA ( $\alpha = 0.895$ ), RO ( $\alpha = 0.964$ ), TP ( $\alpha = 0.947$ ), WT ( $\alpha = 0.887$ ) and JS ( $\alpha = 0.923$ ) attained Cronbach's alpha values that were above 0.70, which meant that the scales met the

minimum recommended threshold and were reliable. Maree (2016) stated that to deem a measurement reliable and acceptable, it should score the minimum acceptable Cronbach's alpha value of 0.70–1.

In determining the degree that a measuring scale precisely measures what it was supposed to measure, four types of validity were applied to the measuring instrument. Content validity was assessed through the literature review and examination of the scale items for each construct by senior lecturers in the Department of Human Resource Management. Feedback was obtained from these academics to improve the questionnaire. Construct validity was established by undertaking a pilot study on 40 respondents. After analysing the pilot data for its reliability, the questionnaire was amended for the purpose of improving its construct validity. Correlation analysis was used to evaluate convergent validity. Work tension showed significant positive associations with RC, RO and TP, thus affirming convergence. Predictive validity was established by applying the regression analysis procedure, which showed that RC, RA, RO and TP were statistically significant in predicting WT, thus affirming predictive validity.

## Ethical considerations

Permission to conduct the study was obtained from the Faculty Research Ethics Committee unit at the university, which ensures that any research study involving people as subjects should adhere to ethical principles, respecting the confidentiality, informed consent and privacy of the participants. An ethical consideration letter explaining the purpose of the study was sent to the university academics. The role of the researchers was explained during the process of distributing the questionnaires.

## Results

### Test for unidimensionality of study constructs

The study constructs, namely RC, RA, RO, TP, WT and JS were subjected to exploratory factor analysis (EFA). The EFA was utilised to assess the unidimensionality of the constructs (i.e. the scale is not multidimensional in nature). The six study constructs demonstrated loading on one factor only with total variance explained, ranging from 53% to 73%. This implied that the total variance explained by each factor was satisfactory. The results of the unidimensionality test are reported in Table 2.

**TABLE 1:** Internal reliability statistics of the measuring instrument.

Questionnaire sections	Scale items	Number of items	Reliability ( $\alpha$ )
Section B (RC)	B1, B2, B3, B4, B5, B6, B7, B8	8	0.876
Section C (RA)	C1*, C2*, C3*, C4*, C5*, C6*	6	0.895
Section D (RO)	D1, D2, D3, D4, D5, D6, D7, D8	8	0.964
Section E (TP)	E1, E2, E3, E4, E5, E6, E7, E8	8	0.947
Section F (WT)	F1, F2, F3, F4, F5	5	0.887
Section G (JS)	G1, G2, G3, G4, G5, G6, G7	7	0.923

RC, role conflict; RA, role ambiguity; RO, role overload; TP, time pressure; WT, work tension; JS, job satisfaction.

**TABLE 2:** Tests for unidimensionality of scale constructs.

Total variance explained	Components factors	Initial eigenvalues			Extraction sum of squared loadings		
		Total	% variance	Cumulative %	Total	% variance	Cumulative %
RC	1	4.049	67.486	67.486	4.049	67.486	67.486
RA	1	4.316	53.948	53.948	4.316	53.948	53.948
RO	1	5.766	72.070	72.070	5.766	72.070	72.070
TP	1	5.894	73.678	73.678	5.894	73.678	73.678
WT	1	3.576	71.511	71.511	3.576	71.511	71.511
JS	1	4.150	69.163	69.163	4.150	69.163	69.163

RC, role conflict; RA, role ambiguity; RO, role overload; TP, time pressure; WT, work tension; JS, job satisfaction.

## Correlation analysis

Pearson correlation analysis was utilised to determine the power of the association among the study constructs. The Pearson correlation coefficient indicated that a coefficient of  $-1$  expressed a negative relationship that was perfect, whereas a coefficient of  $+1$  expressed a positive relationship that was perfect (Bryman & Bell, 2011).

Table 3 presents the correlational relationships between RC, RA, RO, TP, WT and JS, respectively.

The posited relationships in this study were the four types of role stressors (RC, RA, RO and TP) on WT and WT on JS. The results indicated that all four job stressors (RC, RA, RO and TP) were positively associated with WT. Role conflict presented a large significant relationship ( $r = 0.585$ ) with WT, meaning that high levels of RC resulted in academics experiencing WT. The relationship between RA and WT highlighted a significant negative result ( $r = -2.79$ ), which suggested that an increase in levels of RA was associated with an increase in WT, meaning that when academics felt that their roles were not clearly described, they felt some tension in their jobs. There was existence of a strong positive association between RO and WT ( $r = 0.768$ ). This meant that academic employees experienced more WT when they were tasked with more duties and responsibilities in addition to their daily jobs, which seemed impossible to complete within a specified period. Time pressure also revealed a strong positive association with WT ( $r = 0.823$ ), highlighting that an upsurge in TP was allied with an upsurge in WT. This was because of the fact that human beings experienced high stress levels when they had limited time to complete important job roles.

The relationship between WT and JS recorded a moderate significant negative association ( $r = -0.414$ ). This indicated that WT was negatively associated with JS, meaning that the more academic employees experienced WT in the occupational role, the more their level of JS was affected. It was therefore posited that an increase in WT was associated with high job dissatisfaction (low levels of JS). Work tension negatively affected the morale and working stamina of academics, and this affected the rate at which they felt content about the jobs they occupied as their mental health was affected by all the tension.

**TABLE 3:** Correlation analysis reporting.

Constructs	Correlations						Mean values
	RC	RA	RO	TP	WT	JS	
RC	1	-	-	-	-	-	2.89
RA	-0.527**	1	-	-	-	-	2.28
RO	0.678**	-0.446**	1	-	-	-	2.84
TP	0.539**	-0.291**	0.709**	1	-	-	2.64
WT	0.585**	-0.279**	0.768**	0.823**	1	-	2.70
JS	-0.324**	0.451**	-0.429**	-0.403**	-0.414	1	3.37

RC, role conflict; RA, role ambiguity; RO, role overload; TP, time pressure; WT, work tension; JS, job satisfaction.

\*\* Correlation is significant at the 0.01 level (2-tailed).

## Regression analysis

In the context of this research, regression analysis was executed to explore the nature of predictive relationships that exist between various job stressors and WT.

From the results provided in Table 4, it can be concluded that there was a positive statistical significance between RC and WT at  $p < 0.05$  ( $t = 2.019$ ,  $b = 0.098$ ,  $p = 0.045$ ).

This indicated that RC among academics engendered high levels of WT. Given that earlier studies by Tastan (2016) and Abuaddous et al. (2015) found RC to have a positive impact on WT, it was not surprising that this study found RC to have a significant impact on WT.

Role ambiguity presented a positive significant predictive relationship with WT at  $p < 0.05$  ( $t = 2.258$ ,  $b = 0.90$ ,  $p = 0.025$ ). The results designated that high levels of RA among academics resulted in extremely higher levels of WT. It was posited that RA experienced by academics caused WT to increase significantly, as they lost control of their jobs (Ali & Farooqi, 2014; Wei et al., 2011).

From the results reported in Table 4, a positive link between RO and WT was depicted at  $p < 0.05$  ( $t = 6.415$ ,  $b = 0.355$ ,  $p = 0.000$ ), indicating that the prevalence of high levels of RO resulted in high levels of WT. Role overload had a positive impact on WT. The findings of this research were also in line with the empirical findings and the existing literature, which showed that RO had a positive influence on WT (Ali & Farooqi, 2014; Crescenzo, 2016).

Time pressure displayed a significant association with WT at  $p < 0.05$  ( $t = 11.382$ ,  $b = 0.544$ ,  $p = 0.000$ ), indicating that high levels of TP resulted in high levels of WT. The outcome of this relationship was in consensus with the reviewed literature, which posited that if TP was not properly managed, it would lead to low job control, which resulted from failure to manage high job demands within a specified time, and this led to high levels of WT (Wei et al., 2011). Table 5 represents the regression analysis of WT and JS.

**TABLE 4:** Regression analysis reporting of role conflict, role ambiguity, role overload and time pressure with work tension.

Dependent variable: WT	Standardised coefficients beta	T	p
RC	0.098	2.019	0.045*
RA	0.090	2.258	0.025*
RO	0.355	6.415	0.000**
TP	0.544	11.382	0.000**

RC, role conflict; RA, role ambiguity; RO, role overload; TP, time pressure; WT, work tension; JS, job satisfaction.

$R = 0.868$ ;  $R^2 = 0.753$ ; Adjusted  $R^2 = 0.748$ ; \*,  $p < 0.05$ ; \*\*,  $p < 0.005$ .

**TABLE 5:** Regression analysis reporting of work tension and job satisfaction.

Dependent variable: Job satisfaction (JS)	Standardised beta coefficients Beta	T	p
WT	-0.414	-6.815	0.000**

WT, work tension.

$R = 0.414$ ;  $R^2 = 0.171$ ; Adjusted  $R^2 = 0.167$ ; \*,  $p < 0.05$ ; \*\*,  $p < 0.005$ .

Table 5 provides the outcomes of the analysis of a relationship between WT and JS. The analysis indicated a negative significant relationship between WT and JS at  $p < 0.05$  ( $t = -6.815$ ,  $b = -0.414$ ,  $p = 0.000$ ), which revealed that high levels of WT resulted in low levels of JS.

## Conclusion

Theoretically, this research provides findings to the present body of knowledge among academics on the influence of job stressors on WT and WT on JS at HEIs. Research on job stress and JS has been of interest in many HEIs. The research makes a valuable contribution to the university management, especially the human resource division, on the effect of levels of job stressors (RC, RA, RO and TP) on WT among academics. Additionally, an investigation was done between WT and JS. The correlational and regression analysis results showed that WT negatively influenced JS.

The research findings may additionally assist the university to lessen the negative influence of job stressors on WT and WT on JS by putting in place various initiatives such as wellness programmes and support programmes linked to the various types of job stressors.

Any further research can help aid the effect of job stressors on JS and improve the lives of academics and their competence in the institution. Therefore, the results of this study should encourage other institutions to investigate the effects of these job stressors on WT and WT on JS on their academic employees.

## Limitations of the research

Although this study yielded valuable information on how to improve the influence of job stressors on WT and the influence of WT on JS, there are limitations that impacted the study. The research methodology was purely quantitative, limiting respondents in fully expressing their thoughts and feelings. Future research could pursue the same study with the use of a mixed methods approach. This will help respondents to give rich and insightful information on the subject matter. Another limitation is that correlation and regression analysis were used to establish if there exists a relationship among variables. However, the use of correlation and regression analysis did not take into effect control variables such as age, gender and income levels. Further studies can make use of control variables.

## Recommendations

The researchers recommend that because RC and RO were found to influence WT, HEIs should ensure that the duties and responsibilities of academics are well defined. Further, the human resource division of the university can arrange conflict management workshops that involve both employers and line managers.

In eradicating RO, the researchers recommended that the university develop a clear workload policy and workload

model that ensures equitable work distribution among academics. Wellness programmes for employees can be a valuable move in combatting WT in the workplace. Various wellness programmes have the potential to ease the WT, unhealthy habits, burnout and mental and physical health damage, which may have the propensity towards academics' health behaviours.

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### Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

### Authors' contributions

N.M. is responsible for writing the original article, data collection and interpretation and project administration. P.A.J. is the supervisor, responsible for reviewing and editing and formal assessment of the article. R.D. is also the supervisor, responsible for data analysis, reviewing and editing the article and formally assessing it.

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### Data availability

The data that support the findings of this study are available on request from the corresponding author.

### Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the author.

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