
10-28-2022

Graduate Student Mothers and Issues of Justice: Steps, Challenges, and Benefits of a Systematic Review for Examining Master's Theses and Doctoral Dissertations

Anna CohenMiller

Nazarbayev University Graduate School of Education, anna.cohenmiller@nord.no

Zhanna Izekenova

Nazarbayev Univeresity Graduate School of Education, zhanna.izekenova@nu.edu.kz

Almira Tabaeva

Nazarbayev Univeresity Graduate School of Education, almira.tabaeva@nu.edu.kz

Follow this and additional works at: <https://nsuworks.nova.edu/tqr>



Part of the Educational Methods Commons, Gender and Sexuality Commons, Higher Education Commons, International and Comparative Education Commons, Quantitative, Qualitative, Comparative, and Historical Methodologies Commons, Social and Cultural Anthropology Commons, Social Justice Commons, and the Social Statistics Commons

Recommended APA Citation

CohenMiller, A., Izekenova, Z., & Tabaeva, A. (2022). Graduate Student Mothers and Issues of Justice: Steps, Challenges, and Benefits of a Systematic Review for Examining Master's Theses and Doctoral Dissertations. *The Qualitative Report*, 27(10), 2380-2403. <https://doi.org/10.46743/2160-3715/2022.5967>

This Article is brought to you for free and open access by the The Qualitative Report at NSUWorks. It has been accepted for inclusion in The Qualitative Report by an authorized administrator of NSUWorks. For more information, please contact nsuworks@nova.edu.



Graduate Student Mothers and Issues of Justice: Steps, Challenges, and Benefits of a Systematic Review for Examining Master's Theses and Doctoral Dissertations

Abstract

mothers in academia, literature review, PRISMA, coding, gender equity and inclusion, social justice

Keywords

mothers in academia, literature review, PRISMA, coding, gender equity and inclusion, social justice

Creative Commons License



This work is licensed under a [Creative Commons Attribution-Noncommercial-Share Alike 4.0 International License](https://creativecommons.org/licenses/by-nc-sa/4.0/).

Acknowledgements

We would like to thank The Consortium of Gender Scholars (www.gen-con.org) for support in finalizing this work and TQR for feedback. An earlier version of this work was presented at AERA 2021. Thank you also to the Editors, Sally St. George and Katheryne Leigh for the feedback and guidance. With a special thanks to Sally St. George for her patience, encouragement, and incredible insights which made this article a much stronger piece.

Graduate Student Mothers and Issues of Justice: Steps, Challenges, and Benefits of a Systematic Review for Examining Master's Theses and Doctoral Dissertations

Anna CohenMiller, Zhanna Izenkova, and Almira Tabaeva
Nazarbayev University Graduate School of Education, Kazakhstan

Graduate student mothers are a historically marginalized population in higher education. As such, their voices and experiences have often been overlooked and underrepresented. In this study, we examine graduate student mothers through a systematic review of master's theses and doctoral dissertations. Using the PRISMA process for literature reviews, we centered our study on ProQuest Dissertations and Theses Global, moving from an initially identified 736,504 potential texts down to 44 for final inclusion. Analyses of the dissertations and theses were conducted through Saldaña's (2015) first cycle, after first cycle, and second cycle coding. Our article details the stages of the PRISMA process and multiple cycles of coding, leading to the development of three procedural themes highlighting continued justice issues for graduate student mothers in academic organizations. We also discuss the methodological benefits of this process for early career researchers as well as the challenges of the approach.

Keywords: mothers in academia, literature review, PRISMA, coding, gender equity and inclusion, social justice

Introduction: Graduate Student Mothers and the Academic Pipeline

There is a need to study marginalized populations in higher education institutions. One such population is comprised of mothers in academia. I (Anna) have been studying mothers in academia since 2010 when I was in my Ph.D. program. Graduate student mothers' place in academia, until recently, was often overlooked. For example, there is a metaphor of an academic pipeline that channels people from entry positions in higher education through top positions (i.e., assistant professor to associate and then full professor). Thus, the metaphor of moving from one stage to another is embodied by the pipeline, where many have shown that women "leak" from the progression from early career to established faculty. In particular, women who are mothers with young children are found to face more obstacles than those who are childless (Mason et al., 2013; Morgan et al., 2021). The literature today is rich with information about the challenges and obstacles for women in academia (Castañeda & Isgro, 2013; CohenMiller & Demers, 2019; CohenMiller, Demers et al., 2022; CohenMiller & Izenkova, 2022; Goulden et al., 2011; Sallee et al., 2016; Ward & Wolf-Wendel, 2012, 2017a, 2017b), yet it has only been more recently that graduate student mothers have been included as part of the picture of the academic pipeline (see CohenMiller, 2014, 2018).

As enrollment rates for graduate student women have been rising in the United States, the pipeline continues to leak, with multiple justice issues present, such as declining graduation rates for graduate students who are also mothers (Wladkowski & Mirick, 2019). While there are existing problems experienced by graduate students with children such as financial instability, relationships with consultants, and increased demands from family obligations (Springer et al., 2009), there is more to be learned about graduate student mothers. The lack of movement through the academic pipeline for women is a central problem. Being a mother

further inhibits retention and promotion in higher education institutions. There is a need for systematic structures and practices in higher education to facilitate success for motherscholars (CohenMiller, Demers et al., 2022).

The lives of graduate student mothers, or graduate “motherscholars” are “precarious” (CohenMiller, 2014). This population faces double or even “triple roles” (Onwuegbuzie et al., 2014). The term “motherscholar” is a purposeful integration of the identification of being a mother and an academic (CohenMiller, 2015; Matias, 2011). And unfortunately, women who identify as mothers face negative consequences, such as being considered less committed to their work (Cuddy et al., 2004). According to Matias and Nishi (2018), for women in academia, motherscholars face bias and discrimination. Thus, openly sharing that they are mothers and identifying as “motherscholars” is a form of advocacy by outing themselves within an academic workplace built upon a male-model (see Acker, 1990; CohenMiller, Demers et al., 2022).

Motherscholars continue to seek balance between extreme demands and impossible expectations from multiple realms, frequently without systematic support or institutional understanding of family formation (Gabster et al., 2020). The very creation of a family and child rearing can obstruct the academic pipeline towards achieving graduate degrees for student mothers (Kulp, 2019; Main et al., 2019). In addition, during extreme quarantines and lockdowns, such as during the COVID-19 pandemic in 2020, motherscholars faced further institutional obstacles, lack of understanding and support (CohenMiller & Izenkova, 2022; O’Reilly, 2020; Willy, 2020). A reduction in publications has been noticed (Vincent-Lamarre et al., 2020), along with continued stigma and bias against mothers in academia (Langin, 2022). The lack of progression through the academic pipeline for mothers indicate issues of equity and inclusion in higher education. For example, formalized timelines for promotion and tenure often overlap with the biologic timeline for women to become mothers (Goulden et al., 2011; Ward & Wolf-Wendel, 2012). Moreover, responses from motherscholars over the years have pointed out obstacles such as having to miss meetings because of meetings scheduled after work hours and being removed from grants and excluded from networking events because of caretaking responsibilities (CohenMiller, Demers et al., 2022). Such obstacles can be seen as concerns of justice. These suggest the need to further examine this topic, especially for those who have been traditionally overlooked – motherscholars at the beginning of their scholarly journey – to better understand mothers in academia. In my work, I have argued that it is important to reconsider the academic pipeline as starting with graduate students (CohenMiller, 2014). Looking prior to being hired as a full-time faculty member or prior to moving into other roles outside academia offer essential insights for making organizations more equitable and inclusive spaces (CohenMiller, Demers et al., 2022).

In this study, we examined literature about graduate students who are mothers in graduate school written by graduate students. To do this we examined dissertations and theses of master’s and doctoral students focusing on the topic of graduate students who are mothers. By centering our research on theses and dissertations, we aimed to uncover studies that have not (yet) been published, which could possibly provide a new understanding of the topic. While doctoral students often seek and move to academic positions, master’s students may instead move into a different profession. We assumed based upon Anna’s previous research (see CohenMiller, 2013, 2014, 2015, 2016, 2018, 2020a, 2020b; CohenMiller & Demers, 2019; CohenMiller & Pate, 2019; CohenMiller et al., 2020; CohenMiller, Demers et al., 2022) and personal experience of all three of us authors that graduate students face persistent justice issues. We assumed that examining both levels of graduate study could provide valuable information regarding mothers in academia broadly, such as regarding inclusion/exclusion, access, belonging, experiences, and recommendations. In this article, we describe our methodological process in the systematic literature review and put forward two research questions: (a) what is the thesis/dissertation literature that centers on graduate students who

identify as mothers? and (b) what are the justice issues showing up in this literature as related to this topic? As such, we provide an overview of our research process, offer insights into our findings and discussion of the link between findings and previous literature as well as methodological considerations for other researchers.

Interdisciplinary Theoretical Framework

For this study, we decided to integrate an interdisciplinary theoretical framework intended to increase our understanding of the topic (CohenMiller & Pate, 2019). As such, we integrated Geert Hofstede's cultural model/theory (2001, 2011) and Adrienne Rich's feminist theory (1995) to offer a lens for data selection, analysis, and findings. Hofstede's (2001, 2011) cultural dimension model/theory offers a comprehensive, powerful model for demonstrating the impact of culture in society. Hofstede (2001) identified six bipolar dimensions of culture: power distance, individualism vs. collectivism, uncertainty avoidance, masculinity vs. femininity, long-term orientation vs. short-term orientation, and indulgence vs. restraint. Rich's feminist theory (1995) was particularly relevant for the way in which we thought about being a mother in academia and within a specific cultural context. Rich notably identified a difference between *motherhood* and *mothering*. Motherhood, she identified as culturally enforced and prescribed as an "institution." As an institution, mothers have imposed pressures to enact motherhood in a particular way in society and within individual organizations, such as higher education. In contrast, mothering can be seen as individually created and guided by self-agency (O'Reilly, 2010).

These theories all emphasize how terms and contexts can be understood in complex, culturally relevant ways. They provided a lens for us in considering the complexity of culture which initially guided our search criteria and then helped to guide us in moving beyond a simplistic analysis of texts. For example, as we were collecting data from a diverse set of researchers across universities, we were able to take the idea of complexity of terms and contexts into our research, such as in the choice of search terms. As a result of integrating these theories, we included multiple different phrasings as options in our search for theses and dissertations to remind us of the various ways that researchers from different areas might use terms (e.g., *motherhood*, *mothering*, *caretaking*, *mother*, *motherscholar*). Moreover, recognizing the complexity of culture and gender led us to be aware of the various ways in which mothers and academia might be addressed, such as authored by any gender. Broadly then in this qualitative systematic review, we used Rich's (1995) and Hofstede's theories to better equip us to consider justice issues in higher education in our exploration of theses/dissertations addressing the topic of graduate student mothers.

Positionality

To situate ourselves within the research, we share the following positionality statements from each of us. Through critical self-reflection in qualitative research (CohenMiller & Boivin, 2022), we aimed to demonstrate our positionality, helping the reader to better understand our worldview, assumptions, and theoretical/philosophical views. In this way, positionality in qualitative research allows for the reader to situate the study, including its findings, within a framework of those who conducted it.

Anna

I identify as a motherscholar. I have not always used that phrasing as it was around 2015 that I learned about the interconnection of mothering and scholaring and the ways in

which combining these terms offers a means for advocating on behalf of oneself and the community of *motherscholars*. I was first introduced to this scholarship from the work of Mattias (2011) and from there I continued to move my work in that direction, creating The Motherscholar Project (2015), as an online, arts-based advocacy platform to showcase the international community of motherscholars throughout the academic pipeline, including graduate students and administrators. My attention to the topic of mothers in academia first began when I was in my doctoral program and became pregnant in 2010. Two others in my cohort were pregnant as well and through conversations with the other women and personal observations, it became strikingly apparent that the three of us had incredibly different experiences in the program, some flourishing with supportive faculty and others deeply struggling with microaggressions and rigid practices. Ultimately, I decided to examine the topic of doctoral student mothers in academia (CohenMiller, 2014). I found that the phenomenon of doctoral student motherhood and mothering across disciplines in higher education is gendered, strategic, and embedded with a varying sense of belonging (CohenMiller, 2014, p. 118). Since that time, my research agenda has centered on equity and inclusion, in particular focusing on gender.

My research is deeply embedded with advocacy, drawing from theoretical groundings in critical feminist research, decolonial methods, and emancipatory research. As such, in my work I actively look for ways in which people have been devoiced, and seek to facilitate voice for those overlooked, marginalized, and/or colonized. From this viewpoint, including doctoral student mothers provided a means to facilitate voice as they had previously been overlooked (CohenMiller, 2018). Likewise, in this research, by focusing on theses and dissertations, I see it as a means to amplify voices of the authors discussing the topic of graduate students as mothers in graduate school.

Zhanna

I am a Ph.D. student with two school-aged children. I study the gender leadership gap in public education in Kazakhstan. I care about the topic of mothers in academia in large part because I myself am a mother in academia and I understand the challenges experienced, especially in the Kazakhstani context where I grew up. I became interested in this topic when I was in my master's degree and working at the same time. At that time, I also had small kids, and often wondered how mothers in academia manage to meet all the needs of family and read all the assignments at the same time.

I hope that in studying this topic that things can change in higher education organizations which would include recognition of mothers' presence. Adjusting the university space to include facilities on campus including learning centers and financial assistance for graduate student mothers, for instance, would signal an awareness of this population.

Almira

I am a Ph.D. student in Education with two preschool-age children. My motivation for researching mothers in academia came from my position as a mother working in higher education, which I started prior to the Ph.D. program, and I am now integrating this role with studying as well. These multiple roles made me conscious of challenges personally.

Having encountered firsthand the lack of support (institutional and social) while balancing motherhood and academic work, I became interested in this topic to know how these challenges are experienced worldwide. I had the chance to start researching this topic with Dr. CohenMiller and have since decided on studying graduate student mothers for my doctoral dissertation, to compare the experiences and structures in higher education that create obstacles

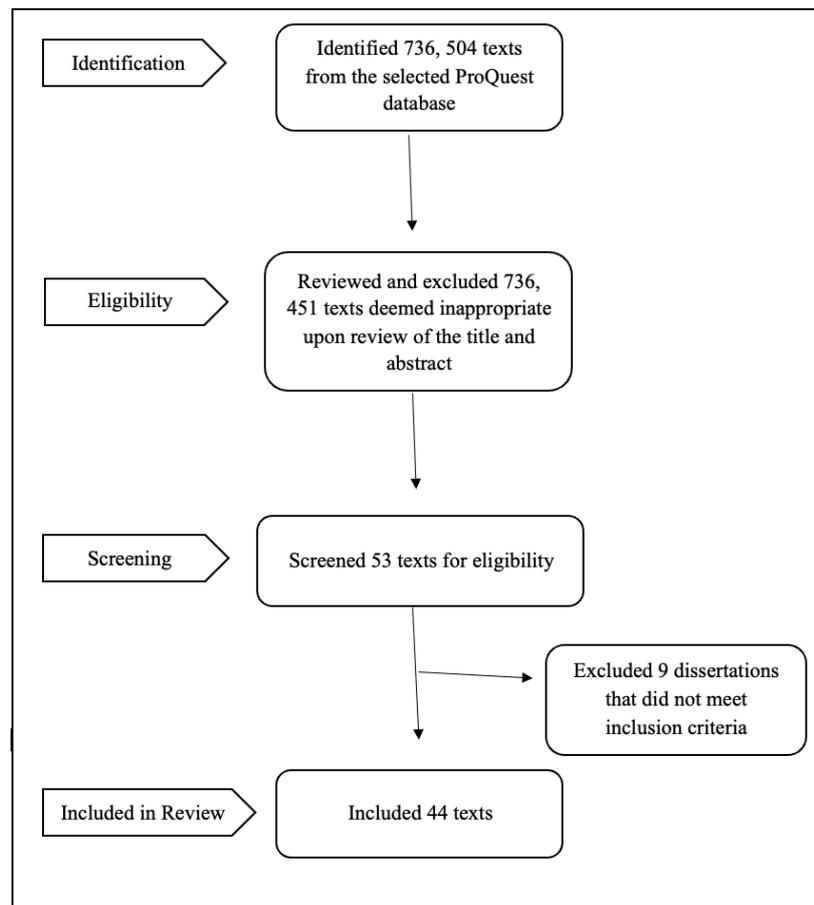
or facilitate potential success. I think studying this topic could at a minimum help to raise awareness and provide policy recommendations to be implemented at an institutional and/or national level, such as financial support for mothers to be able to enroll in graduate school.

Research Process: A Systematic Literature Review

Systematic literature reviews offer potential for extensive understanding of a topic (Seers, 2015). A systematic review about theses/dissertations offers a means to understand sample texts and the authors who wrote them (Orr et al., 2021). Within our study, we utilized a qualitative systematic literature review using the PRISMA process for data generation to answer the questions (a) what is the thesis/dissertation literature that centers on graduate students who identify as mothers? and (b) what are the justice issues showing up in this literature as related to this topic? The process of a systematic literature reviews of theses/dissertations is recognized as an approach for gaining entry to a variety of topics for educational researchers to understand multiple intelligences and academic achievement (Bas, 2016), constructivist learning (Erisen & Gunay, 2015), and educational design (Lehtonen et al., 2019). We applied PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses), a systematic process for transparency and to improve quality and consistency of reports as initially utilized in health studies (Moher et al., 2009). Figure 1 demonstrates the PRISMA flow chart of the search and selection process of the study. The stages include: (a) identifying texts, (b) determining text eligibility, and (c) screening texts for final inclusion.

Figure 1

PRISMA Flow Chart of the Search and Selection Process



Data Collection Stages: Implementing the PRISMA Process

The following is our detailed step-by-step process of the PRISMA process for data collection and generation of the literature about graduate student mothers in academia.

Stage 1 PRISMA Process: Identifying Texts

The first data collection step occurred in 2020 leading to 736,504 texts. We started with a broad search (*mother AND graduate student*) with our selected database (i.e., ProQuest Dissertations & Theses Global). To synthesize a large number of texts from the broad search, we adapted a research process for systematic literature review of dissertations suggested by Lehtonen et al. (2019). By focusing specifically on these theses and dissertations, we aimed to showcase the research being conducted in studies about graduate students, by graduate students.

First, we identified ProQuest Dissertations & Theses Global as a database to collect our data. Then to define “pertinent” research texts (Vickers & Smith, 2000), we defined what pertinent involves. We determined that pertinent texts include any texts within the database that have a topic addressing motherhood and/or mothering as related to graduate students. As we began collecting the texts, we had decisions to make regarding limitations of the search terms and years. We did not put a limit on the years of the search to capture a full view of all dissertations and theses related to our topic. The first text relating to graduate student mothers was published in 1997.

Stage 2 PRISMA Process: Determining Text Eligibility

As we concluded the first stage of identifying texts, we then moved into determining the eligibility of the full initial set of texts. As aligned with our research questions, the second author, Zhanna, went back to the database search to limit the texts to key terms as shown within the title and/or abstract. The key terms were included in the ProQuest database in various combinations: “mother,” “motherhood,” “parent,” “parenthood,” “graduate,” “scholar,” “academia,” “student,” or “children.” In this way, through an emphasis on the exclusion/inclusion criteria, we were guided by what Cox et al. (2020) referred to as following “the contours of the emerging body of literature” (p. 937). With any texts that were unclear regarding inclusion/exclusion, we followed the recommendation of Brown et al. (2016) to meet as a full team. There were three instances where the full team at this stage was important to discuss potential inclusion/exclusion of a thesis.

Continuing in the second stage, we excluded the vast majority (736,451) based on relevancy of titles and/or abstracts. If the title and/or abstract did not explicitly mention graduate student and a topic related to motherhood in some manner, these texts were excluded as not fitting our identified inclusion criteria. As guided by our theoretical framework which emphasized complexity in culture, we recognized the potential for different terminology and discussed potential synonyms to refer to graduate student mothers in academia. As a multicultural team with experiences living and working in various places around the world, we were also aware of how terms can be interpreted and used differently based upon the cultural context, a finding a couple of us had seen in a previous study (CohenMiller & Izekeva, 2022). Additional terms included an attempt to capture different ways to refer to being a graduate

student and a mother, such as “postdoctoral,” “mothering,” “mum,” or “parent.” At the end of the second stage of the PRISMA process, we had a total of 53 potential texts.

Stage 3 PRISMA Process: Screening Texts for Final Inclusion

In the third stage of the PRISMA process, we proceeded by reading through the full 53 texts to screen for potential inclusion in the final set of texts. For that process, the second author (Zhanna) and third author (Almira) read through the theses and dissertations. They separated the list of 53 to an approximate even distribution and each read half of the texts. In this process, they were able to exclude an additional nine. These nine texts initially appeared to be about graduate student mothers but ended up having a focus which did not quite fit. We determined their inclusion in the final analysis through meeting as a full team. For instance, one text mentioned graduate student mothers but was a study about faculty parenting. From this work, we were left with a total of 44 dissertations and theses to bring forward for data analysis. We used a shared spreadsheet to copy and paste information from across the 44 thesis and dissertations. This shared spreadsheet became our dataset for our analysis and was accessible by the research team in a shared Google Drive.

Data Analysis

Our data analysis process involved multiple cycles guided by Saldaña’s (2015) descriptions of first cycle coding, after first cycle coding, and second cycle coding. The second author (Zhanna) led the analysis stages first in the spreadsheet and then in NVivo. Her findings were accessible by the full team throughout the process through the shared Drive and when we met as a team via video meeting to go through each part. As a team, we discussed the cycles of coding.

First Cycle Coding

First cycle coding included attribute, inductive, and deductive coding. We used attribute coding and NVivo for inductive and deductive coding.

Attribute Coding. To start the analysis, we began with attribute coding. As described by Saldaña (2015), “Attribute Coding is the notation, usually at the beginning of a data set ... of basic descriptive information” (p. 70). For each thesis/dissertation, we decided to review the first few pages including abstract, findings section, and recommendations section. In combination, these aspects of the texts typically provide insight to what was understood from the study and the steps forward for exploring the topic of graduate student mothers.

Second, when reviewing the first few pages (including the abstract), we asked ourselves what was important to know about the background of the researcher, if anything. We noted basic aspects: publication date, author discipline, number of participants, theoretical framework, method/design, findings, and recommendation (see Table 1 of the shared spreadsheet). These were copied and pasted directly from the texts. To find this information, we looked to the first pages, profile pages, and the abstract of the dissertation or thesis.

Third, after reading through and attribute coding the first pages of the text, we moved to the findings section of each thesis and dissertation. The second (Zhanna) and third (Almira) authors read through the findings, similarly, copying and pasting exact phrasing into the shared spreadsheet. They then assigned codes to the text based upon descriptive information.

Finally, after reading through the findings sections, Zhanna and Almira read through the recommendations in applying attribute coding. In the recommendations section, the authors of the theses and dissertations provide their insights and voice to key topics within the full text.

Descriptive information included such aspect recommendations for policy and practice. These results offered the needed data and analysis to answer our first research question.

Table 1
Attribute Coding - Creation of a Data Set with Key Ideas

Title	Author	Pub date	Discipline	Participants	Theoretical Framework	Method/ Design	Findings	Recommendations
Motherhood and Academia: Exploring the Experiences of Graduate Student and Faculty Mothers within the Southwestern...	Hillier	2020	EDUCATION (PhD)	11 mothers (6 graduate students and 5 faculty)	a FEMINIST theoretical lens (Butler, 1990; Connell, 1995; Ellis, Adams, & Bochner, 2011; Hesse-Biber, 2007).	QUALITATIVE method	Inductive analysis of the semi-structured interviews and focus groups revealed five key themes concerning motherhood and graduate studies: (a) intersection of work and family; (b) mentoring and networking opportunities; (c) inconsistency between institutional and program policy; (d) support from departmental faculty but lack of support	Many women in this study highlighted the need for greater dissemination of information. It is clear that the university has been inadequate in offering information and resources to graduate student mothers and faculty on a variety of topics. Concerning childcare, the near-campus daycare must improve upon their
Factors Affecting the Successful Completion of Online Graduate Programs Among Single Mothers	Palermo-Kielb	2020	Social and Behavioral Sciences (PhD)	10 mother students	Pintrich's (2004) motivational self-regulated learning model, was Duckworth's (2007) framework for psychology of achievement called grit.	QUALITATIVE phenomenological	The purpose of the study was to capture the essence of the experience of the lives of single mother graduate students to understand what factors specific to their motivation, self-efficacy, and social support facilitate their academic success. The second purpose of was to understand the...	The first recommendation is to investigate peer connections in the online setting for non-traditional type students like single mothers. In the current study, graduate student single mothers reported that they feel sad, lonely, and isolated. The ...
"Socialization Experiences of Doctoral Student Mothers".	Swarts, Susan	2016	EDUCATION (PhD)	16 Phd mothers	a FEMINIZED Bourdieuan sociological framework	QUALITATIVE interviewing	Without key support arrangements such as affordable child care and sufficient funding, doctoral mothers missed out on academic activities that were important for their professional success. Participants also experienced negative emotional effects of doctoral ...	Future research could more deeply investigate the career trajectories of mothers in doctoral programs. The findings in this study hint at career directions, but all of the women at the time of the study were still Ph.D....
"Learning to balance: Exploring how women doctoral students navigate school, motherhood and employment.	Tiu Wu, A.	2013	Adult EDUCATION (PhD)	20 Phd mothers	McClusky's Theory (1963), self-directed learning, experiential learning, and transformative learning	QUALITATIVE : Critical Incident Questionnaire (by email), Interviews (one round, semi-structured), Focus Groups	Women who experienced shifts in perspective appeared to have redefined what it means to be a good mother, student, and worker and have learned to be comfortable with feelings of ambivalence about motherhood. Meanwhile, women who did not report shifts in perspective continued to default back to the dominant ideology..	Future studies should also consider the use of other theoretical constructs, like Jung's psychological types, to explore how the process of perspective transformation occurs among women of different psychological type profiles (Cranton, 1994). Other adult...

Inductive Coding. As we moved on, we used an iterative process reading and re-reading through the findings and recommendations of the 44 texts from the table created in attribute coding. Our goal then was focused on creating codes from the dataset in an inductive manner. Through this process, insights started to develop, even unconsciously, a process noted by DeWalt and DeWalt (2011). Using inductive coding through the use of in vivo coding – maintaining the exact words of the researchers – we read line-by-line from the table we had developed, looking for exact phrasing to highlight. This process led to the identification of phrases and concepts relevant to the topic of graduate student mothers.

Deductive Coding. Following inductive coding, we moved on to coding based upon theories in our study. Using Rich's (1995) and Hofstede's (2001, 2011) theories, we further coded the dataset – the information copied and pasted from the 44 texts onto our shared spreadsheet – in a deductive manner purposefully guided by ideas related to feminist and cultural theory. As in attribute coding, we asked questions of the data. For example, using Rich's (1995) feminist theory, we actively looked for, “where and how are there discussions of motherhood, if at all?” We asked the data, “in what ways was there an articulation of the complexities of being a mother as compared to the role being static, if at all?” For Hofstede's (2001, 2011) cultural model/theory, we asked the data, “how does culture play a role, if at all?” Lastly, we sought to unpack topics of justice and asked, “How does social justice intersect in direct/indirect ways with the topic of graduate student mothers?”

After First Cycle Coding: Transitioning

The next step in our analysis process followed Saldaña's (2015) cycles, to move into “after first cycle coding.” This cycle is one of transition. Our process involved looking for

similarities between codes and grouping them together, such as linking attribute codes with data. For example, we identified 42 texts used a qualitative method. Most of the authors had a disciplinary background from education (see Figure 2).

Figure 2
Disciplines of the Authors



In linking the attribute codes with data (e.g., verbatim phrasing), we continued with the shared spreadsheet, each of the team members identifying potentially useful aspects of the analysis (see Table 2).

Table 2
Identifying Potentially Useful Aspects of the Data Set on a Shared Spreadsheet

Title	Author	Pub date	Discipline	Participants	Theoretical Framework	Method/ Design	Findings	Recommendations
Motherhood and Academia: Exploring the Experiences of Graduate Student and Faculty Mothers within the Southwestern Ontario Context	Hillier	2020	EDUCATION (PhD)	11 mothers (6 graduate students and 5 faculty)	a FEMINIST theoretical lens (Butler, 1990; Connell, 1995; Ellis, Adams, & Bochner, 2011; Hesse-Biber, 2007),	QUALITATIVE method	Inductive analysis of the semi-structured interviews and focus groups revealed five key themes concerning motherhood and graduate studies: (a) intersection of work and family, (b) mentoring and networking opportunities, (c) inconsistency between institutional and program policy, (d) support from departmental faculty but lack of support from the university as a whole, and (e) an overall level of satisfaction in being a mother during graduate studies. Implications of these key findings are discussed within the paper and provide evidence on policy, campus resources, mentoring opportunities, and graduate student well-being, while also addressing issues of gender equity.	Many women in this study highlighted the need for greater dissemination of information. It is clear that the university has been inadequate in offering information and resources to graduate student mothers and faculty on a variety of topics. Concerning childcare, the near-campus daycare must improve upon their communication with graduate students. Far too often, the graduate students in this study expressed a lack of communication and correspondence when attempting to secure childcare in preparation for their return to graduate studies.
Factors Affecting the Successful Completion of Online Graduate Programs Among Single Mothers	Palermo-Kielb	2020	Social and Behavioral Sciences (PhD)	10 mother students	Pintrich's (2004) motivational self-regulated learning model, was Duckworth's (2007) framework for psychology of achievement called grit.	QUALITATIVE phenomenological	The purpose of the study was to capture the essence of the experience of the lives of single mother graduate students to understand what factors specific to their motivation, self-efficacy, and social support facilitate their academic success. The second purpose of was to understand the barriers that single mothers face and their coping methods. The data collected from the study revealed eight themes. Overall, what motivates the single mothers in this study to complete their graduate degree is the opportunity to be better in their role as a mother, better in their role as a provider, and better in their role as a career professional. The women also spoke about using their education as a chance to create change, not only in their own lives but also in the lives of others.	The first recommendation is to investigate peer connections in the online setting for non-traditional type students like single mothers. In the current study, graduate student single mothers reported that they feel sad, lonely, and isolated. The second recommendation for future research on single mother students to consider is a study on the topic of peer modeling and grit. Specifically, researchers should investigate graduate student single mothers using peer modeling strategies with undergraduate student single mothers to grow grit for retention, achievement, and well-being.

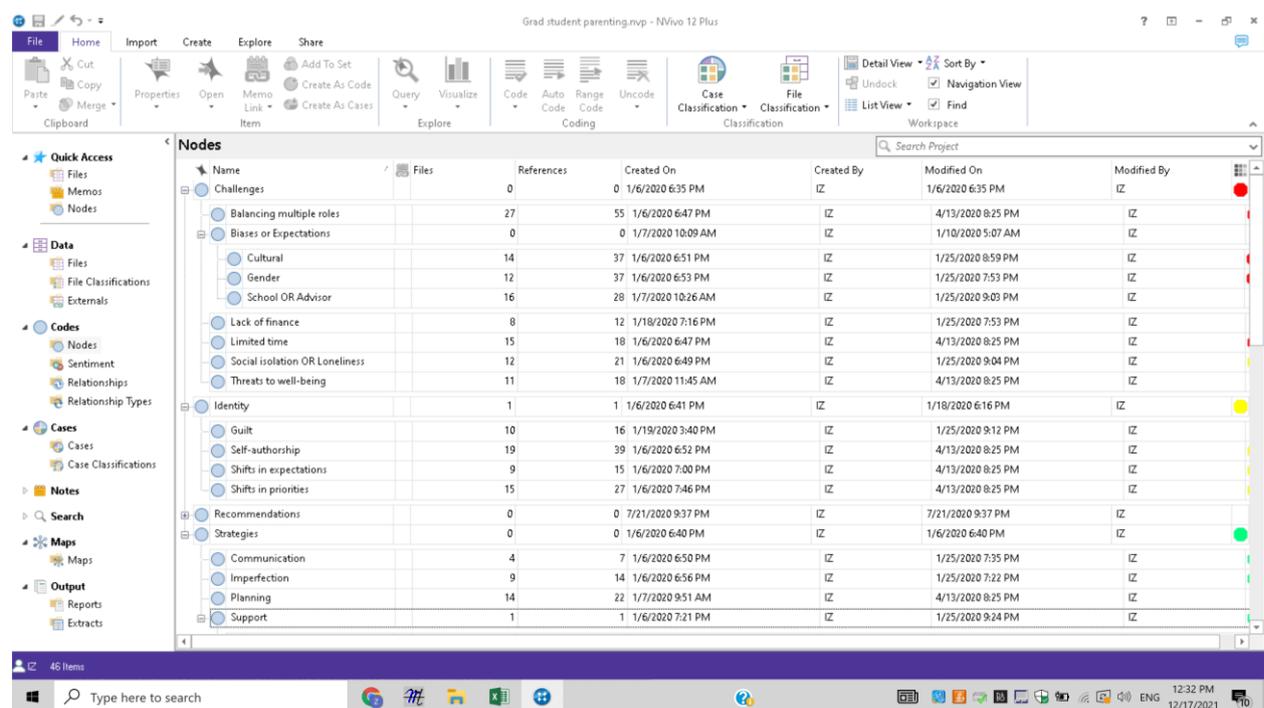
We met to discuss our coding, noting various terms and phrasings of the data. In the following example, the green highlights show where we were in process of determining how the codes fit together. As shown in the table, these two texts have commonalities in that they are both doctoral dissertations, both use a qualitative approach, and both have findings that address justice. We determined this common thread from the phrasing, “addressing issues of gender equity” (Hillier, 2020, p. iv) and, “using their education as a chance to create change, not only in their own lives, but also in the lives of others” (Palermo-Kielb, 2020, p. 126).

Then the second author (Zhanna) moved into NVivo to further group codes, which further showed commonalities. These commonalities led to potential categorical headings (as a side note about using NVivo, while the analysis could have been conducted by hand, on a word processing or spreadsheet, we found NVivo simplified visualizing and organizing the individual codes).

Second Cycle Coding

In second cycle coding, we sought to further understand the categories and develop themes to answer the second research question. To achieve this step, the second author (Zhanna) continued re-reviewing individual codes and categories, rearranging them hierarchically and horizontally. In Figure 3, a screenshot of Zhanna’s NVivo screen shows her development of these categories and subcategories. For example, hierarchical categories and codes include the parent category of “Challenges,” which have subcategories including “balancing multiple roles,” and “biases or expectations.” Then within “biases or expectations,” there are further subcategories of “cultural,” “gender,” and “school or advisor.” Horizontal categories would include those which are at the same parent level: challenges, identity, recommendations, and strategies.

Figure 3
Hierarchical Coding of Categories



After Zhanna took this step in second cycle coding, we met as a full team to discuss the organization of categories. Together we looked at each code and category to ultimately develop themes to answer our second research question. Meeting over Zoom, we asked each other, and the data, “How can these codes be combined? Are these the same or different, and in what ways?” Through these questions and discussions, we were able to consolidate the initial list of codes and categories into agreed-upon themes. After meeting synchronously, we continued our conversations asynchronously via WhatsApp, Google Docs comments, and over email to further explore each thesis and dissertation. For example, we connected categories relating to concerns or lack of finances, time, and feeling of social isolation and loneliness within a sub-theme of *Facing Internal Challenges*. Categories relating to gender and cultural norms and threats to wellbeing were consolidated under a sub-theme of *Encountering External Challenges*. The two sub-themes then fit within a major theme we termed, *Navigating Challenges and Balancing Life as a Motherscholar*.

We came together to consider the ways in which the categories and themes informed the research questions initially posed. We were interested to understand what thesis/dissertation literature centers on graduate students who identify as mothers and to understand the justice issues showing up in this literature. In our discussions across team members, we were able to double and triple-check our cycles of coding. In the end, our data analysis in this second cycle of coding led to the development of procedural themes (see Saldaña, 2015) which answered our second research questions. To clarify the procedural themes further, we created subthemes for each major theme.

In this process, we actively listened to one another, trying to see how each researcher understood the topic and analysis process. Informed by feminist research practices, I (Anna) purposefully worked to create a collaborative, non-hierarchical interaction. I sought to set a collaborative tone for meetings and discussions in a few ways, such as by providing equal time for everyone to discuss their understanding of the material, by having each of us lead meetings, and by having different researchers each take a lead on various parts of the study/writing. These approaches were informed by such work as Ackerly and True (2008) who point to potential power differentials arising in research, even within feminist research, and by Hinton-Smith et al. (in press) who note the importance of “striving for non-hierarchical research relationships in our own work” (Chapter 12). However, while the goal was to create equal footing between researchers, the other two researchers regularly referred to me as “professor” instead of by my first name, suggesting they still prioritized my knowledge over their own as a faculty member and as a researcher with more experience.

Rigor

As steps towards ensuring better quality, we applied multiple steps to enhance trust and confidence in our study (CohenMiller, Saban et al., 2022). For example, we included regular meetings with iterative and continual peer debriefing to discuss each text and subsequent analysis. The interactive and collaborative process of collective discussion and consensus facilitated the reliability of the research process (Phillips et al., 2013) Through these discussions, we were able to provide “reality checks” for one another (Saldaña, 2015, p. 35) and sought to create a more robust, rigorous study. Moreover, our use of digital tools and techniques (e.g., asynchronous texting, Google docs) offered a means to promote robust research collaboration (Anireh & Amadi, 2020), especially pertinent when faced with research during the COVID-19 pandemic.

Findings: Graduate Student Mothers in Dissertations and Theses

We started the research to understand two research questions: (a) what is the thesis/dissertation literature that centers on graduate students who identify as mothers? and (b) what are the justice issues showing up in this literature as related to this topic? Through multiple steps of analysis, we used attribute coding with descriptive details to explain the first question and themes to answer our second question.

What is the Thesis/Dissertation Literature that Centers on Graduate Students who Identify as Mothers?

Through our data analysis, our findings demonstrated that since 1997, there has been an increasing, albeit unstable, interest in graduate student mothers as evidenced in increasing numbers of dissertations (41 total) and theses (three total) emphasizing this topic. Researchers primarily employed in-depth interviews as their method of gathering data and understanding experiences of graduate student mothers.

Across the texts, there were common uses of a few theories in studying graduate student mothers. For example, the most prevalent use of theory was “feminist theory” in which eleven authors used this theory to study the topic. However, there were variations on the type of feminist theory; for instance, Tucker (2016) used Black feminist theory, Pement (2013) integrated critical and postmodern/post-structural feminisms, and Williams (2007) employed feminist grounded theory. The researchers’ disciplinary backgrounds were identified from social sciences, in particular from education studies (27), with others from psychology, sociology, communication science, and women’s studies. Within education studies, there was some variance, such as Demers (2014) in health education, Lobnibe (2011) in educational policy studies, or Maitland (2002), in sociology and equity studies in education.

While the vast majority of texts centered on qualitative studies with between two to twelve participants, there were six notable outliers. Across the 44 texts, two centered on one individual's experiences through the use of autoethnography and four included over 170 participants through the use of quantitative surveys. Within this set, two focused on a specific ethnic/racial emphasis: Alhajjaj’s (2016) dissertation exploring Saudi women doctoral students’ experiences in the United States and Tucker’s (2016) examining Black motherhood for doctoral students.

An overwhelming majority of texts centered on data collected within U.S. institutions. However, there were a handful of exceptions highlighting the international experiences of graduate student motherscholars in academia. For example, one dissertation was conducted in Kenya (Musili, 2018) on the topic of mothers' conflicts between various roles. Lastly, four studies were conducted in Canada (Hillier, 2020; Maitland, 2002; Price, 2018; Sears, 2001).

What are the Justice Issues Showing up in the Literature?

While the first cycle of coding using attribute coding answered the first research question, the after first cycle coding and second cycle coding informed our findings to answer the second research question. Thematic analysis provided insight to understanding what justice issues, if any, show up in the dissertations and theses about graduate student mothers. We identified that all texts had a link to justice issues. Three procedural themes were identified with connected subthemes: *Navigating Challenges and Balancing Life as a Motherscholar*; *Negotiating Identity*; and *Developing Strategies to Survive in Academic Contexts* (see Appendix).

Within each procedural theme, we identified multiple subthemes. *Navigating Challenges and Balancing Life as a Motherscholar* included subthemes highlighting struggles the women faced both internally and externally. Internal challenges, or those appearing to be within some level of control of the motherscholar, included lack of finances, limited time, and feeling social isolation and loneliness. A noteworthy point here is the designation between internal and external challenges can vary across time. For example, lack of finances can relate to a participant's personal concern for financial stability as related to their academic position or it could relate to an external construct outside of the control of the motherscholar, such as being paid a low wage. For example, Swarts (2016) shared from participants about financial struggles, "...the dollar amounts provided to the students as wages or fellowships were not enough to cover the full costs of child care and household necessities" (p. 119).

We designated external challenges encountered by motherscholars as those aspects which the participants had little to no control over. For example, gender and cultural norms suggest ways of being as a mother and an academic and are largely out of the control of the individual. Zhang (2011) explained this as follows, "The double marginalization as a result of both gender and nonnativeness in this case cornered the outspoken women to the other extreme of silence which aggravated their dilemma and depression" (p. 199). The second external challenge we identified related to the wellbeing of the motherscholar, what we termed "threats to wellbeing." For example, LaFollette (2016) noted this problem across participants: "Lack of time or opportunity for self-care was highlighted among most of the participants as having a negative impact on their overall health and well-being" (p. 60).

The second procedural theme was *Negotiating Identity*. Motherscholars experienced multiple levels of such negotiation of identity, including what we referred to as negotiating identity deeply (meaning that they toiled over their sense of who they were as a mother and scholar). Moreover, participants in the studies sought to manage feelings of guilt, while experiencing shifting identities, and ultimately embracing self-advocacy. Broghammer (2016) described this as follows: "The women used their experiences through challenging times to build their dimensional growth toward self-authorship" (p. 254). By advocating for themselves, motherscholars were taking on roles not offered systematically by universities to get the needed supports and structures for their success in their graduate programs.

The final procedural theme, *Developing Strategies to Survive in Academic Contexts* included subthemes of creating support systems, managing communication, and emphasizing planning. For example, Pascual-Smith (2014) highlighted how and why motherscholars developed such strategies: "In an attempt to balance their stressors, these women identified the importance of time management, re-evaluating timelines, setting priorities, and seeking support from their partners" (p. 108). These strategies were repeated throughout many of the thesis and dissertation studies as steps incorporated into the daily life of graduate student mothers (see Appendix for an itemized table of texts as aligned with the themes and subthemes.)

Limitations

A major challenge and limitation of this study was the halting nature of conducting the research. The study began with one student researcher who had to stop abruptly because of outside issues. There was then a lull in the research until new researchers could be found to begin the work again. The change of researchers meant learning about the previous work, adding and adapting as fit with the new team, and continually revising the timeline for collection of data. The result has been a lag in the time from data collection to sharing of findings, which has left potentially useful texts missing from this analysis.

Moreover, while qualitative research is not expected to be generalizable (Merriam & Tisdell, 2016), we hoped the findings may have some transferability (Lincoln & Guba, 1985).

We thought, erroneously, that the ProQuest Dissertation and Thesis Global database would capture a significant number of international texts. However, upon data generation we saw how it is primarily centered on U.S. universities and ultimately included participants primarily based in the US. Therefore, the findings speak to a U.S. concept of what it means to be a graduate student mother and the justice issues faced. Considering the alignment in findings between our work and those previously conducted, we would suggest that this study is generalizable to other U.S. higher education institutional contexts for white, heterosexual women.

Future research should purposefully focus on countries beyond the United States. For such a study, it would be important to examine country specific databases and university specific repositories in English as well as other languages. Perhaps there will be alignment and transferability of findings from this study to other contexts which future research can deduce.

Discussion of Findings and Methodological Processes

In this section, we will provide an overview and discussion both of our findings thematically to our topic of graduate student mothers and also about our methodological process, beginning with the challenges of conducting research. First, we looked to see how our findings related to the previous literature on the topic of graduate student mothers. As our research team has studied the topic of graduate student mothers for many years, the findings were not surprising, but instead disheartening. Broadly, there was repetition of findings relating to pressures and lack of systemic policies and practices which acknowledge and value graduate student mothers. For example, consistent with previous research, graduate student mothers face internal barriers such as balancing multiple roles and lack of finances (Lynch, 2008; Springer et al., 2009; Wladkowski & Mirick, 2019). However, the focus on the individual can be viewed through a neoliberal construct (Holborow, 2012) which bypasses institutional or systemic changes for mothers. Instead, individually contextualized problems are directly related to the presence or absence of institutional awareness and related supports to facilitate success. These challenges can be hampered, worsened, or helped by external factors and increase attrition rates among female students with young dependents (Gardner, 2009).

Furthermore, as we had deductively used theory to help analysis our data, it was unsurprising to find previous studies related to Hofstede's (2001) cultural theory (where cultural values prescribe women's role within society, institutions, and families). We could identify, for example, that internal and external challenges are tightly connected with women's roles with child/ren. Yet, it would be useful to see Hofstede's cultural theory further employed for studying graduate student mothers to understand additional directions of how the theory could help further unpack the cultural context of the experiences. Likewise, we found overlaps with our use of theory from gender theory. Rich (1995) explained that mothering itself is a largely marginalized activity pursued quietly in the unpaid and non-status realm of private life and a forced identity. Motherhood itself is a cultural construction (O'Reilly, 2010; Rich, 1995). As such, the major burden of childrearing lays on women's shoulders, which frequently negatively influences academic advancement. Connecting to identity and cultural construction, graduate student mothers face conflicts in negotiating identity, obstacles, and supports. However, there is still room to understand the ways in which motherhood versus mothering can be further examined for graduate student mothers.

Proposed solutions identified across texts about graduate student mothers in academia regarding justice in higher education included systematic institutional policies (e.g., parental leave policies and practices, part-time options, flexible funding, health insurance coverage, affordable daycare, etc.) and practices that could substitute institutional obstacles and unrealistic expectations for systems to move from "supporting" motherscholars to "facilitating success" (CohenMiller et al., 2022). Such actions and steps are necessary for altering higher

education discourse to be inclusive of all members. Without systematic institutional support, graduate students with children may abandon their studies (Gabster et al., 2020). As Ward and Wolf-Wendel (2016) explain, institutional structures need to address discrimination and create unrestricted platforms for equal starts in academic careers. If higher education institutions do not find ways to support graduate students with children, they may lose out on students who could be promising members of scholar society valuable in research and knowledge production. Methodologically, the PRISMA process for systematic literature reviews is a straightforward process. However, because we had a change of researcher's multiple times during the research, we faced some hiccups in the process. As the study was developed to be conducted with early career researchers, it was essential that the new person to the team learn the process of identifying and selecting literature. Later when two researchers joined together, there was a learning curve to establish a set list of common terms to use for searching and multiple debriefing sessions necessary with the lead researcher to determine we were all on the same page regarding selection inclusion.

Similar to the challenges presented in changes in team members for the PRISMA process, the multi-stage process we used for coding was effective, time-consuming, and challenging. We had separated the coding process to begin with one researcher for the first cycle followed by the other researchers for confirmation in the after first cycle and in the second cycle. While this did initially expedite the process, as we sought to create a collaboration non-hierarchical process, there was additional time needed to ensure everyone was understanding the initial cycle of coding before moving on. Ultimately, we would suggest these two processes for other qualitative research teams, including with early career researchers, but suggest building in time for a lengthy, iterative process across team members, especially if seeking to integrate multiple theories as a framework.

Our goal in this study was to understand how the topic of graduate student mothers was examined from 1997-2020 in dissertations and theses and to identify any justice issues noted within the texts. A strength of our study was the in-depth attention to a global database collecting master's theses and doctoral dissertations. Across the data collection and analysis, we identified a resultant 44 texts and how graduate student motherhood and mothering has been addressed. A weakness was that we limited ourselves to only one database which in the end primarily focused on the US context.

We identified internal and external issues, discussions of identity shifts, and strategies used by graduate student mothers. In particular, this work points to implications for research and practice in higher education policy to address just systematic policy and practice in higher education. Therefore, while the topic of the experiences of graduate student mothers has grown in interest since 1997, as noted in increased theses and dissertations, the topic is still infrequently addressed and needs further research. From this research, we identified a lack of research on within-group marginalization and intersectional identities, including those who are single parents, non-cis-gendered, from varied ethnic/racial backgrounds and in areas outside the United States.

As our data collection ended at the beginning of 2020, we did not have the chance to capture information about graduate student mothers during the COVID-19 pandemic. Future research, especially longitudinal data about experiences of graduate student mothers, will help to fill an important role in the literature (e.g., CohenMiller & Leveto, in press). For those in higher education, this study further highlights the lack of policies and practice that consider the presence of graduate student mothers. One such way to create more just higher education organizations centers on purposefully working to facilitate success for mothers in academia (CohenMiller, Saban et al., 2022). And for graduate student mothers, an implication of this work demonstrates that while individual mothers may feel or be alone on their individual campuses, that across the nation (and internationally), there are communities of

motherscholars. With this in mind, individuals may feel galvanized to know there are others to connect with to advocate on behalf of graduate student mothers, and leaders in higher education institutions can work to recognize and remedy the current imbalances present offering ways to equalize supportive structures and policies for all graduate students regardless of gender or parenthood status. Lastly, for research teams, the PRISMA process, along with first cycle, after cycle, and second cycle coding, offered a structured process for qualitative systematic literature reviews. The process is recommended for other teams, such as continuing research on graduate student mothers, as long as researchers are aware of the extended time required especially when working across team members.

Appendix

Procedural Themes Identified from Analysis of Dissertations and Theses on the Topic of Graduate Student Mothers

Theme	Subthemes
Navigating Challenges and Balancing Life as a Motherscholar	<p>Facing Internal Challenges:</p> <p><i>Lack of finances</i> (Alhajjuj, 2016; Davies, 2018; Ferree, 2018; Musili, 2018; Sears, 2001; Swarts, 2016; Tiu Wu, 2013; Zhang, 2011)</p> <p><i>Limited time</i> (CohenMiller, 2014; Cook, 2016; Davies, 2018; Demers, 2014; DuBransky, 2014; Ellis, 2014; Kreischer, 2017; LaFollette, 2016; Musili, 2018; Mutti-Driscoll, 2013; Pascual-Smith, 2014; Price, 2008; Sears, 2001; Swarts, 2016; Underwood, 2002)</p> <p><i>Feeling social isolation and loneliness</i> (Cook, 2016; Davis, 2007; Demers, 2014; Ellis, 2014; Ferree, 2018; Kreischer, 2017; LaFollette, 2016; Swarts, 2016; Williams, 2007; Williams-Tolliver, 2010; Zhang, 2011)</p> <p>Encountering External Challenges</p> <p><i>Gender and cultural norms</i> (Alhajjuj, 2016; Chung, 2015; CohenMiller, 2014; Cook, 2016; Davies, 2018; DuBransky, 2014; Ellis, 2014; Hillier, 2020; Lobnibe, 2011; McClintock-Comeaux, 2006; Musili, 2018; Mutti-Driscoll, 2013; Pascual-Smith, 2014; Price, 2008; Riser, 2013; Sears, 2001; Tiu Wu, 2013; Williams, 2007; Witkin, 1997; Yalango, 2019; Zhang, 2011)</p> <p>Threats to wellbeing (Broghammer, 2016; Davies, 2018; Demers, 2014; DuBransky, 2014; Ellis, 2014; LaFollette, 2016; Pascual-Smith, 2014; Price, 2008; Swarts, 2016; Williams-Tolliver, 2010; Tiu Wu, 2013)</p>
Negotiating Identity	<p>Negotiating identity deeply (Cook, 2016; Kreischer, 2017; LaFollette, 2016; Wang, 2006; Witkin, 1997)</p>

	Managing feelings of guilt (Alhajjuj, 2016; CohenMiller, 2014; Miraglia, 2003; Musili, 2018; Pascual-Smith, 2014; Pement, 2013; Sears, 2001; Swarts, 2016; Tiu Wu, 2013; Witkin, 1997; Zhang, 2011)
	Experiencing shifting identifies (Alhajjuj, 2016; Broghammer, 2016; CohenMiller, 2014; Demers, 2014; DuBransky, 2014; Sears, 2001; Underwood, 2002)
	Embracing self-advocacy (Chung, 2015; Davies, 2018; Lobnibe, 2011; Mutti-Driscoll, 2013; Price, 2008)
Developing Strategies to Survive in Academic Contexts	Creating support systems (Alhajjuj, 2016; Bridge, 2020; CohenMiller, 2014; Cook, 2016; Davies, 2018; Demers, 2014; DuBransky, 2014; Ellis, 2014; Ferree, 2018; Kreischer, 2017; LaFollette, 2016; Musili, 2018; Pascual-Smith, 2014; Pement, 2013; Sedberry, 2016; Underwood, 2002; Zhang, 2011)
	Managing communication (Cook, 2016; DuBransky, 2014; Musili, 2018; Wang, 2006)
	Emphasizing planning (Alhajjuj, 2016; Broghammer, 2016; CohenMiller, 2014; Cook, 2016; Davies, 2018; Demers, 2014; DuBransky, 2014; Ellis, 2014; Kreischer, 2017; Musili, 2018; Pascual-Smith, 2014; Tiu Wu, 2013; Weinstein, 2009; Witkin, 1997)

References

- Acker, J. (1990). Hierarchies, jobs, bodies: A theory of gendered organizations. *Gender and Society*, 4(2), 139-158. <https://doi.org/10.1177/089124390004002002>
- Ackerly, B., & True, J. (2008). Reflexivity in practice: Power and ethics in feminist research on international relations. *International Studies Review*, 10(4), 581-600. <https://doi.org/10.1111/j.1468-2486.2008.00826.x>
- Alhajjuj, K. K. (2016). *Learning to manage: How Saudi female doctoral students in education manage academic and motherhood roles in U.S. universities* [Unpublished doctoral dissertation]. University of Kansas.
- Anireh, U. N., & Amadi, E. A. (2020). WhatsApp an innovative research collaboration tool for institutions of higher learning in Rivers State. *International Journal of Innovative Information Systems & Technology Research*, 8(1), 81-90.
- Bas, G. (2016). The effect of multiple intelligences theory-based education on academic achievement: A meta-analytic review. *Kuram Ve Uygulamada Eğitim Bilimleri / Educational Sciences: Theory & Practice*, 16(6), 1833-1864. <https://doi.org/10.12738/estp.2016.6.0015>
- Bridge, L. (2020). *The experience of women who give birth to a child during a doctoral program* [Unpublished doctoral dissertation]. John F. Kennedy University.
- Broghammer, R. (2016). *I will get this done, and I will do it my way: Doctoral student mothers*

- practicing student affairs and their journey toward self-authorship* [Unpublished doctoral dissertation]. University of Northern Colorado.
- Brown, H. E., Atkin, A. J., Panter, J., Wong, G., Chinapaw, M. J., & Van Sluijs, E. M. F. (2016). Family-based interventions to increase physical activity in children: A systematic review, meta-analysis and realist synthesis. *Obesity Reviews*, 17(4), 345-360. <https://doi.org/10.1111/obr.12362>
- Castañeda, M., & Isgro, K. (2013). Introduction: Speaking truth to power to change the ivory tower. In M. Castañeda & K. Isgro (Eds.), *Mothers in academia* (pp. 1-14). Columbia University Press. <https://cupola.columbia.edu/978-0-231-16004-9/16>
- Chung, Y. (2015). *Cross-cultural adaptation in the discourse of education and motherhood: An autoethnography of a Korean international graduate student mother in the United States* [Unpublished doctoral dissertation]. Pennsylvania State University.
- CohenMiller, A. S. (2013). Motherhood in academia: A grounded theory pilot study of online texts. *Educational Research: Theory and Practice (formerly, The Researcher)*, 25(1), 47-66. <http://www.nrmera.org/wp-content/uploads/2016/02/Researcherv25n1CohenMiller.pdf>
- CohenMiller, A. S. (2014). *The phenomenon of doctoral student motherhood/mothering in academia: Cultural construction, presentation of self, and situated learning*. [Unpublished doctoral dissertation]. The University of Texas.
- CohenMiller, A. (2015). *Motherscholar.org*. <http://www.motherscholar.org>
- CohenMiller, A. (2016). Artful research approaches in #amwritingwithbaby: Qualitative analysis of academic mothers on Facebook. *LEARNING Landscapes – Special Issue, Artful Inquiry: Transforming Understanding Through Creative Engagement*, 9(2), 181-196. <https://doi.org/10.36510/learnland.v9i2.770>
- CohenMiller, A. (2018). Creating a participatory arts-based online focus group: Highlighting the transition from DocMama to Motherscholar. *The Qualitative Report*, 23(7), 1720-1735. <https://doi.org/10.46743/2160-3715/2018.2895>
- CohenMiller, A. (2020a). Spiraling. *Journal of the Motherhood Initiative for Research and Community Involvement*, 11(2), 9-20. <https://jarm.journals.yorku.ca/index.php/jarm/issue/view/2317>
- CohenMiller, A. (2020b). Performing, passing, and covering motherhood in academia: A heartfelt autoethnography. *LEARNING Landscapes*, 13(1), 97-114. <https://doi.org/10.36510/learnland.v13i1.1006>
- CohenMiller, A., & Boivin, N. (2022). *Questions in qualitative social justice research in multicultural contexts*. Routledge. <https://www.routledge.com/Questions-in-Qualitative-Social-Justice-Research-in-Multicultural-Contexts/CohenMiller-Boivin/p/book/9780367250409>
- CohenMiller, A., & Demers, D. (2019). Conflicting roles of mother and academic? Exploring the use of arts-based self-care activities to encourage wellbeing. *Art/Research International: A Transdisciplinary Journal*, 4(2), 611-645. <https://doi.org/10.18432/ari29391>
- CohenMiller, A., Demers, D., & Schnackenberg, H. (2020). Rigid flexibility in research: Seeing the opportunities in “failed” qualitative research. *International Journal of Qualitative Methods, Special issue: Failures in Qualitative and Mixed Methods Research*, 19, 1-6. <https://doi.org/10.1177/1609406920963782>
- CohenMiller, A., Demers, D., Schnackenberg, H., & Izenkova, Z. (2022). “You are seen; you matter”: Applying the theory of gendered organizations to equity and inclusion for motherscholars in higher education. *Journal of Women and Gender in Higher Education*, 15(1), 87-109. <https://doi.org/10.1080/26379112.2022.205816>
- CohenMiller, A., & Izenkova, Z. (2022). Motherhood in academia during the COVID-19

- pandemic: An international online photovoice study addressing equity and inclusion in higher education. *Innovative Higher Education*, 47(5), 813–835. <https://doi.org/10.1007/s10755-022-09605-w>
- CohenMiller, A., & Leveto, J. (in press). Centering voices of motherscholars during the COVID-19 pandemic shows overwhelming responsibilities, ingrained gender roles, and blurred boundaries. In A. CohenMiller, T. Hinton-Smith, F. Mazanderani, & N. Samuel (Eds.), *Leading change in gender and diversity in higher education from margins to mainstream*. Routledge.
- CohenMiller, A., & Pate, E. (2019). A model for developing interdisciplinary research theoretical frameworks. *The Qualitative Report*, 24(6), 1211-1226. <https://doi.org/10.46743/2160-3715/2019.3558>
- CohenMiller, A., Saban, G. A., & Bayeta, R. (2022b). Rigor in qualitative research in the Asian context. In S. Wa-Mbaleka, A. Rosales & M. Tolich (Eds.), *The SAGE handbook for qualitative research in the Asian context* (pp. 327-344). SAGE.
- Cook, B. (2016). *Pregnant graduate school students' perceived facilitators and barriers to academic success and the impact on wellbeing* [Unpublished doctoral dissertation]. Adler School of Professional Psychology.
- Cox, B. E., Nachman, B. R., Thompson, K., Dawson, S., Edelstein, J. A., & Breeden, C. (2020). An exploration of actionable insights regarding college students with Autism: A review of the literature. *The Review of Higher Education*, 43(4), 935-966. <https://doi.org/10.1353/rhe.2020.0026>
- Cuddy, A. J. C., Fiske, S. T., & Glick, P. (2004). When professionals become mothers, warmth doesn't cut the ice. *Journal of Social Issues*, 60(4), 701-718. <https://doi.org/10.1111/j.0022-4537.2004.00381.x>
- Davies, E. (2018). *Diapers and doctoral programs: Exploring the experiences of first-time parents in graduate programs* [Unpublished doctoral dissertation]. William James College.
- Demers, D. (2014). *"I am the captain of the ship": Mother's experiences balancing graduate education and family responsibilities* [Unpublished doctoral dissertation]. Southern Illinois University at Carbondale.
- DeWalt, K. M., & DeWalt, B. R. (2011). *Participant observation: A guide for fieldworkers* (2nd ed.). AltaMira Press.
- DuBransky, T. D. (2014). *Employed graduate student mothers: The benefits, challenges, and perspectives of women fulfilling student, family, and worker roles* [Unpublished doctoral dissertation]. University of California.
- Ellis, E. G. (2014). *You must be superwoman! How graduate student mothers negotiate conflicting roles* [Unpublished master's thesis]. Texas Woman's University.
- Erisen, Y., & Gunay, R. (2015). A meta-analysis into the effectiveness of doctoral dissertations on constructivist learning. *The Anthropologist*, 21(1-2), 202-212. <https://doi.org/10.13140/RG.2.1.1972.0404>
- Ferree, A. (2018). *Mentoring and academic advising experiences of female Ph.D. students with children: A qualitative study* [Doctoral dissertation, University of San Francisco]. San Francisco, CA].
- Gabster, B. P., van Daalen, K., Dhatt, R., & Barry, M. (2020). Challenges for the female academic during the COVID-19 pandemic. *The Lancet*, 395(10242), 1968-1970. [https://doi.org/10.1016/S0140-6736\(20\)31412-4](https://doi.org/10.1016/S0140-6736(20)31412-4)
- Gardner, S. K. (2009). Student and faculty attributions of attrition in high and low-completing doctoral programs in the United States. *Higher Education*, 58(1), 97-112. <https://doi.org/10.1007/s10734-008-9184-7>
- Goulden, M., Mason, M. A., & Frasc, K. (2011). Keeping women in the science pipeline. *The*

- Annals of the American Academy of Political and Social Science*, 638(1), 141-162. <https://doi.org/10.1177/0002716211416925>
- Hillier, K. (2020). *Motherhood and academia: Exploring the experiences of graduate student and faculty mothers within the Southwestern Ontario context* [Unpublished doctoral dissertation]. University of Windsor.
- Hinton-Smith, T., Mazanderani, F., CohenMiller, A., & Samuel, N. (in press). Co-creating cross-cultural approaches to gender mainstreaming: Experiences and challenges in developing an interdisciplinary, international feminist knowledge-exchange research approach. In A. CohenMiller, T. Hinton-Smith, F. Mazanderani, & N. Samuel (Eds.), *Leading change in gender and diversity in higher education from margins to mainstream*. Routledge.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. SAGE.
- Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede model in context. *Online Readings in Psychology and Culture*, 2(1), 2307-0919. <https://doi.org/10.9707/2307-0919.1014>
- Holborow, M. (2012). Neoliberalism, human capital and the skills agenda in higher education—the Irish case. *Journal for Critical Education Policy Studies (J.C.E.P.S.)*, 10(1), 93-111.
- Kreischer, A. L. (2017). *Parents enrolled in graduate programs and their experiences with faculty*. [Unpublished doctoral dissertation]. Iowa State University.
- Kulp, A. M. (2019). Parenting on the path to the professoriate: A focus on graduate student mothers. *Research in Higher Education*, 61, 408-429. <https://doi:10.1007/s11162-019-09561-z>
- LaFollette, J. R. (2016). *Matching moms: Understanding how doctoral student mothers in professional psychology programs experience training and the A.P.P.I.C. match* [Unpublished doctoral dissertation]. Indiana University.
- Langin, K. (2022, Sept 28). 'I'm worried.' Policies to help faculty amid pandemic could backfire. Science. <https://www.science.org/content/article/i-m-worried-policies-help-faculty-amid-pandemic-could-backfire>
- Lehtonen, D., Jyrkiäinen, A., & Joutsenlahti, J. (2019). A systematic review of educational design research in Finnish doctoral dissertations on mathematics, science, and technology education. *International Journal on Math, Science and Technology Education*, 7(3), 140-165. <https://doi.org/10.31129/LUMAT.7.3.399>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE.
- Lobnibe, J. Y. (2011). *Searching for knowledge in the belly of the beast: Diversity, social equity and the African graduate student mother's experience in U.S. higher education*. [Unpublished doctoral dissertation]. University of Illinois at Urbana-Champaign.
- Lynch, K. D. (2008). Gender roles and the American academe: A case study of graduate student mothers. *Gender and Education*, 20(6), 585-605. <https://doi.org/10.1080/09540250802213099>
- Main, J. B., Prenovitz, S., & Ehrenberg, R. G. (2019). In pursuit of a tenure-track faculty position: Career progression and satisfaction of humanities and social sciences doctorates. *The Review of Higher Education*, 42(4), 1309-1336. <https://doi.org/10.1353/rhe.2019.0067>
- Maitland, N. D. (2002). *Being a mother and a graduate student at OISE/UT...not completely incompatible* [Unpublished master of arts thesis]. University of Toronto.
- Mason, M. A., Wolfinger, N. H., & Goulden, M. (2013). *Do babies matter? Gender and family in the ivory tower*. Rutgers University Press.
- Matias, C. E. (2011, April). *Paying it forward: Mother scholars navigating the academic*

- terrain* [Conference presentation]. Annual Meeting of the American Educational Research Association, New Orleans, LA, United States.
- Matias, C. E., & Nishi, N. W. (2018). ParentCrit epilog. *International Journal of Qualitative Studies in Education*, 31(1), 82-85. <https://doi.org/10.1080/09518398.2017.1379625>
- McClintock-Comeaux, M. (2006). *Female doctoral students' family and academic department experiences and their relationships to career choices* [Unpublished doctoral dissertation]. University of Maryland.
- Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.
- Miraglia, K. A. (2003). *A phenomenological study of role strain using projective drawings with mothers who have matriculated in clinical psychology doctoral degree programs* [Unpublished doctoral dissertation]. The Chicago School of Professional Psychology.
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & Prisma Group. (2009). Preferred reporting items for systematic reviews and meta-analyses: The P.R.I.S.M.A. statement. *PloS Med*, 6(7), e1000097. <https://doi.org/10.1371/journal.pmed.1000097>
- Morgan, A. C., Way, S. F., Hoefer, M. J., Larremore, D. B., Galesic, M., & Clauset, A. (2021). The unequal impact of parenthood in academia. *Science Advances*, 7(9), <https://doi.org/10.1126/sciadv.abd1996>
- Musili, L. W. (2018). *Motherhood experiences of postgraduate students at the University of Nairobi, Kenya* [Unpublished doctoral dissertation]. University of Nairobi.
- Mutti-Driscoll, C. (2013). *Graduate student motherhood: How female Ph.D. students resist and perform idealized norms of work and mothering* [Unpublished doctoral dissertation]. University of Washington.
- Onwuegbuzie, A. J., Rosli, R., Ingram, J. M., & Frels, R. K. (2014). A critical dialectical pluralistic examination of the lived experience of select women doctoral students. *The Qualitative Report*, 19(3), 1-35. <https://doi.org/10.46743/2160-3715/2014.1283>
- O'Reilly, A. (2010). *Twenty-first century motherhood: Experience, identity, policy, agency*. Columbia University Press.
- O'Reilly, A. (2020). "Trying to function in the unfunctionable": Mothers and COVID-19. *Journal of the Motherhood Initiative*, 11(1), 7-24. <https://jarm.journals.yorku.ca/index.php/jarm/article/view/40588>
- Orr, E., Durepos, P., Jones, V., & Jack, S. M. (2021). Risk of secondary distress for graduate students conducting qualitative research on sensitive subjects: A scoping review of Canadian dissertations and theses. *Global Qualitative Nursing Research*, 8, 1-14 <https://doi.org/10.1177/2333393621993803>
- Palermo-Kielb, K. (2020). *Factors affecting the successful completion of online graduate programs among single mothers* [Unpublished doctoral dissertation]. Walden University.
- Pascual-Smith, C. (2014). *Mental health graduate students who became stepmothers* [Unpublished doctoral dissertation]. Alliant International University.
- Pement, N. M. (2013). *"This has been my life's work": A qualitative study of the experiences of doctoral student mothers in higher education and their quest for social justice*. [Unpublished doctoral dissertation]. California Lutheran University.
- Phillips, L., Kristiansen, M., Vehviläinen, M., & Gunnarsson, E. (Eds.). (2013). *Knowledge and power in collaborative research: A reflexive approach*. Routledge Press.
- Price, Y. (2008). *In a mother's voice: On transformation and graduate education* [Unpublished master of science thesis]. University of Kansas.
- Rich, A. (1995). *Of woman born: Motherhood as experience and institution*. Norton.
- Riser, S. A. (2013). *The intersection of motherhood and academia as conceptualized by female doctoral students*. [Unpublished doctoral dissertation]. Louisiana State University.

- Saldaña, J. (2015). *The coding manual for qualitative researchers*. SAGE.
- Sallee, M., Ward, K., & Wolf-Wendel, L. (2016). Can anyone have it all? Gendered views on parenting and academic careers. *Innovative Higher Education*, 41(3), 187-202. <https://doi.org/10.1007/s10755-015-9345-4>
- Sears, A. L. (2001). *Of diapers and dissertations: The experiences of doctoral student mothers living at the intersection of motherhood and studenthood* [Unpublished doctoral dissertation]. The University of British Columbia.
- Sedberry, T. M. (2016). *Woman, teacher, mother, scholar: Using narrative inquiry and intimate insider research to explore women's navigation of multiple identities in graduate school* [Unpublished doctoral dissertation]. Purdue University.
- Seers, K. (2015). Qualitative systematic reviews: Their importance for our understanding of research relevant to pain. *British Journal of Pain*, 9(1), 36-40. <https://doi.org/10.1177/2049463714549777>
- Springer, K. W., Parker, B. K., & Leviten-Reid, C. (2009). Making space for graduate student parents: Practice and politics. *Journal of Family Issues*, 30(4), 435-457. <https://doi.org/10.1177/0192513X08329293>
- Swarts, S. E. (2016). *Socialization experiences of doctoral student mothers: "Outsiders in the sacred grove" redux* [Unpublished doctoral dissertation]. University of California.
- Tiu Wu, A. (2013). *Learning to balance: Exploring how women doctoral students navigate school, motherhood and employment* [Unpublished doctoral dissertation]. Columbia University.
- Tucker, A. (2016). *Talkin' back and shifting black: Black motherhood, identity development and doctoral study* [Unpublished doctoral dissertation]. The University of Wisconsin.
- Underwood, S. U. (2002). *Mothers of invention: Developing a better understanding of mothers' doctoral persistence* [Unpublished doctoral dissertation]. University of Oregon.
- Vickers, A. J., & Smith, C. (2000). Incorporating data from dissertations in systematic reviews. *International Journal of Technology Assessment in Health Care*, 16(2), 711-713. <https://doi.org/10.1017/S0266462300101278>
- Vincent-Lamarre, P., Sugimoto, C., & Larivière, V. (2020, May 19). *The decline of women's research production during the coronavirus pandemic*. <https://www.natureindex.com/news-blog/decline-women-scientist-research-publishing-production-coronavirus-pandemic>
- Wang, S. L. (2006). *Ascending and conscious spirits: A feminist study of female doctoral students' experiences as researchers in the field of education*. [Unpublished doctoral dissertation]. University of Idaho.
- Ward, K., & Wolf-Wendel, L. (2012). *Academic motherhood: How faculty manage work and family*. Rutgers University Press.
- Ward, K. A., & Wolf-Wendel, L. (2016). Academic motherhood: Mid-career perspectives and the ideal worker norm. *New Directions for Higher Education*, 176, 11-23. <https://doi.org/10.1002/he.20206>
- Ward, K., & Wolf-Wendel, L. (2017a). "Good" places to work: Women faculty, community colleges, academic work, and family integration. *New Directions for Community Colleges*, 2017(179), 47-58. <https://doi.org/10.1002/cc.20261>
- Ward, K., & Wolf-Wendel, L. (2017b). Mothering and professing: Critical choices and the academic career. *NASPA Journal About Women in Higher Education*, 10(3), 1-16. <https://doi.org/10.1080/19407882.2017.1351995>
- Weinstein, D. R. (2009). *Mother and child's perception of inter-parental conflict when mother has returned to graduate studies*. [Unpublished doctoral dissertation]. Oakland University.

- Williams, S. A. (2007). *Graduate students/mothers negotiating academia and family life: Discourses, experiences, and alternatives* [Unpublished doctoral dissertation]. University of South Florida.
- Williams-Tolliver, S. D. (2010). *Williams-Tolliver, S. D. (2010). Understanding the experiences of women, graduate student stress, and lack of marital/social support: A mixed method Inquiry*. [Unpublished doctoral dissertation]. Capella University.
- Willy, N. L. (2020). Parenting policies and culture in academia and beyond: Making it while mothers (and fathering) in the academy, and what COVID-19 has to do with it. *Journal of The Motherhood Initiative*, 11(1), 201-217.
- Witkin, S. B. J. (1997). *Balancing between worlds: A qualitative study of mothers in academia* [Unpublished doctoral dissertation]. University of Oregon.
- Wladkowski, S. P., & Mirick, R. G. (2019). Mentorship in doctoral education for pregnant and newly parenting doctoral students. *Journal of Women and Gender in Higher Education*, 12(3), 299-318. <https://doi.org/10.1080/26379112.2019.1654394>
- Yalango, K. (2019). *"Stretched thin": Pregnancy and motherhood in clinical and counseling psychology doctoral programs* [Unpublished doctoral dissertation]. University of Denver.
- Zhang, Q. (2011). *An exploration of the identities of Asian graduate student mothers in the United States* [Unpublished doctoral dissertation]. Indiana University of Pennsylvania.

Author Note

Anna CohenMiller, Ph.D., is a qualitative social justice researcher and award-winning educational leadership who focuses on issues of equity and inclusion in higher education in Kazakhstan and internationally. She specializes in arts-based methods and transformative leadership to amplify the voices of those historically marginalized and empower early career researchers. She is an associate professor in the Graduate School of Education and co-founding director of The Consortium of Gender Scholars at Nazarbayev University (Kazakhstan), founder of The Motherscholar Project, editor in chief of *Dialogue: The Interdisciplinary Journal of Popular Culture and Pedagogy*, and author of multiple books with Routledge, including with N. Boivin, *Questions in Qualitative Social Justice Research in Multicultural Contexts* (2021) and the forthcoming, *Life-Changing Moments in Qualitative Social Justice Research: Transformative Learning, Vulnerability and Critical Self-Reflection*. Please direct correspondence to anna@cohenmiller.com.

Zhanna Izenkova is a Ph.D. student in the Graduate School of Education and research assistant for the The Consortium of Gender Scholars at Nazarbayev University (Kazakhstan). Her research interests include, but are not limited to, the following areas: mothers in academia, gender, school leadership, equity, and shadow education.

Almira Tabaeva is a Ph.D. student in the Graduate School of Education and Soros foundation fellow and a research assistant in the PEER Network. She works in education and gender-related projects in the Central Asian context. Almira's research interests include gender issues, education policy, mothers in academia and comparative education.

Acknowledgements: We would like to thank The Consortium of Gender Scholars (www.gen-con.org) for support in finalizing this work and TQR for feedback. An earlier version of this work was presented at AERA 2021. Thank you also to the Editors, Sally St. George and Katheryne Leigh for the feedback and guidance. With a special thanks to Sally St. George for her patience, encouragement, and incredible insights which made this article a much stronger piece.

Copyright 2022: Anna CohenMiller, Zhanna Izezenova, Almira Tabaeva, and Nova Southeastern University.

Article Citation

CohenMiller, A., Izezenova, Z., & Tabaeva, A. (2022). Graduate student mothers and issues of justice: Steps, challenges, and benefits of a systematic review for examining master's theses and doctoral dissertations. *The Qualitative Report*, 27(10), 2380-2403. <https://doi.org/10.46743/2160-3715/2022.5967>
