



# Exploring the Experiences of Doctoral Student Mothers: A Comparative Study of Kazakhstan and Uzbekistan

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## INTRODUCTION

Doctoral students worldwide face significant challenges that hinder the timely completion of their studies and increase the risk of dropping out, including financial constraints, personal well-being, and the academic environment (Caruth, 2015; CohenMiller et al., 2022; Mason et al., 2023). Women, in particular, bear a heavier burden as they juggle multiple roles as mothers, spouses, and caregivers while also contending with cultural, familial, community, and societal expectations (Rockinson-Szapkiw and Watson, 2020; Paksi, 2022).

Doctoral student mothers (DSMs) experience predominantly demanding circumstances due to the extensive time commitment required

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for their studies and the lack of essential support from both their families and institutions for degree attainment and successful completion (Breitenbach et al., 2019; Catalano & Radin, 2021; CohenMiller et al., 2022; Gray, 2022). Studies have highlighted how the dual responsibility of childcare and doctoral studies often leads to time and financial constraints (Macaluso, 2020; Velander et al., 2022). Balancing multiple roles and identities has also been linked to physical and emotional health issues among DSMs (Mason et al., 2023; Prikhidko & Haynes, 2018). Additionally, the lack of institutional and social support necessary for coping with motherhood and doctoral studies has been identified as a significant cause of academic stressors and low research productivity among DSMs (CohenMiller & Demers, 2019; Gray, 2022). The COVID-19 pandemic in 2020 further exacerbated the challenges faced by mother scholars, who also had to take on the additional responsibility of guiding their children's online education (CohenMiller & Izenkova, 2022). A recent study by Mason et al. (2023) involving 1323 participants from 112 countries revealed a negative impact of motherhood on the writing and research skills of DSMs. However, international DSMs and those studying in Asia were found to potentially have a more positive effect of motherhood on their doctoral research (Mason et al., 2023), although no clear explanation was provided for these differences.

It is worth noting that the experiences of DSMs in Central Asia are underrepresented in existing studies, which predominantly reflect Western perspectives. This study aims to address this gap by investigating the experiences of DSMs in Kazakhstan and Uzbekistan, the two largest Central Asian countries. By considering the socio-cultural complexities often overlooked in Western perspectives, this research provides valuable insights to inform policies and support systems in higher education that can promote the retention and success of DSMs in the region. Moreover, despite sharing significant historical, cultural, and geographical similarities, Kazakhstan and Uzbekistan have distinct gender regimes and educational systems, which warrant the need for a comparative analysis.

The subsequent section provides a contextual overview of Kazakhstan and Uzbekistan in terms of gender and higher education landscapes. It then introduces Butler's theory of gender and O'Reilly's maternal theory. Next, research questions and methods are discussed. The findings are presented under three main themes: navigating cultural norms and identities in the domestic sphere, navigating scholar identity in academia, and

stresses and coping mechanisms. The discussion section connects the findings with existing literature, provides policy and practice implications, and addresses the limitations of the study. The chapter concludes with final thoughts.

## GENDER AND HIGHER EDUCATION IN KAZAKHSTAN AND UZBEKISTAN

Historically, gender played a significant role in Soviet ideology, emphasising women's education, work, and motherhood (Obiya, 2016). While the Soviet education system increased women's literacy rates, socialist paternalism, coupled with a command economy and nationalities policy, hindered social transformation and modernisation associated with gender equality (Kandiyoti, 2007). Soviet maternity policies glorified motherhood, promoting it as a social duty while simultaneously integrating women into the workforce (Kandiyoti, 2007; Sobirova & Abdullaev, 2021).

Following the collapse of the Soviet Union in 1991, Kazakhstan and Uzbekistan, along with other Central Asian countries, underwent post-socialist transformations that gave rise to gendered nationalism (Palandjian et al., 2018). This shift reinforced traditional hierarchies and patriarchal structures (Palandjian et al., 2018; Zhussipbek & Nagayeva, 2023). Women in Central Asia face the challenge of navigating various societal expectations and being required to fulfil multiple roles as mothers, wives, and contributors to the workforce (Kuzhabekova & Almukhambetova, 2017). The resurgence of "national traditions" alongside the emergence of neoliberal capitalism has had detrimental effects on women's rights in the region, consolidating authoritarian oligarchies and reinforcing patriarchal dominance (Zhussipbek & Nagayeva, 2023). Economic changes across Central Asia aim to integrate women into the global market economy, yet the absence of social welfare policies from the Soviet era exacerbates the burdens and vulnerabilities faced by Central Asian women (Zhussipbek & Nagayeva, 2023). Social norms dictate that women can only pursue paid employment once they are relieved of caregiving duties, thereby impeding their economic autonomy.

Understanding post-independence education reforms in these countries requires considering their cultural contexts. The Soviet Union portrayed Central Asian women as a homogeneous group needing liberation from their culture and Islam (Durrani et al., 2022). However,

differing lifestyles in Kazakhstan, with a nomadic lifestyle, and in Uzbekistan, with a more sedentary lifestyle, resulted in distinct gender norms and outcomes for women. Kazakh women had a level of equality and shared labour due to their nomadic lifestyle (Kudaibergenova, 2018), but societal norms still favoured men's superiority, with young newly married women having limited influence within the household (Sattarov, 2021, cited in Durrani et al., 2022). On the other hand, Uzbek women had limited mobility and public presence, with traditional stereotypes and gender conservatism prevalent in both urban and rural areas (Tastanbekova, 2018). Relatively, these varying gender dynamics result in differing implications for gender equality: in Kazakhstan, despite historical equality in labour share, entrenched patriarchal norms limit women's agency; while in Uzbekistan, limited mobility and traditional gender norms cause significant obstacles to women's participation in social life, both highlighting the ongoing challenges in achieving gender equality in Central Asia.

Post-independence, notable differences in gender equality indicators exist between Kazakhstan and Uzbekistan (Table 8.1). Kazakhstan demonstrates lower gender disparities and provides more equitable access to healthcare, income, and educational opportunities for both men and women compared to Uzbekistan. These disparities extend to participation rates in higher education and doctoral programs, as discussed below.

Kazakhstan and Uzbekistan took distinct paths in developing doctoral education post-independence. Kazakhstan's massification and privatisation resulted in a higher female representation in doctoral programs, with 63% of doctoral students being women in the 2022–2023 academic year (Bureau of National Statistics of the Agency for Strategic Planning & Reforms of the Republic of Kazakhstan, 2023). In contrast, Uzbekistan, under Islam Karimov, implemented strict restrictions on access to higher education (Ruziev & Mamasolieva, 2022). Despite recent higher education reforms under Mirziyoyev, Uzbekistan still has low female representation in doctoral education and low completion rates (Uzbekistan Statistics [UzStat], 2021).

The difference in women's involvement in higher education can be attributed to specific educational policies and historical gender norms. DSMs in both countries face contrasting landscapes shaped by diverse historical and policy contexts, necessitating an examination of gendered socio-cultural norms and educational policies. Recognising the intertwined construction of gender and motherhood can aid in incorporating

**Table 8.1** A comparative table of gender indicators in Kazakhstan and Uzbekistan

<i>Indicators</i>	<i>Kazakhstan</i>	<i>Uzbekistan</i>
Gender Inequality Index (GII) (2021) <sup>1</sup>	41st place 0.161	56th place 0.227
Global Gender Gap Index (GGGI) (2023) <sup>2</sup>	62nd place 0.721	No data
Gender Equality and Global Governance Index (GEGGI) (2022) <sup>3</sup>	83th place 65.8	107th place 60.7
Gender Development Index (GDI) (2022) <sup>4</sup>	56th place 0.998	101st place 0.944
Participation rate of women in higher education	163,500 (52.7%) (enrolled) (2023) <sup>5</sup>	369,000 (45.6%) (total) (2022) <sup>6</sup>
Participation rate of women in doctoral education (total number) <sup>5</sup>	6200 (63%) (2023) <sup>5</sup>	40 (27.4%) defended (2021) <sup>6</sup>

Note <sup>1</sup>United Nations Development Program [UNDP]. (2021). *Gender Inequality Index*. <https://hdr.undp.org/data-center/documentation-and-downloads>

<sup>2</sup>Global Gender Gap Report. (2023). *Benchmarking gender gaps, 2023*. <https://www.weforum.org/reports/global-gender-gap-report-2023/in-full/benchmarking-gender-gaps-2023/>

<sup>3</sup>Global Governance Forum. (2022). *The gender equality and governance index*. <https://globalgovernanceforum.org/wp-content/uploads/2021/01/GENDER-EQUALITY-AND-GOVERNANCE-INDEX-2022.pdf>

<sup>4</sup>United Nations Development Program [UNDP]. (2022). *Gender development index*. <https://hdr.undp.org/gender-development-index#/indicies/GDI>

<sup>5</sup>Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan (2023). <https://www.gov.kz/memleket/entities/stat/press/news/details/476731?lang=ru#:~:text=Общая%20численность%20докторантов%20на%20начало,свыше%20установленного%20срока%20%2D%20408%20человека>

<sup>6</sup>Uzbekistan Statistics [UzStat]. (2021). *Main Statistical Indicators of Science and Innovation in the Republic of Uzbekistan*. [https://stat.uz/images/uploads/reliz2021/inovatsiya\\_28\\_07\\_22\\_ru.pdf](https://stat.uz/images/uploads/reliz2021/inovatsiya_28_07_22_ru.pdf)

valuable perspectives into policy development to promote gender equity and empower DSMs in their academic pursuits.

## CONCEPTUALISING GENDER AND MOTHERHOOD

Drawing on Butler's (2002) conceptualisation of gender as performative, we examine the concepts of gender and motherhood as a socially constructed process. Butler (2002) challenges the traditional understanding of gender as a biological sex and a reflection of natural differences, arguing instead that gender is not a cultural inscription, but a

continual reproduction which is established through actions and language within the societal constraints.

(...) gender is not to culture, as sex is to nature; gender is also the discursive/cultural means by which “a natural sex” is produced and established as “pre-discursive,” prior to culture, a politically neutral surface on which culture acts. (Butler, 2002, p. 10)<sup>c</sup>

Gender norms are deeply embedded within societies, dictating behavioural expectations for individuals who strive to conform to these societal ideals to validate their gender identities. In Central Asian contexts, such norms manifest in women being expected to fulfil roles as mothers, wives, and caretakers, while men are often pressured to embody the role of the breadwinner and deviation from these norms can lead to societal scrutiny and internalised guilt (Durrani et al., 2022). Post-independent Central Asian nation-building ideologies have reinforced these gender norms, emphasising unique ethno-cultural frameworks that define identity and behaviour within the nation and society. Patriarchal structures influenced by the national cultures of Kazakhstan and Uzbekistan have contributed to gender inequalities within marriages, often silencing women and limiting their agency societal discussions (Kudaibergenova, 2016).

This study emphasises motherhood as a critical lens to explore the intricate interplay between gender norms and societal expectations that influence women’s experiences. Andrea O’Reilly (2019a) challenges traditional notions of motherhood, advocating for empowering maternal identities within feminist discourse through a matricentric/maternal theory. This perspective highlights the importance of integrating motherhood into feminist theories, which are often overlooked in mainstream policy frameworks (O’Reilly, 2019a). She underscores the distinction between motherhood and mothering, highlighting that motherhood refers to the social institution and cultural expectations surrounding the role of a mother, while mothering encompasses the everyday practices and experiences involved in caring for and nurturing children. In doing so, she draws attention to the socially constructed nature of motherhood, which is continually reshaped in response to evolving economic and societal dynamics. For example, the discourse of “stay-at-home motherhood” as the ideal form of motherhood emerged in the Global North after World War II, to create jobs for men returning from war. She further

asserts that normative motherhood is a patriarchal institution that perpetuates the notion that mothering is inherent to women and vital to their existence, normalising women as natural caregivers who must prioritise their child's needs over their own. If women must work outside home, "the children must always come before the job" (p. 24). Few women can meet the ideals set by normative motherhood, leaving most women feeling guilty and a sense of failure as a mother. In contrast, mothering stems from mothers' lived experiences rooted in women's agency and autonomy. It is not only the physical caregiving act, but also emotional and spiritual support that women create within their own communities" (O'Reilly, 2019b). Empowered mothering "challenges normative understandings of motherhood, family, child-rearing, and activism", and embraces a multitude of mothering identities beyond the middle-class, married and stay-at-home mothers (p. 30).

By acknowledging this difference, the study promotes understanding the diverse caregiving experiences of women, particularly in challenging patriarchal norms and advocating for gender equality. O'Reilly asserts that motherhood is a cultural practice continually evolving in response to economic and societal shifts (O'Reilly, 2019b).

Maternal theory centres on motherhood and the challenges encountered by mothers, promoting social change to aid mothers pursuing doctoral education, establishing it as a key framework for the current study on DSMs in Central Asia. Furthermore, the research underscores the gendered aspects of policy processes and the significance of challenging male-dominated governance through a feminist lens to empower women and rectify biases and inequalities in institutional policies (McPhail, 2003). Historically, higher education and academia have reinforced societal gender norms and relationships (Acker, 1990; Cohen-Miller & Izenkova, 2022). As Acker (1990) argued, organisational structure is not gender-neutral, but rather a hierarchical system that embodies male dominance, marginalising women who indeed contribute to the maintenance of gender segregation in organisations. Just as motherhood is depicted as a patriarchal institution, where male-defined norms often suppress women's agency and autonomy, the gendered structures of academia likewise reflect and perpetuate gendered assumptions and power dynamics. Thus, maternal theory can help illuminate the specific obstacles faced by DSMs and advance gender equality and social justice in higher education.

The interconnected factors impacting women's experiences require an intersectional approach because people's gender and maternal identities are not formed in isolation but are shaped by a myriad of intersecting identity markers, giving rise to diverse gender and motherhood identities and practices. Kimberlé Crenshaw's Intersectionality Theory (1991) is therefore useful in examining how cultural identity dimensions like race, gender, and socioeconomic status intersect and impact each other. This inclusive perspective acknowledges that women's experiences are shaped by a combination of multiple dimensions rather than single identity categories. This holistic approach is vital for crafting impactful policies and interventions to tackle the distinct challenges faced by DSMs in Kazakhstan and Uzbekistan and promote gender equality and social justice in higher education.

## RESEARCH APPROACH AND METHODS

This study adopts a qualitative approach to conduct an in-depth exploration (Creswell, 2014; Labuschagne, 2003) of the experiences of DSMs. Specifically, by employing hermeneutic phenomenology, the research investigates how individuals derive meaning from their lived realities and personal understandings (Van Manen, 1990). This approach was chosen for its capacity to comprehend complex situations and facilitate reflexive and critical thinking (Titchen et al., 2011; Van Manen, 1990). The study aimed to identify socio-cultural and policy-related factors that could inform policy interventions for better support of DSMs.

The study posed the following questions:

- What challenges do doctoral student mothers in Kazakhstan and Uzbekistan face while juggling multiple roles?
- How do these challenges vary between the two countries?

Data was collected between March and May 2021 through in-depth semi-structured interviews, allowing for a deep exploration of the experiences, perspectives, and thoughts of DSMs (Seidman, 1991). The semi-structured nature of the interviews provided flexibility in adjusting questions based on participant responses. In Kazakhstan, the interviews were conducted in Russian and English, while in Uzbekistan, they were conducted in Uzbek and Russian languages. Interviews were conducted

online using the Zoom platform to adhere to COVID-19 restrictions and ethical guidelines, ensuring participant privacy, confidentiality, and data security. Participants were provided with informed consent before each interview with detailed information about the study's objectives, potential risks, and benefits, ensuring their voluntary participation (Seidman, 1991).

### *Participants*

The study utilised a non-random snowball sampling method, where participants were recruited through referrals from the initial participant and subsequent referrals from other participants (Ghaljaie et al., 2017). A total of fifteen DSMs participated in the study, with eight from Kazakhstan and seven from Uzbekistan. The participants primarily represented disciplines in the Social Sciences. They were aged between 30 and 37 years old and were parents with one to three children. The participants were at various stages of their studies, ranging from the early stage to the final stage of preparing for their defence. All names have been changed to protect the identities of the participants.

### *Data Analysis*

The first author transcribed and translated the interviews into English. NVivo software was used to analyse the data, resulting in a codebook with multiple codes. The research questions and theoretical framework guided the analysis. Through multiple readings of the codes and data, the codes were organised into categories and further grouped into main themes. Three themes emerged from the analysis: navigating cultural norms and identities in the domestic sphere, scholar identity in academia, and stresses and coping mechanisms. Excerpts from the interviews are provided to illustrate the participants' lived experiences related to each theme and country.

## FINDINGS

### *Navigating Cultural Norms and Identities in the Domestic Sphere*

DSMs in Kazakhstan and Uzbekistan faced the complexities of balancing their roles as mothers, wives, and kelins. Navigating cultural norms and societal expectations while pursuing their doctoral education posed significant challenges for them. As a result, many participants experience feelings of guilt for not meeting their own expectations as mothers and for not being able to dedicate enough time to their children. Aray, a participant from Kazakhstan, expressed this sentiment.

My son can't speak at three, and I blame myself for not being able to spend quality time with him. I have to leave him alone in the room to watch TV while I study on the balcony.

Aray's identity as a mother was burdened with guilt due to her inability to spend more time with her child, which took an emotional toll on her.

Nigora's experience from Uzbekistan highlights the challenges of managing multiple identities as a doctoral student mother, particularly without the benefit of maternity leave, as she navigated the demands of being a wife, homemaker, and mother to two toddlers. Her experience exemplifies the time constraints and stresses encountered in balancing these roles.

As a mom of two kids, studying is tough, with every minute of my schedule carefully planned. I experience more physical stress as my kids are young. If I neglect my house chores, my husband scolds at me.

DSMs in Uzbekistan faced the additional complexity of the "kelin" identity, which amplifies the challenges they face in balancing familial and academic responsibilities. The concept of "kelin" was highlighted by four out of seven participants, who experienced the burdens of being a kelin, including responsibilities for household chores and serving their husband's extended family. While having parents-in-law provide childcare support was seen as positive, the participants expressed the added burden of their cultural role as kelins. As Nodira mentioned:

My husband doesn't understand that research requires time. He insists on me smiling in front of his parents, even when I am feeling moody or tired.

I am expected always to smile and be prepared to serve, and study only at night when everyone is asleep.

Nodira faced the challenge of balancing her doctoral studies with societal expectations and her role as a “kelin”, which limited her time for dissertation and research. Since her husband was the only son, living in a nuclear household was unattainable. Nodira prioritised meeting societal standards as a mother, wife, and “kelin” over her identity as a doctoral student. This resulted in her doctoral student identity being overshadowed and compromised within her familial context.

In contrast, participants from Kazakhstan did not mention facing challenges related to their “kelin” identities, possibly because they did not live with their husbands’ extended families. This suggests that while women in Kazakhstan may still face constraints related to their “kelin” roles, these roles appear to be less prominent compared to Uzbekistan.

Cultural expectations and norms create internal conflicts for DSMs, which are intensified by societal judgements. DSMs from Kazakhstan expressed that these expectations added extra responsibilities and fears of social judgement. These pressures, combined with maternal obligations and household chores, create a sense of pressure to conform to idealised notions of femininity. For example, Saule, a participant from Kazakhstan, felt hesitant and uncomfortable about revealing her third pregnancy to her family members, highlighting the internal questions she faced while navigating cultural norms and pursuing her academic goals. She feared judgement from those around her, including her family. The concern was that they might question her ability to manage her two school-aged children and an expected new baby while simultaneously working on her PhD dissertation. Aigerim, another participant from Kazakhstan, experienced moral pressure from people who judged her for pursuing her studies at an advanced age in her 40s and perceived her as neglecting her children. She described herself as being “as busy as a bee” but still feeling like she lagged behind in everything.

The analysis presented underscores the intricate interplay between cultural expectations, societal norms, and the pursuit of doctoral education for DSMs in both Kazakhstan and Uzbekistan. Meeting cultural expectations of being a caring mother, an obedient wife, and a dutiful daughter-in-law placed emotional, social, and moral pressures on DSM, making them vulnerable to feelings of guilt and inadequacy as they strived to strike a balance between their familial and scholarly identities.

### *Navigating Scholar Identity in Academia*

This theme delves further into how DSMs navigate their scholar identity within academia, examining their self-perception and how others perceive them as scholars—studious, competent, capable, and intelligent doctoral students. Gender norms play a significant role in shaping not only the multiple familial identities of DSMs but also their scholarly identity. These norms constrain their academic pursuits and contribute to the pressures they experience in their domestic lives.

#### *Gender-Based Barriers*

Gender norms created institutional barriers for women, constraining their full potential. Our analysis revealed several challenges stemming from these norms, particularly for DSMs in Uzbekistan. They faced obstacles in accessing research sites and collecting data independently, as local norms of respectability dictated that they should not travel without a male escort. As a result, they relied on a close male family member, who ideally had the necessary resources, to accompany them and facilitate their access to research sites.

They don't take you seriously because you are a female researcher. You should come either with your husband or any man who has a network, power or an official paper from above. (Aziza)

This pattern of gender bias discouraged DSMs' engagement in research topics that necessitated in-person data collection tools, including interviews or visiting other regions.

Another participant from Uzbekistan, Lobar, who was in the last phase of completing her PhD and preparing to start her teaching career, shared her concerns:

I never thought about a leading position; for me, teaching is enough. If there are options like choosing a man or a woman with children who has many excuses, they will definitely choose a man who can stay until late if required.

Lobar's statement highlights the gendered institutional environment in Uzbekistan that favours men in leadership roles. The reluctance of DSMs to aspire to higher positions after obtaining their PhDs due to entrenched gender bias in academia exemplifies the complex identities they navigate

as scholars and mothers. This reflects broader societal expectations that shape their choices and opportunities in the academic sphere.

In Kazakhstan, participants did not provide specific examples of institutional gender biases. However, two participants mentioned that prevalent gender norms compromise their full potential in academia due to time or mobility constraints.

Women in academia face competing demands, and we can't spend as much time in libraries as men, who I really envy. If I could work from morning till evening, I would have more commitment and physically be available all the time. (Saule)

### *Supervisors' Expectations and Practices*

Gender norms not only create structural barriers but also affect how doctoral supervisors perceive DSMs. Saule, a mother from Kazakhstan, hesitated to inform her supervisor about her third pregnancy due to concerns about their reaction. This hesitation highlights the potential negative perception or disdain that supervisors may have towards DSMs.

In Uzbekistan, Mohira often relied on the “unofficial” support of supervisors or administrators to submit her assignments late if she missed a deadline due to childcare-related circumstances. However, she was aware that this support could not be taken for granted, as she recounted, “But some supervisors would say, ‘Go home and care for your kids; don't study; you should take care of family and children first’”.

The conflicting expectations of being a dedicated mother as demanded by society and a successful scholar as expected by the institution or the supervisor placed an overwhelming burden on the majority of the participants, leading to self-doubt and feelings of inadequacy. As Aigerim, in Kazakhstan, pointed out:

My supervisors insisted that I prioritise either my family or my studies, demanding my full commitment to my studies and criticising me for not being good enough for academia. Therefore, I experienced imposter syndrome, feeling like I didn't belong to academia and constantly doubted my abilities.

DSMs often faced negative consequences as they were perceived as less committed to their studies due to their involvement in childcare and family duties.

Similarly, a lack of supervisor support was evident in Uzbekistan, particularly in terms of expertise. As one participant mentioned, “My supervisor doesn’t understand my topic, and he asks me to do unnecessary paperwork and sometimes unpaid teaching”. While this issue is not specific to gender and could potentially be experienced by male doctoral students, this statement emphasises a significant disconnect for DSMs that can hinder the quality and progress of their doctoral research, adding to their already demanding workload.

However, a few participants from both Kazakhstan and Uzbekistan also shared their positive experiences. Interestingly, these positive experiences involved supportive supervisors who were women, themselves mothers and grandmothers. This highlights the significance of having relatable and understanding supervisors for DSMs.

### *Institutional Support*

DSMs faced the challenge of limited institutional support, including inadequate financial resources and the lack of policies and childcare facilities essential for their needs. Participants from both countries raised concerns about financial constraints, as a substantial portion of their stipend was allocated to cover publication costs, a mandatory requirement for completing their doctoral program. The stipend they received was insufficient to compensate for the loss of income during their PhD journey and meet their basic needs. To make ends meet, many had to take on part-time jobs, which further hindered their research progress.

As my family lives in another region, I have to rent here [Astana], so my first and foremost challenge is a lack of finances. Though I work as an English language tutor to sustain myself and my child, it is not enough. I am really struggling financially. (Nuray, Kazakhstan)

We cannot work full-time while studying; they take your labour book, and we also pay money for publications, which is a requirement for graduation. I mainly receive support from my mom, both emotionally and financially. (Nigora, Uzbekistan)

Similarly, all participants expressed a desire for dedicated on-campus childcare facilities. However, they doubted the feasibility of establishing such facilities at universities. In Kazakhstan, the compressed timeframe of a three-year, one-tier doctoral program presented significant challenges

for DSMs in balancing their roles as scholars and mothers while producing high-quality research. A participant from Kazakhstan, Nuray indicated:

Extending the doctoral study timeline is essential because three years is not enough. It is challenging for mothers to meet deadlines. For men, it can be sufficient, but for women with children, it is not; we, mothers, have to work at night.

As Nuray emphasised, meeting harsh deadlines in order to complete doctoral education on time is very challenging. The institutional challenges encountered by DSMs in Uzbekistan mirror those in Kazakhstan, as Aziza noted:

We have so much unnecessary paperwork, like in the USSR times, but their requirements are like in the West. We are required to publish several peer-reviewed articles. What I hate the most is the university's disregard for our personal lives. They often announce events at the last minute without considering the impact on our families, children, and even our parents-in-law.

The lack of institutional understanding regarding family responsibilities hampers women's academic progress.

In summary, DSMs in Uzbekistan and Kazakhstan face challenges due to gender norms, lack of support, financial constraints, and negative perceptions from supervisors, hindering their progress in balancing motherhood and academia, highlighting the need for extended study timelines, supportive supervisors, and understanding institutions.

### *Stresses and Coping Mechanisms*

#### *Stresses*

The narratives of DSMs from Kazakhstan and Uzbekistan highlight a common challenge in balancing multiple roles, with emotional stress being a prevalent issue. This universal struggle of managing familial responsibilities alongside doctoral studies impacts their well-being and can lead to social isolation and thoughts of dropping out. DSMs in both countries face similar difficulties in navigating the roles of motherhood and academia, as noted by Aray and Aigerim from Kazakhstan.

I experienced both physical and emotional stress, to the point where I fainted once. I constantly contemplate dropping out of my doctoral studies. (Aray)

I experience significant emotional stress when people question why I am pursuing doctoral studies in my 40s with three children. This makes me feel like I am failing in my role as a mother and that I am inadequate to pursue a doctoral degree. (Aigerim)

Likewise, Shoirra from Uzbekistan shared, “I always feel constant emotional strain, and I am physically exhausted from running all the time”. Despite these challenges, her strong passion for research and her academic ambitions prevented her from dropping out.

Similarly, Nigora from Uzbekistan shared that she faces criticism from her husband if she neglects her familial responsibilities, while her supervisor reprimands her if she does not allocate enough time to her research. These pressures often drive her to tears. Additionally, she experienced stress due to a lack of childcare:

I feel overwhelmed when I have to go to the university because there’s no one to look after my kids.

These accounts underline the significant toll that balancing multiple roles takes on the well-being of DSMs.

### *Coping Mechanisms*

In an attempt to balance these multiple roles, such as mothers, scholars, wives, and *kelins*, the DSMs in this study developed certain strategies to survive in academia, such as seeking help from mothers and their extended families, setting priorities, and using apps to keep focused.

### **Family Support**

Family support was pivotal in offering childcare so DSMs could delegate childcare and domestic responsibilities momentarily to female family members to attend their classes and other requirements such as fieldwork. Those DSMs who were living with their parents-in-law mainly relied on the childcare support of extended family. However, they preferred the support of their own mothers, not their mothers-in-law. Madina from Uzbekistan expressed:

I prefer leaving my kids with my own mother, as she cares for them without pretension. She even prepares meals for me so that I have more study time.

Likewise, in Kazakhstan, Aray, who moved from the South to the capital city for her PhD with two kids and her husband, crucially relied on the support of her mother and aunts:

My mother sometimes comes to the capital to help me with my child, but she doesn't stay for long; she has other grandchildren. I usually call my aunt [in Astana] to look after my child when I have strict deadlines.

The significant reliance on extended family members, particularly mothers, and the greater sense of comfort found in their caregiving approach highlight the crucial role of familial support in facilitating the identities of DSMs as both mothers and scholars.

### **Spousal Support**

The level of spousal support for DSMs differed between Kazakhstan and Uzbekistan. Kazakhstani DSMs' experiences of spousal support were more positive, although the level of support received varied across the participants. Some spouses offered assistance with childcare and household tasks, as Aidana shared:

My husband helped a lot. When I was studying at home, he would take the children out so that I could focus on productive work. However, this was a rare occurrence, as my husband works in another city and visits us only on weekends. (Aidana)

We divided the childcare responsibilities; if he is responsible for the children's school transportation, I check their homework and go for sports with them. We take turns cooking. (Zhanar)

In Uzbekistan, DSMs experienced a lack of spousal support in childcare and household chores, highlighting the unique challenges faced by DSMs in Uzbekistan. Nevertheless, they were still content that their husband allowed them to study or tolerated delays in their household obligations.

My husband supported me a lot. He ignores me when I come home late from university or if I have to cook late because of my studies. He comes to the university to pick me up and wait for me. (Marhabo)

### **Time Management and Peer Support**

Additionally, in both countries, DSMs employed different strategies to navigate their challenges, such as prioritising tasks and developing time management. For example, Aray shared:

I learnt to use the “Study with Me” app that pretends to be working with you in order to motivate you, and also the “Pomodoro Technique”, which uses a timer to break down work into intervals.

These kinds of adaptive strategies underline the resourcefulness of DSMs as they implemented different techniques to maintain focus amidst other challenges. Participants across Uzbekistan and Kazakhstan mentioned using WhatsApp groups, where mother scholars shared peer support. Aray from Kazakhstan explained how she fought her mental struggles with the support of peers with children:

I faced mental stress for being unproductive. Soon, I realised that I was not alone in the boat.

In summary, the pressure to excel academically while fulfilling familial responsibilities took a toll on the mental health of most DSMs, leading to high stress levels, fatigue, burnout, and thoughts of dropping out. To address these challenges and mitigate long-term health implications, DSMs in this study relied on coping strategies, external support from family and peers, and internal self-motivation.

## **DISCUSSION**

This comparative analysis of the experiences of DSMs in Kazakhstan and Uzbekistan highlights the intersection of gender, education, and societal expectations, emphasising the gendered nature of academic pursuits and advocating for a gender-centric lens to address institutional and familial barriers. The analysis highlights commonalities and some differences in relation to existing global literature and underscores the significance of potential policy interventions in fostering a supportive environment for doctoral student mothers.

The challenges faced by mothers in doctoral programs in Kazakhstan and Uzbekistan align with existing research, reflecting the struggle of

balancing multiple roles as a mother and a doctoral student (Cohen-Miller et al., 2022; Kent et al., 2020; Onwuegbuzie et al., 2014; Pierce & Herlihy, 2013). This tension between doctoral studies and familial responsibilities emerged as a recurring theme, leading to emotional and physical stress, financial constraints, and thoughts of dropping out, similar to the global literature (Holm et al., 2015; Mason et al., 2023; Maunula, 2017; Shomotova & Karabchuk, 2022; Wang, 2006; Webber & Dismore, 2021).

Uneven pressure on DSMs due to societal expectations of women's caregiving responsibilities was evident in both countries, reflected in the unequal distribution of household chores and the devaluation of the mother's role within the family and academia (Aarntzen et al., 2021; Mason et al., 2023). However, the lack of spousal support in Uzbekistan is notably more pronounced, reflecting the country's adherence to traditional and conservative gender roles (Tastanbekova, 2018).

The gendered impact of parenthood, with a heavier burden falling on mothers during doctoral studies, further compounds the challenges faced by DSMs (Correll et al., 2007; Morgan et al., 2021). For example, societal norms may dictate that mothers should "prioritise their caregiver role over their professional role" (Aarntzen et al., 2021, p. 121). This aligns with Butler's (2002) view of gender as performative, where societal norms uphold motherhood as an essential aspect of femininity. By internalising these societal expectations, motherhood becomes a legitimised institution within socio-cultural structures, reinforcing the idea that women are primarily defined by their "reproductive function" and the compulsory nature of motherhood (Butler, 2002, p. 126). In the current study, these socio-cultural expectations led women to fulfil roles as mothers, wives, and caretakers, while men predominantly assumed the role of the provider, perpetuating traditional gender norms and limiting women's autonomy (Kudaibergenova, 2015).

Financial challenges persist in both countries, highlighting the need for robust government support in the form of increased stipends and quotas for children's education (Abetz, 2019; Mason et al., 2023; Swarts, 2016). While Mason et al. (2023) identified a negative impact of motherhood on research and writing skills in their extensive study of 1323 DSMs, the findings of the current study diverged from this trend. None of the DSMs from both countries reported negative associations with motherhood during their PhD journey; instead, they embraced their motherhood roles as a priority over other responsibilities. Central Asian

DSMs viewed motherhood in a positive light, attributing this perspective to the support provided by extended family networks in childcare and the significant influence of socio-cultural factors on shaping the perceived impact of motherhood on doctoral studies. These findings resonate with O'Reilly's (2019b) maternal theory that differentiates motherhood—a patriarchal institution, from mothering—an empowering force catalyzing social change, further calling for the integration of the experiences of mothers into feminist discourse and policy frameworks. This theoretical alignment challenges traditional gender norms found in Kazakhstan and Uzbekistan, recognising the diverse caregiving experiences of women, particularly in contesting patriarchal norms.

Gender-related barriers permeated DSMs' scholarly identities in both Kazakhstan and Uzbekistan. In Kazakhstan, DSMs face reduced productivity and recognition due to time and mobility constraints, while in Uzbekistan, local customs require DSMs to have a male escort in the research field, limiting their autonomy and recognition as scholars (Abetz, 2019; Elias, 2013). These challenges reflect societal expectations that ideal career trajectories are linear, and the ideal worker can dedicate uninterrupted time to their profession without family obligations, as explored by Abetz (2019) and Buzzanell and Ellingson (2005). These findings illuminate the gendered dimensions of policy processes within academia, echoing Acker's (1990) argument regarding organisational structures characterised by male dominance. This theoretical alignment shows how hierarchical structures perpetuate gender inequalities, reinforcing gender segregation within academic institutions.

Unlike previous literature that overlooked the role of kelin for DSMs, this study contributes to global knowledge by emphasising the unique challenges faced by DSMs who also hold the "kelin" role, particularly affecting participants from Uzbekistan. While this stressor was less prevalent in Kazakhstan, possibly due to participants not residing with their in-laws at the time, the additional emotional and physical strain of fulfilling the "kelin" role while pursuing academic success aligns with O'Reilly's (2019a, 2019b) maternal theory, which underscores the disproportionate burden on mothers in academic and family spheres. Butler's (2002) theory of gender as performative can also explain how women perform their roles as kelin, negotiating and navigating their identities within patriarchal structures. Furthermore, the differences in the experiences of DSMs in Kazakhstan and Uzbekistan and between kelins and non-kelins illustrate that gendered expectations and roles intersect across cultural

contexts and familial arrangements, resulting in diverse experiences of support and oppression, as argued by Crenshaw's Intersectionality Theory (1991).

Overall, this study enhances our understanding of gender, motherhood, and doctoral education in Central Asia. By adopting a gender lens, the study calls for policy interventions aimed at dismantling systemic barriers and addressing the complex experiences of DSMs in navigating multiple roles (McPhail, 2003) and advocating for gender equality and inclusivity in higher education.

### *Implications for Policy*

The findings from both Kazakhstan and Uzbekistan reveal several key recommendations. Firstly, *enhanced financial support* for DSMs, such as discounts for their children, increased stipends, and specific grants, is crucial. Secondly, *child-friendly spaces* on university campuses and dedicated rooms equipped with childcare facilities should be established to support working mothers in their academic pursuits. Thirdly, *institutional reforms and greater flexibility* are needed to better accommodate DSMs and other doctoral students, including a review of program duration and publication requirements. Lastly, *revising maternity-related policies* inherited from the Soviet era is vital to address gendered implications and promote women's economic empowerment.

### *Limitations*

This exploratory small-scale study provides broad findings that can serve as a foundation for future research on specific issues. The study did not consider the age of participants' children, ranging from newborns to older schoolchildren who assisted with household chores. It is important to note that including participants from more male-dominated fields like STEM could yield more complex findings. Therefore, future research should examine the experiences of doctoral student mothers from STEM disciplines, particularly those who are single mothers with small children. Additionally, as all participants in this study were women, further research should explore the challenges faced by doctoral fathers to address a gap in the literature.

## CONCLUSION

This qualitative study examined the challenges faced by doctoral student mothers in Kazakhstan and Uzbekistan. The findings highlight that DSMs in Kazakhstan and Uzbekistan face challenges due to societal expectations, lack of support, financial constraints, and negative perceptions from supervisors. Balancing motherhood and academia is challenging, leading to feelings of guilt, inadequacy, high stress levels, fatigue, and burnout among DSMs. To cope, DSMs rely on support from family and peers and internal motivation. The study emphasises the need for extended study timelines, supportive supervisors, and understanding institutions to help DSMs navigate the complexities of balancing familial and scholarly identities and to mitigate long-term health implications stemming from these challenges. By implementing policy interventions aimed at ameliorating these systematic barriers, including the provision of childcare and educational support, addressing gender differences, and re-evaluating the doctoral path for mothers, the educational systems in both countries can better support and empower DSMs in their pursuit of doctoral degrees.

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