Academic Women's Labour During the COVID-19 Pandemic: A Review and Thematic Analysis of the Literature

Mara De Giusti Bordignon & Melody Viczko
Western University

Abstract

The COVID-19 pandemic has impacted academic labour, with women being disproportionately negatively affected. This scoping review provides an exploratory snapshot into the corpus of literature investigating the impact of the pandemic on academic labour. We used a set of criteria to first identify the 86 titles from which we selected 45 as the data set. We analyzed the data on characteristics of location, investigative methods, publication information, and discipline. The findings showed that most of the data were global in context; used primarily qualitative methodologies; published in a wide variety of journals; and spanned diverse disciplines, including science and health, education, business, sociology, and political sciences. We then analyzed the data thematically. The themes we identified were gender inequity, identities and intersectionality, performing work-home binaries, and invisible labour. We added a fifth theme, lived experiences, consisting of women academics' firsthand accounts. We consider this theme unique, despite its overlap with the other themes, because it is evidence of women academics telling their personal stories. We discuss how our findings show that pandemic conditions worsened existing inequities. The solutions most often cited in the data place emphasis and responsibility on the individual, but we argue that institutions should instead be responsible to redress inequities through improving workplace labour processes. Our research can aid future research on how policy theory can inform socially just policies and practices in the post-pandemic university.

Keywords: women, academic labour, COVID-19 pandemic, higher education

Introduction

The COVID-19 pandemic made visible and exacerbated structural gender inequities in higher education. This article provides an overview of the general characteristics (i.e., geographical location, investigative methods, publication information, and discipline) and a thematic analysis of a corpus of literature investigating the impact of the pandemic on academic labour. Our study aimed to identify emerging themes as indicators of key issues women academics faced during the pandemic. The main research question was: What key themes arise from literature focused on the impact of the COVID-19 pandemic on women academics?

The literature published during the pandemic is a snapshot into the lives of women academics and points to issues, tensions, and struggles they experienced. In this article, we begin by highlighting key themes that exist in the literature from pre-pandemic times. Next, we provide an overview of the methodology we used to collect and analyze the literature, followed by a presentation and discussion of various themes we used to organize the research literature. These themes provide insight into how the pandemic exacerbated the struggles and challenges women academics already face. Previous studies

corroborate similar findings, with women academics disproportionately negatively affected by increased and shifting work responsibilities and increased domestic childcare and household duties, subsequently leading to decreased research productivity. Future ramifications include stunted career progression, decreased opportunity for research funding, increased unsustainable work responsibilities, and detrimental impact to mental and physical health. While a return to relative *normal* after the pandemic is uncertain, the continuation of normalized concepts as harmful and detrimental to women's progress in academia seems ongoing.

The authors of this study are two women academics who work at a faculty of education department at a large research-intensive university in Ontario, Canada. De Giusti Bordignon is a doctoral candidate with a career background in the field of library and information sciences. Viczko is a professor of critical policy studies in education. Viczko was invited to speak at an event held for researchers about experiences of doing research during the pandemic. In preparing for the session, she reflected on how academic literature about women scholars and researchers in the pandemic became a haven for making sense of her own experience of the challenges brought on by policies—and the absence of policies—during the pandemic. As an academic, Viczko engaged in academic scholarship as a space for meaning making. While the impetus for this literature review remains an academic pursuit through a qualitative investigation into the impact of the pandemic on women academics, both authors have also been affected, personally and professionally, by the pandemic. The findings we discuss in this study not only reflect the experiences of women academics globally but also resonate with both of us as we have encountered and experienced some of the same struggles and challenges.

Women in Academia in Pre-Pandemic Times

Studies rooted in feminist and intersectionality thought can be used to understand underlying social, cultural, and political factors affecting the academic labour of women. The *chilly climate* (Caplan & Caplan, 1994; Hannah et al., 2002; Stalker & Prentice, 1998) for women in higher education has been examined as an ongoing concern about equitable working conditions in the academy. This term refers to the ways in which the male-dominated environment of the academy impacts the professional work and labour of women academics. Caplan and Caplan (1994) first drew attention to this term in relation to the academy through a long list of examples of how male-dominated practices and knowledge created hostile working conditions for women through discrimination (e.g., women having their ideas claimed by men colleagues even while being belittled for failing to create novel ideas), exclusion (e.g., women not being invited to committee or socially significant events), and elimination of women's labour (e.g., not being considered for promotion or tenure, which eliminates them from the upper ranks).

Around the same time as Caplan and Caplan (1994) wrote about the chilly climate, Acker (1994) called attention to the invisibility of women's academic labour in the academy, a concern that continues to be addressed through research showing that academic women are expected to carry out emotional labour as an inherent practice in their academic workload (Acker, 2003; Blackmore, 1996). Emotional labour instills a double negative effect on women academics in that it traps women in responsibility and caring work while also casting them as angry or manipulative when they speak about these expectations, causing additional layers of emotional work to manage how they are perceived (Blackmore, 1996). In more recent work, women academics' work is referred to as *hard labour* in the changing conditions of teaching, research, and service in the 21st century corporatized academy (Fitzgerald et al., 2012).

The managerial practices in higher education institutions that marginalize women academics have been the focus of feminist critiques in universities (Acker, 1980), as women's experiential and knowledge claims have been deemed as "peripheral or insubstantial" (Blackmore, 1989, p. 123). These critiques give attention to the influences of the global knowledge economy on managerial practices (Brooks & Mackinnon, 2001) that force women academics with aspirations for leadership to work at the limits of marginality to participate in senior administrative roles in the academy (Hornby & Shaw, 1996). More recently, the ways in which the managerial and neoliberal university requires emotional labour to take care of students is demonstrated to impact women academics differentially. For example, women academics from working-class backgrounds are expected to support and uplift students from similar social class (Rickett & Morris, 2021). Working-class women academics who do not engage in these tasks are marginalized by their peers because of expectations that it is those working-class women academics' responsibility to

engage in emotional labour work, such as elevating students who are disadvantaged by their social class. Yet, for those women who do this form of emotional labour, complicity in doing such labour devalues their status as working-class academics in an elite system. In other critical studies, Brunette-Debassige (2021, 2023) explored how Indigenous women leaders describe the ways their engagements in university institutions are carefully monitored and surveilled, where Indigenous women leaders are easily cast as aggressive as they speak up for Indigenous students, showing different ways in which the patriarchal monitoring of women's leadership practices takes place in universities. These categorizations of women's work demonstrate the continuing influences of the patriarchal systems of meritocracy that both individualize meritocracy as a dominant system in the academy for which men have preferential access (Bagilhole & Goode, 2001) and reinforce labels that devalue women's work.

The experiences of women in different disciplines, from social sciences, humanities, and education to science, technology, engineering, and mathematics (STEM), feature in current academic research (Acker & Wagner, 2019; Wallace & Wallin, 2015). In this context, there have long been calls for institutional and disciplinary knowledges in higher education to value the relational worldview of experience (Blackmore, 1989). For instance, Wallace et al. (2014), through an institutional ethnography of the first women academics in the discipline of educational leadership, showed how women faculty in administrative roles in higher education "used those positions to foster program success or to transform programs in ways that created more equitable opportunities for students and faculty" (p. 454). Qualitative studies have investigated how women scholars navigate systemic barriers (Wallace & Wallin, 2015; Wallin & Wallace, 2016). Yet, overall, systemic change has not been visible, as women academics are less present in top senior roles in university systems (Carvalho, 2019; Carvalho & Machado-Taylor, 2010), especially when considering intersecting systems of discrimination.

A 2019 study of university leaders across Canadian institutions revealed dismal progress, where U15 presidents are 80% White and 86.7% male; U15 provosts and vice presidents (academic) are 100% White and 66.7% male; and U15 deans of faculties and schools are 92.2% White and 32% female, with a visible minority or an Indigenous person comprising a mere 7.7% (Academic Women's Association, 2019). Yet, studies on the experiences of Indigenous and racialized women leaders in Canadian universities demonstrate that the patriarchal and colonial legacies of higher education institutions continue to create toxic working conditions, demonstrating that inclusion alone cannot guarantee participation and legitimacy in institutional practices. For example, Brunette-Debassige's (2021, 2023) study on the experiences of Indigenous women leaders at Canadian universities demonstrated how colonial logics embedded in settler colonial discourses in university institution practices perpetuate oppressive conditions for Indigenous women leaders. While Brunette-Debassige's (2021) research made visible the emotional labour invested by Indigenous women as refusals, even as institutions wrestle with how to address decolonization and Indigenization commitments, the participants' narratives were illustrative of deeply unchangeable epistemological tensions between institutional commitments to Indigenization and Indigenous knowledges that can inform any meaningful change.

Methods

Data Source

Our study is a scoping review of literature on the topic of women academics during the COVID-19 pandemic, including research that focused on the experiences of women academics during the COVID-19 crisis. We selected this type of review because it allows for selective exploration of the topic and differs from a systematic review, which is a more exhaustive treatment meant to capture all available literature on a topic. This scoping review is not meant to inform whether a systematic review is warranted. Instead, it is meant to be a snapshot into the literature being produced in a specified timeframe during the COVID-19 pandemic. We used a scoping review checklist—the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)—as a tool for organizing this study (Tricco et al., 2018). We searched both general (i.e., Scopus) and education-specific (i.e., ERIC and ProQuest Education Database) journal databases. Our search strategies included keyword and advanced searching, controlled vocabulary, and citation tracing to identify scholarly works. We expanded our search to Internet search engines (e.g., Google Scholar) to include unpublished and gray literature, such as reports, preprint pa-

pers, and working papers.

Once we identified titles, we reviewed their reference lists to find additional titles. Moreover, when a title qualified for initial inclusion, we used citation tracing to find other works referencing the identified title, considering that recently published works would not have been in the literature long enough so the number of times that work was referenced would be low. We carried out informal citation tracing through Scopus and/or Google Scholar. We also set up search alerts to capture any new materials that were published while we were conducting the study.

Inclusion and Exclusion Criteria

We selected three inclusion criteria. First, the subject matter needed to include both key concepts: the COVID-19 pandemic and women academics. Synonyms and related terms for each were employed through a combination of keyword and field searching. Where available, we used controlled vocabularies to help identify appropriate subject terms. The keywords we used to identify the pandemic were "pandemic," "COVID," "COVID-19," "SARS-COVID," and "SARS-COVID-19." The keywords we used to identify women academics working in higher education institutions were "woman," "women," "female," "gender," "academic," "scholar," and "researcher." Our search included women and gender, with the aim of being inclusive so that the term *women* is open to broad intersectional considerations of gender with sexual identity, class, race, and disability. While we did not include all variations of intersectional identities in our search, we looked for them in our analysis.

Second, we added a date limiter for the year 2020 to present to capture publications that were issued during the COVID-19 pandemic to when the literature search was conducted in May 2022.

Third, we prioritized scholarly peer-reviewed publications reporting empirical data. This included qualitative, quantitative, and mixed-method approaches. However, recognizing that the pandemic presented a short and challenging publication window for authors, we also included other types of work (e.g., working papers, essays, opinions, and commentaries published in journals).

We excluded titles when they were duplicates or when the subject was mismatched (e.g., titles dealing with the pandemic, gender, and labour but not specifically higher education). Due to limited time, we also excluded media pieces (e.g., magazine or trade articles) and reports (e.g., from government and non-government organizations) in this round of analysis but provided useful content which should be considered for future analysis.

Data Analysis Approaches for Selected Literature

After we applied the inclusion and exclusion criteria to the initial selection of titles, the reduced number of titles represented the selected literature that we would analyze further. Initially, 86 titles met the inclusion criteria for subject, date, and type. We then reviewed each title for suitability against the inclusion and exclusion criteria by reading the abstract or available summary. One of us filtered the titles, while both of us reviewed and discussed the selection of titles to ensure reliability. As a result, we selected 45 titles for more in-depth reading and analysis.

The analysis of the selected literature, consisting of 45 titles, was twofold. First, we analyzed the selected literature based on geographical location, investigative methods, publication information, and discipline or subject. Thus, the first set of results include tabulated summaries in the following sections: geographical context, methodological approaches used, publication source, and disciplines. We conducted this initial analysis to provide background context in helping to identify themes. We determined geographical context by evaluating the geographical location of the study. If the study involved participants, we identified the participants' geographical locations. When a study did not have participants, we used the authors' geographical location as indicated by their institutional or organizational affiliation.

Evaluating the selected literature by the methodological approaches used was also important in understanding how the studies were carried out. Qualitative research has been categorized by scholars in the education discipline and include ethnographic, autoethnographic, case study, phenomenological, grounded theory, participatory action, historical, and biographical narrative approaches (Denzin & Lincoln, 2017; Merriam & Tisdell, 2015; Mertens, 2019). The prevalence of certain methodological approaches can infer preference, time constraints, suitability, and other contributing factors that may be unique to the topic under investigation. Next, we were curious to see where the selected literature appeared in terms of

the source of the publication and discipline or subject area.

As a scoping review, our study looked into the experiences of women academics during the COVID-19 pandemic through both feminist and intersectional theoretical lenses to uncover the underlying social, cultural, and political factors. We applied a critical perspective to the experiences of women academics by focusing on gender, race, and work themes. Thus, the second part of the results were from a thematic analysis of the selected literature. We chose thematic analysis to compare the findings from selected studies and to aggregate similar findings to cluster studies. Nowell et al. (2017) argued that thematic analysis is a qualitative research method "for identifying, analyzing, organizing, describing, and reporting themes found within a data set" (p. 2). They developed a procedure for conducting thematic analysis to meet the trustworthiness criteria of credibility, transferability, dependability, and confirmability set out by Lincoln and Guba (1985). We used Nowell et al.'s (2017) procedure for conducting thematic analysis: "Phase 1 (familiarizing yourself with your data), Phase 2 (generating initial codes), Phase 3 (searching for themes), Phase 4 (reviewing themes), Phase 5 (defining and naming themes), and Phase 6 (producing the report)" (p. 4). As the analysis progressed, we engaged with the phases in a non-linear order and spent more time on some phases than others. For instance, Phases 2 and 3 were intensive because of the amount of reading and reviewing required.

Results

The results from our analysis of the selected literature, consisting of 45 titles (herein referred to as the data or data set) (Appendix A), are organized into five sections: geographical context, methodological approaches used, publication source, discipline, and theme. The last section on theme contains five sub-sections, with in-depth analysis for each theme: (a) gender inequity, (b) identities and intersectionality, (c) performing work-home binaries, (d) invisible labour, and (e) lived experiences.

Geographical Context

Recognizing the importance of including literature from different countries to represent academic women with diverse social, economic, political, and cultural backgrounds (Table 1), we did not specify a geographical location in our inclusion criteria. In our study, we defined geographical location by continent, including Africa, America (includes North and South), Asia, Europe, Oceania, and Global (includes two or more continents), whereby our data set (e.g., selected literature) associates, mentions, or names a place in context to the focus of the study (e.g., women academics as the focus of study and their identified geographical location). Most of the data were from Global (20), followed by America (14).

Table 1

Literature Data Grouped by Geographical Location

Location (Total number)	2020	2021	2022
Africa (3)		Chitsamatanga & Malinga Walters et al.	Walters et al.
America (14)	Andersen et al. Guy & Arthur Hicks-Roof Ma Malisch et al. Stadnyk & Black	Barber et al. Kasymova et al. Krukowski et al. Miller Spencer et al. Staniscuaski et al.	Garrido-Vásquez et al. Kim & Patterson

Location (Total number)	2020	2021	2022
Asia (1)		Parlak et al.	
Europe (6)	Abdellatif & Gatto Boncori Carreri & Dordoni Utoft	Górska et al.	Rode et al.
Oceania (1)		Couch et al.	
Global (20)	Amano-Patiño et al. Myers et al. Oleschuk Pinho-Gomes et al. Wehner et al. Yildirim & Eslen-Ziya	Augustus Cui et al. Deryugina et al. Fulweiler et al. King & Frederickson Lambrechts et al. Minello et al. Muric et al. Pereira Shalaby et al. Shamseer et al. Squazzoni et al.	Bender et al. Peetz et al.

Note. The naming of location categories was informed by the data and do not follow any standardized list or nomenclature.

Methodological Approaches

We categorized the data set by research method (e.g., qualitative, quantitative, and mixed methods) (Table 2). Qualitative research focuses on underlying, non-numerical meanings and contexts (Denzin & Lincoln, 2017; Mertens, 2019). The majority of the data were qualitative in nature with various approaches, including autoethnography (e.g., personal accounts), ethnography (e.g., collective accounts), narrative inquiries (e.g., subjective experiences, perspectives, and meanings through written or spoken language), and phenomenological analysis (e.g., understanding or describing an individual's lived experience through structured or semi-structured interviews). Quantitative research employs numerical data and statistical analysis to identify patterns and relationships, while mixed methods combine both approaches to gain a more comprehensive understanding of a research problem (Mertens, 2019). Quantitative studies employ a variety of approaches, including survey research and regression analysis. In our data set, the number of studies categorized by method was not equally weighted as there were 24 qualitative, 16 quantitative, and 5 mixed-method studies. This may bias our findings toward drawing more attention to qualitative studies.

Table 2
Literature Data Grouped by Research Method

Method (Total number)	2020	2021	2022
Qualitative (24)	Abdellatif & Gatto Boncori Carreri & Dordoni Guy & Arthur Hicks-Roof Ma Malisch et al. Oleschuk Pinho-Gomes et al. Stadnyk & Black Utoft	Augustus Couch et al. Fulweiler et al. Górska et al. Lambrechts et al. Miller Minello et al. Parlak et al. Pereira Shamseer et al. Spencer et al. Walters et al.	Rode et al.
Quantitative (16)	Amano-Patiño et al. Andersen et al. Myers et al. Wehner et al. Yildirim& Eslen-Ziya	Barber et al. Cui et al. Deryugina et al. King & Frederickson Krukowski et al. Muric et al. Squazzoni et al. Staniscuaski et al.	Bender et al. Garrido-Vásquez et al. Kim & Patterson
Mixed Methods (5)		Chitsamatanga & Malinga Kasymova et al. Shalaby et al	Peetz et al. Walters et al.

Publication Source

Most publication sources in which the data appeared were published, refereed, or peer-reviewed journals. Two publication sources, containing more than one selected literature, were the journals *Gender, Work & Organization* and *Journal of the Motherhood Initiative for Research and Community Involvemen*t (Table 3).

Table 3
Literature Data Grouped by Publication Source

Publication sources (Total number)	Details	Selected literature
Gender, Work & Organization (11)	Refereed or peer-reviewed journal ISSN: 1468-0432	Abdellatif & Gatto (2020) Boncori (2020) Couch et al. (2021) Górska et al. (2021) Guy & Arthur (2020) Kasymova et al. (2021) Miller (2021) Parlak et al. (2021) Pereira (2021) Utoft (2020) Yildirim & Eslen-Ziya (2020)
Journal of the Motherhood Initiative for Research and Community Involvement (2)	Refereed or peer-reviewed journal ISSN: 1923-4147	Hicks-Roof (2020) Ma (2020)
Periodicals or journals (27)	Individual titles, each containing just one selected literature	Andersen et al. (2020) Augustus (2021) Barber et al. (2021) Bender et al. (2022) Carreri & Dordoni (2020) Chitsamatanga & Malinga (2021) Cui et al. (2021) Fulweiler et al. (2021) Kim & Patterson (2022) King & Frederickson (2021) Krukowski et al. (2021) Minello et al. (2021) Muric et al. (2021) Myers et al. (2020) Oleschuk (2020) Peetz et al. (2022) Pinho-Gomes et al. (2020) Rode et al. (2022) Shalaby et al. (2021) Shamseer et al. (2021) Spencer et al. (2021) Squazzoni et al. (2021) Stadnyk & Black (2020) Staniscuaski et al. (2021) Walters et al. (2021) Walters et al. (2022) Wehner et al. (2020)
Conference proceedings (1)		Malisch et al. (2020)

Publication sources (Total number)	Details	Selected literature
Working papers (2)		Amano-Patiño et al. (2020) Deryugina et al. (2021)
Preprints (2)		Garrido-Vásquez et al. (2022) Lambrechts et al. (2021)

Disciplines

We grouped the data according to discipline as a way to highlight the variety of subject areas across the selected literature (Table 4). We identified discipline headings by reading through the literature and looking at any metadata (e.g., subject headings or keyword terms in the bibliographic record) published with that literature. Most of the literature (25) was grouped under the discipline focus of sociology, psychology, women, and gender studies.

Table 4

Literature Data Grouped by Discipline

Discipline focus of selected literature (Total number)	Selected literature
Science and health (11)	Andersen et al. (2020) Fulweiler et al. (2021) Krukowski et al. (2021) Malisch et al. (2020) Muric et al. (2021) Pinho-Gomes et al. (2020) Shamseer et al. (2021) Spencer et al. (2021) Squazzoni et al. (2021) Stadnyk & Black (2020) Wehner et al. (2020)
Education (2)	Augustus (2021) Rode et al. (2022)
Business, economics (4)	Amano-Patiño et al. (2020) Barber et al. (2021) Cui et al. (2021) Peetz et al. (2022)

Discipline focus of selected literature (Total number)	Selected literature
Sociology, psychology, women, and gender studies (25)	Abdellatif & Gatto (2020) Bender et al. (2022) Boncori (2020) Carreri & Dordoni (2020) Chitsamatanga & Malinga (2021) Couch et al. (2021) Deryugina et al. (2021) Garrido-Vásquez et al. (2022) Górska et al. (2021) Guy & Arthur (2020) Hicks-Roof (2020) Kasymova et al. (2021) King & Frederickson (2021) Lambrechts et al. (2021) Ma (2020) Miller (2021) Minello et al. (2021) Myers et al. (2020) Oleschuk (2020) Parlak et al. (2021) Pereira (2021) Staniscuaski et al. (2021) Utoft (2020) Walters et al. (2021) Yildirim & Eslen-Ziya (2020)
Political sciences, policy (3)	Kim & Patterson (2022) Shalaby et al. (2021) Walters et al. (2022)

Note. Discipline categories do not strictly adhere to a standardized classification system. We recognize differentiation between two main categories as being science and social science. We chose to represent social science through multiple subtopics as informed by the data.

Themes

We identified five key themes through a thematic review of the data: (a) gender inequity, (b) identities and intersectionality, (c) performing work-home binaries, (d) invisible labour, and (e) lived experiences of women academics. Each theme is described below using examples from the data.

Gender Inequity

Gender inequity has been recognized in the literature as a problem in academia prior to the COVID-19 pandemic. The majority of studies in our data set were positioned against the backdrop of existing literature that identified pre-existing gendered inequities that put women academics at a disadvantage when compared to their male counterparts. For example, Bender (2022) cited existing literature showing women academics receiving lower evaluation scores from students, being less likely to obtain tenure-track positions, securing less external grant funding, publishing less frequently, being less likely to be cited, having increased service obligations, and being held to a higher standard in writing. Bender (2022) went on to study the compounding effects of intersecting identities, such as parenting status, on academic

women who were already carrying additional workload burdens and disadvantages. Oleschuk (2020) and Shamseer et al. (2021) also pointed to another intersecting identity of race, in which Black, Indigenous, and people of colour (BIPOC) had already been facing greater systemic barriers. A common thread in the findings sections of these studies was that the COVID-19 pandemic exacerbated existing inequities and amplified their negative effects.

These issues continued throughout the pandemic, negatively affecting women academics' labour. Labour can be defined as work activities carried out under contractual obligation to an employer and, under neoliberalism, is prone to measurement and surveillance. Measuring labour through *productivity* is prevalent in studies trying to gauge changes and trends (Lambrechts et al., 2021; Parlak et al., 2021). Oleschuk (2020) noted that the literature provides evidence "that gender inequities are shaping COVID's impact on academic productivity" (p. 504). Indicators of productivity should include other measures, such as submissions to servers (preprints or working papers), pre-registration reports for new research projects, grant applications, and time spent on research activities, besides number and authorship of published works. Similar findings across STEM, economics, humanities, and social science disciplines show that women academics experienced negative effects. Pereira (2021) found the conceptualizations around gender inequality during the pandemic to be problematic and argued that the literature was predominantly "centering the opposition between 'interrupted woman (=mother), achieving low productivity' versus 'unconstrained man, achieving high productivity'" (p. 503). *Intrinsic* inequities in academia heightened during the pandemic with the "tendency to attribute primarily to women the material and emotional labor of caring for students and colleagues" (Pereira, 2021, p. 503). Thus, the normalization of women as *emotional caretakers* meant that they were burdened with additional, uncompensated responsibilities above their normal workload responsibilities.

In terms of authorship, Andersen et al. (2020) compared the gender distribution of authorship in medical COVID-19 papers between 2019 to 2020 and found that authorship by women (as first authors) decreased by 19% overall and was particularly low for papers published in March and April 2020. Pinho-Gomes et al. (2020) found fewer women as authors in COVID-19 research publications, where "women represented 34%" of "all authors, irrespective of the position" (e.g., first or last author) (p. 3). Squazzoni et al. (2021) indicated that in all Elsevier journals, women submitted fewer manuscripts than men during the first wave of the pandemic in early 2020, and a "deficit of women was pronounced especially in health and medicine" (p. 7). Furthermore, they found that "more junior cohorts of women academics were penalized the most" (Squazzoni et al., 2021, p. 10), attributing the decline in women's time for manuscript production to the disproportional increase in homeschooling and family care duties, which may also drive women away from prominent and intense COVID-related research areas. They also found that women took on greater service responsibilities for journals as referees, which benefited males who submitted more manuscripts, while also seeing less involvement as peer reviewers for health and medicine journals in the field of COVID-19 impact (Squazzoni et al., 2021). The concern raised here is the lack of representation due to the absence of women peer reviewers and "would suggest that they were less capable of influencing the type of research that was published" (Squazzoni et al., 2021, p. 12).

Building on studies demonstrating that women do more caring and domestic duties in families with dependent children (Andersen et al., 2020) and highlighting gendered inequities in research activities (Deryugina et al., 2021; Squazzoni et al., 2021), Peetz et al. (2022) found that "reorganization of work and intertwining of home and work interfered with the capacity for sustained knowledge work disproportionately more for women than for men academics" (p. 87). They noted two coping strategies that women academics used when prioritizing their work: "disenchanted worker" (among women with children, feeling too tired or distracted to devote effort to sustained knowledge work) or "risk avoidance" (focus on immediate teaching and service demands) (Peetz et al., 2022, p. 88). They also distinguished between "episodic knowledge work" as being best suited toward teaching, administrative, and service work in comparison to "sustained knowledge work," which requires more sustained concentration and is best suited toward writing of grant applications and articles (Peetz et al., 2022, p. 86). This corroborates earlier work by Górska et al. (2021), whose findings revealed that women academics felt that their home environment was not conducive to focused, conceptual research work, whereas men were able to prioritize research over home obligations, resulting in the latter having more time for research than before the pandemic.

For preprints and working paper submissions, Muric et al. (2021) found that "the proportion of fe-

male first authors publishing in the biomedical field during the pandemic dropped by 9.1%, on average, across disciplines" and that "the impact was particularly pronounced for papers related to COVID-19 research, where the proportion of female scientists in the first author position dropped by 28%" (p. 1). Furthermore, by geocoding authors' affiliations, they "showed that the gender disparities became even more apparent when disaggregated by country, up to 35% in some cases" (p. 1). Wehner et al. (2020) found that for two preprint servers, there was a statistically significant increase over time in the gender gap in one but not the other. Specifically, "during the pandemic, the gender gap in medRxiv increased from 23% in January 2020 to 55% in April 2020 and in bioRxiv changed from 46% in January 2020 to 47% in April 2020" (Wehner et al., 2020, p. 1).

Amano-Patiño et al. (2020) found that in economics research, "women constitute only 12% of total number of authors working on COVID-19 research" (p. 4). Interestingly, they suggested that that while women researchers managed to continue working on ongoing research, they were less able to contribute toward new emergent research dealing with the economics of the pandemic where the "proportion of female authors working on research related to the pandemic is 14.6%" (Amano-Patiño et al., 2020, p. 5). Moreover, "while female economists constituted 20.9% of the 618 non-COVID related papers … they constituted only 10.9% of the 59 COVID-related papers coauthored by two, three and four economists" (Amano-Patiño et al., 2020, p. 6).

Cui et al. (2021) examined the Social Science Research Network (the largest open-access preprint repository for social science) and found that "in the 10 weeks after the lockdown in the United States, although total research productivity increased by 35%, female academics' productivity dropped by 13.2% relative to that of male academics" (p. 1). A productivity gap between genders was more pronounced for entry-level assistant professors and mainly in top-ranked universities. For grant applications, Garrido-Vásquez et al. (2022) confirmed that "women's application and success rates for the Chilean Young Investigator Grant competition reproduces what has already been shown for other countries and funding schemes: Women are less likely than men to win external grant funding" (p. 20).

What becomes evident in terms of productivity is that, while the pandemic had negative effects for women academics, it inversely had positive effects for their male academic counterparts, thereby creating a unique tension layered on top of inequities occurring in pre-pandemic, or non-crisis *normal* times.

The amount of time spent on research activities was also investigated as a measure of productivity. Myers et al. (2020) found that "female scientists reported a 5% larger decline in research time," attributing this to one variable of having young dependents where "scientists with at least one child 5 years old or younger experienced a 17% larger decline in research time [and] having multiple dependents is associated with a further 3% reduction in time spent on research" (p. 881). Barber et al. (2021) corroborated these findings by attributing the productivity loss of women academics to time reallocation toward young dependent children and domestic chores, and "when the pandemic hit, women fell further behind relative to men, with the effect particularly stark for women aged between 35 and 49, as this group is most likely to have children at home" (p. 1695).

Krukowski et al. (2021) found that "parents of very young children (ages 0–5), reported working ~15 hours less per week than counterparts without children at home or whose youngest child was aged 6 years or older" (p. 346). In addition, those with young children experienced a significant drop in productivity compared to pre-pandemic levels. Significantly, as women took on a higher proportion of childcare there was a drop in article submissions as first and coauthor's, in comparison to almost no significant differences in productivity reported by men (Krukowski et al., 2021).

Deryugina et al. (2021) surveyed academics about time spent on workday activities and found that "having a child is correlated with a significantly larger post-pandemic reduction in research time for both genders, but the effects are doubled for female academics" (p. 7). In contrast, Hicks-Roof (2020) study of both male and female academics who are parents, pointed toward similar levels of advantages and disadvantages. For example, in both genders, productivity was greater for teaching and service compared to scholarship and that efficiency was imperative so that "success comes in short bursts rather than lengthy sessions" (Hicks-Roof, 2020, p. 270). Additionally, Hicks-Roof (2020) found that when collaborative parenting was adopted, both genders benefited equally in terms of work time. Overall, both genders with children have less research time compared to those without children, but most women with children have the least amount of time compared to men with and without children.

The pandemic also prompted a change in the type of research activities. Kim and Patterson (2022) found a gap in work-related tweets between men and women academics, particularly that tweets had tripled since the beginning of the pandemic and that "female academics shifted their public communications from career promoting to family obligations to a greater degree than male academics" (p. 112). They argued that this was caused by "parenting obligations disproportionately fall[ing] to mothers," even though "in the academy, where men, on average, hold more egalitarian views on parenting and gender roles … The pandemic appears to have only exacerbated these underlying inequities" (Kim & Patterson, 2022, p. 114).

Identities and Intersectionality

Intersectionality is an analytical framework, method, and disposition used to understand how social and political identities intersect to create different forms of discrimination and privilege (Carbado et al., 2013). The literature we looked at included not only gender differences but also intersecting identities, such as dependent status (e.g., caring for children and/or family members), ethnicity, race, age, economic class (e.g., employment status), sexual orientation, and ability (e.g., disabilities), among others. These intersecting identities add a heavier burden for women academics who already grapple with disparities regarding merit, tenure, and promotion (Malisch et al., 2020). Intersecting identities, combined with changes to the work environment, can also be detrimental to health. Rode et al. (2022) found that women academics, who already intersected with "unique combinations in gender, race, class, [and] disability," also experienced a negative impact to health because of issues associated with "indistinct physical and temporal boundaries between work and home as the home became a workspace" (p. 120).

Chitsamatanga and Malinga's (2021) survey and interviews with women academics in South Africa highlighted the compounding effects of under-resourced and historically disadvantaged institutions. In particular, *online teaching* has increased workloads because of inadequate resources and insufficient institutional support for both academics and students. In looking at tenure and promotion, Oleschuk (2020) noted that gender differences disproportionately affect racialized groups "with BIPOC female faculty being especially penalized" and that "systemic barriers, particularly those around family and house-hold responsibilities, are being exacerbated during the pandemic period [because of] rising care demands" (p. 503). Care demands increased because of remote work, lack of childcare, and increased virus risk in aging and vulnerable populations. Barriers were "especially strong for black and Indigenous women and women of color, for whom gender intersects with racial inequalities to create multiplicative disadvantages," and Oleschuk (2020) pointed out that no research had documented research outputs of racialized groups during the pandemic, with only anecdotal accounts offering evidence of disparities for BIPOC women (p. 503, footnote). This touches on a crucial point in our own literature review in terms of what *evidence* can be included, particularly when the pandemic created further barriers to publishing and knowledge mobilization, particularly for women academics.

In addition to racialized groups, parental status is an important identity highlighted in the literature. Staniscuaski et al. (2021), who surveyed Brazilian academics' experiences in early 2020, reported that academic parents, particularly White mothers of young children and Black women in general, were submitting fewer manuscripts. They attributed these impacts to unequal division of domestic labour between men and women, and the persistence of racism in academia against Black women (Staniscuaski et al., 2021). They suggested that "gender, parenthood and race are associated with the ability to submit manuscripts and to meet deadlines during the pandemic period" (p. 7). Staniscuaski et al. (2021) provided conclusive data on race and motherhood as main forces to driving productivity imbalances in science during the pandemic through differential impacts: "White mothers and Black females, regardless of whether they are mothers, are the groups taking the strongest hit in academia" (p. 7).

The literature suggests that having parental status is a disadvantage. According to King and Frederickson (2021), women academics were publishing less due to additional responsibilities at home, primarily childcare and homeschooling. One explanation is that women academics are more likely to be in a dual-career relationship with another academic and "may find their time less protected than that of their partners" and, in effect, would be competing for research time at home (King & Frederickson, 2021, p. 6). Shamseer et al. (2021) argued that existing "socially constructed norms, roles, and behaviors associated with gender in our society have placed women in academic science (i.e., researchers and clinician scientists) as primary carers both in the home and on the front lines of health care" during the

pandemic, and this is "compounding pre-existing inequities they face in advancing their careers, and is particularly problematic for early career researchers and those with other intersecting identities (e.g., race, age, sexuality) that lead to being additionally affected" (p. 161). Ma's (2020) poignant account of her pandemic experience as a Chinese academic, mother, and dutiful daughter advocates the need for long-term emergency contingency plans and transforming standards for tenure by empowering diverse voices to take greater control over these important policies and processes.

Another facet of intersecting identity is that of gender and employment status or rank. Spencer et al. (2021) collected the experiences of early-career women in medicine and science during a pathways-to-success program at a university and identified themes arising from the impact of COVID-19 on faculty competency, professionalism, and personal life. The authors developed a set of recommendations based on a proposed equity, diversity, and inclusion framework. They found that participants "have disproportionately experienced negative professional, financial, and personal consequences associated with the novel coronavirus disease 2019 (COVID-19) pandemic" and, as a result, "do not attain promotion, leadership positions, and other established markers of success at the same rate as their male counterparts" (Spencer et al., 2021, p. 1). It appears then that because of the pandemic, women academics are falling behind at a greater rate in terms of pay equity and career advancement.

Performing Work-Home Binaries

The pandemic has blurred the lines between work and home lives and, in effect, has created an unhealthy, competing binary. Carreri and Dordoni (2020) looked at the experiences of researchers working from home during the Italian lockdown and critically reflected on the binary vision of work-life, arguing that *balance* is not as simple as a matter of individual choice. The participants emphasized "conquered time" and "extreme neoliberalism" as these "rhetorics are linked to researchers' perception of time-space and how 'productive' they managed to be during the pandemic" (Carreri & Dordoni, 2020, p. 839). Carreri and Dordoni (2020) argued that there has been a redefinition of work-life boundaries and that macro-structural drivers, specifically the role of gender and a neoliberal model of academic work, impact both academic work and personal family life.

Minello et al. (2021) also emphasized the *work-family* duality as a conflict. According to them, the work-family conflict among academics has a clear gender divide "with women suffering more of the hardships of balancing their family duties and their research tasks," and the pandemic has exacerbated this divide in that "academic mothers, more than childless people and fathers, had to find new balances, reorganize their work, and discover new resources" (Minello et al., 2021, p. S93). The responsibility to cope and navigate stressful realities is placed primarily on the individual without consideration that individual solutions are not sufficient to deal with systemic or macrostructure inequities. Individual responsibility can be associated with a prevalence toward high feelings of *academic guilt* among women academics brought on by work-life balance struggles exacerbated by the pandemic (Walters et al., 2021; Walters et al., 2022).

Rode et al. (2022) provided evidence showing that "working from home under lockdown conditions for academics during the pandemic was varied and influenced by lived body experience" (p. 121). The *lived body experience* refers to the rapidly and radically changing academic spaces impacting both the workspace and home space of academic employees (Rode et al., 2022). The authors concluded that "factors including the range of spaces available to academics, their caring responsibilities both at home and at work, and their mental and physical health have resulted in a diversity of experiences, which have under-lined the need for flexible and responsive institutional support" (Rode et al., 2022, p. 121). Specifically, working from home increased gender-based inequalities because work and home demands were competing interests. Furthermore, a lack of physical space resulted in health issues where "7.7% … reported physical health concerns due to working from home, and 20% … reported low morale, emotional exhaustion or an increase in their own stress, anxiety, loneliness or depression during the lockdown period" (Rode et al., 2022, p. 120). Thus, working from home was a prevalent pandemic response by academic institutions which resulted in unintended negative health consequences.

In contrast, some of the literature pointed to the beneficial impacts of work-from-home experiences. Couch et al. (2021) argued that working from home offers "an opportunity to positively transform employment markets and academic work practices" (p. 273) through flexibility that allows for wider female

participation and greater workforce diversity, which may include caregivers, parents, people with disabilities, and people who are geographically dispersed. Fulweiler et al. (2021) support work-from-home processes when it comes to conferences, stating that "virtual meetings have the opportunity to reach larger audiences and promote inclusion" (p. 7) through greater accessibility by geographically distant populations, marginalized BIPOC groups, persons with disability or mobility issues, and those with caregiver responsibilities.

Invisible Labour

Early research found that the rational, emotional, and peripheral duties and responsibilities of women in the workforce were largely unaccounted for and unacknowledged as *invisible labour* (Wichroski, 1994). Invisible labour continues to present day as an expectation placed on academic women (Magoqwana et al., 2019; Reid, 2021). The pandemic affected not only the physical location of the workplace but also the nature of work, including the compounding of already existing forms, while creating new forms, of invisible labour. The impacts of the pandemic on academic labour include the concurrent multi-tasking of personal and academic labour, reprioritization of work responsibilities, increased time on service and pastoral care duties, and lost opportunities (e.g., conference networking).

Pastoral care pertains to an educator's dedicated effort to actively show care and support for the students they engage with. While "both men and women report substantial increases in childcare and housework burdens," it was women who experienced "significantly larger increases than men did" (Deryugina et al., 2021, p.1). This added home labour is layered above and in professional labour, stressing both mental and physical capabilities. However, the extra workload is not seen, recognized, or accounted for as it falls outside the range of academic labour, even though there is a net negative impact from the dynamic of merging home and workspaces. Several studies indicated that women academics had disproportionately greater care responsibilities from domestic and childcare duties and suffered from a lack of time for themselves (Malisch et al., 2020; Minello et al., 2021; Myers et al., 2020; Yildirim & Eslen-Ziya, 2020).

Women academics also juggled and reprioritized work duties and responsibilities. According to Minello et al. (2021), junior and women faculty members' "strategy to cope with their job duties consisted in giving the priority to teaching, at the expense of research" (p. S91). Furthermore, their results showed that "academic mothers are fearful about their future. They perceive those academic fathers and childless academics were more productive during the lockdown and may continue to be more productive until the usual childcare and educational structures are fully resumed" (Minello et al., 2021, p. S92).

Women academics also experienced an increase in service and pastoral care responsibilities in the workplace. According to Shalaby et al. (2021), women's productivity was negatively affected because of an increase in service and other university, non-research related responsibilities. The findings showed that "more women (67.4%) reported an increase in their responsibilities compared to men (56.6%)" (Shalaby et al., 2021, p. 662). Increases in service expectations during the pandemic, on average, showed that "women reported about 30 more minutes per week of service than men, even after controlling for rank, race, and discipline" (King & Frederickson, 2021, p. 6). Górska et al. (2021) confirmed that "in times of crisis or disaster, women take on additional household duties … and men's paid work is prioritized" but also revealed the "invisible work connected with course preparation, syllabus development, examination, and student support in the new online learning and social distancing educational environment" (p. 1554). The prioritization of men's work harkens back to Pereira's (2021) normalized concepts of the "unconstrained man, achieving high productivity" and women's role as in emotional labour (p. 503). Another notable finding is that women academics reported finding it more difficult to network with colleagues in online conferences compared to in-person conferences, often citing that they were too distracted by childcare and home duties compared to men who found that transitioning to online conferences had no impact on their ability to network (Górska et al., 2021).

Lived Experiences

A notable aspect from the literature were narratives and autoethnographies that captured the lived experiences of the authors. What is unique is that these authors are women academics from a variety of disciplines, not just those specialized in qualitative methodologies familiar with the use of autoethnography as an approach. Abdellatif and Gatto (2020) reflected on their experiences as PhD students using

an intersectional feminist lens. Similarly, Utoft (2020) used autoethnography as a single, childfree early-career woman academic, while Miller (2021) provided a personal narrative describing her experiences as both an academic and a mother framed in an *ethics of care* perspective. Ma (2020) provided a personal narrative highlighting her struggles as a Chinese academic and mother. Boncori (2020) provided a feminist reflection that addressed "issues of privilege; emotional labour; the virtual invasion of the home space in the current increasingly ambiguous space of 'the workplace'; workload; and wellbeing" (p. 677). Boncori (2020) proposed that work-life dynamics have been radically altered into a *never-ending shift* because of newly enforced flexible work measures made possible by online tools.

Couch et al. (2021) used social constructivist and feminist theoretical lenses, coupled with narrative analysis, to capture their work-from-home experiences as women academics. They identified three themes—(a) blending, blurring, and colliding spheres or role conflict; (b) exposures; and (3) fears and hopes—culminating in the observation that "our whole lives drove work patterns rather than 'work' driving our whole lives" (Couch et al., 2021, p. 273). These themes are similar to the findings of Kasymova et al. (2021), who identified similar themes of "(1) inability to meet institutional expectations; (2) juggling work and family life; and (3) proposed solutions" (p. 419). The *proposed solutions* include "(a) acknowledgement; (b) flexibility; and (c) childcare and leave policies" (Kasymova et al., 2021, pp. 428–429). The studies by Couch et al. (2021) and Kasymova et al. (2021) highlight the increasing tension and struggle between work and home life and the need to gain a healthier balance.

Guy and Arthur (2020), who also used an autoethnographic account of their personal experiences underpinned by relational-cultural theory and feminist theory, identified issues in navigating dual roles and the erosion of a healthy work-life balance due to working from home and experiencing mental health challenges. The solutions proposed included setting boundaries, prioritization, chunking, and multi-tasking. Rode et al (2022) also documented four vignettes or stories that highlight the personal experiences of four women scholars. Commentaries and opinion pieces also provided summaries of experiences as well as proposed solutions and calls to action (Augustus, 2021; Stadnyk & Black, 2020).

Solutions and actions are important since they form discourses around issues affecting the labour and productivity of women academics. Fulweiler et al. (2021) presented "a series of strategies across spheres of influence that can help reduce the burden of this pandemic on mothers in science" (p. 9). Shamseer et al. (2021) showed "the link between the burden and consequence of COVID-19 on the careers/career progression of women in academic science" and offered solutions toward policy implications (p. 160). Spencer et al. (2021) documented their shared lived experiences from attending an Early Careers Pathways to Success program at their institution and proposed an extensive list of ideas and strategies to benefit early-career academic women. Oleschuk (2020) proposed recommendations for tenure and promotion policies, while Barber et al. (2021) contended that "many institutions have responded to the pandemic with blanket uniform extensions of the tenure clock for junior faculty" but that the pandemic has had heterogeneous effects with systematic patterns across different groups and "one-size-fits-all clock-extension policies may exacerbate rather than mitigate disparities that have emerged during the crisis" (p. 1696).

Discussion

A snapshot of the research literature on academic women's labour and the pandemic over approximately two years answered our main research question by identifying five key themes as gender inequity, identities and intersectionality, performing work-home binaries, invisible labour, and lived experiences. The selected literature highlighted women academics from the global community and from different disciplines (Tables 1 and 4). The literature included studies that were diverse in qualitative, quantitative, and mixed methods (Table 2). The literature was disseminated and mobilized mainly through published sources in journals but also included conference proceedings, working papers, and preprints (Table 3).

An in-depth thematic analysis revealed themes already prevalent in pre-pandemic times such as gender inequity. Our data showed that the pandemic increased gender inequities. For example, the pandemic crisis resulted in an inverse productivity effect where women, and women with intersecting identities, were negatively affected, while men were generally positively affected. However, such positioning of gender as men and women performs its own invisibility when it comes to the experiences of 2SLGBTQI+ peoples during the pandemic. Wright-Mair (2022) argued that racially minoritized 2SLGBTQI+ faculty continue to be oppressed through their intersecting subjectivities by systemic failings in academia

through mismatched productivity definitions and metrics, tokenization, and the physical and emotional costs of staying in the academy. The erasures of gender through the hegemony of binaries of men and women do not allow for more fulsome understanding of the impact of the pandemic on academic labour.

The insights of intersectionality as a framework for understanding interlocking systems of oppression (Crenshaw, 1991) remain marginalized in much of the literature. Consequently, the crisis of the pandemic appears to have performed an oversimplification of women's lives as heteronormative (as the normalization of heterosexuality) and cis-heteropatriarchal (as the normalization of cis-gender male superiority). Social class and socioeconomic status, interconnected with parental or employment status or experiences of marginalization as racialized people, continue to perpetuate intersecting systems of oppression that uphold patriarchal and colonial legacies of higher education institutions.

In addition, tensions and conflicts inevitably arise between employee groups based on perceived advantages and disadvantages. While the pandemic has decreased productivity, productivity metrics remain the same if not higher, making the bar harder—if not impossible—to reach for the minoritized or disadvantaged groups. When employees are incentivized for efficiency and productivity in a neoliberal university (Busch, 2017), they bear the individual burden of being classified as human capital. According to Brown (2015), "human capital is constrained to self-invest in ways that contribute to its appreciation or at least prevent its depreciation" through "value-enhancing ways" (p. 177). Because employees are objectified as human capital under a neoliberal system, this normalized reality exerts a pressure on individuals to maintain and grow their *value* even under extenuating circumstances such as the pandemic crisis.

The pandemic also blurred the lines between work and home life, which positioned the two competing spheres as an unhealthy duality. In addition to increasing invisible labour, such as service and pastoral care responsibilities, the burden of coping and adapting falls to the individual rather than the system or the institution. We often found that proposed solutions position the onus on the individual, prioritizing personal responsibility in adapting and coping with new realities. What became constituted as problematic were individual limitations alongside institutional and systemic failings. For example, the practice of finding a work-life balance during pandemic lockdowns was navigated individually (Carreri & Dordoni, 2020; Couch et al., 2021; Rode et al., 2022), while institutional expectations commonly lagged behind in providing support and accommodations.

While individual experiences provide valuable insight into helping form solutions at the institutional level, there is cause for concern as neoliberal normative logics, which objectify employees as human capital, can skew solutions toward placing the onus on the individual rather than the institution (Brown, 2015; Kasymova et al., 2021). Individual responsibility can be equated to the "entrepreneurial self" that responds solely to the market under neoliberalism (Busch, 2017, p. 177). The entrepreneurial employee is "the individual (rather than the nation) [who] is held responsible for her or his own well-being" and a "neo-liberal model [university] is reared on a culture of insecurity that induces anxiety, competition, and indifference to those more vulnerable than themselves" (Lynch, 2006, p. 3). Rather than placing the bulk of responsibility upon individuals, several studies pointed out that solutions should come from the institutional level (Fulweiler et al., 2021; Kasymova et al., 2021; Oleschuk, 2020; Shamseer et al., 2021; Spencer et al., 2021).

The literature repeatedly called for elevating the voices of marginalized women academics by increasing their agency in administrative processes. For example, our data included calls for greater input into tenure and promotion policies (e.g., recognition of what Shalaby et al. [2021] referred to as non-research related responsibilities, including service and institutional housekeeping) as well as adopting successful solutions, such as flexible work from home, to widen participation and increase access to those with disabilities, caregiver responsibilities, or those who live in remote locations. While the data acknowledged the importance of institutional-level changes to policy and workplace processes, further investigation is needed regarding whether individual policies are merely performative and how specific employee groups (e.g., employees with disabilities) may be affected.

We acknowledge that there are limitations to this study. One limitation is that the nature of this scoping review meant a smaller data set of 45 titles. An in-depth reading and analysis of this data set provided findings which we have argued are a snapshot into the real-life conditions and experiences of women academics globally. This research can be complemented with a systematic literature review over a longer period to capture more recent pandemic literature. As more research on the impact of the pan-

demic, particularly on women academics, is published, there is also an opportunity to build on this initial review to capture newer literature published after the time parameters of this study (i.e., after May 2022). Moreover, investigating the policy responses, specific to women academics, of individual institutions would be an area of interest in the extension of this research.

Another limitation is that the inclusion criteria focused on academic or scholarly work that could be expanded to social media (e.g., Twitter or blogs) and gray literature to capture other discourses (e.g., reports by organizations, institutions, and government bodies). In addition, social media spaces can be critiqued as containing expressions of racism, discrimination, and sexism by higher education actors. Specifically, social media expressions can be viewed as policies that render problems of racism, discrimination, and sexism as technical conditions that can be overcome with simplistic solutions (see Murray Li [2007] on practices of assemblage as they apply to policy).

Conclusion

The significance of this study is that it provides a snapshot of academic literature during the initial months of the COVID-19 pandemic. The findings of this review can contribute toward important avenues of future research. In particular, an expanded scoping literature review is needed to see how impacts changed over time, as policy and societal changes shifted in responding to the continual disruptions across waves of the pandemic. The pandemic has changed over time and so might have policies in institutions. There is a need to consider how policies have unfolded in higher education institutions to address the inequities exacerbated by the conditions of the pandemic. Critical policy studies that consider the ways in which governing practices in higher education have been shaped by responses to COVID-19 can inform institutional knowledge about how to address resulting inequities. Furthermore, the review of the literature included some recognition of intersectional challenges and barriers. However, there is still a lack of understanding of how institutional policy is impacted by pandemic shifts in the kinds of labour expected in higher education and the transfer of responsibilities between employee groups as well as in addressing structural problems related to equity, diversity, inclusion, and decolonization.

When the pandemic started in early 2020, the whispers of a resetting of higher education that was possible through the pandemic began. The literature over the first two years of the pandemic represented how very little progression happened, how the neoliberal university operates under crisis, and how little attention has been given toward the practice of privileging individual responsibility.

References

Academic Women's Association. (2019, June 20). *U15 leadership remains largely white and male despite 33 years of equity initiatives* [Press release]. University of Alberta. https://uofaawa.wordpress.com/2019/06/20/u15-leadership-remains-largely-white-and-male-despite-33-years-of-equity-initiatives

Acker, S. (1980). Women, the other academics. *British Journal of Sociology of Education*, *1*(1), 81–91. https://doi.org/10.1080/0142569800010106

Acker, S. (1994). *Gendered education: Sociological reflections on women, teaching, and feminism*. Open University Press.

Acker, S. (2003). The concerns of Canadian women academics: Will faculty shortages make things better or worse? *McGill Journal of Education / Revue des sciences de l'éducation de McGill*, *38*(3). https://mje.mcgill.ca/article/view/8702

Acker, S. & Wagner, A. (2019) Feminist scholars working around the neoliberal university. *Gender and Education*, *31*(1), 62–81. https://doi.org/10.1080/09540253.2017.1296117

Bagilhole, B., & Goode, J. (2001). The contradiction of the myth of individual merit, and the reality of a patriarchal support system in academic careers: A feminist investigation. *European Journal of Women's Studies*, *8*(2), 161–180. https://doi.org/10.1177/135050680100800203

Blackmore, J. (1989). Educational leadership: A feminist critique and reconstruction. In J. Smyth (Ed.), *Critical perspectives on educational leadership* (pp. 63–87). Routledge.

Blackmore, J. (1996). Doing 'emotional labour' in the education market place: Stories from the field of women in management. *Discourse: Studies in the Cultural Politics of Education*, *17*(3), 337–349. https://doi.org/10.1080/0159630960170304

Brooks, A. & Mackinnon, A. (Eds.). (2001). *Gender and the restructured university: Changing management and culture in higher education*. Society for Research into Higher Education & Open University.

Brown, W. (2015). *Undoing the demos: Neoliberalism's stealth revolution*. Zone Books.

Brunette-Debassige (Mushkego-ininew Cree), C. (2021). *The trickiness of settler colonialism: Indigenous women administrators' experiences of policy in Canadian universities* (Publication No. 7702) [Doctoral dissertation, Western University]. Electronic Thesis and Dissertation Repository. https://ir.lib.uwo.ca/etd/7702

Brunette-Debassige (Mushkego-ininew Cree), C. (2023). Indigenous refusals in educational leadership practices in Canadian universities. *AlterNative: An International Journal of Indigenous Peoples*, *19*(2), 377–386. https://doi.org/10.1177/11771801231167876

Busch, L. (2017). *Knowledge for sale: The neoliberal takeover of higher education*. MIT Press.

Caplan, P. J. & Caplan, J. B. (1994). *Thinking critically about research on sex and gender*. HarperCollins College Publishers.

Carbado, D. W., Crenshaw, K. W., Mays, V. M., & Tomlinson, B. (2013). Intersectionality: Mapping the movements of a theory. *Du Bois Review: Social Science Research on Race*, *10*(2), 303–312. https://doi.org/10.1017/s1742058x13000349

Carvalho, T. (2019). Women in higher education top positions: The relevance of field dynamics. In P. Paoloni, M. Paoloni, & S. Arduini (Eds.), *Proceedings of the 2nd International Conference on Gender Research, April 2019* (pp. 129-134, XV). Academic Conferences International Limited.

Carvalho, T., & Machado-Taylor, M. (2010). Gender and shifts in higher education managerial regimes. *Australian Universities Review*, *52*(2), 33–42.

Crenshaw, K. W. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review*, *43*(6), 1241–1299. https://doi.org/10.2307/1229039

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2017). *The SAGE handbook of qualitative research* (5th ed.). SAGE Publications.

Fitzgerald, T., White, J., & Gunter, H. M. (Eds.) (2012). *Hard labour? Academic work and the changing landscape of higher education* (International Perspectives on Higher Education Research, Vol. 7). Emerald Group Publishing. https://doi.org/10.1108/S1479-3628(2012)0000007012

Hannah, E., Paul, L.J., & Vethamany-Globus, S. (2002). *Women in the Canadian academic tundra: Challenging the chill*. McGill-Queen's University Press.

Hornby, P., & Shaw, S. (1996). Women in management education: The token topic? In L. Morley & V. Walsh (Eds.), *Breaking Boundaries: Women in higher education* (pp. 77–88). Taylor & Francis. https://doi.org/10.4324/9780203978689

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE Publications.

Lynch, K. (2006). Neo-liberalism and marketisation: The implications for higher education. *European Educational Research Journal*, *5*(1), 1–17. https://doi.org/10.2304/eerj.2006.5.1.1

Magoqwana, B., Maqabuka, Q., & Tshoaedi, M. (2019). "Forced to care" at the neoliberal university: Invisible labour as academic labour performed by Black women academics in the South African university. *South African Review of Sociology*, *50*(3–4), 6–21. https://doi.org/10.1080/21528586.2020.1730947

Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation*. Jossey-Bass.

Mertens, D. M. (2019). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods* (5th ed.). SAGE Publications.

Murray Li, T. (2007). Practices of assemblage and community forest management. *Economy and Society*, *36*(2), 263–293. https://doi.org/10.1080/03085140701254308

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, *16*(1), 1–13. https://doi.org/10.1177/1609406917733847

Reid, R. A. (2021). Retaining women faculty: The problem of invisible labor. *PS: Political Science & Politics*, *54*(3), 504–506. https://doi.org/10.1017/s1049096521000056

Rickett, B., & Morris, A. (2021). 'Mopping up tears in the academy' – working-class academics, belonging, and the necessity for emotional labour in UK academia. *Discourse: Studies in the Cultural Politics of Education*, *42*(1), 87–101. https://doi.org/10.1080/01596306.2020.1834952

Stalker, J., & Prentice, S. (1998). *The illusion of inclusion: Women in post-secondary education*. Fernwood.

Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., Garritty, … Straus, S. E. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. *Annals of Internal Medicine*, *169*(7), 467–473. https://doi.org/10.7326/m18-0850

Wallace, J., & Wallin, D. (2015). 'The voice inside herself': Transforming gendered academic identities in educational administration. *Gender and Education*, *27*(4), 412–429. https://doi.org/10.1080/09540253.2015.1019838

Wallin, D., & Wallace, J. (2016). From Foxy Loxy to grit and moxie: Challenging the orthodoxy. In L. Shultz & M. Viczko (Eds.), *Assembling and governing the higher education institution: Democracy, social justice and leadership in global higher education* (pp. 361–383). Palgrave MacMillan.

Wallace, J., Wallin, D., Viczko, M., & Anderson, H. (2014). The first female academics in programs of educational administration in Canada: Riding waves of opportunity. *McGill Journal of Education / Revue des sciences de l'éducation de McGill*, *49*(2), 437–458. https://mje.mcgill.ca/article/view/9016

Wichroski, M. (1994). The secretary: Invisible labor in the workworld of women. *Human Organization*, *53*(1), 33–41. https://doi.org/10.17730/humo.53.1.a1205g53j7334631

Wright-Mair, R. (2022). The costs of staying: Experiences of racially minoritized LGBTQ+ faculty in the field of higher education. *Innovative Higher Education*, *48*, 329–350. https://doi.org/10.1007/s10755-022-09620-x

Appendix A

Literature Data Set

Abdellatif, A., & Gatto, M. (2020). It's OK not to be OK: Shared reflections from two PhD parents in a time of pandemic. *Gender, Work & Organization*, *27*(5), 723–733. https://doi.org/10.1111/gwao.12465

Amano-Patiño, N., Faraglia, E., Giannitsarou, C., & Hasna, Z. (2020, May). *The unequal effects of COVID-19 on economists' research productivity* (Cambridge-INET Working Paper Series No. 2020/22, Cambridge Working Papers in Economics No. 2038). Institute for New Economic Thinking, Faculty of Economics, University of Cambridge. https://doi.org/10.17863/cam.57979

Andersen, J. P., Nielsen, M. W., Simone, N. L., Lewiss, R. E., & Jagsi, R. (2020). Meta-Research: COVID-19 medical papers have fewer women first authors than expected. *ELife*, *9*, e58807. https://doi.org/10.7554/eLife.58807

Augustus, J. (2021). The impact of the COVID-19 pandemic on women working in higher education. *Frontiers in Education*, *6*, 648365. https://doi.org/10.3389/feduc.2021.648365

Barber, B. M., Jiang, W., Morse, A., Puri, M., Tookes, H., & Werner, I. M. (2021). What explains differences in finance research productivity during the pandemic? *The Journal of Finance*, *76*(4), 1655–1697. https://doi.org/10.1111/jofi.13028

Bender, S., Brown, K. S., Hensley Kasitz, D. L., & Vega, O. (2022). Academic women and their children: Parenting during COVID-19 and the impact on scholarly productivity. *Family Relations*, *71*(1), 46–67. https://doi.org/10.1111/fare.12632

Boncori, I. (2020). The Never-ending Shift: A feminist reflection on living and organizing academic lives during the coronavirus pandemic. *Gender, Work & Organization*, *27*(5), 677–682. https://doi.org/10.1111/gwao.12451

Carreri, A., & Dordoni, A. (2020). Academic and research work from home during the COVID-19 pandemic in Italy: A gender perspective. *Italian Sociological Review*, *10*(3S), 821. https://doi.org/10.13136/isr.v10i3s.400

Chitsamatanga, B. B., & Malinga, W. (2021). Coronavirus (COVID-19) and women in higher education in a South African University: Academic and social implications. *African Journal of Gender, Society and Development*, *10*(1), 7–35. https://doi.org/10.31920/2634-3622/2021/v10n1a1

Couch, D. L., O'Sullivan, B., & Malatzky, C. (2021). What COVID-19 could mean for the future of "work from home": The provocations of three women in the academy. *Gender, Work & Organization*, *28*(S1), 266–275. https://doi.org/10.1111/gwao.12548

Cui, R., Ding, H., & Zhu, F. (2021). Gender inequality in research productivity during the COVID-19 pandemic. *Manufacturing & Service Operations Management*, *24*(2), 707–726. https://doi.org/10.1287/msom.2021.0991

Deryugina, T., Shurchkov, O., & Stearns, J. E. (2021). COVID-19 disruptions disproportionately affect female academics (Working Paper 28360). National Bureau of Economic Research. https://doi.org/10.3386/w28360

Fulweiler, R. W., Davies, S. W., Biddle, J. F., Burgin, A. J., Cooperdock, E. H. G., Hanley, T. C., Kenkel, C. D., Marcarelli, A. M., Matassa, C. M., Mayo, T. L., Santiago-Vàzquez, L. Z., Traylor-Knowles, N., & Ziegler, M. (2021). Rebuild the Academy: Supporting academic mothers during COVID-19 and beyond. *PloS Biology*, *19*(3), e3001100. https://doi.org/10.1371/journal.pbio.3001100

Garrido-Vásquez, P., Vaccari, P., & Villagran, L. (2022). *Gender gaps in the Chilean Young Investigator Grant and the potential impact of COVID-19 lockdowns in 2020*. OSF. https://doi.org/10.31219/osf.io/ek6aq

Górska, A. M., Kulicka, K., Staniszewska, Z., & Dobija, D. (2021). Deepening inequalities: What did COVID-19 reveal about the gendered nature of academic work? *Gender, Work & Organization*, *28*(4), 1546–1561. https://doi.org/10.1111/gwao.12696

Guy, B., & Arthur, B. (2020). Academic motherhood during COVID-19: Navigating our dual roles as educators and mothers. *Gender, Work & Organization*, *27*(5), 887–899. https://doi.org/10.1111/gwao.12493

Hicks-Roof, K. (2020). The continuous Clock: A working academic mother during COVID-19. *Journal of the Motherhood Initiative for Research and Community Involvement*, *11*(2)/*12*(1), 265–276. https://jarm.journals.yorku.ca/index.php/jarm/article/view/40619

Kasymova, S., Place, J. M. S., Billings, D. L., & Aldape, J. D. (2021). Impacts of the COVID-19 pandemic on the productivity of academics who mother. *Gender, Work & Organization*, *28*(S2), 419–433. https://doi.org/10.1111/gwao.12699

Kim, E., & Patterson, S. (2022). The pandemic and gender inequality in academia. *PS: Political Science & Politics, 55*(1), 109–116. https://doi.org/10.1017/s1049096521001049

King, M. M., & Frederickson, M. E. (2021). The pandemic penalty: The gendered effects of COVID-19 on scientific productivity. *Socius: Sociological Research for a Dynamic World*, *7*, 1–24. https://doi.org/10.1177/23780231211006977

Krukowski, R. A., Jagsi, R., & Cardel, M. I. (2021). Academic productivity differences by gender and child age in science, technology, engineering, mathematics, and medicine faculty during the COVID-19 pandemic. *Journal of Women's Health*, *30*(3), 341–347. https://doi.org/10.1089/jwh.2020.8710

Lambrechts, A. A., Larasatie, P., Boutelier, S., Guta, H. A., Leonowicz-Bukała, I., Martinez-Suarez, A., & Prashad, S. (2021). *Why research productivity among women in academia suffered during the early stages of COVID-19 crisis: A qualitative analysis*. EdArXiv. https://doi.org/10.35542/osf.io/3awdq

Ma, C. (2020). Reflections of a Chinese academic mom struggling to survive a pandemic. *Journal of the Motherhood Initiative for Research and Community Involvement*, *11*(2)/*12*(1), 125–137. https://jarm.journals.yorku.ca/index.php/jarm/article/view/40610

Malisch, J. L., Harris, B. N., Sherrer, S. M., Lewis, K. A., Shepherd, S. L., McCarthy, P. C., Spott, J. L., Karam, E. P., Moustaid-Moussa, N., Calarco, J. M. C., Ramalingam, L., Talley, A. E., Cañas-Carrell, J. E., Ardon-Dryer, K., Weiser, D. A., Bernal, X. E., & Deitloff, J. (2020). In the wake of COVID-19, academia needs new solutions to ensure gender equity. *Proceedings of the National Academy of Sciences of the United States of America*, *117*(27), 15378–15381. https://doi.org/10.1073/pnas.2010636117

Miller, K. E. (2021). The ethics of care and academic motherhood amid COVID-19. *Gender, Work & Organization*, *28*(S1), 260–265. https://doi.org/10.1111/gwao.12547

Minello, A., Martucci, S., & Manzo, L. K. C. (2021). The pandemic and the academic mothers: Present hardships and future perspectives. *European Societies*, *23*(S1), S82–S94. https://doi.org/10.1080/14616696.2020.1809690

Muric, G., Lerman, K., & Ferrara, E. (2021). Gender disparity in the authorship of biomedical research publications during the COVID-19 pandemic: Retrospective observational study. *Journal of Medical Internet Research*, *23*(4), e25379. https://doi.org/10.2196/25379

Myers, K. R., Tham, W. Y., Yin, Y., Cohodes, N., Thursby, J. G., Thursby, M. C., Schiffer, P., Walsh, J. T., Lakhani, K. R., & Wang, D. (2020). Unequal effects of the COVID-19 pandemic on scientists. *Nature Human Behaviour*, *4*(9), 880–883. https://doi.org/10.1038/s41562-020-0921-y

Oleschuk, M. (2020). Gender equity considerations for tenure and promotion during COVID-19. *Canadian Review of Sociology*, *57*(3), 502–515. https://doi.org/10.1111/cars.12295

Parlak, S., Cakiroglu, O. C., & Gul, F. O. (2021). Gender roles during COVID-19 pandemic: The experiences of Turkish female academics. *Gender, Work & Organization*, *28*(S2), 461–483. https://doi.org/10.1111/gwao.12655

Peetz, D., Baird, M., Banerjee, R., Bartkiw, T., Campbell, S., Charlesworth, S., Coles, A., Cooper, R., Foster, J., Galea, N., de la Harpe, B., Leighton, C., Lynch, B., Pike, K., Pyman, A., Ramia, I., Ressia, S., Samani, M. N., Southey, K., … Weststar, J. (2022). Sustained knowledge work and thinking time amongst academics: Gender and working from home during the COVID-19 pandemic. *Labour and Industry*, *32*(1), 72–92. https://doi.org/10.1080/10301763.2022.2034092

Pereira, M. (2021). Researching gender inequalities in academic labor during the COVID-19 pandemic: Avoiding common problems and asking different questions. *Gender, Work & Organization*, *28*(S2), 498–509. https://doi.org/10.1111/gwao.12618

Pinho-Gomes, A.-C., Peters, S., Thompson, K., Hockham, C., Ripullone, K., Woodward, M., & Carcel, C. (2020). Where are the women? Gender inequalities in COVID-19 research authorship. *BMJ Global Health*, *5*(7), e002922. https://doi.org/10.1136/bmjgh-2020-002922

Rode, J., Kennedy, E., & Littlejohn, A. (2022). Gender and the lived body experience of academic work during COVID-19. *Learning, Media and Technology*, *47*(1), 109–124. https://doi.org/10.1080/17439884.2022.2031214

Shalaby, M., Allam, N., & Buttorff, G. J. (2021). Leveling the field: Gender inequity in academia during COVID-19. *PS: Political Science & Politics*, *54*(4), 661–667. https://doi.org/10.1017/s1049096521000615

Shamseer, L., Bourgeault, I., Grunfeld, E., Moore, A., Peer, N., Straus, S. E., & Tricco, A. C. (2021). Will COVID-19 result in a giant step backwards for women in academic science? *Journal of Clinical Epidemiology*, *134*, 160–166. https://doi.org/10.1016/j.jclinepi.2021.03.004

Spencer, S., Burrows, C., Lacher, S. E., Macheledt, K. C., Berge, J. M., & Ghebre, R. G. (2021). Framework for advancing equity in academic medicine and science: Perspectives from early career female faculty during the COVID-19 pandemic. *Preventive Medicine Reports*, *24*, 101576. https://doi.org/10.1016/j.pmedr.2021.101576

Squazzoni, F., Bravo, G., Grimaldo, F., García-Costa, D., Farjam, M., & Mehmani, B. (2021). Gender gap in journal submissions and peer review during the first wave of the COVID-19 pandemic. A study on 2329 Elsevier journals. *PLoS ONE*, *16*(10), e0257919. https://doi.org/10.1371/journal.pone.0257919

Stadnyk, T., & Black, K. (2020). Lost ground: Female academics face an uphill battle in post-pandemic world. *Hydrological Processes*, *34*(15), 3400–3402. https://doi.org/10.1002/hyp.13803

Staniscuaski, F., Kmetzsch, L., Soletti, R. C., Reichert, F., Zandonà, E., Ludwig, Z. M. C., Lima, E. F., Neumann, A., Schwartz, I. V. D., Mello-Carpes, P. B., Tamajusuku, A. S. K., Werneck, F. P., Ricachenevsky, F. K., Infanger, C., Seixas, A., Staats, C. C., & de Oliveira, L. (2021). Gender, race and parenthood impact academic productivity during the COVID-19 pandemic: From survey to action. *Frontiers in Psychology*, *12*, 663252. https://doi.org/10.3389/fpsyg.2021.663252

Utoft, E. H. (2020). 'All the single ladies' as the ideal academic during times of COVID-19? *Gender, Work & Organization*, *27*(5), 778–787. https://doi.org/10.1111/gwao.12478

Walters, C., Mehl, G. G., Piraino, P., Jansen, J. D., & Kriger, S. (2022). The impact of the pandemic-enforced lockdown on the scholarly productivity of women academics in South Africa. *Research Policy*, *51*(1), 104403. https://doi.org/10.1016/j.respol.2021.104403

Walters, C., Ronnie, L., Jansen, J., & Kriger, S. (2021). "Academic guilt": The impact of the pandemic-enforced lockdown on women's academic work. *Women's Studies International Forum*, *88*, 102522. https://doi.org/10.1016/j.wsif.2021.102522

Wehner, M. R., Li, Y., & Nead, K. T. (2020). Comparison of the proportions of female and male corresponding authors in preprint research repositories before and during the COVID-19 pandemic. *JAMA Network Open*, *3*(9), e2020335. https://doi.org/10.1001/jamanetworkopen.2020.20335

Yildirim, T. M., & Eslen-Ziya, H. (2020). The differential impact of COVID-19 on the work conditions of women and men academics during the lockdown. *Gender, Work & Organization*, *28*(S1), 243–249. https://doi.org/10.1111/gwao.12529