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Stressors' Impacts on Mental Wellbeing and Service Delivery Performance of University Academics: A South African Case Study

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Abstract: This paper investigated the level of academic activities, stressing and impacting mental wellbeing and service delivery performance of university academics. While it acknowledged that stress among academics is a global challenge, it researched a case study of two universities in Pretoria, South Africa. The quantitative study gathered data from 79 participants and confirmed mental stress in the academic environment. The results revealed six specific stressors, their impacts, effects and rankings. Analysis with Excel showed a stress ranking from 1st to 6th. Likewise, the Python linear regression analysis revealed that for every increase in the portfolio of academics, the stress level and ranking increased by 10.65%. Further, having the regression interception line at 73.3%, revealed that among the stressors (teaching, thesis supervision, technostress, administrative functions, research and remuneration), even if other stressors are addressed using the stress management theories and strategies suggested in this paper, remuneration will still constitute a major threat to the mental wellbeing and service delivery performance of academics, except there is a radical and strategic upward review of remuneration. Overall, this article reminded the academic community of the occupational risks and challenges affecting their wellbeing and service delivery while providing recommendations to manage the situation.

Keywords: Mental Stress, Stressors, Remuneration, Stress Management Theories, Stress Managers, Service Delivery Performance

Introduction

Mental wellness challenges have become a global concern in the workplace and academia. This has led to academic research in global health, especially on how mental stress impacts service delivery performance. Such stress may have been part of the United Nations' efforts to pursue and ensure that healthcare and quality education remain part of the Sustainable Development Goals (SDGs). Goals 3 and 4 focus on 'Good Health and Quality Education' (United Nations Department of Economics and Social Affairs, 2023). According to the World Economic Forum (2021), the global mental health crisis is creating economic deficits of billions of dollars. Likewise, the World Bank suggests that mental health and related stress are the greatest thieves of productive economic life (Fakiya, 2023). Indeed, stressors haemorrhaging the knowledge economy in academia cannot be excluded from this conversation. Against this background, this article investigates the stressors of academics' mental wellbeing and their service delivery performance in two South African Universities.

Three fundamental questions are raised based on the purpose of this research. First, what are the stressors affecting academic staff's service delivery and wellbeing in the

university working environment? Second, what are the impacts and effects of these stressors? Third, what can be done from a management perspective to address the problems? To answer these questions, this paper investigates the stressors through a quantitative research method at two Pretoria Universities. Hopefully, the findings of the research will provide some answers to these questions.

In presenting this research, the next section begins with a literature overview suggesting the existence of a gap and providing evidence of service delivery challenges in university environments. Further, the article presents details of the investigation: methods, results, analyses and interpretations. Before the discussion, the stress management theories and strategies applicable to managing the stressors discovered in the findings will be presented. Afterwards, recommendations will be made in line with stress management theories and strategies to address the stressors discovered for improved wellbeing and service delivery performance of academics in the university environment.

Literature Overview

There seems to be a growing deficiency in academic service delivery. There are also concerns about the quality of graduates pushed into the labor market in terms of their capacity to contribute to South Africa's economy. Issues relating to poor research output are not excluded from the conversations. Nordling (2023), in the Research Professional News, warns about the rising dilution of professorship standards. Govender and Mpungose (2022) warn about the rise of technostress; a crisis linked to the statistics of growing wellbeing deficiency and poor service delivery in South Africa. The results of such claims by Nordling (2023) and Govender and Mpungose (2022), among others, may be evident in some academic rating reports. For example, the QS University Rankings, Centre for World University Rankings (CWUR) and Times Higher Education World University Rankings, all allegedly show that the performance ranking of some South African universities in academia and industry dropped considerably between 2020-2023 (QS University Ranking, 2023; CWUR, 2023 and Belani, 2023). These statistics inspire the investigation of factors affecting academics' service delivery, especially how mental wellbeing challenges contribute to the gradual depreciation of ranking in excellence and service delivery.

Jansen (2018), a distinguished professor of Education at Stellenbosch University, expresses concerns about the future of the professoriate due to poor service delivery emanating from management policy and funding of academic lecturers and prospective students. Jack (2023) in Times Higher Education raises the issue of economic barriers as one of the possible challenges to academic service delivery. Chibanda (2022), who consults for the World Health Organization (WHO) on mental healthcare, suggests that a poor atmosphere of friendship, which is a social issue, is one of the reasons for increased mental stress, depression, and suicide in the workplace. In South Africa, Kgabo (2021) in his research on the University of South Africa, describes the dysfunctional service delivery by lecturers to students. At an international level, the research of Urbina-Garcia (2020), covering South Africa (Eastern Cape), the United Kingdom, New Zealand, Nigeria, Europe, Australia, Sudan, India, Tunisia, Saudi Arabia, Egypt, Malaysia and Japan, reviews international literature to ascertain the most commonly used measures for investigating mental health challenges faced by academics. The author identifies 28 studies and the critical analyses of the studies show compelling evidence that the university environment is triggering high levels of mental stress, burnout, and low levels of wellbeing in academics. Such stressors include work overload, job insecurity, increasing hours and demand for professional growth, lack of organizational support like limited promotion opportunities, unreasonable expectations, and lack of support to obtain research funding. Others include time pressure and poor social recognition (Simons et al., 2019).

Furthermore, it is noteworthy to mention a study conducted by Palmer (2023) in the United Kingdom, which examined working-age adults in the United Kingdom and supports Urbina Garcia's claims. Whalen (2021), a director of research, psychologist, and behaviors analyst for RethinkEd, presents a study showing 40% of educators are experiencing burnout in the 2020-2021 school year. Consequently, these educators plan on quitting education careers in the United States due to its stressful workload, lack of social support, training, and resources. The report further shows that approximately 50% of teachers quit the teaching profession each year. In Whalen's opinion, teachers' stress can affect student behaviors, academic performance, and student-teacher relationships.

Overall, the literature above shows that research on the mental wellness of academics across the globe is not novel, however, there are peripheral approaches to South African Universities' mental wellbeing vis-à-vis academic service delivery research. More specifically, there are rarely case studies addressing academic staff stress in Pretoria, South Africa. This is a gap that this research seeks to fill by identifying the stressors, their impacts and their effects on the wellbeing of academics and their service delivery performance in Pretoria, South Africa. The next section will present the investigation conducted at two universities in Pretoria.

The Investigation: Methods, Results, Analyses and Interpretations

Method

This article applies a quantitative research method with 79 participants. The time horizon for the research is cross-sectional as the investigation was conducted once and for all, over three months. A deductive research approach applies to the case study strategy and probability sampling applies to the data collection. The research also applies required ethical standards in three ways. First, the research obtains the consent of participants as seen in Figure 1 below. About 97.3% of consent approvals validate ethical compliance. Second, it ensures pseudonymity regarding the names of the universities. Red and Blue Universities are the adopted names. The Red represents 35.6% while the Blue represents 60.3% of the sample size. About 4.1% of participants from other universities are regarded as former staff of the Red and Blue Universities. Third, it avoids the collection and referencing of participants' biodata.

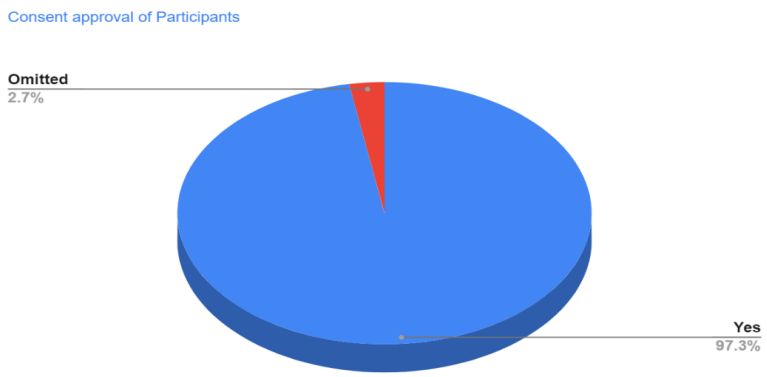

Figure 1. Participants' consent approval

Regarding the data collection technique, an online Google questionnaire was administered. The analysis was conducted using Excel and Python software. A major part of the method is the demographic information, which will be presented in the next few paragraphs.

Demography

Table 1. Response rate of participants

Items	Numbers	Percentages
Estimated research population	1500	100%
Accessible sample population	800	53%
Actual sample size	79	5.3%

Table 1 above shows an estimated 1500 academics within Pretoria as the research population. Given the constraint of access to the research population information, only 800 participants were reached as the sample population. While 800 academics received the research instruments, only 79 academics, estimated as 5.3% of the research population, responded. This actual sample size passes the tests of the research rule requiring the response of 5-10% of the research population to ascertain the validity and reliability of the research data. Thus, an acceptable sample size was achieved. Likewise, the research covers acceptable reliability and validity percentage, which allows the research to represent the experience of academics throughout South African universities. This position is predicated on the fact that as of 10 December 2023, there are 26 universities in South Africa, and the two case study universities in this research represent approximately 8% of the total (see Universities South Africa, 2023). This percentage is acceptable in an empirical research sample population to validate reliability and validity. Consequently, the stressors, impacts and effects experienced by the academics in the two Pretoria Universities may most likely reflect the experience of most academics in other South African Universities.

On faculty affiliation, those represented include Information and Communication Technology (2.7%), Education (6.8%), Economics and Management Studies (17.8%), Engineering (16.4%), Sciences (16.4%), Humanities (19.2%) and Theology (17.8%). These statistics show a reasonable coverage of faculties which further speaks to the dependability of the data from each university. Also, Figure 2 below implies that almost all academic genres in teaching, thesis supervision, research and administration are covered. This shows a well-spread and detailed investigation.

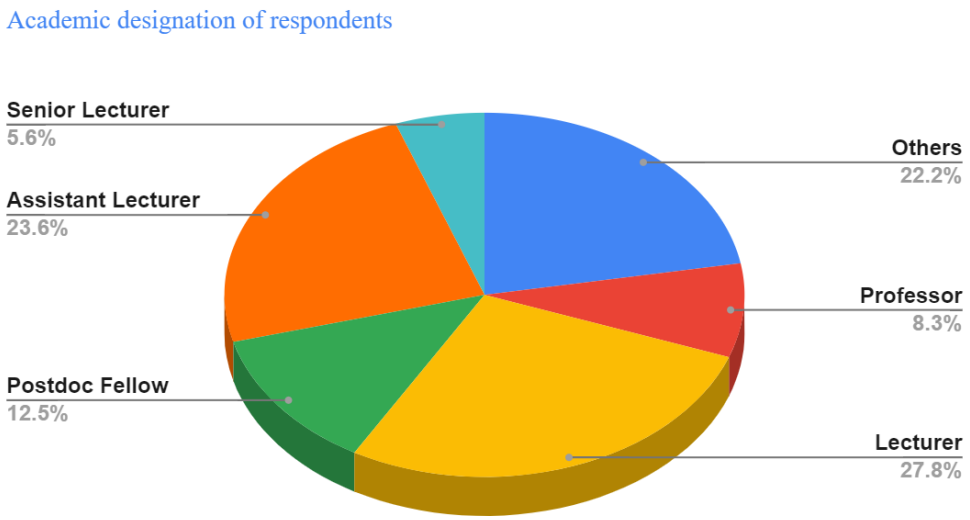

Figure 2. Academic designation of participants

Results

Based on a research instrument containing 8 questions, participants provided data on some stressors affecting their wellbeing and academic delivery performance. There are six stressors evident in the data collected. These include teaching (Tea), thesis supervision (Thes), technology interaction (Tech), administrative functions (Adm), research (Res) and remuneration (Rem). To ensure the validity and reliability of the data provided, an iteration strategy was employed in which the same questions were fielded in two different ways to underscore the synchronization of the participants' responses. Table 2 below shows the summary of the iteration data report. While the two results were close enough to validate the integrity of responses, preference is given to the iteration's average percentage.

Table 2. Summary of Iteration data collected from two similar questions

Stressors	Iteration A Participants' %	Iteration A Participants' No.	Iteration B Participants %	Iteration B Participants' No.	**Average Stressor %**
Teaching	21.1	16	8.2	6	9.8%
Administrative Functions	48.7	37	35.6	26	42.2%
Thesis Supervision	18.4	14	9.6	7	14%
Research	51.3	39	37	27	44.2%

Additionally, the iteration summary was brought into the full table of stressors as presented in Table 3 below. The results show that teaching is the least stressor with the 6th ranking in the order of mental stress activities, while remuneration tops the stressors' rankings. The table also shows that as responsibility increases, mental stress levels also increase.

Table 3. Average of the iteration data collected from two similar questions

Stressors	Participants	**Positively Impacted**	**Negatively Impacted**	**Stressor Ranking**
Teaching (Tea)	75	90.2	9.8%	6th
Thesis Supervision (Thes)	75	86%	14%	5th
Technology Interaction (Tech)	78	60%	40%	4th
Administrative Functions (Adm)	75	57.8%	42.2%	3rd
Research (Res)	75	55.8%	44.2%	2nd
Remuneration (Rem)	76	34.2%	65.8%	1st

Analyses and Interpretations

Excel and Python software were deployed. Meanwhile, the Python analysis focused more on the regression analysis of the data (stressors) obtained from the participants.

***The Excel Bar Chat*:** Analysis with Excel shows a stress ranking from 1st to 6th, with teaching as the least and remuneration as the highest. Figure 3 below shows the progression of growth in stress as the portfolio of academics increases.

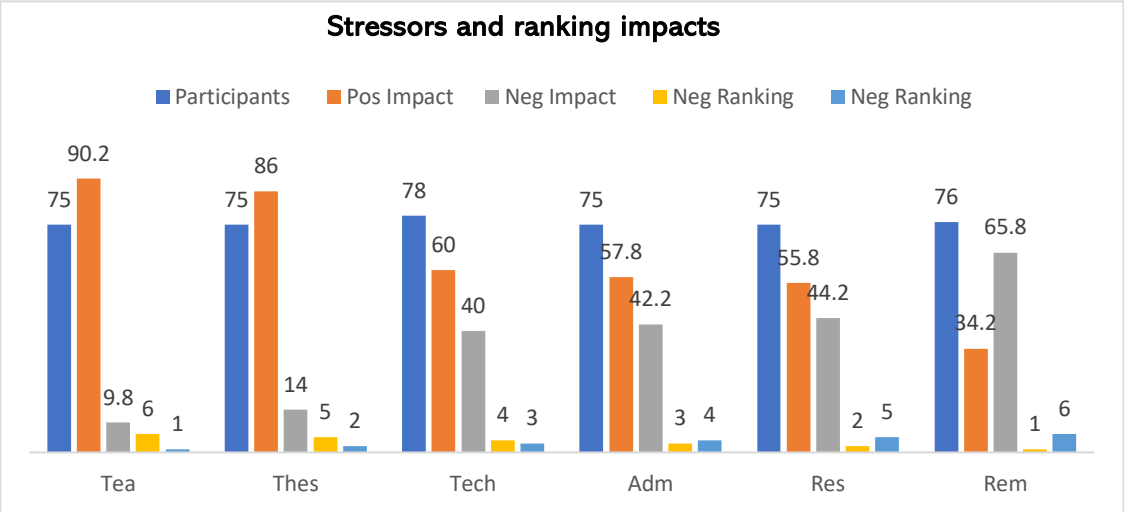

Figure 3. Stressors' impact and ranking

The bar chart in Figure 3 above, which corresponds with the linear regression ranking staircase in Figure 4 below, shows how stress builds up over time in the academic profession. Meanwhile, this paper assumes that most academic staff start their career as lecturers. While others who may have started as researchers or postdoctoral fellows are recognized, preference is given to lecturing or teaching as the starting point. As lecturers commenced their careers with teaching, the results above show they incurred minimal stress of about 9.8%. As time passes, a teacher of undergraduates is assigned postgraduate thesis supervision. At this stage, the stress level increases by 4.2%, a percentage which makes the thesis supervision the 2nd to the least stressor on the chart. As a postgraduate supervisor, spending more time interacting with technological gadgets becomes imperative. This is accompanied by technostress or technology stress. Here, the stress level jumps significantly by 26%, making it the 3rd to the least stressor.

A few years later, the individual teaching and supervising thesis may get promoted to Director of an institute within the faculty or college. The academic may also be appointed as head of the department or a postgraduate program coordinator. Such responsibilities require administrative work and can easily increase the stress level by another 2.2%. As seen in Figure 3 above, an increase of 2.2% in stress level due to administrative responsibilities represents the first least increased stress rate between any two stressors. The argument for this least accompanying stress may be predicated on `attracting some financial incentives (additional remuneration) from the administrative services provided. Again, this supports the argument that remuneration is a major stress factor; stress will likely become minimal when remuneration increases.

Furthermore, sustaining administrative positions and attracting subsequent promotions require increased effort and service delivery performance. Likewise, career academics and researchers need more effort to meet deadlines. As efforts increase to meet research deadlines, stress levels increase by another 2%. Here, the lowest level of stress is recorded. This minimal stress follows the same argument as between Tech and Adm stresses. With the hindsight that as an academic continues to enjoy financial incentives based on additional responsibilities and promotion, the stress level will remain at the same minimal pedestal. But after a while, if the workload increases and the remuneration (salary) is static, the stress level increases by another 21.6%. At this point, the overall stress level would have risen to 65.8%. This high level of stress, with non-commensurate remuneration, may overwhelm the academics and result in mental stress and poor health and wellbeing.

***The Python Analysis*:** Table 4 and Figure 4 below provide the details of the Python analysis. Table 4 provides the ordinary least square (OLS) results, showcasing the calculated probability value (P-Value), coefficient of determination (R-Square), point of interception and regression coefficients.

Table 4. Ordinary least square (OLS) results

OLS Regression Results

Dep. Variable:	Negatively_Impacted	R-squared:	0.911
Model:	OLS	Adj. R-squared:	0.888
Method:	Least Squares	F-statistic:	40.78
Date:	Tue, 06 Aug 2024	Prob (F-statistic):	0.00309
Time:	00:16:44	Log-Likelihood:	-18.953
No. Observations:	6	AIC:	41.91
Df Residuals:	4	BIC:	41.49
Df Model:	1		
Covariance Type:	nonrobust		

	coef	std err	t	P>|t|	[0.025	0.975]
const	73.2800	6.496	11.282	0.000	55.245	91.315
Stressors_Num	-10.6514	1.668	-6.386	0.003	-15.282	-6.021

Omnibus:	nan	Durbin-Watson:	2.790
Prob(Omnibus):	nan	Jarque-Bera (JB):	0.270
Skew:	0.140	Prob(JB):	0.874
Kurtosis:	2.000	Cond. No.	9.36

On the other hand, Figure 4 below presents both the rising staircase of the stressors and the linear regression analysis with actual data regression line standing at about 73.3%.

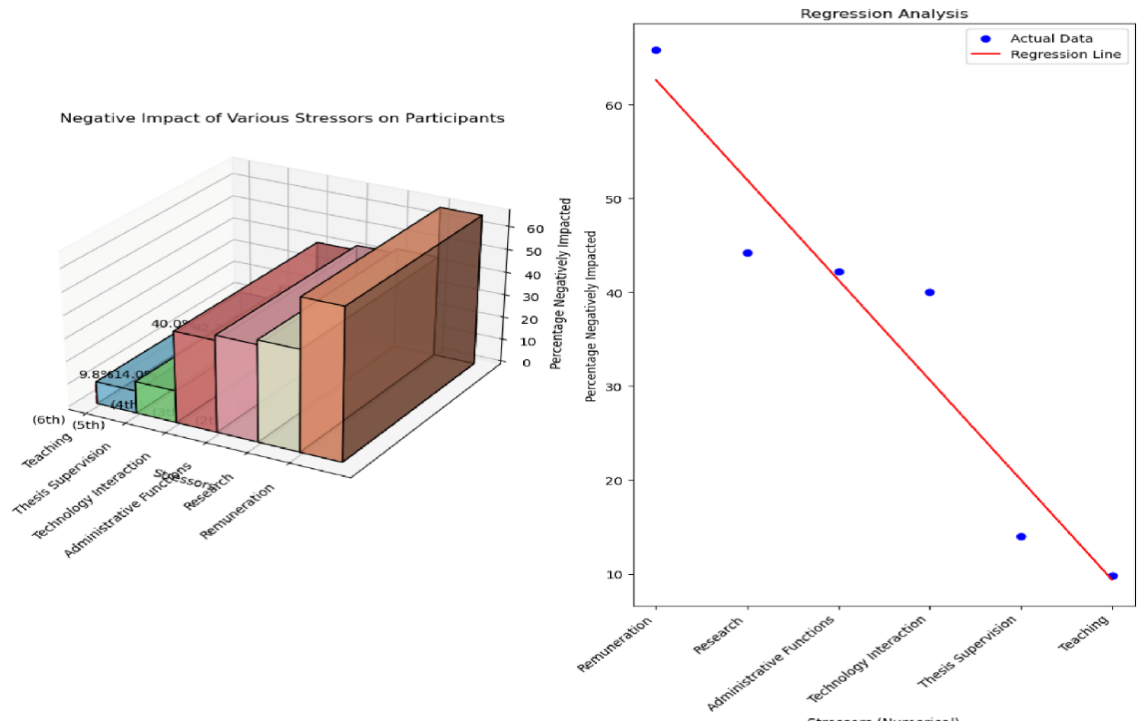

Figure 4. Regression analysis

The analyses and interpretation in Table 4 and Figure 4 above can be delineated in the following five points.

- First, the ordinary least squares (OLS) in Table 4 shows how stressors affect the percentage of people negatively impacted.
- Second, the coefficient (10.6514) in Table 4 above means that for every increase in stressor ranking from the least ranking (6^{th}) to the highest ranking (1^{st}), the percentage of people negatively impacted increases by an average of 10.65%.
- Third, the linear regression's interception line in Figure 4 above, which is at 73.28 is like a starting point. It means that even if all other stressors are addressed via some stress management strategies, around 73.33% of research participants would still be negatively impacted by the highest-ranking stressor (remuneration). The implication is that poor remuneration and its consequent economic challenges remain the outstanding stressor impacting the wellbeing of academics and haemorrhaging their productivity in the university environment.
- Fourth, the R-squared in Table 4 above which is 0.911, measures how well the results fit the data. It is like a report card. In other words, 0.911 means the results explain around 91.1% of the variation in the data. It implies that Python analysis captures and validates over 91% of the participants, thereby, giving it a reliable and valid status. In other words, the results and interpretation of the research can be trusted.
- Lastly, the p-value which is 0.025 in Table 4 above, checks if the results are due to chance. A low p-value of 0.025 means the results are statistically significant and can be relied upon.

In this section, the methods, analysis and interpretations, respond to the first research question because it shows that stressors and their ranking impacts are evident in academic environments. But, before delving into the discussions and recommendations, the next section will present some possible management theories applicable to stress management in a university environment.

Applicable Stress Management Theories to Address the Stressors

With a philosophical assumption that mental stress negatively impacts the service delivery of universities' academic staff in Pretoria, six management theories discussed below can be applied and recommended to address the impacts of the stressors on academics' health and productivity.

Scientific Management Theory (SMTH): Propounded by Frederick Winslow Taylor in 1909, this theory focuses on the most effective way to complete every task, no matter how small. Taylor in Granite State College (2023) claims that to show task efficiency, each task should be completed and jobs should be assigned strictly based on skills and abilities. Additionally, employees' evaluations should be predicated on the quantity and quality of their work, not time. This theory does not seem to fit into the stress management strategy in view as it does not relate to staff wellbeing.

Administrative Management Theory (AMT): Developed by Henri Fayol in the early 1900s, this theory is highly relevant. With fourteen principles, Fayol outlined the basis for strong and successful companies. While Taylor's SMTH focuses on the process of effective completion of tasks, Fayol's ATM focuses on the organizational structure of a company. Like SMTH, ATM does not fit into the stress management strategy in view because it is about competence and not staff wellbeing (Granite State College, 2023).

Bureaucratic Management Theory (BMT): The touchstone of the BMT is that Max Weber who propounded the theory believes in the importance of human emotion. Regarding emotion in business, Weber claims that an increase in the use of technology could hurt a company's culture (Toole, 2022; cf. Nickerson, 2023). Thus, BMT partially fits

into the stress management strategy of academics because it touches on managing human emotions and over-interaction with technology which can easily lead to stress.

Human Relations Management Theory (HRMT): Propounded by Elton Mayo, HRMT is about human interactions and relationships. Using a study at Chicago's Western Electric Hawthorne Plant in the 1920s and 1930s, Mayo created a theory through the 'Hawthorne Effect' experiment, where workers' activities are placed under lighting and interactions. The idea is to see how changes in lighting could or could not affect employee productivity. The outcome shows that lighting changes did not affect productivity; rather, employees' daily interactions with one another throughout the lighting process motivated efficient performance and higher productivity. The result shows that interactions allow employees to discuss their pains, frustrations, and sometimes successes. Such interaction improves workers' productivity and work value (Peak, 2023; Gordon, 2022). This revolutionary discovery shows the role of human relations and interactions in managing workplace stress while promoting productivity. This theory applies to the stress management strategy in the academic environment because it suggests that interactions can be a coping mechanism that supports employees' emotional and mental wellbeing and motivation.

X and Y Management Theory (XYT): This theory is the proposition of Douglas McGregor in the 1950s-60s. He argues that all managers can be grouped into X and Y categories. In his opinion, the X managers have a negative view of their employees and believe they need to be forced or coaxed into working, while Y Managers believe that employees are inherently motivated to work. The Managers, therefore, value the importance of supporting their employees to thrive by providing opportunities for learning and development on the job (Granite State College, 2023). This Y theory can be deployed in the university environment to address the stressors of academics. This article proposes that remuneration is one area of motivation needing attention, not just learning and development opportunities.

Theory of Preventive Stress Management (TPSM): Proposed by Cooper over 33 years ago, TPSM has been in the lexicon of the APA Dictionary of Psychology since 2007. It has preventive stress management (PSM) principles with specific methods of promoting staff health while equally avoiding or reducing organizational distress. There are three intervention types in the preventive stress management theory, namely Primary (Preventive), secondary (Coping) and tertiary (Therapy).

- ***Preventive*** **-** The objective at this primary level is not to eliminate but to avoid or prevent stress as much as possible (Longjian 2018; APA Dictionary of Psychology, 2018a). Here, stress managers quickly foresee stress areas in the workplace and find ways to prevent any occurrences. For example, they picture and address issues relating to possible violence, and hazardous conditions that can trigger stress. In this space, managers are proactive in stress management with continuous observation and effort to limit the frequency of predictable counterproductive stressors and provide social support and staff training on stress to prepare staff response capacity. Stress managers also quickly arrange periodic rest and holidays or sabbaticals once productivity energy is low. They do not wait for a total breakdown in the system. Worthy of note is the phrase "stress managers," a position or designation rarely given attention or provided for in work environments like universities. Therefore, this paper opines that stress managers are important and should be employed in academic environments to address the stressors outlined in this research.
- ***Coping:*** The second type of stress management in TPSM provides a toolbox of coping methods for dealing with stressors. The objective at this coping level is not to eliminate but to manage the existing stress because complete elimination would lower

individual and organizational performance (Longjian 2018; APA Dictionary of Psychology, 2018a). Such tools may include relaxation and meditation techniques, hypnosis, and biofeedback training. Another resource that may facilitate managing stress is faith or spirituality-based practices. This is potentially useful for interventions because it provides some form of emotional expression as an outlet for stress. However, the most common techniques are body exercise and related wellness programs. These may include aerobics, strength training and flexibility exercises (Kisling & Das, 2023; APA Dictionary of Psychology, 2018b).

- ***Therapy:*** This is considered a treatment or therapy intervention. When stressors have stimulated negative responses and the negative responses are beginning to generate negative outcomes, the therapy strategy then steps in to treat and heal individual symptoms of distress as well as repair negative organizational outcomes that have accrued because of individual distress (Kisling & Das, 2023; APA Dictionary of Psychology, 2018c). The goal of the therapy TPSM is to identify symptoms and provide treatment. Such symptoms are discovered and treated based on behavioral, psychological, and medical observations (Yasmin, Khalil & Mazhar, 2020; Edú-Valsania, Laguía & Moriano, 2022; Alhasani et al., 2022)

So far, the previous and current sections have responded to the first and third research questions raised in the introduction section. The next section will discuss the effects and impacts of the stressors based on participants' testimonies. Lastly, some recommendations will be made in line with the stress management theories discussed in the previous section.

Discussion

This section responds to research question number two. The following subsections seek to provide answers to the health and social wellbeing effects and impacts of the discovered stressors on the participants' wellbeing.

Health and social wellbeing impact and effects of the stressors

Some of the research questions responded to by the participants further investigated how stressors affected their health and wellbeing. As presented in Figure 5 below, 60% of the participants claim work-related stress interferes with their sleep cycle and 30.7% of the 60% are suffering from insomnia. Consequently, the cumulative impact of insomnia leads to health effects like hypertension, diabetes, obesity, poor brain performance, depression, heart attack and stroke (Nazario, 2022). Additionally, Pruthi (2023), in his report, further suggests that work overload disrupts human circadian rhythms which act as an internal clock guiding the sleep-wake cycle, metabolism and body temperature, a disruption that easily leads to insomnia.

Besides insomnia, 25.3% of the participants claim they experience panic and anxiety attacks once in a while due to academic work stress. About 20% claim their mental wellbeing depreciated since they became lecturers or researchers, while 16% joyfully assert they experienced improved mental health as academics. The last impact, as seen in Figure 5 below shows that only 2.7% of participants had a mental stress history before becoming academics. By implication, if we deduct 16% of participants whose mental health improved in the academic environment, it means 81.3% (84% - 2.7%) incurred mental stress in the academic working environment. It must be said here that anxiety and panic attacks are heart-related issues. Such issues, in combination with insomnia, lead to collapse and death. This is a shred of evidence that academic staff of universities work in a dangerous environment vis-à-vis the level of stress baggage accompanying job demand.

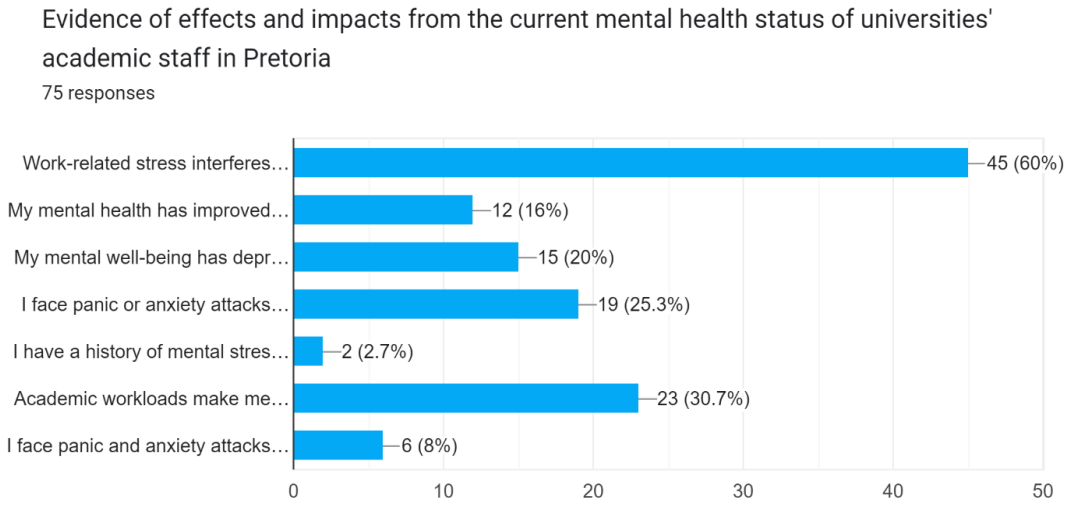

Figure 5. Evidence of effects and impacts on academics' mental stress

Furthermore, in a multiple-choice question, the results on job dissatisfaction and social development as presented in Figure 6 below reveal that about 25% of participants cannot sustain personal relationships due to workload stress, and 35.9% cannot socialize owing to busy academic work schedules. About 21% of participants cannot pursue personal goals and ambitions and 25.6% have mixed feelings about job satisfaction. But on the positive side, 45% claim they have a sense of fulfilment. By implication, two points are critical here. First, stressors impact the social and personal development of academics. Two, regardless of the negative impacts, not all academics are negatively impacted in the academic environment.

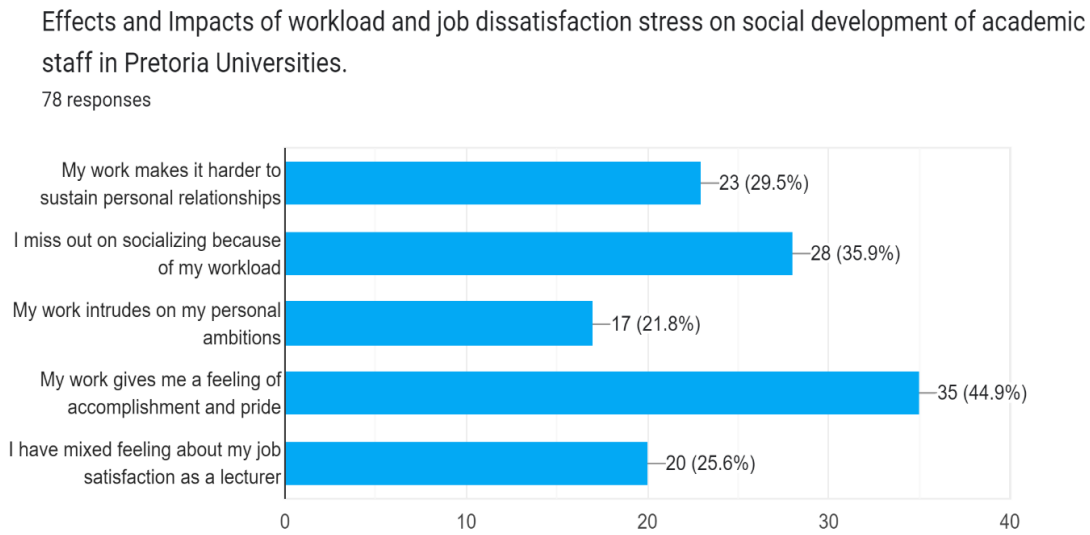

Figure 6. Evidence of effects and impacts on academics' mental stress

Poor remuneration impacts and effects

Besides health impacts and effects, it is critical to delve into the highest-ranking stressor in this discussion. Although the 2nd to the 6th ranked stressors deserve some attention, the

regression analysis under the section of analysis and interpretation shows that even if other stressors are addressed with management strategies, the defining stressor which heavily impacts health, wellbeing and productivity remains remuneration.

The testimony of participants indicated that insufficient remuneration is a major demotivator for effective service delivery and a trigger of economic or financial mental stress. This finding agrees with earlier pieces of literature that confirm remuneration as a major trigger of mental stress. For example, Hausken and Ncube (2017) observed that within the education and healthcare sectors in Kenya, Uganda, Tanzania, and Senegal, Teachers and Doctors are underpaid while spending more to provide services to their clients. This has led to job abandonment or neglect to seek alternative economic means. This affects students' progress as teachers no longer cover teaching syllabi due to investing less time in teaching. Teachers are abandoning their students, failing to meet targets, and offering students less than what is required. They channel their time and energy into seeking greener pastures for survival. Whereas, if the academics are well-remunerated, there would not be the diversion of time and energy, and poor service delivery to students. More so, switching their conscience against students' interests because of poor remuneration suggests they may have been traumatized by economic challenges and therefore went against the institutional authority and students' interests as a coping mechanism.

Simultaneously, the story of the University of Zimbabwe is not an exception. The Humanitarian News (2024) reveals a massive reaction of academics due to deteriorating working conditions and poor remuneration. Subsequently, some lecturers withheld exam results, and others deserted script marking as a protest and a way of demanding a salary increase. Over time, the protests became an industrial action, and the school was shut down for months. One of the explanations for such outbursts and reactions by university academics may be the accumulation of financial or economic trauma. The closest example, as delineated earlier in the literature review, is the case of the University of South Africa, where Kgabo (2021) described the dysfunctional service delivery by lecturers to students because of insufficient resources for effective communication between the lecturers and students.

As presented in Table 3 above, about 65.8% of the respondents asserted that poor salaries remain a major stressor. Therefore, the cumulative impact leads to two major effects. The first is poor buying power vis-a-vis poor standard of living. The second effect is ineffectiveness in service delivery performance.

- ***Poor buying power and poor standard of living****:* The National Association of College and University Business Officers (NACUBO) presents useful information that fits the remuneration challenges of academics. In Figure 7 below, the 2022 report on issues among academics shows that poor remuneration keeps the academic staff within a poor or average standard of living, leaves them in a debit financial status and affects their capability to update and upgrade family financial responsibilities. To bridge the economic gap, most lecturers and researchers pursue other jobs or businesses, thereby over-tasking the brain and the body. Consequently, the pressure to meet the demands of both academic jobs and personal hustles triggers mental stress and related health challenges.

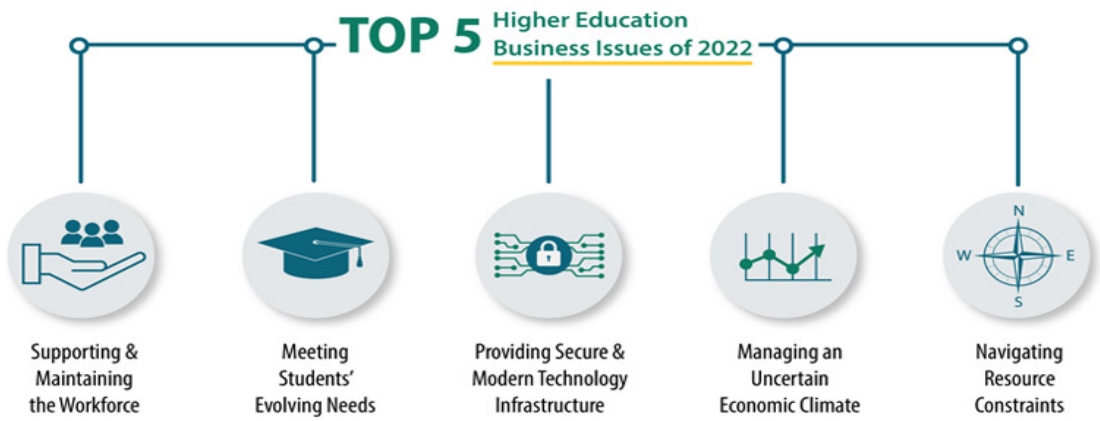

Figure 7. Top Higher Education Business Issues of 2022
Source: NACUBO (2022)

As seen in Figure 7 above, economic uncertainty is one of the five issues raised in the NACUBO report where colleges and universities face inflation, supply chain constraints, rising interest rates, and increasingly complicated compliance burdens (NACUBO, 2022). Therefore, it can be inferred that as inflation rises, the price of food increases, and academics and their families are impacted. This hardship continues to reduce their buying power and quality of life. Figure 8 below perfectly describes this narrative.

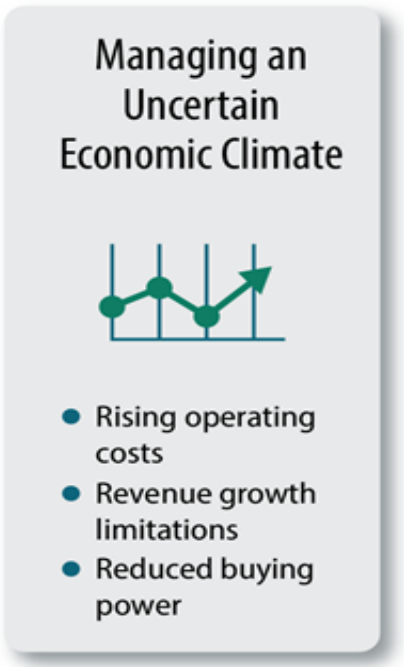

Figure 8. Rising costs and poor buying power of academics
Source: NACUBO (2022)

- ***Ineffectiveness in service delivery:*** Does poor remuneration affect academics' service delivery performance? This paper opines that it creates divided attention because, during the economic struggle, some academic staff may abandon or pay less attention to teaching and research in pursuit of multiple income streams. Worst still, there may be a depleting passion in the academic profession over time. For example, Flaherty (2022), suggests that about 60% of faculty members are quitting academic professions for economic reasons. In Nature's report by Woolston (2021), both the salary and satisfaction surveys reveal that 37 to 41% of mid-career researchers are

continuously dissatisfied with the academic profession because they are overworked, underpaid, and undervalued.

Overall, this section establishes the impacts and effects of stressors among academics in Pretoria Universities. It shows that stressors can disrupt their mental wellness and service delivery. The same disruption can snowball into economic, social, health and work demotivation challenges.

Conclusion

All the sections discussed above showed the existence of stressors and their impacts and effects in the case study universities. The methodology section showed that 5-10% of the data collected and the number of universities under discussion represent sufficient percentages to validate the reliability of the research and how the results in the two universities may represent the stressors' impacts in all South African Universities. The analysis section revealed that where the least accompanying stress exists, additional financial incentives (remuneration) from additional administrative services provided were the underlying factors. Moreover, the regression analysis revealed that even if all other stressors are overcome via management theories and strategies, remuneration as a stressor will still affect about 73.3% of academic staff. Therefore, this paper concluded that poor remuneration is a major obstacle to academics' mental wellbeing and service delivery performance. It further held that stress will likely become minimal when remuneration increases alongside increasing responsibilities. Overall, there is proof that stressors can negatively impact the economic, medical, social and personal development of academics in the university environment. Nevertheless, not all academics may have such negative experiences. Based on this conclusion, recommendations are made below.

Recommendations

This section seeks to respond to research question three by recommending what can be done from a management perspective to address all the stressors' impacts and effects in South African Universities. The same may apply to other universities around the globe.

***The Creation of Stress Managers Portfolio*:** Designated leaders oversee portfolios like research and innovation, teaching and learning. There are also faculty managers handling administration, ethics compliance, etc. However, stress managers are rarely heard of in academic faculties. Although an argument can be made that human resource (HR) managers do or can play the role of stress managers. Such an argument can hit a brick wall, given that HR managers are not trained to be stress monitors, alleviators or managers. Since academic excellence via effective service delivery holds the powerhouse of knowledge economy production, employing stress managers to minimize stressors' impacts and effects is a long overdue portfolio in the university environment. Since this research outcome reveals a gap in the university management system as stress management gets little or no attention, this paper recommends that every university, faculty or department, as the case may be, must on-board stress managers or equip the admin or HR team to manage academic stress. This will not be an exceptional recommendation for South African Universities as Sukdee et al. (2021) once had as a research recommendation, the need to emphasize the usefulness of stress management via university policies that can promote stress management and social support (Ayesha et al. 2020). When employed, stress managers can domesticate all possible stress management theories and strategies delineated earlier, especially the theory of preventive stress management (TPSM), to support the academic staff.

Mental Wellness Awareness Program in the University Environment: One of the reasons academics become victims of stressors is poor awareness of how dangerous stressors can be to their health and wellbeing in an academic environment. In the submission of Ngo (2021), stress reduction in the workplace needs to begin with developing self-awareness and knowledge about stress. This paper, therefore, recommends intensive awareness of programs on the dangers of stressors in the academic workplace. Alongside mental wellness awareness training, other training that can minimize the level of stress should also be provided. These may include time management, building a social support network, reappraising negative thoughts and front-lining positive cognitive perspective, undertaking physiological exercises, assertiveness, relaxation techniques and building group work cohesiveness and personnel wellness programs (American Psychological Association, 2022). The most appropriate management theory recommended here is the Y management theory. Once stress managers are onboarded, they can domesticate the Y theory to support academic staff by providing opportunities for learning and development on the job.

Managing Technostress and Enhancing the Mental Wellbeing of Academics: Earlier, Table 3 presents the data of technostress. About 40% of participants claim interaction with technology interferes with their health and wellness. Although 60% claim they have been better on the job using technology, the 40% negatively impacted cannot be negligible. This non-negligible position is predicated on the analysis in Figure 3 where the percentage of stress jumped by 26% due to technostress. The chief point of recommendation here is the need for moderation. Yes, interactions with technology are fantastic, but there must be a balance in favor of health and wellness. Although Learnwell (2021) opines that modern technology offers an opportunity to support students' mental health needs using available technologies, the stressor-related impacts demand the consideration of Max Weber's bureaucratic management theory (BMT), where he suggests that an undue increase in the use of technology could hurt a company's culture. To prevent technostress from hurting the activities of academic staff, academic stress managers need to domesticate BMT and consider moderation policies in technology interaction. Additionally, stress managers can accommodate *Telehealth and Teletherapy* whereby technology can be used to reduce the level of stress in an academic environment, just as it was done during the COVID-19 pandemic (Stone, 2021; Whalen, 2021).

Reviewing the Remuneration Policy to reduce stressors' impacts drastically: It was evident in Table 3 and Figure 3 that poor remuneration incurs about 21.6% and 65% of overall stress levels, making it the highest-ranking stressor in the academic environment. Therefore, this paper argues that stress managers can at best provide *preventive, coping and curative* strategies to minimize the stressors' impacts and effects on teaching, thesis supervision, technostress, administrative functions and research. However, the highest-ranking stressor (remuneration), can only be addressed with an upward policy review. As the regression analysis implied, with all things being equal and other stressors avoided, remuneration will continue to trigger stress. On this account, this paper recommends a robust review of academic remuneration across universities.

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