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The novel coronavirus set off a global pandemic of the COVID-19 disease that affected higher education institutions in profound ways. Drawing on the experiences of more than 2029 academic women, this article shows the precarity of academic women's work under pandemic conditions. We analysed seven persistent themes that emerged from the qualitative analysis of the open-ended responses to an online survey across South Africa's 26 higher education institutions. In short, these seven factors have rendered women's work precarious with serious implications for an already elusive gender inequality in the academy. Finally, we aim to provide insight for academic leaders and policymakers to accommodate support for women academics and families in higher education during this time and in the future.

Significance:

- This study offers a detailed empirical analysis of the pandemic disruption of women's academic work, confirming the precarious nature of their employment within the academy.
- The study shows that the variability in employment agreements for women contributes to the uncertainty
 that they already experience in terms of their careers and progression within the academy.
- Suggestions are made for higher education institutions to remedy the negative consequences of the
 pandemic lockdown for women's academic work and their professional futures.

Introduction

In the months immediately following the announcement of the novel coronavirus that set off a global pandemic of COVID-19 in 2020, there were already studies pointing to the unequal effects of nationwide lockdowns on female scientists.¹⁻³ At the same time, there appeared powerful narrative accounts of the emotional labour of academic lives⁴, the emotional toll on female academics⁵, and the unique challenges of the work–life balance for single academics⁶. Much of the literature was, however, based on statistical summaries of large-scale survey data or the individual experiences of one or more female academics.

Of course, gender inequalities in academic work preceded the coming of the coronavirus. Long before the pandemic, gender inequality in the academy was well established in research on women's recruitment, representation, recognition, compensation, leadership and productivity.⁷ These factors have rendered women's work precarious, and the *systemic* and *institutionalised* nature of inequality has been well documented.^{8,9} For example, in 'The Pandemic and the Female Academic'¹⁰, Minello makes the vital point that for women, 'The beginning of an academic career is marked by a prolonged period of precariousness, one which coincides with women's productive period'.

Precarity is not a new concept within the academy¹¹, but an appreciation of its causes and effects has become more acute during the current pandemic. A recent collection of essays¹² captures the ubiquitous sense of uncertainty within the higher education sector. O'Keefe and Courtois¹³ argue convincingly that precarious work and the lack of gender parity in academia result in female academics feeling like 'non-citizens' in the academy. Ivancheva et al.¹¹ put forward the idea for 'a more complete understanding of precarity that should take account not only for contractual security but also affective relational security in the lives of employees'.

Much has been written about the unequal effects of the pandemic on female scientists^{1,14,15}, yet little is known of the precarious academic work performed by the most vulnerable members in the workforce. In this research, we synthesise data out of the first large-scale survey on the precarity of women's academic work – this segmental analysis of a South African national study demonstrates the precarity of academic women's work during the enforced pandemic lockdown. Emerging evidence has been dominated by quantitative analyses.^{1,14,16} These studies suggest that the COVID-19 pandemic disrupted the global academic enterprise in several ways. In this study, however, by using a qualitative approach, we aim to provide an account for, and explanations of, the precarity of women's work within the academy.

A theoretical perspective on gender and academic precarity from the Global South

There has been a steady criticism of the flattening effects of the Eurocentric narrative in studies of precarity¹⁷ and the corresponding need for intersectional perspectives on precarious work¹⁸. It has also been argued that South Africa's academic labour market is very different from that of the Global North.¹⁹ The dominant studies reviewed for this article start with the effects of late capitalism on the precariat, and yet, for large parts of the world's population, the roots of precarity lie within processes of colonialism^{20(p.587-588)} and, in the context of this study, the ideology of apartheid which gave particular expression to gendered and racialised constructions of academic work.^{21,22}



The academic labour market in South Africa faces some critical challenges that reflect on the career trajectories of lecturing staff. According to the latest available data from the Higher Education Management Information System (HEMIS 2020, personal communication), most academics are on temporary appointments (25 094 or 56.1%). The senior professoriate is still mainly white and male while the lower levels of appointment (junior lecturer, lecturer) mainly black especially in the former white universities. More men (10 314) than women (9587) are employed as research and instruction staff while many more women were appointed in administrative jobs (5758 more). This means that in a country with considerable political pressure and policy imperatives directing universities to employ more women and especially more black women in senior academic and management appointments, the pandemic disruption could be expected to slow down, if not negate, for the moment, those important commitments.²³

The significance of this study, therefore, is two-fold. First, it makes visible the social relations of precarity within post-apartheid universities; and second, it demonstrates how, under extreme conditions (that is, a global pandemic lockdown) precarious academic work is experienced among women in higher education. The findings have implications for institutional policies regulating academic work that is at once sensitive to the diverse needs of different women in the academy even as it is attentive to the shared needs of all women in a patriarchal society.

The existing literature is not inattentive to difference in studies of precarity in women's work. Moreau²⁴, for example, examines how gender inequalities are produced differently among teachers in the contexts of English and French secondary schools. A study in a single Icelandic University shows how 'academic housework' (academic service work that receives little recognition in the making of careers) is unequally distributed between senior academics and newcomers.²⁵ Writing from the United Kingdom. Henderson and Moreau²⁶ argue that academics with caring responsibilities negotiate conferences as 'a mobility imperative' compared to those with no significant caring responsibilities. And in another single country study, Angervall and Beach²⁷ delineate how women chart their academic careers differently in relation to academic work such as teaching versus research, and how gendered attributes, such as care and competitiveness, constrain advancement in the Swedish academy; similar themes have been explored in South African studies on women and careers.28

What is missing in the prolific writings on gendered work and precarity in the academy are sustained accounts of the micropolitics of precarious work in the Global South, and then under conditions in which doing academic work from home is enforced by a pandemicenforced lockdown. With respect to the first concern, this study responds with a political analysis of 'the experiential and subjective dimension of precarity'^{29(p.16)} inside Southern institutions; and in respect of the second concern, this is one of the first empirical accounts of the workings of precarity in pandemic times. Given emerging evidence of the disproportionately negative effects of the pandemic lockdown on the future of women's academic careers^{30,31}, this study clearly has implications for the future of representation in the academy, given still unresolved concerns about gender justice and equity beyond the South African case.

The size, differentiation and shape of the South African higher education system has been written and contested about extensively.^{32,33} Along with political and social changes brought by the new dispensation after 1994, were full-scale mergers amongst higher education institutions. It is well documented that under colonialism and apartheid, the social, political, and economic discrimination and inequalities of race profoundly shaped South African higher education, establishing patterns of systemic inclusion, exclusion, and marginalisation of particular institutions, social classes and groups.^{32,33} In order to move away from the notion of historically black and disadvantaged institutions and historically white and advantaged ones, the restructuring of the sector led to 23 universities being established, with 3 additional institutions opening after 2007 to bring the current number of public universities in South Africa to 26.

Method

As part of a broader study addressing the impact of the pandemic lockdown on female academics, this study reports on the experiences of 2029 participants from 26 higher education institutions.^{9,31} The largest numbers of responses per institution were from the University of South Africa with 287 responses; the University of Pretoria with 185; Stellenbosch University with 172; and the University of Cape Town with 111. To protect privacy, respondents are not identifiable beyond their institution, and no response will be attributed to any university in this paper. The career stages of respondents were evenly spread, with the largest group of respondents (29.8%) in the 0–5-year range of academic appointment. Ethical clearance was obtained from all of the participating universities following their prescribed processes. Clearance certificates were received from all but one university, and that one provided management consent to recruit participants. Participation was voluntary.

A pilot study was instrumental in the development of the study protocol and survey tool. Based on the pilot and the feedback received, the research team adapted the survey, reached consensus, and finalised it for distribution. A Likert-scale questionnaire consisting of 12 questions was subsequently distributed online, which remained accessible for responses for 3 months, from 1 July 2020 to 30 September 2020. The survey concluded with an opportunity for participants to share a narrative reflection on experiences of the enforced lockdown that impacted on their academic work. The qualitative content analysis of over 221 000 words followed a conventional approach, in which coding categories were derived directly from the text. The coding process started with all of the researchers reviewing the text independently. After reviewing and coding the responses, we reviewed each other's codes as a means of quality control. Seven themes were collectively identified as encapsulating the precarity of women's academic work and careers during the lockdown.34 All of the researchers made use of ATLAS.ti version 22.0.0, a qualitative data analysis software program.

While the survey was open during a specified period, participants' narratives included reflections from 'level 5' through 'level 2' of South Africa's five-stage risk-adjusted strategy; the most severe regulations were at level 5 and the least at level 1. The lockdown phases were: level 5 from 23 March, level 4 from 1 May, level 3 from 30 June, and level 2 from 18 August to 30 September 2020. Face-to-face contact was not permitted during this period at any South African public university, except in certain fields such as medical student practicums and laboratory work.

In terms of reporting the findings, we use two identifiers to provide a richer description. These are parental status and academic career level. For career level, we classified women who had been in academia for less than 5 years as *early career*; for those in academia for more than 5 and less than 10 years as *mid-career*; for those with more than 10 and less than 15 years' experience as *experienced academic*; and, for those who had more than 15 years' of academic experience as *established academic*.

Findings

In presenting the narratives of academic women at different career stages across South Africa's 26 public universities, seven persistent themes emerged from the qualitative analysis of the 2029 open-ended responses to the online survey. These themes are: (1) the instability of appointments; (2) promotion prospects; (3) sabbaticals; (4) funding terms; (5) the interruption of postgraduate studies and an academic career; (6) a sense of resignation: is an academic career really worth it? and (7) the precarity of probation.

The instability of appointments

In the period 2005–2016, the higher education sector in South Africa saw an increase in both permanent and temporary academic staff; these data are presented in a Council on Higher Education (CHE) review³⁶ that points to a 'casualisation' of academic work and an increased 'precariousness' of the academic profession. For staff who are not permanently employed, this means that their academic career

is dependent on the 'precarity' 35 of temporary conditions of service that puts them at risk $^{36(\rho.299-300)}$.

A recurring theme that emerges from the qualitative data is the severity of the effect of the COVID-19 pandemic for many women who are not permanently employed because of the precariat nature of their conditions of service. The academic women in this study that constitute non-permanent staff include part-time employees, postdoctoral fellows, e-tutors (at the country's largest distance education university), external markers, and those existing on the precarity of soft-funding for shortterm research projects.

Aligned to the arguments presented in the CHE review, the precarity of the temporary conditions of service for non-permanent academic staff during this once-in-a-lifetime pandemic has wreaked havoc on the academic futures of these female scholars, as one of them explained:

> I have been on two three-year rolling <u>contracts</u> of some sort (first postdoctoral, then as a researcher) that were all self-funded (salary-wise) by independent funding since completing my PhD in 2009. I don't have the luxury of having one 'bad' year publication/output wise since I am not likely to have a fixed, permanent appointment at my institution and need to keep performing at a high level to be successful for competitive external grants for my employment. (Experienced academic and mother of three young children)

Another experienced academic scientist reported that she needs postgraduate students to supervise and for the science laboratories to remain open. Without access to the lab, no tests can be run, and therefore no articles can be published. While there was, for her, fortunately, 'some data to write-up in the meantime', future outputs looked bleak. Even for project managers, the situation was dire: 'My main responsibility is research management, but no data collection is possible, which will impact my career', reported one established academic with a child in primary school and another in high school.

Performing artists, on the other hand, depend on opportunities to perform in public in order to advance academic goals and to earn an income. As one such artist expressed, the pandemic changed all of that:

> I'm writing as a 'performing artist' who also works in the academia – this lockdown has made my life come to a standstill ... where I am unsure about the future of my art – music is part of who I am – it is my identity – and without it, I feel an incredible loss. This pandemic made me dig deep to find other ways of being creative, since I can't perform in any concerts, festivals, or live events for the foreseeable future. My husband is a health-worker and it basically left me as a single parent with two boys aged 7 and 16, as well as working for 3 academic institutions. There is no number of words that can describe my feelings at this moment. (Established academic with primary school student and a high schooler)

Thus, the anxiety about job security is the same for the bench scientist unable to access the laboratory as it is for the performing artist who cannot access a theatre. Yet there are other categories of employment that were also threatened by the lockdown, such as e-tutors and external markers, especially in the largest academic employer among the 26 public universities – the University of South Africa (Unisa), the continent's largest open distance learning institution. As the financial hardship of the lockdown hit universities, these additional staff were the most vulnerable to layoffs, as one examiner recalled:

> As an external marker, the workload decreased significantly as there were no written June exams, so loss of work (and income from this work) as exams were changed to multiple-choice online

exams. (Early-career academic with two children in primary school)

We know that external examination is by its very nature often a shortterm and temporary contract. What is reflected is the negative effects of the pandemic as well as how much precarious academic staff rely on these forms of additional income. This precariousness of academic work thus can act as a disincentive for many to pursue an academic career.

Promotion prospects

While holding onto a contract job was one problem, being *promoted* within an existing job was a different challenge that also could upend an academic career. Given the multiple demands on women during the lockdown, there was often a sense of being overwhelmed:

Trying to juggle research, lecturing, and supporting my students, attending numerous Zoom meetings; as well as cleaning house, making food and being a teacher to my children, I feel like I'm failing at everything. I don't have the skills or tools needed for online teaching. I know that this will be held against me during promotion. As much as lecturing and research is my passion, I'm seriously considering looking for other work, which breaks my heart. (Early-career mother of two young children)

This sense that the rules of advancement have not changed, despite the impact of the pandemic on academic work, is something that runs through the responses of hundreds of women in this study, as this sampling of women's voices indicates:

> My family and my students have been my main priority, but I'm yet again falling behind in the race to publish articles, the only thing that seems to be taken into consideration when applying for a promotion. (Mid-career academic with two children in primary school)

> My year was already over-committed with outputs towards academic promotion, and when the lockdown was announced, those outputs remained ... I know, come time for promotion, none of the men, and also none of the women without young children or older children who require special attention, are going to give me an inch of slack. It will be 'well you know, such and such did it, why are you not able to?' So, I give up on sleep and doing exercise, so that I can squeeze every living minute out of a day, even over weekends, to make sure that I have something to show for this period of dread. (Established academic with a child in primary school)

> I hope universities will take these challenges to our work seriously when it comes to the annual targets academics are required to meet for performance assessment, probation and promotion. Unfortunately, so far there is no indication of this from above, at least not that I have been made aware of. (Early-career academic without children)

> I also have the highest teaching load of my division. The workload has really become unfair, as I have to work full-time on a part-time salary. Right now my research is dead. And I was really hoping to get one more article out, so I could apply for a promotion. (Early-career mother of a pre-schooler)

In these reflections, academic women also gave vent to a harsh reality of advancement in South African universities: the almost exclusive emphasis placed on 'research outputs', even if promotions documents



pay lip service to the importance of teaching and service in the formal metrics. $\ensuremath{^9}$

Keeping children learning, while cooking, cleaning and doing chores, and teaching online/ supervising students' clinical work remotely As a single parent, this struggle has been intensified during the lockdown ... and has generally affected promotion prospects (in spite of excellent teaching rates). (Mid-career academic with one child in kindergarten and another in high school)

Nor does academic administration carry any weight in promotion considerations, which invariably brings out strong feelings of resentment about the institutional arrangements:

> The coordinator role I play is not financially rewarded, and has not been considered adequate for promotion. I feel stuck in a bind: compromise the quality of what the students get for my own career progression or stagnate where I am and become resentful. (Experienced academic without children)

The aspirations and prospects for career progression of academic women were impacted detrimentally during the pandemic lockdown. Increasing workloads and time constraints – attributed particularly to the conversion of teaching and presentation materials for online delivery – as well as the care needs of children and households affected women's advancement prospects:

The lockdown has made it impossible for me to spend any time on my research, which will have a huge impact on my prospects of promotion from associate professor to professor. There is thus no time to spend on writing research papers and so forth. (Mid-career academic with a child in primary school)

Long-term plans for advancement have suddenly been put in jeopardy as a result of the lockdown.⁹ In this regard, the restrictions on travel featured prominently in the calculations of those female scholars for whom networks and libraries are important elements in their academic research:

> The inability to access any of these resources has brought my monograph to a complete standstill ... as a historian, my work is completely dependent on archives and archival documents. This requires travel, and, of course, it requires archives to be open (most archives are currently closed). I am very concerned about how all of this will impact my research outputs, as well as my ability to apply for promotion in 2021 (which I've been working towards for 3 years now). Overall, the lockdown has been completely disastrous for my academic work. (Early-career academic without children)

Heavy academic workloads, coupled with the demands of housework, invariably meant compromising on the standards of research submissions, which, in turn, meant courting risks:

By the time I send something, I believe it's not of a good quality and it will jeopardise my progression. It's a never-ending spiral, and now my qualification is suffering because I am unable to give it the attention it deserves and this will also lower my chances of a promotion. (Early-career mother of two young children)

One respondent recalled the difficulty of pursuing promotion and the financial burdens on the home when her husband lost his job, coupled with the impact of the disease on her family, which lost a member to COVID-19:

Psychologically, I am absolutely drained and that is affecting my motivation for work and my ability to concentrate. I reached out to our institution's psychological counsellor and received little help. I have not attended to my own studies at all and cannot be up for promotion in the foreseeable future as a result. (Experienced academic with a toddler and a pre-schooler)

And then there is an often overlooked aspect of academic work: the high proportion of female scholars who only teach (called 'the fragmentation of work' in the literature), for whom advancement is not on the agenda – a situation described by one female academic at a major research institution who observed of her university that it 'runs on the work of middle-aged women who don't become research professors'.

Compromised sabbaticals

For several academic women in this study, the lockdown coincided with a well-planned sabbatical – the productive period of research and travel leading to publications that would have placed them in a stronger position for advancement. All of those plans fell through because, as one experienced respondent explained: 'The sabbatical was totally wasted, which meant that I elected not to apply for promotion, since I was unable to complete or publish what I had planned to.'

However, it was not only the isolation from the outside world that ruined sabbaticals, but also the combination of housework, schoolwork, and domestic work: 'I was on sabbatical this year with the intention to write up articles and register new projects', as one mid-career academic explained, but the demands of home schooling in the lockdown, and the general care of children, unravelled her academic work. She was not alone:

I lost the last month of a sabbatical when the lockdown started because of the school closures. Suddenly my children were at home and needing care and attention as we all tried to make sense of the pandemic. (Mid-career academic)

I should note that I was on sabbatical during lockdown. The constant disruption by the children made working very difficult. I resorted to getting up early and working for 2 hours before they woke to keep me on track with tasks. (Earlycareer academic)

Being on sabbatical without access to the full range of office and technology support also came at a cost. Participants lamented about scheduled travel plans that could not be fulfilled and the burden of multiple household responsibilities:

I am on sabbatical and doing everything on the computer, without a printer [which] slowed down review of theses More importantly, I had extensive travel and fieldwork plans that are basically ruined. (Established academic without children)

While the sabbatical offers relief from teaching, one scholar wanted to make the point that there are other demands on women's work that must not be overlooked, even when on academic leave:

I have no children and this year was my sabbatical year, so I had minimal teaching and admin responsibilities, so perhaps I am not the ideal target for this survey. However, I have participated in order to point out that the questions have neglected the aspect of labour that falls to women to help run multiple households and care for elderly and vulnerable family members I am observing the labour of shopping, cooking, cleaning and dealing with health and welfare



matters for a network of loved ones is falling heavily on women. (Experienced academic)

What ruins a sabbatical, however, is not only the physical labour demanded in lockdown situations but the emotional trauma of dealing with the larger world in which the family is contained:

I was awarded sabbatical in 2020 to complete my PhD study. I would say that I have only managed to work at about 50% of my capacity. I have two very anxious children generally, but with lockdown, the uncertainty around school, drought in our region, and power failures, staying emotionally strong, available and supportive for them was the most draining thing I had to do. (Mid-career academic)

Simply being at home on sabbatical, however, has also drawn some academic women into the pressing demands of the household, as one explained:

My household is relatively egalitarian, but because I am on sabbatical and able to be more flexible, I have ended up taking on the whole of childcare and the children's schooling, in addition to most of the housework and my own job. In the beginning, during lockdown 5, I also helped my partner keep his business afloat and helped with my local neighbourhood Community Action Network. (Established academic)

In sum, while sabbatical definitely benefitted some academic women without children in the home and with adequate workspaces, most of the female academics in this study found their sabbatical plans compromised by the restrictions on 'getting out' (conferences, libraries, archives, fieldwork, etc.) and by the demands of 'staying in' (childcare, eldercare, housework, etc.). All of this has had an impact on their career advancement within the academy.

Funding terms

Academic women employed on soft funding (that is, not on the permanent payroll of the university) are particularly vulnerable as a result of the pandemic lockdown. When that external funding is threatened or disrupted, the situation of these academics becomes even more precarious:

As a soft-funded member of staff, I have not been able to access university support for additional data costs incurred by using internet at home [and] the lockdown here (as elsewhere) has affected not just research conduct (i.e., ability to do fieldwork and travel) but also future research prospects for finding funding, as research calls are drying up due to a combination of funders pausing on calls and/or redirecting funding to COVID/ health issues. As a soft-funded academic, this has obvious consequences for my future. (Experienced academic without children)

And it was not only the threat of external funding ceasing, but also the impact on the quality of research that concerned one academic:

Aborting data collection has led to smaller sample sizes impacting on the quality of the papers that will be produced. As a soft-funded academic, I have more anxiety about being able to procure future funding for salary support. (Experienced academic with no children)

The interruption of postgraduate studies – and an academic career

A large group of women in this study hold academic appointments while pursuing their own postgraduate studies as master's or doctoral

students. Completing these senior degrees is crucial to their holding on to or obtaining a secure academic appointment. Once again, it is the inevitable entwinement of women's academic ambitions and their domestic obligations that has disrupted the pursuit of further studies:

> Sometimes I feel emotionally and psychologically stressed because I also want to finish my PhD this year. There is more stress for women because everything is on our plate. For example, I have to do house chores, help my three children with their schoolwork, teach online and focus on my studies. (Early-career academic)

> It has been very difficult to get consecutive hours of time to work with a toddler in the house 24/7. It is great getting to spend so much time with my child, but the reality is that I have to finish my PhD this year and this lockdown has delayed me significantly. I have had to work at night and on weekends in the hope of catching up. (Earlycareer academic)

What is striking is that, even though some of the female academics in this study hold junior positions (or perhaps because they do), their administrative and teaching workloads combine to keep them from completing their own studies; what the pandemic lockdown has done, of course, is to make an already untenable situation simply impossible:

> I found (find) this time extremely difficult. I'm teaching eight modules, have master's and honours students, am part of the management team of the department, and am registered for my PhD this year. My husband lost his job during the lockdown, which in turn influenced his motivation in such a negative way that he hardly ever helps out with household chores. My child is 21 months old and was in a creche before lockdown, and even though she doesn't have 'schoolwork', during lockdown I have to focus on her holistic development. How much did I spend on my own academic work? Basically nothing. (Experienced academic)

When academic women do make progress with their studies, it comes at a serious cost – as with this experienced staff member: 'I am finalising my PhD, so the lockdown has given me time to do that, but burnout is a real threat with 7-day workweeks and no break since my daughter was born.' Still, the workload piles up on these academics, and some reach a breaking point when institutional support systems are not in place:

Feeling pressured to produce more work under abnormal circumstances got to me. Especially as a PhD student whose supervisor is a health care provider, the pandemic has had a negative impact [on] the time/energy she had to provide [me with] supervision. It is extremely tough, and I feel like quitting. (Early-career academic without children)

Sometimes, the overworked student academic has simply had to find another way of continuing her studies, but this option has clearly been available only to a few, as institutional demands have not abated. As one woman explained: 'I am also busy with my master's research and could not dedicate any time to this. I had to take leave in order to dedicate uninterrupted time to my thesis.'

As in other examples of the precarity of women's academic careers, the question of children during lockdown continues to be the most important reason for disrupted ambitions, as this example illustrates:

I had hoped that the lockdown would mean a chance to really focus on my PhD proposal and make some progress, but when it took effect, the demand that my children (age 1 and 3) placed on my time was much more significant than I had first



anticipated. I had to set up two lectures and an online tutorial and that took a lot more time than it usually would have due to only being able to work for around 1 hour a day. It caused me to have some mild panic attacks towards the end and so when I was given the chance, I pushed to get my nanny back so that I could do some work to catch up. It has made a significant impact on my timing of my PhD deliverables. (Early-career academic)

Inequality in the distribution of academic work among male and female staff is a theme that runs through much of the data on the impact of the pandemic on teaching, research and administration in universities over the lockdown period. This point by one female academic is by no means an isolated one:

> My male colleagues refuse to bear coordination burdens, citing their PhDs as the main reason. I have read towards a PhD and I am in the process of applying to a PhD programme. My male colleague who is busy with his PhD has been working primarily on the same second-year course since he joined the school 5 years ago. My point is that whilst women do bear disproportionate household responsibilities, they also have to contend with being evaluated unfairly at work. (Experienced academic and mother of a pre-schooler)

It does not help when a department is short-staffed and the student academic has to carry the loads of others – another theme coursing through the data – and when the academic supervisor is not as available as before. As a result, the frustration of long-delayed promotion opportunities has become even more real during the lockdown:

> I have not been promoted once in my 13 years at [University X], and I am told it is not due to my excellent teaching or efficient admin, but the lack of measurable research. Hence the PhD. The lockdown has worsened this situation. (Established academic with an adult child)

The frustration of delay runs deep for female academics, especially those whose labour is demanded for other duties, as in the case of an academic who has a joint appointment doing clinical work in a hospital and teaching work in a university:

> I've had annual leave set aside for PhD progress cancelled 3 times. I had to defer a presentation of a stage of PhD progression twice. I've now taken a week of annual leave to push that submission but I'm exhausted, too tired to work. (Early-career academic with no children)

A theme that runs throughout these stories of delayed promotions and appointments is the unfairness of heavy workloads, which, when combined with part-time status, causes incredible stress for the academic concerned:

> I had, prior to COVID-19, decided to postpone completing my master's due to the stress caused by my financial insecurity as a close-to-retirement, part-time employed (60%) divorcee. Although I am part-time employed, the work is so much (100% plus) that there is insufficient time to do the study I would really love to continue with. (Mid-career academic without children)

It is not unusual in South African universities that an academic appointment is conditioned upon the continuation of postgraduate studies. This became more important as universities pushed to increase the number of staff with advanced degrees. With the lockdown, the tying of employment to studies became a cause of strain for some academic women: Coupled with guilt and pressure to perform because I am at home (I am single and live alone), so in the perfect world I have 'all the time', I was left in a negative headspace that triggered depression and anxiety that made me consider deferring my master's or leaving it altogether. But at the end of the day, I cannot do that. I am in a programme at Unisa that requires me to be a registered student in order to be employed, so if I quit my studies I should quit my job and that is not ideal for me right now. (Early-career academic)

Nor is it helpful that academic women feel, again, that the institutional rules for recognition and advancement will not budge in the face of the extraordinary times of a global pandemic and its impacts on further studies; as one early-career woman put it: 'The university's expectations of continued research and PhD progress, as though the interruption to our academic norm has not occurred, is a major stress factor.'

And yet the fact that an academic career is so strongly tied to obtaining higher degrees forces many women to continue hanging on to their studies, despite the emotional and health costs:

I am a master's student and I just haven't had the mental strength or the time to work on my proposal. I work a full-time job and I am in academia part-time. The master's is so important, as I would like to have more of an impact in academia in my career. (Early-career academic with no children)

Sometimes the mental health costs of the lingering pandemic lockdown have taken their toll and led to a sense of resignation among female academics.

A sense of resignation: Is an academic career really worth it?

In one extreme case, an experienced academic and mother of a teenager questioned the very meaning of advanced studies when life itself was threatened: 'What motivation did I have to complete my PhD when I could be dead before graduation?' Another made clear that 'this is not what I signed up for as an academic'. And a third early-career academic came to the conclusion that under such immense pressure, 'COVID-19 may have erased my academic future'. In short, the pandemic itself might have been a precipitating factor in altering the course of many academic women's careers, if not ending them completely.

Such a clear and emphatic feeling of giving up on the PhD and a career was fairly common across the data set:

I know I will be looked down upon because I am not publishing and yet I have a PhD but I honestly don't have time. I know I can't complain I will never encourage my family member to join academia – it is hell! I haven't received data from the institution. I have been sending e-mails since June. I do all this with my own data and spend R1,000 on data a month. (Established academic without children)

This is a question many other female academics also asked themselves: Is an academic career really worth it, given what they experienced during the pandemic lockdown? Said one:

> The communication received from management did not show any understanding for our situation or well-being. It is during this time that I started to weigh up whether all of this was worth my effort. (Established academic and mother of a pre-schooler)

More than a few academic women spoke of impending retirement, but others of retiring early as an option for an exit from their careers, given the unprecedented pressures of academic work: 'We were not given a chance to breathe. And I believe a lot of people will take early retirement due to pressure they experienced during the lockdown', said one established academic.

The feeling of being overwhelmed with academic labour more often has led to a sense of resignation, that there was nothing that could be done to reverse the duelling demands of work and home. For one postdoctoral fellow eager to continue her fellowship as a stepping stone to a more permanent academic job, there was a profound sense of resignation:

> I've applied for a lecturing position, but I know that if I were on a hiring committee I wouldn't want to hire someone who has no publications to show for her postdoc. I've also lost a lot of confidence in my own work during lockdown. After four months of nothing at all but housework and childcare, I'm finding it really hard to believe that I ever was, or could be, an academic. (Earlycareer mother of a pre-schooler)

The precarity of probation

On paper, academic appointments in South Africa are subject to a period of probation. Some institutions enforce this requirement more strenuously than others. It is the academic purgatory that sits between initial appointment and securing a full-time academic job. Meeting the demands of probation has also caused anxiety among the women in this study.

As with promotion, it was difficult to meet the conditions of probation during the lockdown, with the multiple demands of schoolwork, housework, teaching and, of course, the requirement to conduct and publish research. Because research has often been neglected due to other pressures under lockdown, passing probation has been called into question, as one mother of teenagers explained: 'I am nervous that I missed the completion of a Probation Interim Report and how this will affect decisions about my final appointment.' At the same time, academics felt that there might be little flexibility on probation from the institutions:

> I hope universities will take these challenges to our work seriously when it comes to the annual targets academics are required to meet for performance assessment, probation, and promotion. Unfortunately, so far there is no indication of this from above, at least not that I have been made aware of. (Early-career academic with no children)

The significance and implications of the study

This study on the precarity of the work of academic women under pandemic conditions is significant in four important ways that extend beyond the South African case.

First, while the work of academic women was precarious long before the pandemic³⁷, this qualitative inquiry offers insight into precisely *how* such precarity is experienced during lockdown in the working lives of academic women inside 'the structural conditions of precarity'³⁸. Through thick, descriptive analyses of teaching, administration, domestic care and attempted research, this study offers vivid insights into the organisational structures and conditions that shape women's academic work.

Second, our study demonstrates how the intensity of 'the intersectionality of paid-work and care-work lives'¹¹ operates to frustrate and potentially terminate women's academic careers under the harsh regime of the lockdown. Through detailed attention to the micropolitics of housework and academic work under confined conditions, the findings make vivid the conflicts, compromises, contradictions, and constraints that women scholars encounter in the course of their lives. Perhaps the most important insight gained here was that academic work – teaching, research, administration, and service – in South African universities is

carried out by a range of different classes of employees whose degrees of precarity vary in terms of the nature of their appointments.

Third, the study provides striking evidence of perceived institutional inflexibility, and its consequences, with regard to appointments, probation, promotion, and even continued postgraduate studies. As a result, academics often expressed a sense of resignation to their fate; one early-career respondent put it this way: 'I find myself caring less about my job and my future in academia.' At the same time, there is the hope that institutions might show mercy in the face of possible redundancy; one established academic made the case deftly: 'I simply have to believe that management logic will look upon my performance through the COVID-19 looking glass.'

Fourth, the study offers a glimpse into the world of academic women in the Global South in one particular way – the junior levels of appointment in South/African universities where a PhD is seldom a requirement for academic jobs at lecturer levels or even as senior lecturers in some disciplines (e.g. accountancy, medicine). These women face much more precarious positions in the academy in their roles as junior lecturers, markers, laboratory assistants etc. Many of these academics are therefore also postgraduate students and, as this research showed, the pursuit of higher degrees would also be interrupted under pandemic conditions.

There are at least four important implications from this study for institutional policy and practice with respect to the precarious labour of women academics:

- To moderate management expectations from the top down in ways that recognise the exceptional circumstances imposed by the pandemic lockdown.⁹
- 2. To adjust timelines and schedules for promotion and advancement to allow for lapses in productivity as a result of the pandemic years.
- 3. To provide for research and administrative assistance to all female academics but especially those without the large research grants to be able to manage the new and competing demands on academic work.
- 4. To commit to institutional reach into the problem of precarity, especially under conditions of confinement, and allow those data to inform senior management deliberations on women's academic work on a consistent basis.

Conclusion

While political change, post-1994, has resulted in improved socioeconomic experiences for women, academic institutions have been slow to do the same in South Africa. The pandemic's impact is still to be fully understood but has the potential effect of deepening the systemic and institutionalised inequalities that female academics experience. This study provides the accounts of female academics confirming the precarious nature of their employment within the academy. We contribute to existing research through introducing perspectives from the Global South and, more significantly, address women's perspectives of the impact of the lockdown on their employment prospects. This study shows that the variability in employment agreements for women contributes to the uncertainty that they already experience in terms of their careers and progression within the academy. What might appear as 'lost time' to maximise sabbaticals, had instead been filled with commitments to care for those within the home. Increased workloads, delays in completing qualifications, and extraneous factors that have impacted on the lives of women within the academy are felt to be ignored. While career and promotion prospects are under threat, it is the failure in the 'rules to adapt' under the prevailing conditions that has impacted the aspirations of women and led to an increased resentment within the South African academy.

Competing interests

We have no competing interests to declare.



Authors' contributions

C.W. conceptualised the original broader study from which the data were drawn and collected all the data. C.W. and A.B. conceptualised the manuscript's focus, proposed the objectives and prepared the draft manuscript. All authors contributed to the manuscript and approved the submitted version.

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