

The Dilemma of Unrelenting Workload Amidst Covid-19 Pandemic:

An Agenda for University Female Academics

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Abstract: The dynamic changes in the South African higher education environment have seen academics immersed in increasing workloads to keep up with the university mandate. The outbreak of the Covid-19 pandemic has raised significant challenges for the higher education community and intensified complications related to workload and in particular for female academics. The understanding of the management of workload is pertinent, and therefore the article examines the components of workload and implications of the Covid-19 pandemic for female academics. A descriptive research design and a quantitative research approach were adopted, and data was collected from 54 female academics in an unidentified university in South Africa. The data was analyzed using the Statistical Packages for Social Sciences (SPSS) version 26 and presented using a descriptive and inferential format. Also, the study adopted a systematic review of literature leveraging reputable sources. The findings revealed that (i) time allocation to academic activities of teaching and learning, research, postgraduate supervision, administration matters, community service, and academic citizenship remains a challenge facing universities, and (ii) Covid-19 imposed remote working arrangements resulting in increased workloads, leading to reduced research productivity and inability to achieve work-life balance for the female academics. The results of the study highlight the need for institutional review and policy development on the academic workload management system to ensure work-life balance for the female academics and output maximization for the university, especially during a pandemic.

Keywords: Workload, higher education, female academics, Covid-19, South Africa.

Introduction

The South African Higher Education Institution (HEI) environment is changing due to increasing student enrolment, the need to maintain quality in teaching and learning, increased casualization of the academic workforce, and demonstrable research productivity outputs. The outbreak of the Coronavirus pandemic, generated by SARS-CoV-2¹, generally referred to as Covid-19, has affected individuals, economies, and societies alike. In reaction to the pandemic, governments across the world adopted various measures to tackle the spread of the virus. Such attempts by the government to contain the virus resulted in the implementation of lockdowns, social distancing, and other restriction measures which impacted the world of work. The pandemic caused educational disruptions on an unprecedented scale and took an unimaginable toll on the existing challenges facing HEIs. This saw universities adopting comprehensive technologically enhanced platforms to manage the pandemic while continuing with providing educational services. Misra (2020) noted that universities moved courses online, mentoring students, reworking university programs and addressing Covid-19 risks, and helping communities manage current realities. Academic staff was left with no choice rather than to fully embrace working-from-home (WFH). As a result, academics have been faced with a myriad of challenges in the daily performance of their duties and high expectations to meet in relation to the institution's workload requirements. Le Grange (2020) noted the challenges of the home environment not matching the university facilities in delivering teaching and learning. Allen, Rowan & Singh (2020) noted the significantly intensified workloads for academics in delivering teaching content as well as navigating the required software platforms. Before the Covid-19 disease outbreak, many universities had blended teaching and learning with technology, but such had been mostly implemented through uploading and presentation of learning materials. The

ramifications of the Covid-19 pandemic have therefore intensified the existing workload challenges facing academics, generally, and in particular female academics who have been caught between 'a rock and a hard place'.

Studies are increasingly showing the use of workload as a key factor for measuring employees' productivity, determination of promotion status, and other accomplishments or recognitions associated with academic job requirements (Inegbedion et al., 2020; Boyd, 2014; Kordzadze, 2013). The management of workloads has seen more regulations such as workload models for balancing employees' welfare and maximization of the organization's productivity, a view shared by Watson et al., (2015) and Kenny & Fluck (2014) in their respective studies on the subject of workload. As a concept, the workload model is dynamic in nature and can be aligned to the institutions' and faculty's specific. Many universities divide workload to cover the required percentages of teaching, research, administration, community service etc. to avoid overload. Boyd (2014) attested to the latter in achieving fairness, transparency, safety, healthy and equitable workloads for academics. However, the difficulties of categorizing academic work and balancing the components of the workload remain a challenge for most institutions. This is because the utilization of workload formulas sometimes does not fit into time apportioned for certain academic activities. Barrett (2010) opined that the complexity of managing workload models has done more harm than good by unintentionally creating greater levels of stress for academics. This concern is doubled for most female academics whose responsibilities go beyond the academic workload requirements to include family commitments, a situation deemed physically and mentally demanding. These female academics are caught in the mists of role aspirations and career situations; career demands and family responsibilities; and the notion of traditional and modern thinking. These changes in the education system are likely to create more stressful work environments, increased strain, and demand, with ramifications such as work-related

stress and burnout for female academics. Because of the impact of workload models on academics, students, and institutions generally, many research studies have been done on the subject matter. Despite the growth in the number of these studies, only a few have been carried out within South African HEIs. For this reason, it is essential to contribute to this space in the literature within the South African purview.

Given the foregoing, this article provides evidence from the literature on the concept and the theoretical unpinning of workload and workload management system. The methodological approach adopted for the study is followed afterward by the result and discussions of the findings presented. The findings lead to possible recommendations for policy-makers. The limitations encountered in the study are also discussed.

Literature Review and Underpinning Framework. Workload and workload management system (WMS)

Higher education institutions are undergoing changes resulting in developments that see more job responsibilities being carried out by academics. As a result, universities are challenged by allocating job responsibilities to measure up with their goals, missions, and aims; maximize human resources, motivation, professional development, and staff well-being; and ensure fair, and equitable distribution of the load to the academic staff (Kordzadze, 2013:111; Vardi, 2009:500), thus the concept of ‘workload’. A long-standing definition of workload refers to “the perceived relationship between the amount of mental processing capability or resources and the amount required by the task” (Hart & Staveland, 1988:77). A fairly recent definition notes workload represents the relationship between groups or individual human operators, and task demands or simply the volume of work expected of a person (Jacobs et al., 2013). Generally speaking, employee workload

refers to “the intensity of job assignments” (Nwinyokpugi, 2018:287). Given these definitions, the concept of workload in academia is complex and paradoxical thus making its management a vital aspect that has seen universities resorting to the ideology of workload management principles or models. It addresses the objective of minimizing workload imbalance in organisations (Inegbedion et al., 2020). In other words, it ensures the even distribution and appropriate management of academic staff job requirements. Accordingly, Van den Bossche et al. (2010) define workload management as the adjustment of employee workloads to minimize the discrepancy between actual and potential workload.

Generally, academic workload models vary across nations, universities, disciplines, and levels. Miller’s (2019) study across universities workloads indicated an average of 45 to 50 academic working hours a week. Inegbedion (2017), a study on workload models of seven universities, in the UK, Australia, and Rwanda showed an average of 40 working hours a week for an academic. Similarly, South African universities are not exempted as average academic workload hours vary from 37 to 40 units/hours per week (UCT, 2020; Nnadozie, 2014; Bitzer, 2007). A workload model or workload management system (WMS) takes into account, the number/nature/levels of courses offered, contact times/credit hours (instructional and non-instructional hours), the ratio of student to staff, postgraduate supervision, research publications, team teaching, academic administrative activities, professional development, etc. This notion of hours is shared across the observable components of academic workload. Thus, factoring time into these academic activities involves a set of relationships such as the amount of work needed to be done and the complexities of the given task. While the former is more quantitative in nature, the latter appears difficult to measure in terms of time allocation for each activity.

The appropriate management of workload, therefore, minimizes the discrepancies associated with the allocated workload and the capacity to carry out the responsibility. It would allow for the priority areas of an organization to manifest and the need for actions to be

taken. The extent to which the ideology of workload model ensures a shared understanding of expectations between the university management and the academic staff strikes a balance between productivity and contributing to the goals, while recognizing occupational health, safety, and welfare considerations remains debatable within the academia.

The scholarship of the academic workload

Workload management entails appropriate allocation of time to academic activities which delineate at least six categories: teaching and learning, research, postgraduate supervision, administration, community services, academic citizenship. Teaching entails scheduled and non-scheduled activities within the scholarship. The scheduled workload activities include lecturing, tutoring, facilitation of class seminars, supervision of experiments, tests, and examinations. Similarly, non-scheduled activities entail the time taken to prepare the scheduled activities. Research relates to activities that create new knowledge which may include but are not limited to conducting field research, publishing articles/books, and writing grant/ethics applications.

Postgraduate supervision entails mostly providing students with support in the development of theses and dissertations. Administration activities include the development of lecture materials, assessments, writing reports, consultations, etc. In academia, community engagement refers to partnerships that allow for collaboration between institutions of higher education and their larger communities (local, regional, state, national, and global) for the mutually beneficial exchange of knowledge and resources (Ahmed & Palermo, 2010). Given this definition, community engagement involves activities such as attending conferences, workshops, seminars, academic visits etc. Also, academics provide their expertise voluntarily within the community to ensure

project accomplishment. Macfarlane (2018:3) defines academic citizenship as “activities undertaken by academics that are not directly connected with their research or teaching activities”. It may be internally or externally connected to supporting the infrastructure of academic life and the broader civic mission of the university (Macfarlane, 2008; Nixon, 2008). Such activities may include, acting as a peer reviewer, internal/external examiner, organizing conferences, editing/co-editing services, mentoring younger academics, and serving on a public committee of inquiry, etc.

It remains a difficult task to compartmentalise the amount of work associated with each of the academic job categories discussed earlier, thus making time a strong contender of workload documents. The allocation of the appropriate time to all the categories of academic workload to avoid role underload or overload is still a challenge. Universities tend to allocate more time to teaching and research than other categories. Increasingly, studies of workload models have shown unrealistic outcomes because of the inappropriate allotment of time to academic activities. This is because time spent on a particular academic activity varies and may have a ripple effect on other academic workloads. For example, Tight (2010) notes that increasing the amount of time spent on administrative work threatens teaching and research quality. Thus far, workload distribution remains a challenging task for university management.

Theoretical underpinning on workload and feminism in academia

The pace of changes to the wider economy has seen a significant process of neo-liberalisation in higher education institutions. This has resulted in the corporatisation of HEIs to conform to the norms of efficiency, value for money profiteering, and achieving performance targets. These objectives are mainly set in the form of academic

workloads and are used to measure staff productivity levels as noted by scholars (Watson et al., 2015; Kenny & Fluck 2014). One of the consequences of this is subjecting academics to intense pressure to meet up with the requirements thus resulting in unending stress and burnout. This is even worse for female professionals whose workloads extend beyond the academic environment and incorporate their home. In view of the foregoing, this article draws on the theoretical frameworks that highlight feminism and workload.

Feminism as a contested discursive ideology is influenced by post-structuralist and postmodern analysis but premised on social change. It stems from the doctrine that women generally are systematically disadvantaged (Sabbarwal, 2000), and pays close attention to the structures of power and social context that pervades inequality. Accordingly, Elomaki and Kantola (2018) define feminism as a political project that aims at societal change, takes multiple and contextual forms, and involves struggle and contestation. This article argues that within the educational pedagogy, feminism has transformed women's lives but has yet to have a wider impact on workload approaches adopted by the universities. The researchers draw on the notion of 'moderate' feminism, which has established rigour within the academic literature, to understand the views, experiences, opportunities, and challenges posed by workload to female academics.

According to Tzanakou and Pearce (2019), moderate feminism posits on the appeal to reasonableness, as embedded in the common sense norms of the socio-political context in which the appeal is made. Moderate feminism mediates pre-existing discourses on feminism within its wider social, political, and economic paradigms. Given that society strives for the need for gender equality, the landscape of the universities remains uneven in terms of workload model applications. Understandably, workload affects both men and women and from such a standpoint, it would be appropriate to draw on a fair moderate approach given that female academics are engulfed in activities hardly accounted for in implementing workload models. Such an approach

would seem normal, reasonable and an easy point of argument (Calder-Dawe & Gavey, 2016) and considered the missing puzzle piece to assist female academics in achieving workload balance especially during and beyond the coronavirus pandemic.

From the workload perspective, literature has shown an unquestionable increase in the past decade (Kernohan, 2019) which has triggered more challenges for academics in terms of overload. This article premises on Elloy and Smith’s (2003) quantitative and qualitative overload. While quantitative overload is associated with tasks within a fixed period, time aspects of workload or the amount of work demanded (Kyndt et al., 2013), qualitative overload relates to the ambiguous nature of workload leading to feelings of stress, pressure, frustration, overburden, overwhelm, and even aggression and burnout (Bezuidenhout, 2015; Karjalainen et al., 2006). The latter is so because quantitative overload is time-based and easily accounted for. Given the foregoing, the researcher relates to the framework in Figure 1 and its implications for female academics.

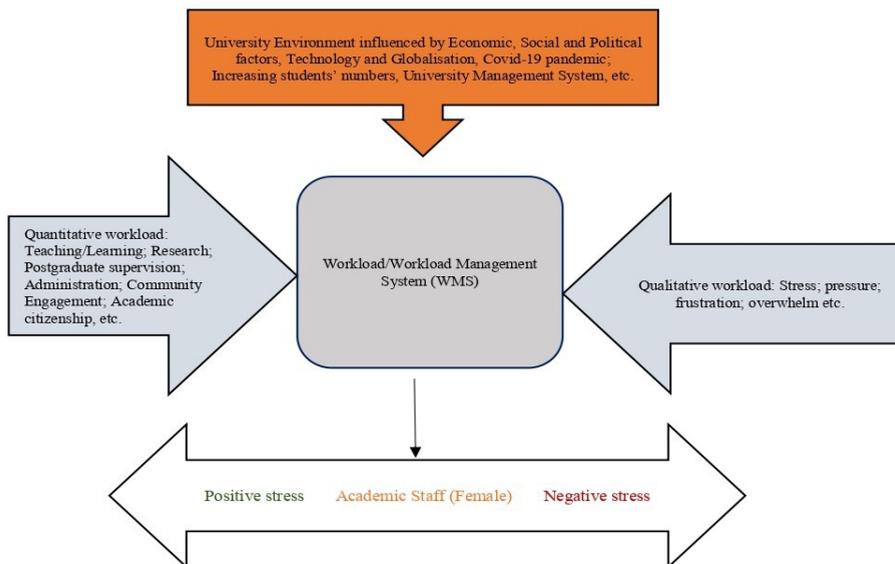


Figure 1: Hypothesized conceptual model for the study

The rapid transformation taking place in the higher education sector due to factors such as globalisation and technology, increasing student numbers, changes in the management systems, the drive for quality services, and other socio-economic and political stances are no longer debatable. The outbreak of Covid-19 has seen HEIs transitioning through uncertainty in terms of delivering quality education via online platforms. Pre-Covid-19 pandemic, academic staff have been noted to lack the pedagogical content knowledge needed for teaching online (Kali et al., 2011; Ching et al., 2018), but the present pandemic situation has posed the need for academics to design, facilitate and master online learning (Rapanta et al., 2020). These challenges have placed high work demand for academics in terms of workload as shown in *Figure 1*. The observable quantitative components of workload as discussed earlier are all activities related to the job responsibilities of academic staff such as teaching and learning, research, postgraduate supervision, administration, community services, and academic citizenship. Accordingly, Marsh (2001) emphasises the understanding of the aspect of time allotment as a good, useful workload and bad workload. The reason being that these activities are time-based and mostly accepted in academic workload models due to numerical outcome measures, for example, the number of classes taught, publications output, number of students graduated (especially postgraduate students), community engagement services rendered, etc.

According to Kyndt et al. (2013), useful workload equates to the hours spent in terms of teaching, the number of production units, etc. which can be valuable, while bad workload constitutes the total number of hours minus the good hours. Similarly, the challenge which lies on the qualitative aspect relates to the associated effect of workload such as stress, pressure, frustrations, etc. Time allocation has been a complex debatable issue in developing academic workload models because of its difficulty in measurement. Increasingly, research has shown that academics spend ample time in carrying out their job responsibilities which are not accounted for in the workload model. Examples include consultations beyond working hours, working from home cutting out on family time, etc. (Botha & Swanepoel, 2015; Portnoi, 2015). This results in various forms of stress (positive and

negative) for academics and dire consequences for female academics. For female academics, the resultant effect is more of negative stress such as reduced time leading to lower performance, role overload, slow or curtailed career progression, work-family conflict, etc. (Kairuza et al., 2019; Al-Ghamdi, 2017; Sofoluwe et al., 2015; Wang & Cho 2013; Barrett & Barrett, 2011). Thus, the quantitative and qualitative aspects of the workload are feeders to any workload management system (WMS). The ability of the WMS to control and maintain a balance between the quantitative and qualitative components would manifest on the level of positive and negative stress imposed on female academics.

This study, therefore, is conducted in a research intensive university in South Africa to measure the perception of female academic staff on workload and to further understand the implications for the Covid-19 pandemic. Thus the researchers propose the hypothesis:

H₀: Academic job tasks are appropriately distributed in the university's workload management system.

The following research question was asked to understand the implications of workload especially during the Covid-19 pandemic:

Research question: What are the implications of workload in a Covid-19 pandemic for female academics?

Research Methodology Process and Procedures

The researchers adopted a positivist paradigm and a descriptive research design. The latter provides statistical information about the phenomenon, tends to increase the knowledge about academic workload and its challenges specifically for female staff in the university. The study site is a research intensive university in South Africa and the sample was collected from three disciplines (Human resource management, Supply chain management, and Business and entrepreneurship) within the School of Management Sciences. The

target population is 80 female academic staff in the three disciplines identified and the sample size is 70 as shown in *Table 1*.

Table 1: Population of the study

Female Academics Employment Type				
School of Management Sciences	Full-time/permanent	Contract	Target population (N)	Sample size
Human Resource Management	16	4	20	16
Supply Chain Management	18	42	20	18
Business and Entrepreneurship	36		40	36
Total				70

Using a quantitative research approach, and a simple random probability sampling technique, data was collected from full-time permanently employed female academics in the university. A 5-Likert-scale questionnaire indicating the level of agreement of the respondents to the statements was used to elicit information. In analysing the data, ‘strongly agreed’ and ‘agreed’ responses were considered positive, while the ‘strongly disagreed’ and ‘disagreed’ responses were considered negative. Responses indicating ‘3’ on the Likert scale were considered ‘neutral’. While adhering to all ethical procedures, a total of 70 questionnaires were self-administered to the respondents and retrieved, but only 54 were considered ideal for analysis making a response rate of 77%. Secondary data was sourced from reputable databases to back up the primary data. The databases consulted for the literature search include but not limited to EBSCOhost, Web of Science, Sabinet, ProQuest and SCOPUS. The search protocol involves formulating the inclusion and exclusion criteria, applying search strategy focusing on the study’s keywords of “workload, higher

education, female academics, Covid-19, South Africa” which helped in identifying 75 relevant publications. The result of the findings of those studies were used to support the primary data.

Analysis and Result

Components of academic WMS

The quantitative components of academic workload discussed earlier in the literature are teaching and learning, research, administration, postgraduate supervision; community engagement, and academic citizenship. Insightful questions sought the respondents' views on each component as follows:

➤ Teaching and learning addressed teaching hours, number of modules, class size, and course related materials.

➤ Research dealt with issues pertaining to publication outputs and impact levels.

➤ Administration took into account meetings, consultations, and report writing.

➤ Postgraduate supervision considered the respondents' views on students' allocation per academic staff in line with respective teaching hours.

➤ Community service activities and time spent were considered.

➤ Academic citizenship sought information on attending and presenting at conferences, meetings, and workshops.

➤ An overall view on time allotment across the six components was sought.

The researchers tested a hypothesis to understand the perception of female academic staff on the distribution of job tasks in the university WMS. The hypothesis thus read:

H₀: Academic job tasks are fairly distributed in the university's workload management system.

H_1 : Academic job tasks are not fairly distributed in the university's workload management system.

To explore the observed data, the researchers conducted descriptive statistics and measured the mean and the standard deviation for each quantitative workload variable. While the mean provides knowledge of the central tendency referring to the overall population, the standard deviation allows the researchers to measure the closeness of the data values, (See *Table 2*).

Table 2: One-sample descriptive statistics

Quantitative workload variables	N	Mean	Std. Deviation	Std. Error Mean
Teaching/Learning	54	2.46	1.209	0.164
Research	54	2.89	1.093	0.149
Postgraduate supervision	54	2.94	1.156	0.157
Administration	54	2.78	1.160	0.158
Community Service	54	1.69	1.226	0.167
Academic Citizenship	54	1.98	1.173	0.160

A further one-sample t-test was conducted to compare the sample mean to the predetermined value, which is to determine whether the mean score of the respondents' opinions is statistically different from the neutral point (set at 3) using the Likert scale. This helps to ascertain the level of disagreement or agreement amongst the respondents or the decision to accept or reject the hypothesis. The result of the inferential statistics is presented on *Table 3*.

Table 3: One-Sample t-Test result

Test Value = 3						
Variables	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Teaching and Learning	-3.265	53	0.002	-0.537	-0.87	-0.21
Research	-0.747	53	0.458	-0.111	-0.41	0.19
Postgraduate Supervision	-0.353	53	0.725	-0.055	-0.37	0.26
Administrati on	-1.408	53	0.165	-0.222	-0.54	0.09
Community Service	-7.882	53	0.000	-1.315	-1.65	-0.98
Academic Citizenship	-6.378	53	0.000	-1.019	-1.34	-0.70
Time allocation	-5.422	53	0.000	-1.019	-1.40	-0.64

NB: a two-tailed test conducted at 5% level of significance, test value set at 3 with df (53).

The following scenario was taken into consideration in making a decision on whether to accept or reject the null hypothesis. For a negative mean difference (MD) or mean score (ME) <3, with ρ -value < 0.05 = reject H_1 . For a positive MD or ME > 3, with ρ -value < 0.05 = reject H_1 . For a positive or negative MD or ME > 3, with ρ -value > 0.05 = accept H_1 . For a positive or negative MD or ME = 3, with ρ -value > 0.05 = neutral.

From *Table 3*, all the variables measured showed negative mean differences with mean scores less than 3. The variables, teaching and learning, community service, and academic citizenship all showed a ρ -value < 0.05 , which means there was a disagreement amongst the respondents thus indicated a rejection of the set-out null hypothesis. Though the constructs of 'research', 'postgraduate supervision', and 'administration' have ρ -values > 0.05 , the MDs are negative and MEs are less than the test value of 3, thus supporting the rejection of the hypothesis. The researcher asked a further general question to ascertain the appropriateness of time allocation to tasks in the WMS. The t-test result showed a ρ -value < 0.05 , negative MD and ME < 3 . These results support the rejection of the null hypothesis (H_0) and the acceptance of the alternative hypothesis (H_1), that academic job tasks and time allocation are not appropriately distributed in the university's workload management system.

The findings of the tested research hypothesis point to the implications of the components of the WMS. The idea behind workload management systems or models is to ensure academic activities are apportioned appropriately thus the concept of time-based approaches. For WMS, workload determination is premised on a comparative view of the individual workload over a predetermined time. According to Watson et al., (2015), time-based approaches to workload allocation are widely accepted within the academic environment due to their ability to factor in the complexities associated with the academic activities. However, Kenny and Fluck (2018), pointed out the need to measure the credibility of time-based approaches in line with the actual work done. The credibility of time-based approaches surely reflects on the actual work done due to the wide range of variations in academics roles (Kenny & Fluck, 2018, 2014; Woelert & Yates, 2014). With the changes in the academic environment, the workload is gradually on the increase, academic job demands working round the clock with multiple responsibilities (Gohar Abbas & Roger 2013), thus resulting in

academics overworking themselves (Riddle et al., 2017; McCarthy et al., 2017; Portnoi 2015). Such work overload has been recorded as the most significant source of academic stress (Omolavon, 2010) and is a situation in which academics have experienced an increasing sense of powerlessness (McCarthy et al., 2017) and the impact on health issues pointed out by Harley (2017). Other similar research studies have found the complexity of WMS (Muramalla & Alotaibi, 2019) impacting the academics job motivation, job satisfaction, and cutting deep into academics family time and well-being (Stranden, 2018; Günçavdı et al., 2017; Okpechi et al., 2016; Sofoluwe et al., 2015; Kaewanuchit et al., 2015; Sa'ad, 2014; Shaw & Ward, 2014).

The issues about workload and its management systems remain complex and challenging for female academics who take responsibility for students and the community. Recalling the earlier proposed hypothesised conceptual framework (See *Figure 1*), these issues impact the female academic stress levels either positively or negatively. Increasingly, research studies have shown a more negative impact of WMS on female academics (Ashencaen Crabtree & Shiel, 2019; Zhang, 2010). Given the foregoing, Boyd (2014) notes that the effectiveness of WMS has not been well evidenced because of its varying measures of success, acceptance, and utility. The author argued that an effective WMS would cater to discipline differences, various academic activities, and unexpected individual variances among others. Acton, Chipman, Lunden, and Schmitz, (2015), advised on the need for a balanced workload system to reduce the associated stress for academic staff. Therefore, drawing from the idea of moderate feminism, WMS could be perceived as being compromised if it fails to provide a balancing role between the expectations and well-being of female academics.

Data validity

Data quality was measured using convergent validity which measures the degree to which two measures of constructs that

theoretically should be related, are in fact related (Taherdoost, 2016). The literature review presented mostly original research conducted on workload and female academics, and not overlooking Covid-19, thus reference to such studies strengthens the validity of this study.

Data reliability

The reliability which measures the internal consistency of the questions for the tested research objective was done using Cronbach Alpha. The Cronbach Alpha coefficient is 0.764 which shows a strong internal consistency as shown in *Table 4*.

Table 4: Measure of reliability of the study

Case Processing Summary					
		N	%		
Cases	Valid	54	100		
	Excluded ^a	0	0		
	Total	54	100		
a Listwise deletion based on all variables in the procedure.					
Reliability Statistics					
Cronbach's Alpha	N of Items				
0.764	7				

Female academics navigating workload in Covid-19 Pandemic

The Covid-19 pandemic has upended unimaginably every facet of academia. The sudden transition to remote teaching and learning, changes in the models of assessments, managing the risks of infection and the institution's need for continuity are some of the challenges

facing HEIs and South Africa is not an exception. As a result, the academic workplace has undergone significant changes in a short period with the effect of Covid-19 evolving and the implications still unfolding. Pre-Covid-19 disease outbreak, women generally have been disproportionately disadvantaged and NASEM (2021), asserted that the systematically disadvantaged are likely to experience more strains during stressful times. The assertion purports the fact that the pandemic has drastically affected how women are working. An extant but growing literature has shown the short-term effect of Covid-19 within academia, for academics and particularly, for female academics. Studies have alluded to Covid-19 disproportionately affecting female academics in various ways (Burzynska & Contreras, 2020; Das et al., 2020). Available evidence suggests that Covid-19 is affecting female academics in the areas of workload and family roles, research productivity, work-life balance, mental health.

Workload and family roles

The lockdown restrictions to contain the Covid-19 infections forced educational institutions to an initial slowdown with direct consequences on families. As institutions moved to remote working, academics worked from home, and children rapidly migrated to home-schooling, a challenging setting for navigating the pandemic. An outcome which saw many female academics immersed in family or domestic roles of caring while carrying on with their academic workloads. Pettit (2020) noted the increasing domestic work, and child care that female academics are engaged with. Bozkurt et al. (2020) and Kreeger et al. (2020) highlighted the severe impact of Covid-19 especially for female academics with children and those in caregiver roles. Though, some female academics who do not have a child to cater for, maybe caring for the elderly or other members of the family. Gonzales and Griffin (cited in Pettit, 2020) also noted how female

academics are receiving stress messages from their students, who are thriving through the pandemic, making them (female academics) become counselors and mentors in addition to their undying workload. This incompatibility setting as a result of Covid-19 consequences is fast making the boundaries of academic work and domestic space blurring. The replica effect is manifesting in other areas of academic responsibilities such as research.

Academic research productivity

Research is one of the activities driving ratings in HEIs, used in measuring productivity and performance. Research productivity has been one of the challenges facing female academics in non-pandemic times. Before the outbreak of the Covid-19, female academics have been noted to struggle with research publication outputs, citations, authorship positions, etc. Various institutional strategies have been put in place across HEIs to support and empower female academics to improve on their research records. Unfortunately, the Covid-19 outbreak has shattered these efforts as emerging studies show various challenges facing female academics. Anecdotal evidence suggests that females are becoming less academically productive in this current pandemic (Das et al., 2020) and social isolation is not helping matters. Besides, the pandemic saw most countries shut down, organizers cancel conferences, which affected female academics networking, collaborations, and conference attendance. The resultant effect of the disruption showed a decrease in female academics research collaborative team size, first authorships, last authorships, and reduced general representation per author group (Andersen et al., 2020; Fry et al., 2020). Added to the backdrop of Covid-19 disruptions, female academics have been noted to be publishing fewer papers and receiving fewer citations during the pandemic (Kitchener, 2020; Amano-Patino et al., 2020; Andersen et al., 2020; Gabster et al., 2020; Vincent-Lamarre et

al., 2020). This is concerning because of the tendency of the pandemic to jeopardize female academics' job stability and ability to secure funding (NASEM, 2021).

Work-life balance and mental health

The concept of work-life balance (WLB) refers to an employees' efforts towards accomplishing both the work and life/family role effectively to avoid any adverse effect on the other (Parkes & Langford, 2008). The concept further addresses work flexibility which allows for the employees to define where, when, and how to work (Cooke et al., 2009). With the latter, the employees' choice of their workplace was limited as the Covid-19 pandemic changed the way people work and brought with it, the reimagined remote work environment. For Uddin (2021), five elements of concern in remote working or working-from-home (WFH) are: working schedule, workplace environment, reward and incentive structure, workloads, and policies. These elements define the ideology of work-life boundaries and integration in achieving WLB. The Covid-19 pandemic has intensified the existing complications associated with work-life boundaries and integration. According to Nizam and Kam (2018), the multiple roles, demands, and challenges emanating from WFH, often lead to role conflict, especially for women. Before the Covid-19 pandemic, achieving a harmonious work-life integration has been a challenge facing academics especially female academics. Though digital technology may have its advantages, its ability to induce longer working hours may lead to mental health issues and burnout. NASEM (2021) noted that female academics experience difficulties working remotely and also changes in interactions. As a result of the pandemic, much of the networking and interactions have been online, e.g. online conferences, seminars, webinars, etc. Earlier data presented showed that female academics are experiencing increased workload emanating from additional domestic roles, which

reduces the time for research and other scholarly works. In doing so, Das et al. (2020) noted that female academics deprioritize personal wellness and family time while Sharma et al. (2020) noted the replica effect as stress leading to burnout, sleep disturbance, poor appetite, increased interpersonal problems and decreased motivation. The APA (2020) also noted the dual responsibilities of working women (academics inclusive) during Covid-19 leads to an increase in stress, compromises physical and emotional health, and leads to burnout and lower work productivity. Though Covid-19 may have shown varying degrees of impact, many female academics were constrained in the pandemic. In the view of Nash & Churchill (2020), female academics struggle with making it through daily life as the Covid-19 pandemic ravages the globe.

The Covid-19 pandemic has amplified the existing challenges, thereby making work-life integration, work-life boundaries, and work-life balance less tenable. The boundary between work and life roles is increasingly becoming thinner and thinner, while achieving a work-life balance is becoming a myth for many female academics. As the effects of Covid-19 continue to manifest, it has become clear that the pandemic holds important implications for female academics thus, the prominence of female academics becomes crucial in addressing the workload management system in a pandemic. The Covid-19 extra burden being experienced by already disadvantaged female academics is being felt across the professional spectrum, thus the need to ensure female academics are not disproportionately affected by Covid-19 to achieve WLB and safeguard career advancement.

Concluding Thoughts

The study examined the workload management system and the implications for female academics with special reference to the Covid-19 pandemic. Universities are becoming more complex in upholding

their mandate in building the knowledge economy. In so doing, more emphasis is being placed on the main resource of the university which is its academic staff. Though many universities use workload models to ensure appropriate allocation of academic activities, disparity does exist within the context of the university environment. The allocation of time to various academic activities also varies. The findings of the tested research hypothesis showed that time is not appropriately allocated to the components of workload tested which are, teaching and learning, research, postgraduate supervision, administration matters, community service, and academic citizenship. The outbreak of Covid-19 has not helped matters as the lockdown measures imposed remote working and intensified challenges associated with the workload management system. The simultaneous erosion of the boundaries between work and life and the paradox has been completely upended. Female academics are immersed in dual responsibilities of work and life roles. Such has resulted in increased workloads, leading to reduced research productivity and the inability of female academics to achieve work-life balance.

The extent to which WMS achieves its purpose remains debatable as female academics struggle with unrelenting workloads as a result of the non-feasibility of time allocated to responsibilities. Similarly, given the ongoing nature of Covid-19 disruptions to workload and schedules, the short and long-term implications for female academics are yet to be fully understood. There is, therefore, the need to strike a balance between academics and university management. It also addresses the need not only to advocate for the changes in the institutional practice but also to monitor the work demand of female academics to avoid overload and ensure work-life balance.

To achieve these and given the centrality of female academic staff to the success of universities, the study recommends (i) the need to prioritize WMS, a more integrated workload model that takes into account changes in the working practices especially in Covid-19 pandemic, and meets the needs of female academics and that of the

university management. Such a model, if well implemented, would create a strong social contract between female academics and the university management. The study also recommends (ii) a time-to-time survey and feedback on female academics' perceptions on the efficiency of the WMS being used. This would help to identify and provide solutions for possible problem areas. Furthermore, (iii), as Covid-19 effects continue to manifest, it is obvious that female academics will be affected mentally and physically which could jeopardize earlier progress on gender imbalances made in recent years. It is therefore of utmost importance for the university management to take into account intervention strategies to ensure female academics are not disproportionately affected.

This study contributes to the increasing discourse on the research space on the university female academics in South Africa. It provides an in-depth understanding of the workload and workload management systems and their implications for female academics in the Covid-19 pandemic. The study adds to the broader knowledge of understanding the complex roles female academics play in the university environment and the need for the inclusion of such roles in WMS taking into account the Covid-19 pandemic. It is hoped that this study will create awareness of the challenges posed by Covid-19 for female academics and enhance their representation and vivacity in the South African HEIs.

Limitations and future directions

The small sample size (n=54) of the survey makes it impossible to make statistically supported statements about all the female academic staff sampled to other faculties in the university. This is because the sample was drawn from specific disciplines in the university. Therefore, the results of this study cannot be generalised beyond this context. This study was conducted in a research-intensive university in South Africa. Additional research is required to extend our understanding of

workload and its implications for female academics in non-research-intensive universities. The proposed study should factor into the questionnaire, time allocated for each academic activity, and the actual time spent by academics on such activities, pre and during Covid-19. Such a study should integrate the sampled university's WMS to compare theory and practice, how much time is allocated, and how much time is actually spent. This will help in addressing the shortfalls if any in the WMS of the university.

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