



Motherhood in Academia during the COVID-19 Pandemic: An International Online Photovoice Study Addressing Issues of Equity and Inclusion in Higher Education

Anna CohenMiller¹ · Zhanna Izenkova¹

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Abstract

Combining motherhood and academic work in higher education has been discussed for decades with the pandemic further exposing the inequalities. This crisis has significantly impacted the daily life of mothers in academia as they devote more time to keep their careers on track, produce papers, and take on other parenting and schooling responsibilities. This paper employs photovoice as an online methodology to document the real-life experiences of 68 women from nine countries who work and parent children in the sudden transition to remote working and learning environments. By explaining the photographs from their perspective, the participants in this study were able to capture their lived experiences, discuss working from home while guiding children in online learning, and create suggestions for ways academic institutions can alleviate gender inequality. The article explores the critical issues of academic work and childrearing drawing international attention to address issues of equity and inclusion in higher education among researchers, policymakers, and institutions.

Keywords Innovative qualitative research · Online photovoice · Asynchronous research · Women in higher education and motherscholars · Mothers and mothering · Creative qualitative methods

✉ Anna CohenMiller
anna.cohenmiller@nu.edu.kz; anna@cohenmiller.com

Zhanna Izenkova
zhanna.izenkova@nu.edu.kz

¹ Graduate School of Education, Nazarbayev University, Nur-Sultan, Kazakhstan

Introduction

In March 2020, the World Health Organization declared COVID-19 a pandemic resulting in global lockdowns, remote working conditions, and closure of schools and childcare facilities. The pandemic has affected people's lives in different and challenging ways. Those who work and parent children were facing new challenges of managing both their workload in the new online format in addition to their children's remote learning (Russell et al., 2020). Inconsistency or lack of support was, and is, a particular obstacle for academic mothers who integrate parenting with the additional restructuring of work into virtual formats (Guy & Arthur, 2020; Sahu, 2020). Considering that mothers take on the majority of household and parenting roles (Alon et al., 2020; Benzeval et al., 2020; Hupkau & Petrongolo, 2020; Tchimtchoua Tamo, 2020), the pressures of home and academic work were (and are) now exacerbated with additional roles and pressures during this unique time (Del Boca et al., 2020).

The strong impact of the pandemic on women's employment is evidenced in many countries (Hupkau & Petrongolo, 2020; Whiley et al., 2021). The negative impact has exacerbated the plight of academic mothers who had to look for new ways to keep children busy and reorganize work (CohenMiller & Leveto, *forthcoming*). These radical changes to everyday life negatively impacted the careers of women (Sevilla et al., 2020), their research productivity (Pinho-Gomes et al., 2020; Vincent-Lamarre et al., 2020), and emotional wellbeing (Fontanesi et al., 2020; Russell et al., 2020). Therefore, this pandemic context appears to have a long-term impact on the slowing down of career development for women in academia. Moreover, the pandemic and quarantine measures have exacerbated gender inequalities as women are more likely to take on more household and child responsibilities (Manzo & Minello, 2020). Recent studies have demonstrated the adverse effects on the financial and career perspectives of working mothers (Albacete et al., 2021; Minello et al., 2021). Several publications performed photovoice studies on how people experienced the consequences of the pandemic (Bunga et al., 2021; Kiling et al., 2021; Malka, 2021), however none of them focus on academic mothers. Our research fills an important gap in the literature about mothers in academia during the pandemic, an event that created unprecedented inequity (CohenMiller, 2020; Willey, 2020). Thus, the purpose of this study was to understand experiences mothers in academia faced during the initial COVID-19 quarantine in 2020 when motherscholars in academia took on the additional roles of guiding their children through schooling online.

This study provides a platform to demonstrate through photos these experiences during times of extreme disruption through dissemination in a living website (CohenMiller & Izekeva, 2021). The innovative online photovoice study captured a comprehensive understanding of lived experiences of women in academia during the pandemic (see CohenMiller, 2022). As such, the study ultimately addressed issues of equity and inclusion in higher education through the integration of arts-based methods to enhance understanding and advocacy (CohenMiller & Boivin, 2021). Motherscholars became participant researchers as they collected the data about their

own lives and interpreted them. Therefore, these photographs reveal how the unprecedented changes in their lives and speak evidently about the current struggles, including structural inequities and socially just solutions.

Gender Equity, Parity and Academia: A Literature Review

Issues of gender equity and parity are prevalent worldwide, including in higher education. In pre-pandemic times, a UN report identified it would take 136 years to close the global gender gap, and the COVID-19 has extended this gap by another 100 years (Armstrong, 2021). In academia, studies identified various reasons for the gender gap. For example, Baker (2016) notes the lack of gender parity in attaining graduate degrees. Likewise, once entering the academic pipeline, women are consistently not promoted, or “leaking” in promotion from assistant, associate to full professor (or equivalent), both in the United States and internationally (Shaw & Stanton, 2012; van Anders, 2004). Mothers also experience obstacles in the workplace due to gender stereotypes associated with motherhood. These obstacles for mothers have collectively been referred to as a “motherhood penalty” (Correll et al., 2007, p. 1298), which leads many in Western nations to associate women as being less productive professionally once becoming a mother (Budig et al., 2012).

To get a full picture of the experiences and consequences of the pandemic, it is critical to study motherhood. Andrea O’Reilly (2007) in her book on motherhood describes it as a threefold concept: “motherhood as experience/role, motherhood as institution/ideology, and motherhood as identity/ subjectivity.” (p. 2). These aspects have been integrated to create a sense of a “supermom” that can integrate all aspects seamlessly (D’Amore, 2012), creating excessive pressure. Women working in higher education institutions, who have children, can be referred to as “motherscholars” (CohenMiller, 2015; Matias, 2011, 2022). The term refers to the inter-related roles that women experience as both mothers and academics. As cultural, gender, and social expectations place the burden of raising children on mothers (Chase-Lansdale & Vinovskis, 1995), women devote more time and energy than non-parent women (Grimshaw & Rubery, 2015). When men are involved in household chores, they spend less time on it than women (Andrew et al., 2020). Thus, motherscholars become penalized for becoming parents as maternal labor is hidden, “taken-for-granted,” and rarely questioned within the home walls (Wall, 2013, p. 162). Therefore, during crises such as the recent transition to homeschooling, parental involvement is usually not equal. In this scenario, a patriarchal society exploits women’s labor involved in running the household and looking after dependents (Henderson et al., 2020).

A highly competitive academic environment, non-stop application for research grants, and manuscript production are an integral part of most academics’ lives. However, women’s reproductive clock coincides with the beginning and growth of a woman’s academic career (Reuter, 2018), sometimes referred to as simultaneous ticking clocks of biology and tenure (Ward & Wolf-Wendel, 2012). Thus, women may have concerns regarding their career security and finding times for family (Acker & Armenti, 2004; Ashencaen Crabtree & Shiel, 2019). Moreover,

those who children with special needs find an additional complexity (Rogers et al., 2021). Obstacles of integrating teaching and research at the expected level lead to problems in promotion (Cardel et al., 2020; Dubois-Shaik et al., 2018). For those women who have been promoted to tenured stable positions, as Mason et al. (2013) explain, those women are more likely to be single and childless than men. The literature confirms that a conflict between work and family responsibilities for scholars has gender differences, as women experience difficulties in reconciling family obligations (Mayer & Tikka, 2008; Wilton & Ross, 2017) without systematic practices and policies to “facilitate” their success (Cohen-Miller et al., 2022). In some places, academic motherhood can include a reliance on family members or outside help, such as Dickson (2019) noted in the United Arab Emirates or Jenkins (2020) in a study of British geographers. Yet, although over the last couple of decades there has been an increase in family-friendly policies introduced support for parents in academia, including accommodation allowances, maternity, and part-time paternity tracks, emotionally mothers continue to face extreme pressures and guilt to manage all aspects (Wolf-Wendel & Ward, 2015).

Since the beginning of the pandemic, schooling face-to-face was either partially or completely closed, and parents (or other caretakers) were forced to spend available time supervising their children’s education. Daycare and kindergarten closed or were only open in limited hours or days, parents around the world react in different ways and receive a variety of family support. Schooling for children was halted and switched to home education, with a growing rural and urban divide (see Kordanova & CohenMiller, 2022). Exhaustion was common for caretakers, especially with young children (Kasymova et al., 2021). However, these responsibilities conflict with work commitments. In academia during the COVID-19, for some faculty, there was some flexibility in hours. Yet, while it is useful to schedule work around family needs and schooling, the flexibility does not compensate for the lack of separation between work, childcare, and home tasks.

Adjustment to new realities affected mothers, especially those with children aged twelve or younger (Collins et al., 2021; Qian & Fuller, 2020). Mothers have disproportionately borne the burden of unpaid domestic work, which has intensified significantly during the pandemic (Gabster et al., 2020). Complex stories of life transformation when family commitments shifted as the priority uncover real stories: rushing to satisfy children’s needs and requests, keeping them educated and healthy, distracting Zoom backgrounds to perform the teaching duties, running households with little or no support. Recent studies collected data about firsthand experiences and various challenges identified for mothers’ realities during the pandemic (see Boca et al., 2020; Fontanesi et al., 2020), including preliminary results of this study (CohenMiller & Izenkova, 2020) and the resultant online gallery (CohenMiller & Izenkova, 2021). For example, a mixed-method study about mothers in academia identified an increased load of domestic and childcare responsibilities, a lower level of research productivity, and the need to change existing policies and practices (Kasymova et al., 2021). Existing policies and practices do not support motherscholars during these unpredictable times when the higher education crisis falls heavily on women.

In this online photovoice study, we used a participatory research framework to work with participants as researchers, where they shared data and interpreted their created data about their lives during COVID-19. The study answered the research question, what is the reality for mothers in academia--motherscholars--of suddenly being forced to work from home while also guiding their children's online learning during the COVID-19 pandemic?.

Methodology: Adapting Photovoice for Online Spaces

Photovoice

During the pandemic times, when it became impossible to collect data in the “traditional” form, photovoice opened new opportunities and can be viewed as empowering research methodology, and adapted for online use (Call-Cummings & Hauber-Özer, 2021; CohenMiller & Izenkova, 2020; Rania et al., 2021). Photovoice studies are counted as social action studies that allow critically speak about individual struggles. Caroline Wang and Mary Ann Burris are recognized as coining the term, developing the methodology from their previous work using photos to tell stories of people's lives (1997). They first used the methodology working with participants document the lives of Chinese women living in rural areas. As Wang and Burris (1997) describe, photovoice is focused on achieving three primary objectives: “(1) to enable people to record and reflect their community's strengths and concerns, (2) to promote critical dialogue and knowledge about important community issues through large and small group discussion of photo- graphs, and (3) to reach policymakers” (p. 370). The theoretical framework for a photovoice methodology (which at times is referred to in the literature as a method) draws from critical educational theories, feminist theories, and more recently from emancipatory and decolonial theories. The methodological approach can be used as a form of participatory action research (Cohen-Miller, 2022; Wang & Burris, 1997).

While many scholars refer to photovoice as a methodology, an integration of theory and practice, it can also be considered as a method of data collection. For example, Leibenberg (2018) emphasizes how photovoice as a method can achieve empowerment and social change. In this article, we focus on the photovoice as a methodology, highlighting a feminist lens. Photovoice has particularly been used in health-related research and during the last decade. The methodology encourages participants to conduct research independently and place agency in their hands (Lorenz & Kolb, 2009). The researchers' role is to be a facilitator, a medium of transfer rather than storytellers. Digital technology can seize visual stories from insider perspectives as it occupies space between private and public worlds (Sutton-Brown, 2014). Researchers can capture and document the frontline of parenting through photovoice online to gain a deeper understanding of the experiences of mothers in academia through their own contextualization. In using such a participatory research framework, photovoice facilitate and

amplifies participant voices by having participants become researchers, taking on a crucial role in data interpretation to make meaning of their realities, such as during the pandemic.

Adapting Photovoice Online

We employed photovoice as the methodology for this study, adapting it for online use, specifically in a unique asynchronous mode (CohenMiller, 2022). Recently, the methodology has been adapted for online research, with the most recent adaptations as a result of COVID-times (Call-Cummings & Hauber-Özer, 2021; CohenMiller & Izenkova, 2020; Rania et al., 2021). In Rania et al.'s (2021) study, they worked with 130 students from across the University of Genoa to understand the experience of living with COVID-19. Employing Wang's (2006) phases for photovoice research, the authors adapted photovoice for online use in six phases including online workshops, photographic activity, participant picture analysis, final event and suggestions for social action, individual reflective practice, and group reflection (Rania et al., 2021, p. 2714). Rania et al. (2021) research identified limitations such as participants feeling tension in coming together online in large groups, and also opportunities for creating increased participation for certain groups of people.

Also using online photovoice, Call-Cummings and Hauber-Özer's (2021) study refers to the approach as a method, discussing two projects, one, an ongoing study of school students in the US that also incorporates drawings and the other a study of Syrian refugees enrolled in higher education in Turkey, which also incorporated text messaging as a means of communication with participants, in particular useful for areas with limited internet access. Call-Cummings and Hauber-Özer (2021) note the overall importance of recognizing and emphasizing the participatory action research grounded of photovoice as one that is emancipatory and intended to affect positive change.

For our study, we conducted the online photovoice study in an asynchronous mode, adapting to the needs of our participants. Such an adaptation is recognized as relevant for studies across methodologies (CohenMiller et al., 2020) and for online photovoice studies (Call-Cummings & Hauber-Özer, 2021). Using a theoretical underpinning of photovoice, focusing on feminist theory, we sought to highlight the voices of a population of women that have been historically underrepresented and overlooked. As such, these are embodied in our study through the key outcome of photovoice studies, through a public gallery—in our case an Instagram account and website—that raises awareness and encourages change. We sought to answer the research question, what is the lived experience (or “reality”) of mothers working in academia who are also caretaking for children learning from home during the first wave of the COVID-19 lockdown?

Participant Recruitment and Inclusion Criteria

Sixty-eight mothers from academia participated in the online photovoice study. To adapt to the needs of motherscholars with limited time and resources (see CohenMiller et al., 2020), during the COVID lockdown, we used an asynchronous method

of gathering photovoice data from a Google form with a set of questions and links to upload relevant photographs (CohenMiller & Izenkova, 2020). The study used volunteer-based convenience sampling and snowball sampling through online posts to academic mother support groups on social media.

As a team of two researchers, a faculty lead (first author) and PhD student (second author), we reached out to social media groups which are common places where people can post about their research (Hokke et al., 2020). We chose to recruit through social media for the specific purpose of not limiting our selection to one university, the field of study, or country. We understand that women who responded to our request could be attentive to the topic. After posting the recruitment post to Facebook groups focused on women and women in academia, participants could participate by clicking on the linked Google form. Data were collected during the initial coronavirus lockdown phase between 2 May and 11 October 2020.

To understand the unprecedented experiences of mothers in academia as they work from home and manage the learning of their children, we applied the following inclusion criteria: (1) self-identify as a mother, (2) full-time employment in academia, (3) children under the age of 18, having recently/currently been enrolled in preschool through high school. Overall, the majority of participants were from the US (32) and Kazakhstan (21) and the rest of the fifteen academic mothers participated from the UK, Australia, Canada, South Korea, Lebanon, Ukraine, Ireland, Hungary, and the Philippines. Women from various positions in academia took part in our study: Leadership Members (7.4%), Assistant, Associate and Full Professors (44.1%), Lecturers and Instructors (17.6%), Teaching and Research Assistants (23.5%), and Doctoral Students (5.8%) (see Appendix 1).

The Process of Participant Created-Data

Our study sought to understand the lived experiences, the “reality,” of motherscholars during the COVID-19 pandemic who were taking care of children suddenly learning online. Data collection involved participants taking a photograph of their current work/life environment or a representation of it. Then they described the photo and explained why it represents their current reality as a motherscholar during the COVID-19 crisis. Participants uploaded and answered multiple questions in the Google form and shared their interpretation of photographs with accompanying narratives. For example, questions included background information about geographical location, academic position, number of children and age, whether they have special needs, number of children learning in online format due to the pandemic, primary caretakers of children. We then asked participants to submit a photo and explain it—describing why they took it and how it relates to their current lives, and what we can learn from it.

The form included a consent form, and participants were also told that the research results would be available on social media with blurred faces or any other identification and in a website created for the purpose of sharing the findings (CohenMiller & Izenkova, 2021). The photographs were intended to show what reality looked like for motherscholars during the pandemic while in quarantine.

Participants were free to take from one to several photos of any aspect of their lives or include an image to represent a concept.

Using matricentric theory (O'Reilly, 2007) as a guiding frame, we examined the data thinking about the ways in which women and mothers negotiate and mediate their roles in culturally constructed contexts. Data were analyzed using thematic analysis including systematic, iterative analysis of written text created by participants. We identified common themes emerging from the data (Nowell et al., 2017). To enhance the credibility of our findings moving beyond our personal experiences as mothers in academia with children at home during the pandemic, we employed a debriefing approach, providing information about the research process after data collection through a website and social media page (see CohenMiller, 2022; Mulder & Dull, 2014). The photos provide explanations for the lived experience but were not analyzed. Instead, the participant-researcher voices come through in the descriptions and explanations in the photovoice text. In this way, the photos acted as a form of elicitation arts-based practice (see Liebenberg, 2019).

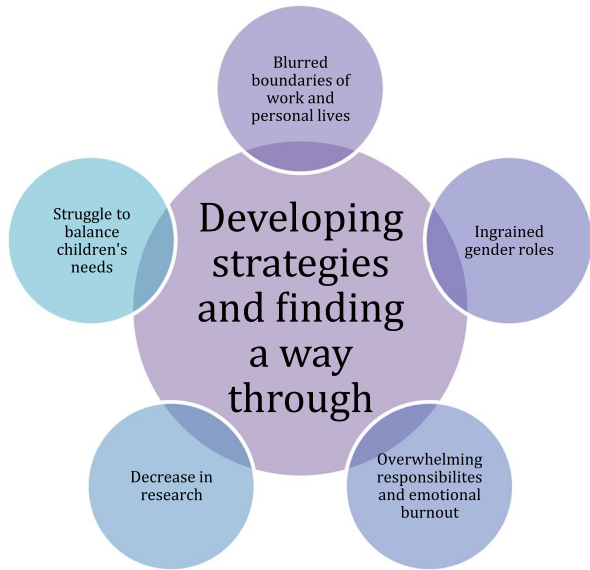
Findings

While the pandemic has created new working environments for all academics worldwide, mothers in academia experienced structural inequity in their higher education organizations. Across the images and descriptions shared, motherscholars shared key stressors, obstacles, and solutions. The themes highlighted six common experiences centered around motherscholars' efforts to develop strategies to find a path forward, demonstrating across participants a tension between individual agency and organizational support (see Fig. 1). Additional themes describe blurred boundaries of work and personal lives, overwhelming responsibilities and emotional burnout, decrease in scholarship, struggle to balance children's needs, and ingrained gender roles (Fig. 1).

Blurred Boundaries of Work and Personal Lives

The first common theme across participants emphasized the ways in which boundaries were blurred across work and personal lives. For example, most motherscholars noted that home spaces were no longer just the place for rest and family gatherings, but working space, preschools, schooling, and entertainment as many countries introduced strict lockdown measures. These blurred boundaries greatly influenced the professional and personal lives of the study participants. No longer having separated working spaces, many women expressed that they worked in chaotic, messy spaces, kitchens, or shared rooms. The blurring of boundaries meant finding new ways to work, such as how some participants pushed themselves to work late at night when the children were asleep. The following sections include details of photos as shared and described by participants. All names are pseudonyms and were purposefully designed to align with the cultural context of each individual. (The

Fig. 1 Developing strategies and finding a way through: The lived experience for motherscholars during COVID-19 while guiding children through home learning



images included here, as well as others from the photovoice study, can be viewed at the online gallery, www.photovoicemotherscholars.wordpress.org (CohenMiller & Izenkova, 2021).)

The first example is from Roxanne in the United States who explained that at home, she feels unable to leave her workspace: “I’m chained to that table.” These interactions have significant implications on performance productivity. During the pandemic, most of the participants worked remotely performing teaching or other professional duties online. Online teaching and digital meetings included family members in the background, their voices often heard. Roxanne describes her photo in this way (Fig. 2):

Fig. 2 “There isn’t a good workspace for us at home now” (Roxanne)



I think this photo captures the general messiness and chaos that I'm experiencing constantly. I don't have a home office or even a desk at home. This is partly because we have a small apartment, but is mostly because I don't like to do academic work at home. In normal times, doing grading, course prep, writing and research at my university office or at a local coffee shop allows me to focus on spending quality time with my daughter when I'm home. However, that means there isn't a good workspace for us at home now. So both of us work at the one and only table in our apartment - the same one we eat our meals at....

Yet the struggles are not a simple dichotomy. Amidst the challenges and new obstacles COVID created, motherscholars such as Roxanne also purposefully look for ways to be optimistic and find positivity amidst the stress and struggles of the blurred boundaries:

All of the order and balance I work so hard to maintain during normal times is completely out the window. It is pure and utter chaos - physically, mentally, and emotionally. But there is still some joy in it. The chaos is there, but so is the love. My daughter is still finding things to do that she enjoys (like drawing a massive King Kong to tape to that tower) that I feel honored to witness.

For Michelle in Australia, the pressures of lockdown were exacerbated by children with special needs and limited family support systems (Fig. 3):

We are migrants, and do not have any extended family where we currently live. My youngest son with ASD recently attempted to end his own life, my eldest daughter returned to the UK right before the lockdown and lives on a disability pension, and my youngest daughter is still recovering from pleuritis.

She noted the struggle of being in a shared space, "family members are constantly walking in and out of the kitchen, asking me all sorts of random questions."

Overwhelming Responsibilities and Emotional Burnout

For motherscholars in this study, a major commonality was overwhelming responsibilities. As a result, the participants shared about emotional burnout and reduction in research productivity. It became clear how COVID-19 brought many disruptions not only to working dynamics to emotional wellbeing, leading to frustration and burnout. The following shared photographs demonstrate the working conditions of academic mothers at that time. For example, children appearing in Zoom meetings, opening motherscholars' private life, influencing family life, and often creating extreme stress. Many participants described the responsibilities they faced were overwhelming. Motherscholar explained how balancing academic work, homeschooling, and not being able to find time for themselves affected their health negatively. As Joy living in Canada described, guiding children online is more than just "homeschooling" but a full time job as shown in indicated in her photo (Fig. 4),

Fig. 3 *Shared space for work and family* (Michelle)



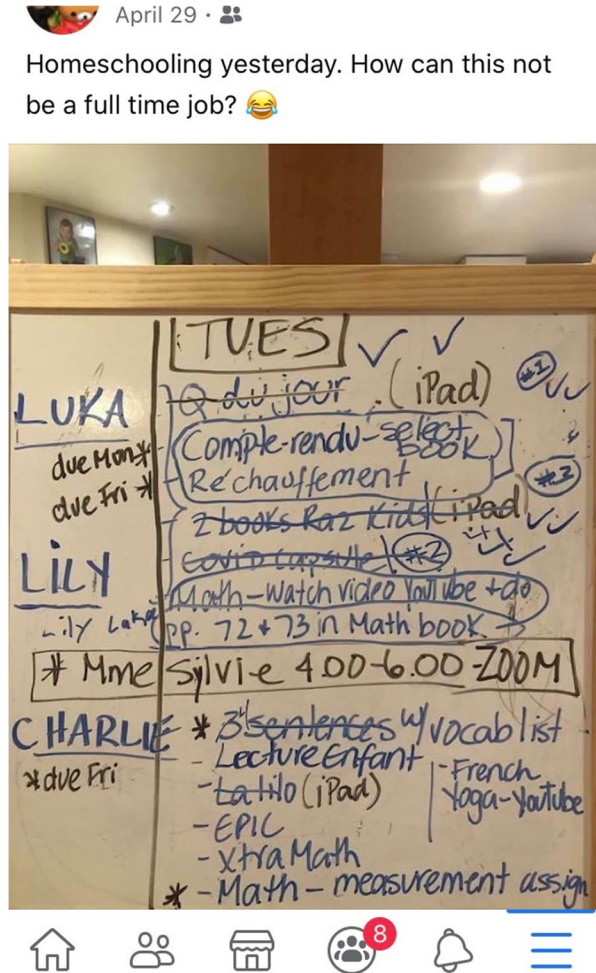
You shouldn't even call it homeschooling because parents who homeschool full time are the ones to decide how to teach the curriculum, but in this case, the parents have the task of executing the lessons and materials that the teachers have provided

The pressures of multiple roles that demand 100% attention led to extreme stress and hardship. For example, these emotional costs are described by Alison who parents half-time with her ex-husband, "She [my daughter] and I have had several giant blow-ups [arguments] where we both end up screaming and crying. It makes me feel like a terrible mother."

Decrease in Scholarship

Motherscholar described an overall struggle in facing the typical demands of research productivity. For example, several faculty members recognized they slowed or even stopped research endeavors. With additional family responsibilities, the challenges of finding time to produce research manuscripts were extreme. For those who were single parents or who had children with special needs, the pressures and lack of time were particularly noteworthy. Recent findings echo these findings with those

Fig. 4 How can this not be a full-time job? (Joy)

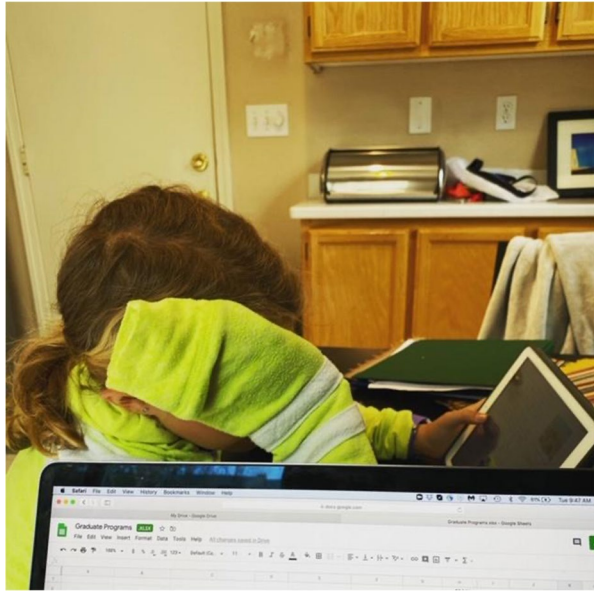


who have fewer caretaking responsibilities, men, outperforming women in research during COVID (Kasymova et al., 2021).

Struggles to Balance Children's Needs

One of the central struggles motherscholars noted was the constant struggles to find a way to balance their children's needs. While it was recognized that the pandemic did mean there was more time at home with family, it was also a consistent challenge to find appropriate ways to engage children in meaningful ways that aligned with motherscholars values. For example, to keep children occupied during working hours, multiple participants explained turning to practices they would not typically use, such as more time in front of screens or offering sweets so children will not disturb them: "My then 8-year-old daughter was looking at

Fig. 5 *Eight-year-old sobbing while using the iPad (Alison)*



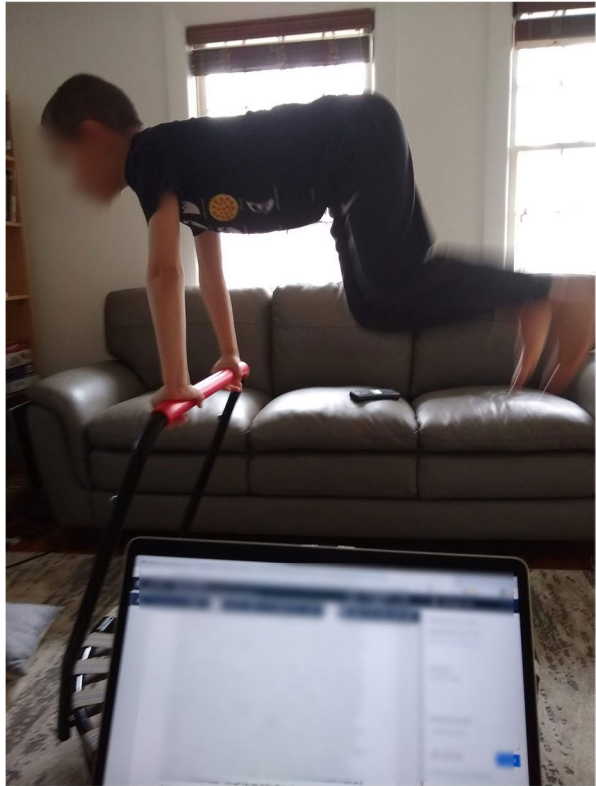
her iPad and sobbing because she was mad at me for not helping her the way she wanted while I was trying to work” (Alison, Fig. 5).

Geographically, some countries offer social systems facilitating the integration of work and family, such as social welfare and childcare services. Regardless of location, the experience of lockdown influenced all motherscholars. A surprising finding was the identification of participants having children with “special needs.” While none of the mothers from Kazakhstan identified any special needs of their children, however, the terminology may have precluded this classification for their children. In Kazakhstan, the term special needs apply to cases where children would need separate classrooms or special tutors to support their learning needs. In contrast, many participants from Western countries shared a range of special needs, such as minor and significant cases of autism and Asperger’s, learning disabilities (e.g., dyslexia, attention deficit disorder), anxiety (e.g., “anxiety problems,” anxiety disorder), and physical needs (e.g., congenital heart disease, “highly kinesthetic”).

Ingrained Gender Roles

Participants often explained the responsibilities they took on as women and mothers as aligned with expectations of these roles. The motherscholars often noted that they performed more domestic labor than their partners. Mothers, especially those with young children, shoulder more burdens and do double shifts. Only a few mothers shared that they have equitable distribution of childcare and household responsibilities. This gendered division of labor during the pandemic negatively affect the career growth of women in academia. Another significant finding was related to parents who raise children alone. Single mothers from the study often do not split caregiving responsibilities and since the start of the pandemic, they perform the majority of

Fig. 6 “All working on one table due to poor Internet” (Assem)



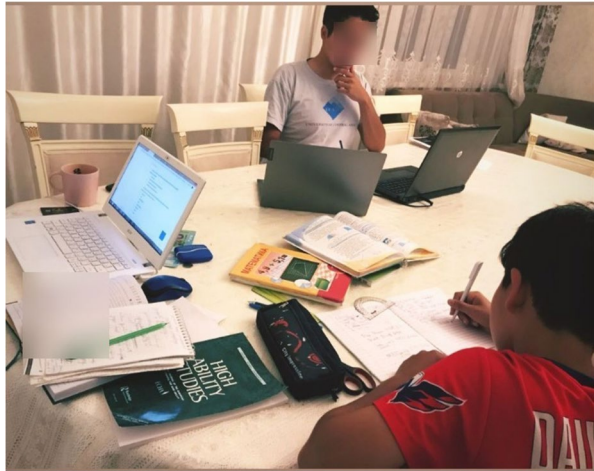
childcare and domestic responsibilities. Additionally, they were frequently the only breadwinners in the family.

Developing Strategies

Throughout the themes, there was a consistent undercurrent, or central point, of finding ways forward through developing strategies. Thus, while there were obstacles, challenges, lack of resources at academic organizational levels, motherscholars consistently noted practical and personal steps they took. Participants discussed their efforts to develop strategies to overcome structural and personal obstacles. Some motherscholars explained how they came to accept the untenable demands.

Several participants specified the obstacles of not having institutional support or family-friendly policies and the ways in which they navigated and found solutions with the limited resources available. Several photographs show how mothers found working solutions in juggling family and professional demands, including negotiating and finding practical solutions to limited internet and physical spaces with multiple people at home instead of in school and university spaces. As Assem in Kazakhstan explains (Fig. 6):

Fig. 7 “My very hyperactive son” (Anna)



You can see how we are all working on one table due to poor Internet connection. I am working online, my second son is doing his online session. He is using two devices as in one laptop the camera is out of order. My younger son is waiting for his turn to do his homework, they actually switch laptops all the time. My elder son is also waiting for his turn to use the laptop as well. Morning is particularly hard and all of them have classes at the same time. I am working to the left, this is my working place, due to poor Internet connection. I also have to watch how my youngest is doing his homework. I try to answer emails and do some other less important work at the time when the children do their homework and have their online lessons, as I cannot concentrate on my writing. The only time I can work is late at night.

For other motherscholars, they discussed developed personal strategies to move through the incredible demands of multiple roles. For example, Anna explained transitioning away from social and academic demands and pressures of perfection: “I’m lowering my expectations as much as possible and giving myself permission to be mediocre at both, and have moments of being great at one or the other to remind myself that my mediocrity isn’t my fault.” She further explained that her son has been diagnosed with autism, but his “symptoms” are very mild. In the photo shared, Anna explained that this is “my very hyperactive son is jumping on a trampoline about one foot in front of me as I attempt to grade papers” (Fig. 7).

Another example, from Karly mentions a strategy related to expectations and pressures of multiple roles from a perspective of changing the discourse to one of acceptance and caring. She titled her photo that she shared “Clean it up later” explaining that the disorganization can wait:

Be gentle to yourself, others, and walk away when you need to. I hate that my living room is a mess, but if a little disorganization gives you time or

Fig. 8 “Clean it up later”
(Karly)



energy to focus on yourself or family, clean it up later. We won't get this time back with our loved ones” (Karly, Figure 8).

Discussion & Conclusion

Using an adapted version of photovoice for online use (CohenMiller, 2022; CohenMiller & Izenkova, 2020), motherscholars photographs and descriptions capture the moments of chaos and reflections of the realities of the pandemic as motherscholars while guiding children online in learning. The participants shared their lives, the obstacles, and ways forward when academic institutions do not offer needed structures. As such, we saw the “reality,” of motherscholars during this time. The lived stories are complex and overall, these pieces of photovoice stories created a mosaic pattern with moments of participants’ everyday lives demonstrating transformed roles of parents during online schooling and unrealistic expectations from women created unprecedented conditions. The pandemic was, and is, a major health crisis affecting everyone’s lives. Motherscholars in this study moved through their lives combining work and home life in new ways. At times, there was also a recognition of priorities and love for family, coupled with an awareness of the lack of institutional support.

The blurred boundaries between personal and working spaces were repeated conditions in almost every household of motherscholars. This situation has substantial effects on all family members. Evidence from previous studies confirms that working from home could generate negative consequences (Benzeval et al., 2020; Manzo & Minello, 2020). The critical increase of workload and isolation within the home environment has negative consequences on emotional wellbeing. When mothers in academia did not have a clear division between work, family, and home, their stress levels increased, and their productivity suffered. Most of the participants expressed their feelings of exhaustion, frustration, and emotional burnout. These findings aligned with previous studies (Tchimtchoua Tamo, 2020).

The identified impacts of the COVID-19 pandemic on academics, including the life of students, postdocs, faculty, and staff experienced include a significant increase in efforts to balance the needs of children. Recent studies identify that women struggle to shoulder the burden of childcare responsibilities during COVID times (Del Boca et al., 2020; Manzo & Minello, 2020). Families with children with special needs experienced more complexities with developing surviving strategies.

While our study focused broadly on the lived experiences of motherscholars during COVID-19 across academic roles, through utilizing a critical self-reflective process (see CohenMiller & Boivin, 2021), we were able to see limitations. One such limitation is that we did not include an extensive analysis of the variances across academic roles, which could offer insight to the various stressors and opportunities of each role. We recognize that depending on the academic role there are suggested differences in stress, pressures, and opportunities, which future research studies could address. For those with more stable positions (e.g., tenured faculty, administration leads), there was greater agency allowing more flexibility. Future research should explore such differences to better understand and address those both in positions of security and those in more precarious positions.

Moreover, the topic of special needs for children of motherscholars has not been studied and needs additional attention, both during COVID times and during more “normal times.” While it is known that those in Kazakhstan also face raising children with special needs, a limitation of our study was the use of the terminology which may have limited motherscholars from sharing their experience due to a different understanding of the phrase. Future research explore ways to engage discussion of the sensitive topic in the culture.

Taken together, we find that across academic roles, motherscholars had to make grueling decisions in working from home and guiding children through online learning during the pandemic. With many mothers being the primary caretaker, and often for children with special needs of some type, motherscholars’ focus moved to the necessity of taking care of the family. The gendered impact of household labor increased the burden for women faculty members with children. Evidence from previous studies confirms that working from home could generate negative consequences for women with dependents when the operation of gender roles in place (Alon et al., 2020). These gendered norms cause persistent inequality and postpone the gender gap parity for another century (Armstrong, 2021). Without recognizing childcare responsibilities and implementing solutions for motherscholars and all primary caretakers, academic institutions are requiring individuals to make up for systematic injustice. Creative solutions have also been seen through collaborative work and community building, such as through the Motherscholar Collective et al. (2021).

This article sheds light on the lived experiences, structural inequalities in academia, and uncovers socially just solutions for mothers in academia during the pandemic when they took on additional roles of guiding their children through schooling online. Interventions are necessary and public policy and university leadership can shift the focus on not just supporting mothers in academia, but “facilitating their success” (CohenMiller et al., 2022). The deep inequalities created by the pandemic disadvantaged motherhood and the pre-corona system of support (which was not consistent) are no longer applicable for this time being.

The pandemic has significantly disadvantaged mothers in academia. Without policies and procedures addressing equity and inclusion during and *after* the pandemic, women and mothers in academia will suffer across all facets of the academic pipeline, including in recruitment, retention, and promotion (CohenMiller, 2020). Right now, the onus of finding solutions in higher education rests on individual efforts and resources, such as the motherscholars in this study, who had to find individual solutions to manage through massive lockdown during the pandemic. In returning to a “more normal” time, academic organizations have an opportunity to address inequities and lack of resources during the pandemic and actively listen to the experiences of marginalized populations. In this way, academia can move toward creating policies and practices that equitably incorporate all members.

Appendix 1: Sample Participant Data

	Country	Position	How many children do you have?
1	Kazakhstan	Administrator	2
2	United States	Assistant Professor	1
3	United States	Assistant Professor	More than 3
4	United States	Associate Professor of Law with tenure	2
5	United States	Assistant Professor	1
6	United States	Founding Director and Assistant Professor	2
7	United States	Assistant professor	1
8	United States	Full-time lecturer	1
9	United States	Assistant Professor	2
10	United States	Assistant clinical professor	More than 3
11	United States	Assistant Professor	1
12	United States	Assistant professor	2
13	United Kingdom	Lecturer	More than 3
14	United Kingdom	Associate Head of Art (head of department)	2
15	United States	Assistant Professor	3
16	Lebanon	Instructor of English	1
17	United States	Professor and Undergrad Coordinator	3
18	United States	Associate Professor	3
19	Australia	Lecturer	3
20	United States	Assistant Professor of Accounting	3
21	United States	Assistant Professor	1
22	Kazakhstan	Research Assistant	1
23	Kazakhstan	Acting director of Library	1
24	United States	Assistant Professor	2
25	United States	Assistant professor	2
26	United States	Instructor	2

	Country	Position	How many children do you have?
27	Kazakhstan	Teacher	3
28	United States	Associate professor	2
29	United States	Full Professor/Department Chair	1
30	United States	Instructor	1
31	United Kingdom	Part-time independent scholar and part time SEND teacher	1
32	Ukraine	Assistant (Department of Theory and Philosophy of Law)	2
33	Kazakhstan	Expert manager	3
34	United States	Doctoral Student	1
35	United States	Associate Professor and Assistant Dean	1
36	Ireland	Post-doctoral Researcher	1
37	Kazakhstan	Teacher	1
38	United States	Associate Dean	2

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Data Availability Available with request.

Declarations

Ethics Approval Approved by Nazarbayev University Ethical Review Board.

Consent to Participate Participants all agreed to participate as part of ethical processes.

Consent for Publication All participants agreed to participate and allow their data to be published.

Conflicts of Interest Not applicable.

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Anna CohenMiller PhD, is an internationally renowned qualitative social justice methodologist and award-winning educational leader who uses compassionate and transformational research/leadership to address issues of equity and inclusion in higher education in Kazakhstan and internationally. She is a founding faculty member at Nazarbayev University Graduate School of Education and specializes in arts-based research to facilitate/amplify voice of marginalized communities. CohenMiller recently published (with N. Boivin), *Questions in Qualitative Research in Multicultural Contexts* (2021, Routledge) and frequently speaks at local and international venues around key topics of social justice and demystifying qualitative research.

Zhanna Izenkova is a PhD student in the Graduate School of Education and Research Assistant at Nazarbayev University. Her research interests include, but are not limited to, the following areas: mothers in academia, gender, school leadership, equity, and shadow education.