

The Impact of COVID-19 Pandemic on MotherScholars: A Comparative Case Study of United States and Australian Higher Education Women Faculty Role Strain

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ABSTRACT

This study examines the impact of the COVID-19 pandemic on the experiences of women faculty with children in the United States and Australia as they contend with the blended roles and responsibilities of being a mother and an academic (i.e., MotherScholars). Using interpretive comparative case study design, the researchers interviewed MotherScholars to identify common themes based on roles and responsibilities that emerged as a result of the pandemic-caused shift to remote academic demands. Three primary themes emerged: (a) accumulative burdens, (b) rationalization, and (c) gendered expectations. These themes were explored through the lens of Goode's (1960) role strain theory to examine the experiences of both groups of MotherScholars. For these MotherScholars the circumstances of the pandemic rendered obsolete many coping mechanisms previously utilized to manage role strain, which contributed to increased role strain from the conflict between the role systems for mother and scholar. While the pandemic affected everyone, this research adds insight into how cultural contexts and norms can mitigate or exacerbate challenging circumstances.

Keywords: Australia, academic, case study, MotherScholars, role strain theory, pandemic, United States

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INTRODUCTION

The sudden move to remote work as a result of the COVID-19 pandemic created a significant shift for most, if not all, academics (Marinoni et al., 2020). This shift impacted families around the world, including those in academia (McDermott, 2020). As a result of the pandemic-initiated changes, many women faculty members in higher education with children at home to care for (i.e., MotherScholars) found themselves juggling parenting and professional duties in an unprecedented time (Arntz et al., 2020; Breuning et al., 2021). The term “MotherScholars”, coined by Matias (2011), identifies the blended roles and responsibilities of being a mother and an academic. While the term MotherScholars can describe any individual who identifies as an academic, in much of the literature on the topic, present study included, the ‘scholar’ in the term MotherScholars refers to a faculty member. Pandemic studies on the MotherScholars experience have highlighted ample instances of stress and anxiety as academic women with children experience difficulties achieving work/life balance (Armenti, 2004; Ward & Wolf-Wendel, 2004, 2012). For many MotherScholars, balancing work and family hinges on the ability to maintain predictable schedules and employ various coping mechanisms to manage their roles and responsibilities, and disruptions can cause a domino effect, affecting several aspects of a Mother Scholar’s life (Sallee & Pascale, 2012; Ward & Wolf-Wendel, 2012). This study examines how MotherScholars experienced and navigated the pandemic. In particular, we consider how differing cultural contexts in the United States and Australia influenced the coping strategies employed by our female faculty participants to manage role strain caused by competing and overly demanding roles (Mother and Scholar).

LITERATURE REVIEW

The literature grounding this study is conceptually organized into two main areas, (a) studies on academic women with children and the pandemic, and (b) literature on culture and context of American institutions of higher education as compared to Australian institutions of higher education. Rounding out the literature review is a discussion of the theoretical perspectives guiding this study.

Academic Women with Children and the Pandemic

Here we review literature related to academic women with children and the pandemic that is inclusive of authors a number of countries such as the United States, Australia, Italy, Norway, and Turkey. Women in academia, globally, have been shown to be less likely to achieve permanent faculty positions and hold high ranking positions as compared to their male counterparts (Australian Government Department of Education, Skills, and Employment, 2018; Kelly, 2019; Weisshaar, 2017). In the United States, while nearly half of all faculty positions in higher education are held by women, women are largely underrepresented in higher academic ranks (National Center for Education Statistics, 2018).

Within the home, women tend to assume the responsibility of primary caregiver and often take greater responsibility for housework (Couch et al., 2022; Nakhaie, 2009). For women in the academy, the gendered division of labor in the household (e.g., childcare, housework) has been shown to contribute to gendered differences in promotion opportunities (Mason et al., 2013). Academic women with children at home are 35% less likely to have a tenure-line position compared to their male peers in the same family situation (Kelly, 2019).

Pre-pandemic, a body of research pointed out that balancing faculty job responsibilities along with family responsibilities was of major concern for women in academia (e.g., Evans & Grant, 2008; Sallee & Pascale, 2012; Ward & Wolf-Wendel, 2012). The circumstances of the pandemic the sudden pivot to remote teaching in 2020 impeded the scholarship productivity of many faculty members (Ramlo, 2021; Shillington et al., 2020), and the challenges faced by MotherScholars were exacerbated. For many MotherScholars, the pandemic changed priorities; their research agendas stagnated as they devoted more time to online teaching (Minello et al., 2021). During the pandemic, division of care remained strongly gendered and unbalanced, with women carrying significantly more of the burden (Cannito & Scavarda, 2020). Emerging literature on the topic of the pandemic and higher education consistently points to children as one of the greatest contributors to the detrimental impact of the pandemic on faculty workload and productivity (Yildirim & Eslen Ziya, 2021). Women faculty with dependent children aged 0-11 years showed the greatest loss in time dedicated to research, up to a 40% decline in output (Myers et al., 2020). The impact of the pandemic on academic professionals precipitated a collision between the academic and parenting worlds by eliminating any distinction or separation between work and home spaces (Hicks-Roof, 2020). Taken together, the research reviewed here underscores the conclusion that MotherScholars have been disproportionately affected by the pandemic (Minello et al., 2021; Myers et al., 2020). Time limitations, a reduction in research productivity, and changes in family care responsibilities have culminated in a fear of the future for MotherScholars. What was originally thought to be the temporary circumstances of the pandemic seeped forward, and the lasting effects of delayed opportunities and time lost are evidenced in the present day, an unsettling casualty of the pandemic.

Australian versus American Academic Life

In situating the context of this research, we point out some observations regarding Australian and American perspectives. First, though the pandemic was global, the United States and Australian governments reacted to the COVID-19 pandemic with very different responses and degrees of lockdown. Although both Australia and the United States are dual-earner work cultures, we acknowledge that gender roles in relation to paid work, housework, and childcare loads played out very differently in the United States and Australia, with a lessened effect on Australian mothers (Ruppanner et al., 2021).

U.S. and Australian government COVID-19 policies had very different downstream implications. Australia immediately went into complete lockdown in March of 2020 whereas many states within the US never fully locked down. For many American MotherScholars, the indecisive and inconsistent responses to the pandemic about lockdown translated to mixed messaging and confusion over how and where (home or work) to focus time and energy (Hermann et al., 2021). In contrast, data from Australia highlighted how the immediate and complete lockdown approach and extended policies supporting work from home and returning to school had positive downstream effects on parents (Herbert et al., 2020; Perper, 2020).

In this study, we examine the ways in which Australian versus U.S. MotherScholars' pandemic experience compared. We explore how cultural context regarding support of women and emphasis on gender equity affected MotherScholars' experiences. While the pandemic affected everyone, this research adds insight into how cultural contexts and norms can mitigate or exacerbate challenging circumstances. Specifically, we explore how our participants managed role strain, and the ways in which their institutions supported (or failed to support) them during the pandemic.

THEORETICAL FRAMEWORK

This research is guided by the theoretical perspectives of psychologist William Goode's (1960) theory of role strain. Though Goode's theory is over 40 years old, it remains relevant and

has been used to understand individuals' pandemic responses (e.g., Quah, 2020). Further, role strain theory is based on basic human responses to stress (or strain) and is therefore applicable across context and culture. In essence, Goode contended that people possess many roles, that each of the roles comes with its own set of role demands, and that a person's overall role system is over-demanding. As a result, Goode theorized that people experience role strain, which prompts them to develop strategies and coping mechanisms needed to navigate situations when demands on time and resources from different roles are in conflict. Goode identified four such coping mechanisms. The first, *compartmentalization*, occurs when individuals intentionally separate the demands and responsibilities of each role, giving designated time and energy to one set of role demands at a time, for example, a faculty member who chooses to set up certain hours of the day to be dedicated to family or work only. The second, *Delegation* is another strategy in which individuals intentionally give away some of the demands of a role to another individual to attempt to alleviate role strain. For example, childcare or housekeeping may be delegated to help manage home responsibilities, or some research or teaching may be designated to a graduate assistant. A third is *elimination of role relationships*. In this third process, an individual might choose to limit exposure to another person or responsibility to cut down on the associated demands. For instance, a faculty member who is over-burdened may opt to remove themselves from a committee to free up some time for other responsibilities. *Extension* occurs when an individual expands their roles strategically to mitigate role strain stemming from another role set. For example, consider a faculty member who assumes an administrative position. Taking on this new role may increase demands in one capacity, but also may be perceived to lessen demands on teaching or research productivity that would be present for a full-time, in-unit faculty member. We relied on Goode's theoretical perspectives to guide us in our conceptualization and interpretation of how MotherScholars in the U.S. and Australia negotiated and navigated the pandemic, a situation in which routine life was dismantled, and previously established coping strategies were no longer viable options for managing multiple competing roles.

RESEARCHER'S POSITION

As this study examines MotherScholars experiences during the pandemic comparing faculty in the U.S. and Australia, it is important that we share our positionality to the research. All three members of the research team are full-time faculty members and also mothers. Our personal experiences navigating the COVID-19 pandemic as MotherScholars on the tenure track served as the impetus for this research. Two of the three researchers previously lived in Australia, but now live in the United States, giving them familiarity with a context comparable to the U.S. with regard to family-friendly and work/life balance policies, regulations, expectations, and culture. We acknowledge that our values, beliefs, and backgrounds, and particularly our own recent experiences managing competing roles as mothers and scholars, play a role in our understanding and interpretation of our findings (Popper, 1963). However, we contend that our co-constructive approach (i.e., understanding that knowledge is co-constructed by interactions and meaning making of the participants and authors) together with measures to establish credibility and trustworthiness, help us describe as accurately as possible, how MotherScholars in differing institutions and socio-cultural contexts (the U.S. and Australia) negotiated instances of competing role demands.

RESEARCH METHOD

This qualitative inquiry utilized a comparative interpretive case study approach (Merriam, 1998). Merriam described the purpose of an interpretive case study as "to develop conceptual categories, or to illustrate, support, or challenge theoretical assumptions" (p. 197). Interpretive case study places emphasis on social constructs and the roles individuals play within their social contexts; thus, we consider interpretive case study to appropriately align our methodological perspectives and methods. We relied heavily on Goode's (1960) theoretical assumptions in our conceptualization and sense-making of our data.

Case Study Comparison Site Selection

To best understand how MotherScholars from differing socio-cultural contexts experienced and navigated the pandemic, we purposefully selected two nations for comparison that were similar in certain aspects (e.g., dual-earner work cultures, similar higher education institutional structures), but also had relevant and noticeable differences. For instance, Australia tends to have more equitable gender balance norms regarding home and family responsibilities as compared to the U.S. (Budig et al., 2016; Craig & Mullan, 2010; Sayer, et al., 2009). The U.S. and Australia have different academic promotion models. Whereas the U.S. operates on a time-bound three-level rank system, with tenure generally accompanying the second level rank of associate professor, Australian faculty have a five-level system with no time to promotion constraints. While most faculty jobs are considered permanent in Australia, tenure as it exists in the U.S. does not exist in Australia. The Australian Level A is most equivalent to the U.S. postdoctoral fellow; Level B is most similar to the American assistant professor rank, Level C the American associate professor rank, Level D the rank of full professor, and Level E a distinguished or endowed professor equivalent. Regarding the pandemic, the U.S. and Australia differed in their responses. Generally speaking, the U.S. reacted more slowly as compared to Australia, which quickly went to lockdown, despite a much smaller spread of COVID-19 cases.

Participant Selection

We utilized purposeful sampling (Patton, 2002) to identify participants for our study. After obtaining IRB permission from the authors' home institution, participants were recruited through faculty listservs that reached faculty in the U.S. and Australia. The listserv advertisement directed any interested individuals who met the criteria for the study to contact one of the study authors. The study authors then followed up with interested participants and provided them with an informed consent letter to read and sign, which included details of the study. With the informed consent signed, the authors proceeded to schedule zoom interviews with participants. Any interested individuals who met the criteria were included in the study. All participants were employed as full-time faculty members at a four-year college or university and had at least one child under the age of 18 living at home. All participants also worked at an academic institution and resided in either the U.S. or Australia. A total of 21 MotherScholars, 16 American and five Australian, participated in the study. While the number of American participants exceeded that of the Australian participants, we were encouraged that all five of our Australian participants held levels of A, B, or C, the three levels that most closely match the American ranks of assistant, associate, or full professor. Additional participant information is summarized in Table 1.

Table 1

Participant Demographics

Pseudonym	# (Ages) of Children	Promotion Status
United States		

Demi	2 (8 yr; 1 yr)	Lecturer, non-TT
Panda	2 (7 yr; 4 yr)	Instructor, non- TT
Brennan	3 (5 yr; 5 yr; 5 yr)	Assistant Professor
Stella	2 (2 yr; 5 mo)	Assistant Professor
Avery	2 (3 yr; 1 yr)	Assistant Professor
Christine	2 (4 yr; 2 yr)	Assistant Professor
Anne	1 (9 mo)	Assistant Professor
Emory	1 (8 mo)	Assistant Professor
Annie	2 (15 yr; 10 yr)	Full Professor
Violet	2 (11 yr; 6 mo)	Associate Professor
Liz	2 (5 yr; 3 mo)	Associate Professor
Zelda	3 (8 yr; 5 yr; 13 mo)	Associate Professor
Carly	2 (2 yr; 8 mo)	Assistant Professor
Sarah	1 (3 yr)	Assistant Professor
Erin	2 (5 yr; 8 mo)	Associate Professor

Jessica	1 (18 mo)	Research Associate Professor
Australia		
Millie	1 (3 mo)	Lecturer (B)
Amy	2 (14 yr; 12 yr)	Senior Lecturer (C)
Petunia	4 (12 yr; 10 yr; 7 yr; 5 yr)	Senior Lecturer (C)
Janette	2 (9 yr; 4 mo)	Senior Lecturer (C)
Elizabeth	3 (13 yr; 11 yr; 5 yr)	Associate Professor (D)

Data Collection

Data were collected via semi-structured one-on-one, Zoom video interviews as well as through document analysis. Upon agreeing to be part of the study, participants were directed to sign up for a Zoom interview with one of three members of the research team. Interviews lasted between 30 minutes and an hour and were conducted during the spring of 2021. All Zoom interviews were audio recorded and later transcribed. Immediately following each interview, the researchers typed reflective field notes to use in interpretation of data.

The interview protocol was developed by the researchers and was heavily guided by Goode's role strain theory. The purpose of the protocol was to allow the researchers to better understand the experiences of American as compared to Australian MotherScholars during the pandemic; specifically, how they managed instances of dual and conflicting roles as both mothers and professors, and how their institutions supported (or failed to support) them. For instance, one question asked, "How has the COVID-19 pandemic influenced your career as a faculty member?", and a second asked, "How would you describe the departmental climate with respect to parenthood and children during COVID-19?"

Though much of our data were collected through Zoom interviews, the research team also searched documents in the form of family-related policies at participants' institutions and federal labor related policies and regulations for both the U.S. and Australia. Policies were cross referenced with participants' knowledge of said policies, and their perceptions regarding the acceptability of taking advantage of policies within their departments and universities.

Data Analysis

Data were analyzed in a two-step process. First, utilizing the constant comparative method of Glaser and Strauss (1967), we generated open codes by reading through and line-item coding transcripts. For example, in the open coding phase, we would pull out words such as "guilt" or "fortunate" or "stress". Second, we constructed these codes into related concepts and ideas. For instance, the words "stress" and "guilt" could be associated as they both related to feelings experienced by MotherScholars. Finally, the related concepts were collapsed into

overarching themes that encompassed the nature of the content regarding the MotherScholar's experience of the pandemic. This initial analysis was blinded, that is, as we engaged in the comparative process, we were not able to identify the participant's country, unless they shared the information within the content of their interview.

During the second phase of data analysis, we sorted the participants into the U.S. and the Australian groups. Then we utilized a cross-case comparative analysis approach (Merriam, 1998) using our theoretical framework, Goode's role strain theory, to understand how American as compared to Australian MotherScholars made meaning of their experiences. This approach allowed us to understand not only the general MotherScholars' experience of the pandemic, but also the role that socio-culture and context play in shaping how our participants navigated their experience.

Trustworthiness

Several strategies were used to enhance trustworthiness. First, having three researchers allowed us to utilize investigator triangulation (Lincoln & Guba, 1985; Poth & Creswell, 2018). Investigator triangulation allows different perspectives on the same data, the understandings of which will ideally converge. We acknowledge that we brought our personal understanding to the interpretation of the data, and thus having three researchers, from the same university but from three different disciplines, with differing perspectives influenced time living and working in the two comparison nations, allowed us to challenge each other and argue out our differences in instances where we took different meanings from the data. Furthermore, as suggested by Lincoln and Guba, cross-comparison of multiple sources of data allowed for method triangulation. We also engaged in peer debriefing where we utilized the expertise of our peers in reviewing our themes, comparisons, and overall findings to confirm that they were appropriately reflective of our data. Taken together, we contend that these approaches lend to the credibility, transferability, dependability, and confirmability of our findings (Poth & Creswell, 2018).

RESULTS

Here we present the major findings from this paper. This section is organized into two sections. First, we describe the themes that emerged from the collective samples of participants, both American and Australian. Second, we present the results of the comparative analysis of American (U.S.) and Australian (AUS) MotherScholars. Finally, we organize our discussion by reflecting on these findings through the perspectives provided by Goode's role strain theory, before turning to implications of the research and conclusions.

GENERAL THEMES

Three overarching themes emerged from the constant comparative analysis of our participant's narratives. The three themes, accumulative burdens, rationalization, and gendered expectations are explored in more detail here.

Accumulative Burdens

The first theme of this research, accumulative burdens, refers to the way the women in our study described how the pandemic affected their experience of being both a mother and a scholar. Several women articulated the ways in which the pandemic exponentially increased the demands of both their work and home lives. Annie (U.S.) shared,

as a faculty member, [the pandemic] has brought an enormous amount of extra stress...with the pandemic, [my work] list grew and so now on top of the traditional responsibilities, just even at work, there was responsibilities for learning new technology, finding alternate ways to collect data on projects...making sure our students were feeling safe and secure and mentally okay, new policies, new procedures, there was a lot of stress

that was added...[but] the university administration never addressed the fact that these were accumulative burdens, right?.

Carly (U.S.) added that the pandemic facilitated a change in her teaching approaches that increased the amount of work for preparation of her classes, [prior to the pandemic] “everything’s in person...I didn’t do any online classes. This was the first time I’ve had to—I basically had to spend the last couple of months just transitioning my class to an online class.” Beyond the added stress of the extra work burdens resulting from the pandemic, several of our participants talked about how the pandemic affected their abilities to separate work and home life, and that the constant role-switching from mother to scholar was exhausting and mentally draining. Sarah (U.S.) explained this:

[prior to the pandemic] I think the worlds were isolated. I get to drive to work and I get my time to just be like, “all right, mom’s gone. I get to be a professional, I get my classes, I got my students, I have my research, this is what I am doing”. I get to live my day that way and then I get to drive home to say “all right, I got laundry to do. I know [partner] is cooking dinner tonight, I’m going to put [daughter] to bed and I’m going to cut her toenails tomorrow”. I had that division, the brain switching I think for me was just the most exhausting and carrying the stressors of both into the other world was just—it’s not like they’re related, but you just carry it with you.

Compounding the exhaustion of constant role switching, our participants expressed feeling inadequate in both their home and work lives, and a subsequent guilt over not being able to devote the appropriate time and attention to both. When asked about what some of the biggest challenges were for her during the pandemic, Elizabeth (AUS) shared,

I guess that feeling of being in two places at once. When the kids are doing an activity...I have probably got five minutes to do something. You never really quite settle into having the time and space to properly use your brain for critical thinking that you might need when you’re say, working on a grant, working on a paper. Then someone would just come in and interrupt you. It’s almost like trying to wear two hats at once. I found it very mentally draining. When you keep doing work, you’re thinking about the kids and when you’re with the kids, you’re thinking about work.

Amy (AUS) expanded on this idea and the associated guilt she felt in attempting to juggle her roles as a mother and scholar. “It’s always that guilt, either you’re guilty because you’re not working and you’re not getting where you want to be, or you’re feeling guilty because you’re not spending time with the kids”. Taken together, these women expressed how the pandemic circumstances facilitated the need to switch between the roles of mother and professor more frequently than their pre-pandemic lives required. The abrupt switching led to feelings of extra stress and guilt over not having enough time to devote to one or the other role.

Rationalization

The second theme of this research speaks to how the women in our study rationalized, or made sense of, their circumstances. We noted many instances where our participants described themselves as “fortunate” or “lucky” in some way in comparison to others, conceivably as a way to rationalize their reflections on their experiences as a mother scholar during the pandemic. For instance, Annie (US) described herself as:

fortunate that my children are older. ...I don’t have to entertain a toddler or feed a newborn like some other faculty mothers are having to do, but at the same time, last March when schools closed, both children were home and both children needed something to do and so my workload increased at my faculty role, but also in my mothering role my workload increased astronomically.

Elizabeth (AUS) reflected on her research faculty position in comparison to her faculty colleagues with teaching responsibilities:

I'm very lucky that I have a full-time research role...I'm lucky in that regard to my role was much more flexible than what other mums would have typically had I imagine...I didn't have to get everything online really quickly like what a lot of other academics had to do.

When asked about support systems, several participants pointed to their partners as huge sources of support, but often did so in a way that attributed the support to fortune or luck. As Sarah (US) shared,

Oh, my husband, not even a question, yes. Again, I am super fortunate to have him. I'm sure other moms have maybe said this, too, but I honestly feel he's excited about being a parent. He puts her to bed half the time. He cooks meals half the time. He does laundry. He does it all...my partner, he's super cool.

Carly (U.S.) spoke about feeling lucky that her partner had a flexible schedule:

I'm also lucky because my husband is pretty flexible. He's only in a part-time job...[and] they let him work from home a lot. He's very flexible in his schedule. I'd say that's been helpful.

Beyond attributing good support to luck or fortune, several participants rationalized their experience by initially presenting the good parts of their pandemic experience, before returning to confront parts of the experience that were more stressful. For instance, Petunia (AUS) shared:

Just trying to remember. It's almost like I wiped it from my brain. Clearly, [the pandemic experience] was far more traumatic than I've just made it out [to be], it sounds like this idyllic life I was living. It was scrambles to get stuff done...the days became blurred.

Another way our participants made sense of their circumstances was expressed through their perceptions of how they themselves were progressing in their work as compared to others who did not have children. Many of our participants shared that the pandemic caused a slowdown in their productivity, though they perceived that the pandemic allowed others without children to accelerate their productivity. As Violet (U.S.) shared, "I still have a lot that I said I would do for previous projects and grants that is happening extremely slowly". Petunia (AUS) explained how the pandemic situation slowed her work, "I tried to work through [having children at home] but it just didn't work...it was fairly nightmarish really, but I stripped back work to the absolute bare minimum of what I need to do, which was my front-facing teaching". Annie (US) shared similar sentiments,

If I didn't have kids, I really think my research output would have been strong...my output was good, not as good as the year before, but it was still considered good. But yeah, if I didn't have kids, I think it would have been a banner year...I have colleagues in my department who don't have children [win big, time-consuming awards] and I'm like, "how can you even [do] that during a pandemic?" But all they had was work, right?

Sarah (U.S.) also talked about her perception of the productivity of her colleagues without children as compared to her own.

What [frustrated] me... so much, is that all of my colleagues who don't have kids, and I'm also going to call up some of my male colleagues who happen to fall into that like "I'm a man and I have a job, so I get to do whatever [I want]", they would be posting on social media...I've been learning all these new skills, or whatever. I'm like, "who has time for this?!" What do they do? They teach class, and then they've got nothing to do. There's nobody at home, they've got no responsibilities.

When faced with altered patterns of life that were prompted by the pandemic, the women in our study found various ways to rationalize their circumstances, their behaviors, and their decisions regarding priorities and productivity.

Gendered Expectations

The third theme of this research that emerged from our work centered around gendered expectations. Many of the participants talked about the cultures in their departments with respect to children and parenting as outrightly negative. Others initially shared that they had positive feelings about their department cultures, though upon further reflection indicated that they rarely, if ever, mentioned their children among departmental colleagues. Furthermore, several indicated that there were obvious gendered expectations for mothers vs. fathers in the department. When asked to describe her departmental climate with respect to children and family Anne (U.S.) responded,

Overall, it's okay, it's good...but, I've never been asked explicitly about my parenting or my children, which is kind of interesting. I've never been asked during the pandemic if my kids are at home or at school. I've never been asked what I need, I've also never been told "hey, you have to be here at a certain time" or you know "why aren't you in the office?"

Annie (U.S.) also reflected on the gendered expectations of mothers and fathers in her department:

If a father has to miss a meeting or leaves work or something to, let's say, attend a school event, they are father of the year. They are amazingly committed to their children and isn't it great how they balance everything...if a mother has to miss a meeting or leave work early for a school event or something children related, it's "are we sure she's committed to her job? Are we sure she can do both of them?" So instead of being praised and respected for dual roles, it's all of a sudden casting doubt on commitment for the mother.

Sarah's (U.S.) experiences were similar to those Annie described. Sarah shared that her department was "pretty good when it comes to family and kids" but then added, "not that we talk about it very often, but it's pretty comfortable". When asked about gendered expectations for mothers and fathers, she responded,

Most definitely, not even a question...I've definitely noticed that my colleagues have been like, "oh I'm taking care of my kid so I can't make that meeting". I would be embarrassed to say that...I feel like if I said that there would be the perception of, "why is your kid getting in the way"?

For women faculty in largely male-dominated disciplines, the experience of being a MotherScholar during the pandemic was difficult. Petunia (AUS) shared that her department, both pre-pandemic and post pandemic, was very negative with regard to children and family. In Petunia's words,

Overall, very negative. Like I said, I'm predominantly in a male-dominated school. Very few with young children. I think my head has a young child, but he's a father and he's not the primary caregiver at all. Any people that have had children, we leave for school pick up and we continue work at home after school and that's all looked down upon. It's just an awful environment...my school particularly is not a pleasant school to be in as a female and it's certainly not a pleasant school to be a female with children.

These participants' words reflect an overarching theme regarding how women in the academy perceive a lack of social acceptability regarding acknowledgment of their roles as mothers in their work settings. While the pandemic altered their opportunity to compartmentalize and separate these roles, they did not necessarily perceive a change with regard to the social acceptability of acknowledgment of family roles and responsibilities.

Comparative Analysis Findings

In this section we present the findings from the comparison of the American (U.S.) and Australian (AUS) MotherScholar experiences, after which we return to our theoretical framework to help us unpack and interpret our findings.

The three themes, (1) accumulative burdens, (2) rationalization, and (3) gendered expectations, emerged for our MotherScholars in the U.S. and Australia. Because we were purposeful in our selection of comparison nations to include the U.S. as an example of a nation with socio-cultural norms that are less family-friendly, and Australia as a nation where socio-cultural norms are more family-friendly, we expected to see overt and distinct differences in the experiences of MotherScholars during the pandemic. Australian higher education institutions incorporate frameworks from organizations like Athena SWAN (Scientific Women's Academic Network), that encourages and promotes gender equity in higher education. Australia has more extensive paid parental leave compared to the U.S., a time when mothers are able to dedicate more time to childcare and less on paid work (Chzhen et al., 2019; Craig & Mullan, 2010). In Australia, organizations such as Parents at Work dedicated to creating family-friendly workplaces have administrative and government support. As infants and toddlers grow, Australia's government spends over sixteen times as much money as the U.S. government on early childhood care (Chzhen et al., 2019; Craig & Mullan, 2010; Miller, 2021).

Although the experiences between the two groups of MotherScholars were more similar than we might have anticipated, still we noted some differences that speak to how societal norms in the U.S. and Australia influenced the pandemic MotherScholar experience. One of these ways was the participants' understanding of what we meant when we asked about family-friendly policies. Several of our US MotherScholar participants asked for examples or needed clarification on what we meant by family-friendly policies, whereas the Australian MotherScholars were more able to easily elaborate on family-friendly policies that either existed, or that they wished existed, on their campus. Overall, and as expected, the policies and practices available at the Australian universities were far more robust than were offered to our American participants. For instance, Elizabeth (Australian) shared that her institution was awarded, by Athena SWAN, a quality assessment framework that recognizes institutions of higher education that advance gender equality. Consequently, Elizabeth also reported her department to be "very inclusive", her department head (a woman) sending messages such as "we understand the pressure on you. We understand your family situation, caring responsibilities. Thank you very much for the extra work." This attitude was in stark contrast to the messages received by our American MotherScholars, even those who thought their departments were supportive during the pandemic. For instance, Annie (U.S.), who shared the department was "very supportive," went on to describe her perception of her department's view of mothers and fathers where mothers "instead of being praised and respected for dual roles, it's all of the sudden casting doubt on the commitment of the mother, and I have experienced that my whole career." She also mentioned, with regard to the pandemic, that her department was "a focus on business as usual and almost had blinders on to the pandemic a certain amount...emails about [expectations that] everyone can be in the office more." While not all of our Australian participants (particularly those who were in male-dominated departments) felt comfortable using available policies, their awareness of the policies' existence, particularly as compared to the American participants' lack of awareness, was noteworthy. This observation underscores the notion that perceptions matter and is consistent with previous research on faculty satisfaction and intention to leave where the perception of available family-friendly policies and support of department chair were key elements in facilitating supportive and welcoming climates for women faculty in male-dominated STEM disciplines (Pascale, 2018; Xu, 2008).

Also of interest was that though both U.S. and Australian MotherScholars talked about the ways in which they stripped down and slowed down their work responsibilities during the pandemic to allow them to better manage their competing demands, our Australian participants

were more inclined to be comfortable with that slowdown, whereas our U.S. participants expressed feeling more pressure to keep up with their colleagues in terms of research productivity. Perhaps this is in part due to the differing academic advancement structures in the U.S. and Australia. Whereas in the U.S. system advancement occurs only three times and is highly structured, particularly with regard to promotion from assistant professor to associate professor, the Australian system includes five levels with no mandated time frames between promotions. It is plausible that the contextual system contributed to the differing attitudes towards pandemic-caused slowdowns in research productivity.

DISCUSSION

Role Strain and the Pandemic MotherScholar Experience

In our interpretation of these findings, we return to Goode's (1960) role strain theory to allow us to make meaning of our participants' words. The pandemic caused significant role strain for our participants, much of this stemming from the struggle to handle the simultaneous and competing role demands from their roles as both mothers and scholars. Goode described four strategies employed by individuals to manage role strain: compartmentalization, delegation, elimination of role relationships, and extension. Here we examine how our participants engaged these strategies, or in some instances how the unprecedented circumstances posed by the pandemic limited our participants' ability to utilize role strain coping mechanisms.

Compartmentalization

Compartmentalization occurs as individuals set intentional boundaries for demands from each role set, allowing for dedicated time and energy to attend to each role's demands. Through the perspectives of our MotherScholars, one of the more exhausting by-products of the pandemic circumstance was the inability to successfully compartmentalize. Many of our participants talked about role switching, or brain switching, and the inability to spend designated and uninterrupted time on work during the pandemic. Australian mothers who utilized parental leave policies felt less of a need to compartmentalize.

Delegation

Delegation is another strategy to manage role strain. Individuals who delegate give away some of their responsibilities to another qualified individual. Our participants routinely cited their partners as support systems and expanded on the ways in which some of the work of childcare was delegated. On the other hand, they also confirmed instances where some of their pre-pandemic delegate supports were not available during the pandemic. These examples included childcare or housekeeping services on the home front, and support from graduate students, teaching assistants, or other faculty members for their faculty demands.

Elimination of Role Relationships

With this strategy Goode described how individuals remove or distance themselves from role relationships that are deemed to be overwhelming. We observed this strategy play out as participants noted the ways in which the pandemic prompted faculty to tackle essential tasks only. From a role strain perspective, elimination of role relationships was the most successfully employed of the strategies described, though this coping mechanism resulted in a loss of productivity for our MotherScholars.

Extension

Extension refers to the strategy of assuming a new role in an effort to alleviate strain caused by demands from another role in a socially acceptable manner. In the pandemic circumstance, despite the immense role strain experienced by our participants, extension was not a viable strategy as there was neither opportunity to extend to add new roles, nor would adding additional roles during pandemic time translate to reduced role demands as either a mother or scholar.

IMPLICATIONS AND RECOMMENDATIONS

From the present study we draw several implications lending insight into how to better support MotherScholars. First (?) From a role strain theory perspective, it is recommended that institutions of higher education consider the ways in which they may reduce role strain for faculty mothers. This includes being intentional about supporting role strain strategies. Higher education leaders might consider checking local school calendars for days off of school in the setting of important meeting dates. Further, higher education leaders might try to schedule important meetings to avoid typical school drop off or pick up times. Shifting the culture to be more family friendly may be more likely if women, and especially women with children, are in

leadership positions as women leaders with children was noted and pointed out as having an impact on facilitating family-friendly academic cultures.

The women we talked with viewed themselves as high achievers who contributed much to the success of their respective departments. They recognized and stepped up to the challenge to perform but felt it important to be given the flexibility and autonomy to manage their work and home life balance on their terms. To that end, it is recommended that higher education administrations consider ways to continue to allow for hybrid and online learning modalities for teaching, and flexible work from home options. Timing of important meetings and networking events should also be considered, avoiding early morning and late afternoons to better accommodate scholars with families. This research points directly to the importance of implementing family-friendly policies like these in institutions of higher education. Universities might also consider how to destigmatize the reality of being a MotherScholar. For example, positive acknowledgment and normalization of mention of faculties' lives outside of work are necessary to facilitate a shift in departmental cultures that are hostile towards MotherScholars.

Third, there was a distinct difference between the U.S. and Australian mothers when discussing family-friendly policies, and this relates to the stark difference in top-down policies issued by the government such as paid maternity and/or paternity leave. Such policies and practices serve as an outward-facing symbol that the university values gender equity, which translates to increased feelings of institutional support for MotherScholars.

Finally, on a systemic level, universities might re-examine their promotion models. When comparing MotherScholars from the two nations, a system that adopts key features of the Australian model, with more levels and less emphasis on rigid time frames, may be more conducive to supporting MotherScholars and facilitating their success.

CONCLUSION

In this study we explore the pandemic experience of MotherScholars in the U.S. and in Australia through the theoretical lens provided by Goode's (1960) role strain theory. Our findings suggest that the circumstances of the pandemic rendered obsolete many coping mechanisms MotherScholars previously utilized to manage role strain, which contributed to increased role strain between the role systems for mother and scholar. This study describes how the COVID-19 pandemic affected MotherScholars and the strategies they utilized to manage the strain caused by the excessive demands of two competing role systems, mother and scholar. We suggest that the stress caused by the pandemic emanated from the lack of coping strategies available to our participants pre-pandemic. We offer several recommendations for higher education institutions, including ways that higher education leaders might use the findings from this study and role strain theory perspectives to intentionally design practice and policy to better support MotherScholars globally.

Beyond this research on MotherScholars, future research might consider how academic fathers or graduate student parents experienced the pandemic. In the changed landscape of post-pandemic academia, the future of higher education relies on the institutions' ability to pivot in a way that is supportive of the new pandemic-altered realities of students and faculty alike.

Closing this research, we urge university administrators to consider this quote by Hollis (2020):
Hear this: In the rush to return to normal, use this time to consider which parts of normal are worth rushing back to. If things go back exactly as they were, we will have missed the opportunity to take the good from this bad.

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