A STUDY OF GRADUATE STUDENT PARENTS' PERCEPTIONS: BARRIERS AND RESOURCES

A Thesis
Submitted to the Graduate Faculty
of the
North Dakota State University
of Agriculture and Applied Science

By

Megan Rae Theisen

In Partial Fulfillment of the Requirements for the Degree of MASTER OF SCIENCE

Major Department: Human Development and Family Science

October 2011

Fargo, North Dakota

North Dakota State University Graduate School

Title				
A Study of Graduate Student Parents' Perceptions:				
Barriers and Resources				
Ву				
Megan Rae Theisen				
Megan rae meisen				
The Supervisory Committee certifies that this <i>disquisition</i> complies with North Dakota State University's regulations and meets the accepted standards for the degree of				
MASTER OF SCIENCE				

North Dakota State University Libraries Addendum

To protect the privacy of individuals associated with the document, signatures have been removed from the digital version of this document.

ABSTRACT

Theisen, Megan Rae, M.S., Department of Human Development and Family Science, College of Human Development and Education, North Dakota State University, October 2011. A Study of Graduate Student Parents' Perceptions: Barriers and Resources. Major Professor: Dr. Christi McGeorge.

The present study explored the perceptions of students who were both parenting and pursuing a master's or doctoral degree. Specifically, this study examined students' perceptions regarding the usefulness of resources that were currently and could potentially be provided to facilitate successful degree completion. Differences between mothers and fathers were examined as well as differences between master's and doctoral students. Previous literature indicated that women and men experience graduate school differently and that the genders are not represented proportionally as master's and doctoral graduates. Therefore, this study sought to explore differences in the perceptions of resources offered on campus, resources offered in the community, and potential resources. A feminist framework was used to guide all aspects of this study. The results of this study indicated that graduate student parents placed greater value on financial resources and resources related to childcare as well as having a supportive faculty advisor. Independent sample ttests indicate there were gender differences in perceptions; specifically, women placed greater value on many of the resources studied. In addition, independent sample t-tests did not signify differences between master's and doctoral students' perceptions. These results suggest that there are many specific resources that universities could offer graduate student parents in order to support them in completing their degree.

ACKNOWLEDGEMENTS

There are so many people that I am grateful to have as a part of my life. It is to you that I dedicate this work. The success of this project has come about because of your support, encouragement, kindness and contribution.

First, I would like to thank my major advisor, Christi McGeorge. The fact that you were open to the idea of studying such an underrepresented population and have taken on this project with a sense of importance and enthusiasm means so much to me. Thank you for your guidance, flexibility and supportive mentoring. I am extremely privileged to have worked with someone of such great talent and compassion.

To my committee members, Beth Blodgett Salafia, Kristen Benson and Betsy Birmingham, I would like to thank you all for your unique insights and contributions to this project. Your time, constructive criticism and supportive comments have all been greatly welcomed.

I would also like to thank Kris Bjelde. Without your support and encouragement in the first year of graduate school, I would not be where I am now. You have been a cherished mentor, instructor and friend.

To everyone within not only the department of Human Development and Family Science, but also the College of Human Development and Education, thank you for your instruction, knowledge, support and kindness.

Last, but not least, I would like to thank my husband and children. I am so blessed to have you three in my life. Presten and Jocelyn, thank you for understanding when Mommy had to work so many late nights and couldn't always give you the time that you

asked for. Deejai, thank you for your unwavering support and insistence that I see this through to the end.

Each and every one of you has made such a huge impact and contribution to my life; I would not want to trade that for anything. As I move on to the next chapter of my life, know that I will not forget the contribution, support, guidance and encouragement that has brought me to where I am now. Thank you.

TABLE OF CONTENTS

ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
LIST OF TABLES	vii
CHAPTER ONE. INTRODUCTION	1
CHAPTER TWO. LITERATURE REVIEW	9
CHAPTER THREE. METHODS	24
CHAPTER FOUR. RESULTS	32
CHAPTER FIVE. DISCUSSION	43
REFERENCES	56
APPENDIX A. INVITATION TO PARTICIPATE	62
APPENDIX B. ELECTRONIC SURVEY	63

LIST OF TABLES

<u>Table</u>	Page
1.	Characteristics of the Sample
2.	Means and Standard Deviations of Perceived Value of Campus Resources and the Percentage that Utilized Each Resource
3.	Means and Standard Deviations of Perceived Value of Community Resources and the Percentage of Participants That Use Each Resource34
4.	Means and Standard Deviations of Perceived Value for Potential Resources and Percent that Would Use the Resource if It Was Available35
5.	Means, Standard Deviations, and t-test Results of Perceptions of Campus Resources by Gender
6.	Means, Standard Deviations, and t-test Results of Perceptions of Community Resources by Gender
7.	Means, Standard Deviations, and t-test Results of Perceptions of Potential Resources by Gender

CHAPTER ONE

INTRODUCTION

Pursuing an undergraduate degree is a challenging prospective for many students; however, pursing a graduate degree is often more of a challenge with doctoral completion rates currently between 49% and 64% depending upon field of study (Council of Graduate Schools [CGS], 2008). The challenges of pursuing a post-baccalaureate degree are magnified when students are parenting at the same time they are seeking an education. In particular, balancing family and parental responsibilities appear to increase attrition rates for women (CGS, 2008; Holmes & O'Connell, 2007). Specifically, the challenges that many student parents experience are related to maintaining a worklife balance. Worklife balance involves managing the demands at work and the demands at home. These responsibilities may overlap, which then requires either work or personal sacrifices. Failure to meet a homeostasis between the realms of work and personal life creates worklife challenges.

Although much of the research on worklife balance within academia focuses solely on faculty's experiences, Serrano (2008) found that doctoral students have similar worklife challenges as faculty. Even with comparable challenges, graduate student parents are usually overlooked when universities create family friendly policies and develop resources to support parents (Springer, Parker & Leviten-Reid, 2009), which is interesting given that in 2008, 35% of graduate students had dependent children (U.S. Department of Education, 2009). Springer et al. (2009) found that for graduate student parents "few official policies exist, most situations are accommodated individually, and graduate directors are often unaware of university services" available to student parents (p. 435). Springer et al. (2009)

further stated, "Our survey of sociology programs showed an overall lack of institutional supports for both graduate student mothers and fathers" (p.454). Finally, graduate students often have little influence on the development of official university policies.

Given the challenges associated with worklife balance it is not surprising that motherhood is considered a risk or barrier to success for students (Mason & Goulden, 2002; Mottarella, Fritzsche, Whitten & Bedsole, 2009). When considering the responsibilities of family, men and women often do not experience those responsibilities equally. The research suggests that the brunt of accountability in parenting and household work often falls to women (Frisco & Williams, 2003; Glass & Fujimoto, 1994; Mason, 2010.; Ross, Mirowsky, & Huber, 1983; Viers & Prouty, 2001). For example, when a woman who has a family is in the workforce, she often experiences what is known as the "second shift" (Hochschild & Machung, 1989), which involves maintaining the home and caring for children while simultaneously working a full-time job. With so many immediate responsibilities, a successful worklife balance is almost impossible to achieve without the help of external supports. This phenomenon can be applied to women students who are parenting as they balance a commitment to children and school and might explain the fewer number of women who proportionately pursue a Ph.D. as opposed to women pursuing a master's degree (National Center for Education Statistics [NCES], 2009).

Some scholars have used the phrase "leaking pipeline" to explain the differences that exist between the rates that men and women are pursuing graduate degrees and careers in academia. In particular, the leaking pipeline refers to the decrease in the proportion of women in academia as they move from undergraduate status to full professor status (Blickenstaff, 2005; van Anders, 2004; West & Curtis, 2006; Wolfinger, Mason, &

Goulden, 2008). For instance, the proportion of women obtaining a bachelor's degree is larger than the portion obtaining a master's degree, which is larger than the portion achieving a doctoral degree. In the 2006-2007 academic year, women received 62% of all associate degrees, 57% of all bachelor's degrees, 61% of all master's degrees and 50% of all doctoral degrees (NCES, 2009). While women, as a group, have been consistently earning more degrees (NCES, 2009), the current concern is that proportionately more women complete lower ranking degrees (e.g., associate degrees) as opposed to higher ranking degrees (e.g., doctoral degrees). For instance, the proportion of women receiving associate degrees is higher than women receiving bachelor's degrees and also the proportion of women receiving master's degrees is higher than women receiving doctoral degrees (NCES, 2009). In addition, of those initially enrolled, women complete their doctoral degrees at a significantly lower rate when compared to men (CGS, 2008; Price, 2005, 2006). In particular, when comparing women and men, women have a higher attrition rate and take a longer time to degree obtainment (CGS, 2008; Price, 2005, 2006).

Although women and men have comparable creative ability and mental capacity, there is still an incongruity of proportional degree attainment (NCES, 2009). Thus, this study explored resources that could potentially assist in creating a worklife balance for graduate student parents and addressed issues related to the leaking pipeline during the graduate education phase. In particular, this study explored how graduate student parents, especially mothers, are supported throughout their graduate studies. Examining the resources that assist graduate student parents in pursuing their degree may help create solutions for success (i.e., graduation). Moreover, looking carefully at the differences between men and women's responses will help identify specific gender related supports

that may decrease the leaking pipeline. In addition, this study investigated the differences in resources desired by parents pursuing a master's degree versus parents seeking a doctoral degree with the intent of a greater understanding of the leaking pipeline phenomena in regards to level of educational attainment.

Theoretical Framework

Feminism seeks to challenge societal structures that benefit men and disadvantage women in order to create change and can also be used as a tool to conceptualize hidden social rules that oppress women (hooks, 1984). Given the outcome disparities between women and men in academia, the examination of these differences will benefit from being guided by feminist framework. Thus, I used a feminist framework to conduct each aspect of this study. Prior to discussing how this study is guided by a feminist framework, I explain definitions of feminism and the major tenets of feminism that informed this study.

Feminism is defined in a number of different ways by different scholars. For example, hooks (1984) defines feminism as the "struggle to end sexist oppression," (p.26). According to hooks (1984), framing "feminism as a movement to end sexist oppression directs our attention to systems of domination and the interrelatedness of sex, race, and class oppression," (p.31). Defining feminism in this way, according to hooks (2000), "helps us remember that all of us, female and male, have been socialized from birth on to accept sexist thought and action," (p.viii). Much of this socialization is not deliberate or blatant, yet a stealthy reality embedded within society (Baber & Allen, 1992). Enns (1997) describes a very important concept related to defining feminism which is "the personal is political," (p. 8). This idea links personal problems of women with the political and social environment in which they are immersed (Enns, 1997; Shaw & Lee, 2007). Therefore,

choices women make and situations women face are influenced by society, political and economic structures as well as by existing institutions (Enns, 1997; Shaw & Lee, 2007). Enns' (1997) idea that the "personal is political" can be applied to women attending graduate school, explaining personal problems brought about by a patriarchal academic environment.

Baber and Allen (1992) argue there are three primary tenets of feminism: (1) women are oppressed and subordinated through a patriarchal society, (2) feminism and feminists seek to empower women through change, and (3) feminism and feminists acknowledge and validate the experiences, values and activities of women. Since this study explored gender related disparities of graduate student parents, examining factors that oppress and subordinate, empower and validate women's experiences within the context of academia facilitated the exploration of such disparities.

There are other core concepts of feminism that are particularly important to this study. These include: patriarchy, sexism, gender schemas, oppression, exploitation, and consciousness-raising. Patriarchy is a system of domination within society wherein one gender (i.e., male) maintains power and privilege over another gender (i.e., female) through exploitation and oppression (Baber & Allen, 1992; hooks, 2000). This system of domination is not always overt or intended, yet the consequences are real (Baber & Allen, 1992). More specifically, patriarchy influences family structure and creates a system where women continue to be seen as the primary parental figures and at the same time influences the academic environment to be structured in such a way that facilitates men's education and advancement, while hindering women's education and advancement.

Patriarchal attitudes and beliefs when brought to the societal level are considered sexism (Baber & Allen, 1992; hooks, 2000). The consequence of these beliefs and attitudes is perpetual because, as stated previously, socialization of sexist thinking occurs for both genders throughout the lifetime (Baber & Allen, 1992; hooks, 2000). Sexist thinking can in turn affect gender socialization by creating gender schemas. Gender based schemas include perceptions and judgments of another based on gender, which tend to overvalue men and undervalue women (Valian, 2005). Valian (2005) postulates it is the accumulation of every, and all, small covert gender schemas that afford men advantage over women in academia. In essence, there is a snowball effect in place. Society gives men tiny advantages here and tiny advantages there, which after time add up to a significant advantage shown by the percentage of disparities in relation to career level (e.g., the leaking pipeline; Valian, 2005). Sexist thinking by the way of gender schemas, when applied to graduate student mothers and fathers, could create gender related differences with regard to overall college experience, levels of stress, and timeliness to graduation. For example, the expected difference could be that men have advantages that help them experience a more pleasant, less stressful and shorter graduate school career. Women, on the other hand, could be expected to experience graduate school as not pleasant, highly stressful and taking a longer time than average to graduation. All of these differences created by gender schemes could ultimately influence one's ability and/or desire for degree completion.

Sexist thinking can also result in the oppression and exploitation of women (Baber & Allen, 1992; hooks, 2000). One consequence of sexist thinking is the devaluation of work within the home and family that is usually expected of women. According to Goodman (2001), "systems of oppression are characterized by dominant-subordinate

relations. There are unequal power relationships that allow one group to benefit at the expense of another group" (p.6). For instance, having a wife that maintains the household and performs childcare can promote a husband's educational career by giving him the time to focus solely on his schooling. In the same situation where a wife is maintaining the household and performing childcare, she may struggle to incorporate schooling, let alone focus solely on schooling. Oppression does not have to be an overt construct as mentioned earlier, but more often, a matrix of several social systems, structures, processes, relations and ideologies working collectively (Baber & Allen, 1992). Most importantly, Baber and Allen (1992) point out that oppression, "exclude[s] women in general from experiences and activities that enhance their growth and development, their access to resources, and their access to positions of power," (p. 7). This idea is of particular importance when considering women's experiences in academia and the phenomenon of the leaking pipeline, which has created a situation where very few women are in positions of power within the academy due to being excluded from being fully involved in pursuing higher education (Blickenstaff, 2005; van Anders, 2004; West & Curtis, 2006; Wolfinger et al., 2008).

In order to erode society's patriarchy, one must raise consciousness of individuals in order to raise the consciousness of the collective (hooks, 2000). This is done by raising the collective awareness of the problem, create societal structures that reinforce choosing thought and action that is non-sexist (hooks, 2000) and acknowledging and validating women's work and experiences (Baber & Allen, 1992). My intent is to draw attention to gender-related social inequities brought about in academia and critically examine the gendered situation of graduate student parents through a feminist lens. Specifically, desired parental resources are studied to see how or if the desire for resources vary by gender. The

above described feminist framework is used to interpret the literature reviewed for this study, develop the methods for data collection and analysis, and guide the interpretation of the study results.

CHAPTER TWO

LITERATURE REVIEW

This literature review outlines previous articles addressing barriers experienced by graduate student parents and the way those barriers are unequally dispersed by gender. In addition, literature on the differences in master's and doctoral student parents' experiences is described. Moreover, theoretical articles that discuss possible resources that could assist graduate student parents in successfully completing their degree are reviewed. Together this literature delineates the need to understand this population more.

Barriers to Successful Graduation

Combining graduate school with parenting can be a unique and challenging experience with subsequent barriers to successful graduation. For example, Lynch (2008), Brown and Amankwaa (2007), and Griffiths (2002) all discovered similar barriers, finding that student mothers often are lacking financial support, sufficient and affordable daycare, emotional support from advisors, peer support and family support. Perhaps an even greater challenge is maintaining a worklife balance because of high parental and scholarly demands (Lynch, 2008; Springer et al., 2009). Domestic work is tedious and time consuming, which contributes to role strain when coupled with school responsibilities (Griffiths, 2002). The main idea is that caring for a family takes a considerable amount of time and effort, and school work also takes a considerable amount of time and effort. With the combination of family care and school work, the burden placed on an individual is extremely high, forming high amounts of stress and strain for the student parent (Griffiths, 2002).

Given the above description of role strain that graduate students' experience, it is not surprising that Mason, Goulden, and Frasch (2009) found that doctoral students perceived that giving birth and/or adopting children while in graduate school was not a realistic option. In particular, they found that the doctoral students who do desire to have children find it incompatible with doctoral programs for several reasons: "time demands of PhD programs; current household income level; the perceived stress of raising a child while a student; and concerns about the availability of affordable child care, housing, and health insurance" (Mason et al., 2009, p. 15). To explore the extent to which time is a barrier or challenge for graduate student parents, Mason et al. (2009) examined the disparities between parents' and non-parents' working hours (e.g., school work, housework, childcare, employment) and found that graduate student mothers worked 25 or more hours a week and graduate student fathers worked 15 hours a week more than nonparent graduate students. This disparity begins to illustrate the stress and role-overload that many graduate students who are parents experience. Thus, my study sought to identify resources that can address some of these barriers.

Gender Differences and Barriers

The idea that higher education is challenging to mothers is not new. Many studies have sought to understand the difficulties mothers face while pursuing higher education (Brown & Amankwaa, 2007; Gonchar, 1995; Griffiths, 2002; Mottarella et al, 2009). This previous research tends to focus on the student mother's experience as opposed to the student parent's experience, suggesting there are notable difficulties for graduate student mothers that graduate student fathers do not experience. However, my feminist framework leads me to wonder, if additionally, the lack of research on graduate student fathers reflects

a societal belief that in the professional world men are not perceived as parents, and/or parenting is not perceived as a primary role for men (Baber & Allen, 1992; Enns, 1997; hooks, 1984, 2000).

There are some studies that explore the perceptions of graduate student mothers and fathers and these studies have found some interesting discrepancies. For example, one study found that a majority of doctoral students report that they worry about family-friendliness when considering a career, with women appearing to be slightly more concerned than men (Mason et al., 2009). This study found women to be more likely than men to perceive graduate school as clashing with having a family (Mason et al., 2009). When comparing men and women student parents, Griffiths (2002) found that women are more often expected to take on domestic responsibilities resulting in a higher number of student mothers experiencing role strain. Furthermore, based on Price's (2005, 2006) research, married male graduate students graduate at a quicker rate and have a lower attrition rate when comparing graduation rates of all other groups of students (e.g., married women, single women and men). This not only may confirm the idea that women take on the brunt of domestic work; it gives the impression that men are highly supported, for whatever reason, after marriage.

Sax (2007) identifies three barriers that explain mothers' slower rates of graduation: confidence, stress, and economic gaps. First, a confidence gap refers to the phenomenon where women tend to underestimate their abilities when comparing themselves to men, despite being clearly competent to handle tasks associated with higher education (Sax, 2007). Ferreira (2002) also found that women have significantly lower self-confidence in graduate school when compared with men and that this lower self-confidence significantly

affected women's attrition in their graduate program. Given my feminist framework, a confidence gap can be explained by the socialization of sexism, and in this case, internalized sexism.

The next barrier Sax (2007) identified is a stress gap, which refers to the fact that men spend more time in leisure activities when compared with women and women spend more time engaging in more responsibility related activities (Nomaguchi, Milkie & Bianchi, 2005; Thrane, 2000; Wallace & Young, 2010). A reason for this could be socially manifested gender schemas. Women are socially expected to take on the brunt of the familial and housework responsibility, while men are socially permitted more leisure time (Nomaguchi, Milkie & Bianchi, 2005; Thrane, 2000; Wallace & Young, 2010). This phenomenon may affect a woman's capacity to be successful in the academic realm because of the resulting stress, fatigue and lack of personal time.

The final barrier identified by Sax (2007) is an economic gap, which indicates that on average, women attending college have lower incomes than men. The deficiency of funds may be a major setback and source of stress as well as providing another barrier for women who decide to continue to pursue higher education. This situation may be explained by the lack of time experienced by mothers who are devoting time to caregiving activities as well as school and thus, do not have time to pursue paid employment.

The preceding challenges when coupled with the stress of parenting can have an exacerbated effect, again creating role strain for an individual. Subsequently, because of gender socialization and the added challenges of parenting while attending graduate school, many women do not continue with their academic careers, so not only does this affect women personally, it affects society through the loss of creative and gifted minds, which

would add to the diversity of intellectual knowledge. It should be emphasized that the exclusion of this diversity of knowledge affects both the individual and also society at large. Individuals are affected by not being able to refine or advance their own unique gifts, talents and knowledge. Society is affected on a grander scale, in a way that cannot be fully gauged. However, we know that when all perspectives are not utilized in the academy, every potential idea, solution, and insight is not available; thus society suffers.

In addition to the barriers Sax (2007) identifies, researchers have found that other factors influence whether or not graduate student parents remain in school and pursue and academic career. For example, Holmes and O'Connell (2007) found that women consider leaving graduate school because of family issues or problems with advisors, while men consider leaving because of an uncertain job market, van Anders (2004) found that women choose not to enter academic careers because of perceived systemic barriers in regards to having a family, specifically issues regarding quality childcare and uncertain paid parental leave. Looking at this through a feminist lens would suggest women are socialized to be responsible for family and men are socialized to be responsible for being the breadwinners. The bigger issue here is whether pursuing or leaving academia really is a conscious, informed choice. According to Crittenden (2001), "the big problem with the rhetoric of choice is that it leaves out power... Talk of choice not only overlooks power but also ignores the pain embedded in mothers' tough trade-offs," (p. 234 & 236). From a feminist standpoint, it is all too clear that women's choices in this situation are not really choices at all.

Women's "Choice"

While the previous section mainly focused on why women "choose" to leave graduate school and/or not pursue an academic career, we need to look beyond the scope of "choice." Springer et al. (2009) challenge this notion of "choice" and re-conceptualize it as being "pushed out." Although the mother might "choose" not to be a part of academia, her choice is altered by mitigating situations (Springer et al, 2009). "The 'opt out' myth," according to Springer et al. (2009), "is further complicated for graduate student mothers by the invisible and devalued nature of social reproduction within academic institutions," (p.439). Examining the 'opt out' myth from a feminist perspective exposes the oppressive tendencies within academia. In tandem, 'opting out' can be explained through the idea that "the personal is political," (Enns, 1997; Shaw & Lee, 2007). The choice to 'opt out' is only a choice honed through the systemic oppressive nature of societal expectations surrounding mothers. It may not be the social expectations of mothers, nor the difficult advisor, nor the lack of quality childcare, nor the uncertain paid parental leave, nor the invisible devalued perception of parents in academia; it is the resulting synergism that occurs when combining these factors together that could explain why women leave academia.

Taking care of children cannot be explained through choice of a lifestyle; it is an equity issue (Crittenden, 2001). According to Crittenden (2001), "mothers' choices are not made in a vacuum. They are made in a world that women never made, according to rules they didn't write." (p. 235). In this way, women are expected to adapt to the ways and rules within the structure of academia. Academia's ways and rules were not made for those with childcare responsibilities. For a woman pursuing a post bachelor degree, the result is role strain that overloads her with responsibilities. If she does not adapt to the structure, a

woman must "choose" something else. When women make choices because they feel as if they have no other choices, are those really choices? In this way they seem to be choices that are not genuinely of or for that person. More clearly they are pseudo-choices. Instead, these "choices" are options the individual is defaulted to because of the imposition of external forces. Given different external forces, the individual would not have utilized these "choices" at all.

Thus, the choice for a mother to stay or leave academia is not necessarily within her power. External forces are imposed upon a mother within academia, which is a patriarchal institution, making the option of staying in school grueling if not utterly impossible. Although the mother did not make the rules within academia, she must follow them in order to be successful. The academic world burdens the mother with responsibilities that are extremely challenging to meet when caretaking at the same time. Therefore she makes the "choice" to leave school. Onlookers very often view this "choice" as an intentional choice. In reality, she would have chosen to stay if external circumstances were different. In essence, changing the external forces would change the choice. It is in this way that patriarchy, by way of socialized gender schemas, exploits and oppresses caregivers, namely women, while simultaneously allotting power and privilege to non-caregivers, namely men.

Resources that may Facilitate Successful Graduation

Much of the literature regarding resources that could aid graduate student parents is based on perceptions, suggestions and/or theoretical arguments and not on empirical research. Thus, most of the proposed resources discussed in this section have never been empirically evaluated to determine if they are actually helpful to graduate student parents; therefore, such evaluations of existing resources could be a helpful addition to the literature

(Springer et al, 2009). After looking at the existing literature, I have found seven resources that scholars suggest could be helpful to graduate student parents. These include resources related to: time restrictions, work atmosphere, daycare, health insurance, assistantships, family housing, and a need to be connected to university and community resources (CGS, 2007; Lynch, 2008; Mason et al., 2009; Serrano, 2008; Springer et al., 2009; van Anders, 2004). These areas are by no means all inclusive, yet they represent a starting point to determine supports that could be helpful to this population.

Time Restrictions Created by Graduate School

Given the time demands experienced by a parent in graduate school, the literature proposes that several policy options could be beneficial. First, the ability to become a part-time student within a graduate program without reprimand or negative consequences could better allow a student to address family needs and school needs simultaneously (Lynch, 2008; Mason et al., 2009; Springer et al., 2009). Additionally, researchers suggest that the ability for graduate students to take time-off similar to the Family and Medical Leave Act of 1993 [FMLA], could be beneficial for the birth of a child, adoption of a child or caretaking of ill and/or disabled family members (CGS, 2007; Mason et al., 2009; Serrano, 2008; Springer et al., 2009; van Anders, 2004).

Mason and colleagues (2009) have pointed out that academia favors students who move rapidly in their academic career as opposed to those who take a longer time, but still produce quality work. Thus, a solution for this situation is to emphasize quality of work over the time it takes to complete the work (Mason et al., 2009). In addition, time related barriers could be eased by extension-related policies that include deadlines for: completing course work, preliminary exams, theses and dissertations (CGS, 2007; Serrano, 2008;

Springer et al., 2009). Not only could official policies promote graduate student parents' success, they could also ease the time-crunch associated with the second-shift. For example, at the University of California, Berkeley (UC Berkeley) there is an official policy that allows student parents extensions to complete their degree requirements (CGS, 2007). More specifically, the Graduate Council Student Parent Policy guide (2007) states, "the Graduate Council of the Academic Senate revised its 2003 policy to urge academic departments to be as generous as possible in accommodating student parents. . . Research doctoral students who are undergoing childbirth or coping with other serious parenting demands must be granted additional time to meet established deadlines for passing preliminary and/or qualifying examinations and completing their dissertations," (Graduate Division UC Berkeley, 2007). Reasons for time extension include: childbirth, care of a new baby, adoption, substantial child illness and any other substantial condition (Graduate Division UC Berkeley, 2007). Providing similar policies to fit the needs within each university could be of benefit to students who are parents.

Work Atmosphere

Many student parents report that the atmosphere within academia is not family friendly, with family life often being ignored and/or looked down upon (CGS, 2007; Lynch, 2008; Serrano, 2008; Springer et al., 2009; van Anders, 2004). Policies that are created and implemented both at the departmental and institutional level could help initiate an atmosphere that is family friendly (Springer et al., 2009). Promoting supportive, quality mentoring for all students regardless of family formation could also be especially beneficial for graduate student parents (Lynch, 2008; Mason et al., 2009; Springer et al., 2009). Lynch (2008) suggests that emotional support from both faculty members within the

department and student-specific advisors could greatly increase student parent morale.

Other inclusions to a family friendly culture could also be access to highchairs, play areas, lactation rooms and changing tables (Springer et al., 2009).

One important recurring resource offered in the literature emphasizes the power of knowledge (CGS, 2007; Lynch, 2008; Mason et al., 2009; Springer et al., 2009). Training of both faculty and students about the importance of worklife balance, valuing of parental roles, and the potential struggles of students who are parents could help to promote a more supportive work atmosphere (CGS, 2007; Lynch, 2008; Mason et al., 2009; Springer et al., 2009). In addition to training, the literature suggests that it is important for departments and universities to publicize helpful resources for student parents, which could validate their struggles and bring to the surface their unique challenges (CGS, 2007; Lynch, 2008; Mason et al., 2009; Springer et al., 2009). Acknowledgement of the graduate student parents' distinct situation could also support the advocacy and implementation of any family friendly policies geared toward this population (CGS, 2007; Mason et al., 2009; Springer et al., 2009). Emphasizing a worklife balance could not only be beneficial to the well-being of a graduate student parent, it could also reduce negative stigmas about parenting within academia and promote the idea that it is acceptable to parent while obtaining a graduate degree (Mason et al., 2009).

Daycare

Quality daycare is an important resource for graduate student parents; however, there are a number of factors that need to be considered. The main concerns are affordability, location of daycare services, and the time the care is available (CGS, 2007; Lynch, 2008; Serrano, 2008). Most student parents do not have abundant financial means

and when coupling this with the cost of childcare, a major dilemma is presented (CGS, 2007; Lynch, 2008). Solutions to this dilemma could include affordable, subsidized care that is available on a sliding fee scale (CGS, 2007; Lynch, 2008; Serrano, 2008). The CGS (2007) reported that approximately three-fourths of universities were found to provide or sponsor daycare, yet only about half of those same universities subsidized the daycare services they provided and only ten percent offered emergency childcare. Having oncampus childcare provides location convenience and having subsidized care provides affordability.

Lynch's (2008) findings suggest that graduate student mothers perceive university provided childcare as the most ideal option because of vicinity issues. On the other hand, affiliation with off-campus providers appears to increase the number of families that could receive daycare services and also decrease wait-list times (CGS, 2007; Serrano, 2008). Additionally, the literature suggests that sick and/or emergency childcare should be provided in the event a student parent needs it in order to fulfill their graduate school obligations (CGS, 2007).

Another issue linked with childcare is the availability of hours, with many students reporting that they could benefit from the option and availability of night-time care (Lynch, 2008). Optimal study hours for students often occur during the night. Students who are parents do not always have the option of using these hours when children are at home. Having flexible times for childcare that include nights would give flexibility for studying, attending class and attending other professional related activities.

Health Insurance

The literature on resources needed by graduate student parents highlights the fact that health insurance is another costly expense for these families. With limited financial means, a student parent often cannot afford this luxury (Lynch, 2008; Springer et al., 2009). Serrano (2006, as cited in CGS, 2007) found that 87% of universities provided dependent health insurance, yet only five percent of the same universities provided subsidies for this insurance. Not only could it be helpful if health insurance was available to all students, but also their dependents (CGS, 2007; Springer et al., 2009). It is suggested that insurance should be affordable, subsidized or provided on a sliding fee scale (CGS, 2007; Springer et al., 2009). Another option could be to direct student parents to state or national resources that provide healthcare benefits (Serrano, 2008).

Assistantships

Teaching, research, and graduate assistantships can be beneficial financially to graduate students. One problem with these types of financial resources lies in their availability throughout the college career (Lynch, 2008). Such positions may only be available for first-year graduate students and/or those who are perceived as more competent (e.g., non-parents; Lynch, 2008). Another issue is the amount that graduate assistantships are reimbursed in relation to a livable income and the fact that the level of reimbursement offer varies by discipline (Lynch, 2008). Because of this, many students must find other financial resources (e.g., jobs; Lynch, 2008). Working an outside job is difficult while pursuing a graduate degree and parenting (Lynch, 2008). A final concern in the literature about assistantships is whether or not they allow for flexibility in completing tasks

(Springer et al., 2009). Allowing flexible time in completion of duties could also be a benefit to parents who have many time demands (Springer et al., 2009).

Additionally, having the option of paid parental leave as a graduate assistant could help prevent financial barriers in the graduate student parents' career (CGS, 2007; Springer et al., 2009; van Anders, 2004). Of the universities examined by Serrano (2006, as cited by CGS, 2007), one-fourth provided some form of parental leave, but only one-tenth provided paid parental leave. An implemented example is seen at Princeton University, which offers a three months paid leave to graduate students who have teaching and research assistantships (Millman, 2007). In addition, UC Berkeley has implemented a paid six week maternity leave policy for student mothers, which provides the department with funding for interim teaching or research assistants as needed (CGS, 2007).

Family Housing

Obtaining affordable family housing is often an issue for graduate student parents (CGS, 2007; Serrano, 2008). The literature suggests that having the option of available, affordable family housing could counteract this barrier (CGS, 2007; Serrano, 2008). Reduction of rent for students, offering subsidized rent or providing rent based on a sliding fee scale could help reduce financial burdens to graduate student parents (CGS, 2007; Serrano, 2008). Serrano (2006, as cited by CGS, 2007) found that half of the universities she researched provided family specific housing, yet none were listed as having subsidized housing. Princeton University is one university that has recognized this need and has provided a lower cost mortgage program for doctoral students (Millman, 2007).

Providing a Resource Center

Perhaps one of the most important resources identified in the literature is a strategy that seeks to culminate all services or programs that provide support to student parents. One way this can be done is with a student parent resource center (Springer et al., 2009). Of the universities researched, 15% had a resource center available for student parents (CGS, 2007). Not only could student parents access resources that are available to them on campus, information about off-campus community resources could also be available to aid their successful graduation (Springer et al., 2009). For example, a department that provides such a center is the Graduate Division at UC Berkeley. UC Berkeley also provides a resource guide to graduate student parents titled *Families Matter*. This guide addresses issues important to student parents, including: childcare, grants, breastfeeding support, family housing, and student and dependent insurance. The guide also provides information about graduate student government, the Student Parent Center, an advice e-newsletter and academic policies relevant to graduate student parents (Graduate Division UC Berkeley, 2008).

Evaluations

Lastly, the literature suggests that not only should family friendly campus policies be implemented, but they should also be regularly evaluated (Springer et al., 2009). This process of evaluation could help in identifying the resources that are working for students along with providing insight into other resources that may be needed (Springer et al., 2009). This evaluation process could hold accountable departments and universities to ensure they are making positive progress towards supporting graduate student parents (Springer et al., 2009).

In summary, when looking to the literature on resources that help and support graduate student parents, two key areas recur. Time and money appear to be the greatest obstacles for graduate student parents; therefore, resources focused on these two areas might be the most helpful. Finally, implementing resources that are helpful to graduate student parents, especially mothers, could help to promote a family friendly atmosphere on campus, which may encourage more women to not leak out of the academic pipeline.

Research Questions

The current study examined graduate student parents' perceptions about the helpfulness of resources that universities could and/or do provide to help them successfully complete their degree. A feminist framework was used for guidance. More specifically, differences between mothers' and fathers' experiences and perceptions were explored. Although much of the previous research focused on student parents who were mothers, men were included as part of this study to draw attention to gender disparities that could potentially promote inclusion of men in family friendly policies adopted by universities. Also, given the documented differences in the proportion of men and women pursuing a master's as opposed to a doctorate degree, differences in their experiences and perceptions were explored to address the leaking pipeline phenomenon (NCES, 2009).

Thus, based on the literature review and my feminist framework, I utilized the following three research questions to guide this study: (1) What resources do graduate student parents believe are helpful in general and also could be helpful to them in completing their degree? (2) How do women and men differ in the value they place on resources available to help them cope with the demands of parenting and their education?

(3) How do master's and doctoral students differ in the value they place on resources available to help them cope with the demands of parenting and their education?

CHAPTER THREE

METHODS

Sample Recruitment and Description

Sample Recruitment

The data used for this study came from a larger study on the experiences and perceptions of graduate student parents. Thus, this study utilized secondary data analysis. In particular, participants were master's and doctoral student parents at North Dakota State University (NDSU). Participants were recruited in the following four ways: (1) recruitment emails were sent on the official NDSU graduate student listserv (see Appendix A), (2) flyers were posted at campus locations where student parents were known to frequent (e.g., the Wellness Center drop-in daycare center, library, Memorial Union, and campus buildings) (see Appendix A as the text for the emails and flyers are identical), (3) graduate student clubs were contacted with a request to send information about the study on their listservs or announce information at their association meetings, and (4) requests were made to faculty members across campus to share a PowerPoint slide announcing the study in their graduate classes or on their Blackboard pages. The flyers, e-mails, and PowerPoint slides were all created using the same text (see Appendix A).

Sample Description

The overall sample consisted of 181 master's and doctoral students. More specifically, 60.3% were women, 39.1% were men, and 0.6% were transgender. A response rate could not be calculated due to lack of data kept on the number of graduate student parents at the institution. The numbers of master's students and doctoral students were well-balanced, with 52.1% reporting to be master's students and 47.9% being doctoral

students (n = 87 and 80, respectively). Although the participants were well balanced between master's and doctoral students, the percentage of women and men pursuing each was not proportional, but appeared to be consistent with national trends (NCES, 2009). Women reported pursuing a master's 56.6% of the time (n = 56) and a doctorate 43.4% of the time (n = 43). Men reported pursuing a master's 43.9% of the time (n = 29) and a doctorate 56.1% of the time (n = 37). Participants predominantly reported not having a parent who had graduated with a graduate or professional degree (e.g., JD, MD; 76.4%), with 42.2% reported being a first generation college student. Ages of the participants ranged from 23 to 59, with an average age of 35.63 (SD = 7.16). Ages of the participants' children ranged from not born (i.e., in utero) to 33 years old with an average age of 8.28 (SD = 6.77). The number of children ranged from 1 to 11, with an average number of 1.25 (SD = 1.43). The sample for this study is further described in Table 1.

Measures

The measure used for this study was a survey, which was administered online, and that evaluated graduate student parents' perceptions of the resources available to them as well as their perceptions of potential resources that could be added to the NDSU campus (see Appendix B). Because this survey was used for a larger project, in addition to exploring the perceptions of resources, the researchers also asked about barriers that graduate student parents' experienced, perceptions of parental status on the ability to complete their degree, personal well-being, and demographics. Sample items from the survey include: (1) For existing NDSU resources, how valuable is each resource? Have you ever used this resource?; (2) How valuable are each of the listed community program to you?; and (3) How valuable could each of these resources be if they existed at NDSU or in

the larger Fargo-Moorhead community? The survey that was used for this study was created through existing measures and included new items and sub-scales created

Table 1. Characteristics of the Sample

Characteristics	<u>n</u>	<u>%</u>
Type of degree		
Master of Accountancy	2	1.14
Master of Arts	12	6.86
Master of Business Administration	4	2.29
Master of Education	14	8.00
Master of Public Health	1	0.57
Master of Science	57	32.57
Doctor of Nursing Practice	9	5.14
Doctor of Philosophy	71	40.57
Graduate Certificate	1	0.57
Other	4	2.29
College of current graduate degree		
Science and Mathematics	21	18.92
Pharmacy, Nursing and Allied Sciences	12	10.81
Human Development and Education	41	36.94
Engineering and Architecture	4	3.60
Business	6	5.41
Arts, Humanities and Social Sciences	12	10.81
Agriculture/Food Systems/Natural Resou	rce 15	13.51

Table 1 (continued)

Characteristics	<u>n</u>	<u>%</u>		
Current number of credits enrolled in				
1-4 credits	41	37.27		
5-8 credits	36	32.73		
9 credits	17	15.45		
More than 9 credits	16	14.55		
Current assistantship status				
No assistantship	69	63.30		
10 hours a week	8	7.34		
20 hours a week	22	20.18		
Other	10	9.17		
Race/ethnicity				
Asian/Pacific Islander	8	7.34		
Black/African American	2	1.83		
Latino(a)/Hispanic/Chicano(a)	1	0.92		
White/Caucasian/European American	92	84.40		
Native American/American Native	3	2.75		
Middle Eastern	1	0.92		
Biracial/Multiracial	2	1.83		
US citizen status				
Not a US Citizen	15	13.89		
A US Citizen	93	86.11		

Table 1 (continued)

Characteristics	<u>n</u>	<u>%</u>
Relationship status		
Single/not living with partner	10	9.17
Cohabitating/living with a partner	7	6.42
Married	87	79.82
Dating	1	0.92
Other	4	3.67
Number of children		
1	40	36.36
2	43	39.09
3	17	15.45
4	7	6.36
5	2	1.82
6	0	0.00
7	0	0.00
8	0	0.00
9	0	0.00
10	0	0.00
11	1	0.91

Table 1 (continued)

Characteristics	<u>n</u>	<u>%</u>
Children live with participants		
Yes	99	54.70
No	82	45.30
Annual household income from all	sources	
\$0 to \$24,999	19	17.27
\$25,000 to \$49,000	26	23.64
\$50,000 to \$74,999	25	22.73
\$75,000 to \$99,999	16	14.55
\$100,000 or higher	18	16.36
Preferred not to answer	6	5.45

specifically for the survey. In particular, items and sub-scales from three existing surveys were used: 1) Faculty Worklife Survey (developed by Sheridan and adapted by McGeorge, 2008), 2) Needs Assessment of Single Parents (McGeorge, 2005), and 3) University of California Faculty Work and Family Survey (Mason). In addition to the items adapted from these three surveys, items were also created based on the existing literature about graduate student parents. The 51-item survey (see Appendix B) was piloted on graduate students who took the survey and timed themselves, as well as provided feedback on how to improve the survey.

Procedure

Participants were given a web address to complete the survey. The website consisted of the following pages in order: an informed consent document, study survey and a series of demographic questions. If participants chose to submit the survey, then informed consent was inferred. This protocol was approved by the NDSU IRB board.

Data Analysis

The data analysis for each research question is detailed in the following sections.

Research Question Number One

The first research question is: What resources do graduate student parents feel are helpful in general and also could be helpful to them in completing their degree? To explore this research questions, I analyzed items eight, ten, and twelve of the survey, which are:

(item 8) Existing NDSU Resources. How valuable is each resource? Have you ever used this resource?

(item 10) Existing Community Resources. How valuable is each program? Have you ever used this program?

(item 12) Prospective Resources. How valuable could each of these resources be if they existed at NDSU or in the larger Fargo-Moorhead community? Would you use this program or resource?

In particular my analyses involved calculating the mean level of value that graduate students parents placed on each of the resources they were asked to assess. I also reported on the percentage of my sample that is actually using each of the resources or would use the resource if it existed at NDSU or within the Fargo-Moorhead community.

Research Question Number Two

Research question two is: How do women and men differ in the value they place on resources available to help them cope with the demands of parenting and their education? To answer this question, I calculated independent sample *t*-tests on items eight, ten and twelve to determine if there is a difference between women and men's perceptions of value with each of the resources they are asked to assess. To add greater confidence to significant *t*-test results, I calculated a Cohen *d* value, which determined the effect size of the difference between women and men graduate students' perceptions.

Research Question Number Three

The third research question is as follows: How do master's and doctoral students differ in the value they place on resources available to help them cope with the demands of parenting and their education? To address this question, I calculated independent sample *t*-tests on items eight, ten and twelve to determine if there is a difference between master's and doctoral student parents perceptions of value within each of the resources they are asked to assess. To add greater confidence to any significant *t*-test results, I would have calculated a Cohen *d* value to determine the effect size of the difference between master's and doctoral students' perceptions if any significant differences had been found.

CHAPTER FOUR

RESULTS

The three research questions were explored using descriptive statistics and *t*-tests as well as Cohen's *d* values. The results are delineated within each of the research questions stated below.

Results for Research Question One: Value of Resources

The first question pertained to graduate students' perceptions of the value of existing resources that were provided on a university campus and within the Fargo-Moorhead community as well as potential resources that could be developed to support graduate student parents. Means and standard deviations were used to determine students' perceptions of how valuable each of the resources is to them. The mean levels of value that graduate student parents placed on each of the campus resources are reported in Table 2.

The data reported in Table 2, 3 and 4 is based on four point Likert scale with one indicating "Not at all valuable" and four indicating "Very Valuable." The means found in Table 2 on rating the value of campus resources range from 3.5 to 2.0, with scholarships and fellowships being rated as most valuable and community information links on the NDSU Graduate School website being rated as the least valuable. Additionally, I calculated the percentage of the sample that was currently using each of the resources, which is also found in Table 2. The most widely used university resource was graduate assistantships and the least widely used resource was the lactation rooms.

Table 3 includes mean levels of value that graduate students place on resources within the community and the percentage that was currently utilizing each resource. The

means reported in Table 3 range from 3.3 to 2.6, with Women Infants and Children (WIC) being rated as most valuable and Temporary Assistance for Needy Families (TANF) being Table 2: Means and Standard Deviations of Perceived Value of Campus Resources and the Percentage that Utilized Each Resource

Resource	M	SD	Percentage that utilized each resource
Scholarships/Fellowships	3.50	0.95	46.15
Graduate Assistantships	3.39	1.02	51.05
The option to become a part-time student	2.91	1.36	33.57
Policies that allow for taking a leave of absence	2.82	1.46	16.31
On-campus childcare	2.80	1.29	18.92
Lactation rooms available in campus buildings	2.56	1.58	8.39
Dependent health insurance available through NDSU	2.47	1.59	17.24
NDSU family housing	2.44	1.43	9.66
Spousal/domestic partner health insurance available through NDSU	2.36	1.56	19.72
Community information links on the NDSU Graduate School website	2.01	1.42	13.99

rated as least valuable. The most widely used community resource was WIC and housing assistance was the least widely utilized. I also examined the value of potential resources to my participants and the mean levels of importance placed on these resources are reported in

Table 4. The mean values placed on these resources ranged from 3.7 to 2.6. The potential resource that participants on average rated as being most value was supportive faculty

Table 3: Means and Standard Deviations of Perceived Value of Community Resources and the Percentage of Participants That Use Each Resource

Resource	M	SD	Percent that utilized each resource
Women Infants and Children (WIC)	3.25	1.14	37.68
Medical Assistance/ Medicaid	3.13	1.24	30.22
Housing Assistance	3.04	1.26	7.19
Supplemental Nutrition Assistance Program (SNAP/ Food Stamps)	3.02	1.34	19.71
Childcare Resource and Referral	2.84	1.46	31.65
Drop-in childcare centers (off-campus)	2.84	1.31	17.52
Childcare Assistance Program	2.73	1.57	10.14
Low Income Home Energy Assistance Program	2.70	1.53	12.95
Healthy Steps Children's Health Insurance	2.66	1.66	11.76
Temporary Assistance for Needy Families (TANF)	2.62	1.62	7.30

members who are aware of the challenges that graduate student parents experience. The potential resource participants rated as least valuable was a blog or electronic discussion forum for parents attending graduate school.

Table 4: Means and Standard Deviations of Perceived Value for Potential Resources and Percent that Would Use the Resource if It Was Available

Resource	M	SD	Percent that would utilize the
			resource
Supportive faculty who are aware of the challenges that graduate student parents face	3.70	0.65	82.40
Subsidized on-campus childcare	3.64	0.69	50.81
Back-up or drop-in childcare when your usual childcare arrangements do not work	3.62	0.73	56.80
Subsidized health insurance	3.60	0.70	52.00
Guaranteed graduate assistantships	3.60	0.76	60.32
Childcare for children with developmental delays or disabilities	3.56	0.74	22.58
Childcare with extended hours for when you must work evenings, nights, or weekends	3.54	0.84	55.20
Campus wide policy for PAID maternal/ paternal leave with the birth or adoption of a child	3.51	0.83	45.60
List of community daycares with current openings	3.47	0.83	42.06
Childcare for when you are away at conferences and/or special events held off campus	3.39	0.90	44.35
Campus wide policy providing extensions for incompletes due to extenuating caregiving responsibilities	3.38	0.90	54.76
Childcare for children under 6 weeks and/ or over 6 years	3.37	0.92	41.60

Table 4 (continued)

Resource	М	SD	Percent that would utilize the resource
Childcare for when your children are sick (i.e., unable to attend their regular childcare due to illness)	3.36	0.94	47.15
List of available housing in the surrounding community area	3.12	0.91	28.80
An informal brochure listing available campus and community resources for student parents	3.11	0.91	54.03
On-campus Parental Resource Center	2.98	0.90	41.13
Campus wide policy for unpaid maternal/ paternal leave with the birth or adoption of a child	2.92	1.07	30.40
Graduate Student Parent Support Group	2.67	0.97	34.40
NDSU Blog or electronic discussion forum for parents attending graduate school	2.58	0.99	38.71

Results for Research Question Two: Gender Differences in Perceptions

The second research question involved the differences between men's and women's perceptions of the usefulness of campus, community and potential resources. I calculated independent sample t-tests to determine if the mean value that men and women placed on each resource significantly (p < .05) varied. If an independent sample t-test was significant, I then calculated a Cohen's d value to determine the effect size of the significant difference. Statistically significant t-test results and the corresponding Cohen's d values for existing

campus resources are reported in Table 5. As seen in Table 5, women placed greater value on community information links provided on the NDSU Graduate School website in addition to the option of becoming a part-time student. The Cohen's *d* values were 0.35 and 0.40, respectively. According to Pyrczak (2003), Cohen's d "values of about 0.30 indicate a moderately large difference, [and] 0.50 indicate a large difference" (p. 130). Thus the Cohen's *d* values for these items appear to indicate medium effect sizes in that women appear to place significantly greater value on both of these resources.

I calculated ten significant independent sample *t*-tests comparing the value that women and men place on existing community resources. These significant results along with the corresponding Cohen's *d* values are reported in Table 6. Specifically, I found that women placed greater value on Medical Assistance/Medicaid, Healthy Steps Children's Health Insurance, Low Income Home Energy Assistance Program, TANF, Supplemental Nutrition Assistance Program (SNAP/Food Stamps), WIC, Housing Assistance, Childcare Resource and Referral, Drop-in childcare centers (off-campus) and the Childcare Assistance Program, when compared to men's responses. Finally, the Cohen's *d* values ranged from 0.45 to 0.72, which indicates moderate to large effect sizes.

Subsequently, Table 7 shows significant *t*-test results and the related Cohen's *d* values of perspective resources. There were three statistically significant differences in how women and men rated these potential resources, all of which reflected women placing greater value on certain potential resources. In particular, women placed greater value on a campus wide policy for unpaid maternal/paternal leave with the birth or adoption of a child, back-up or drop-in childcare when usual childcare arrangements do not work, and

childcare with extended hours for working evenings, nights or weekends. Finally, the Cohen's *d* values ranged from 0.46 to 0.56, which indicates moderate to large effect size.

Results for Research Question Three: Differences between Master's and Doctoral Students

This question explored the differences between master's and doctoral students' perceptions regarding the value of resources on campus, in the community and potentially resources. I calculated independent sample *t*-tests on items eight, ten and twelve to determine if there was a difference between master's and doctoral student parents perceptions of value within each of the resources they were asked to assess. No significant *t*-tests were found, indicating master's and doctoral students did not differ in the value they placed on resources that help them cope with the demands of parenting and their education.

Table 5: Means, Standard Deviations, and t-test Results of Perceptions of Campus Resources by Gender

				Wo	<u>omen</u>	M	en		
Resource	<u>t</u>	<u>df</u>	<u>P</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	SD Pooled	Cohen's d
Community information links on the NDSU Graduate School Website	2.00	135	.05	2.17	1.40	1.68	1.38	1.39	0.35
The option to become a part-time student	2.27	134	.03	3.11	1.26	2.57	1.47	1.35	0.40

Table 6: Means, Standard Deviations, and t-test Results of Perceptions of Community Resources by Gender

				Wo	men	M	en		
Resource	<u>t</u>	<u>df</u>	p	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	SD Pooled	Cohen's d
Medical Assistance/Medicaid	2.53	130	.01	3.34	1.02	2.79	1.47	1.22	0.45
Healthy Steps Children's Health Insurance	3.35	125	.00	3.03	1.49	2.06	1.75	1.60	0.61
Low Income Home Energy Assistance Program	4.00	127	.00	3.09	1.34	2.04	1.62	1.45	0.72
Temporary Assistance for Needy Families (TANF)	3.40	126	.00	2.97	1.48	2.02	1.67	1.56	0.61
Supplemental Nutrition Assistance Program (SNAP/ Food Stamps)	3.51	130	.00	3.33	1.05	2.52	1.59	1.29	0.63
Women Infants and Children (WIC)	3.43	131	.00	3.50	0.85	2.82	1.42	1.11	0.62
Housing Assistance	3.50	124	.00	3.32	0.99	2.55	1.49	1.21	0.64
Childcare Resource and Referral	2.90	131	.00	3.11	1.30	2.37	1.61	1.43	0.52

Table 6 (continued)

Drop-in childcare centers (off-campus)	3.73	126	.00	3.16	1.04	2.31	1.52	1.25	0.68
Childcare Assistance Program	2.73	127	.01	3.00	1.47	2.24	1.65	1.54	0.49

Table 7: Means, Standard Deviations, and t-test Results of Perceptions of Potential Resources by Gender

				Wo	men	<u>M</u>	<u>en</u>	*	
Resource	<u>t</u>	<u>df</u>	p	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	SD Pooled	Cohen's d
Campus wide policy for unpaid maternal/paternal leave with the birth or adoption of a child	2.47	118	.02	3.08	1.03	2.59	1.06	1.04	0.47
Back-up or drop-in childcare when your usual childcare arrangements do not work	2.45	119	.02	3.73	0.62	3.40	0.88	0.72	0.46
Childcare with extended hours for when you must work evenings, nights or weekends	2.95	119	.00	3.69	0.71	3.23	1.00	0.82	0.56

CHAPTER FIVE

DISCUSSION

This chapter is divided into five sections: main findings, implications, limitations, suggestions for further research, and conclusion.

Main Findings

Research Question One: Perceptions of the Value and the Usage of Resources

Research question one, focused on graduate student parents' perceptions of campus, community, and potential resources. Of the campus resources, monetary resources in the form of scholarships and graduate assistantships appeared to be the most universally valued and most utilized, which indicates that finances are very important to the completion of a degree. This is not a surprising finding given that other researchers have highlighted the importance of graduate students being able to access financial support (Brown & Amankwaa, 2007; Griffiths, 2002; Lynch, 2008; Sax, 2007) and most individuals who pursue graduate education report struggling with finances during this phase of life.

The next two most valued campus resources are the option to become a part-time student and policies that allow for taking a leave of absence. Both are time related resources, a result aligned with previous research indicating time is a major constraint for graduate students (Lynch, 2008; Mason et al., 2009; Serrano, 2008; Springer et al., 2009). This is congruent with the idea stated previously that student parents experience worklife challenges (Serrano, 2008). Thus, becoming a part-time student might help alleviate some of these challenges, as would being able to take a leave of absence when family life becomes hard to balance with school. Additionally, having the option to become a part-time student may also relieve symptoms related to the "second shift" and allow women, in

particular, to balance their responsibilities at home and school (Hochschild & Machung, 1989). While there are positive aspects in allowing graduate student parents to become part-time students, from a feminist perspective the option of being a part-time student may not be fully positive, as part-time status could disadvantage graduate student parents by creating situation where it takes them significantly longer to complete their degree. This could subsequently lead these students to be perceived as less competent by the academic system. Additionally, given the way the academic system currently functions, part-time status could create more costs than benefits to the student. Longer time in school could result in increases to financial aid loans and extensive periods where income is limited due to extended student status. Finally, another highly valued campus resource is on-campus childcare. This is not unexpected given the convenience factor. Having childcare on campus would reduce the commute time in bringing children to care. This would be especially beneficial in a situation where the children are attending part-time and/or several short periods in one day during the parent's class time and/or meeting time.

The four highest valued community resources include WIC, Medical Assistance/Medicaid, Housing Assistance and SNAP. These are all financial supports, which again is not a surprising finding due to previous research indicating the significance of financial supports to graduate students (Brown & Amankwaa, 2007; Griffiths, 2002; Lynch, 2008; Sax, 2007). Given the importance of these four financial supports to graduate students, it is surprising that TANF is rated as the least valuable and one of the least utilized resources among the community resources I explored. A possible explanation for this disparity may be the social stigma attached to receiving financial subsidies from the government, or it could be that the vast majority of our sample would not qualify for TANF

based on their household income, but still experience being financially stressed by the demands of graduate school.

The next three most valued community resources are related to childcare. This is not unexpected since daycare is mentioned in almost every study exploring the needs of graduate student parents (Brown & Amankwaa, 2007; CGS, 2007; Gonchar, 1995; Griffiths, 2002; Holmes & O'Connell, 2007; Lynch, 2008; Mason, Goulden & Frasch, 2009; Millman, 2007; Serrano, 2008; Springer et al., 2009; Valian, 2005; van Anders, 2004). In particular, my findings highlight the importance of drop-in childcare, Childcare Resource and Referral and childcare assistance. Not only do graduate student parents value childcare, but they also value the resources that aid in obtaining and easing the financial burden associated with childcare. Again, the importance of childcare assistance reflects the need for financial support for these graduate student parents. The value of drop-in childcare may necessitate flexible childcare that allows for both non-traditional hours and for care to vary from day to day based on the changing schedules of the graduate student parents. While an employed parent frequently, but not always, has the same schedule each day of the week and from week to week, a graduate student's schedule often varies from day to day and from week to week.

The more interesting findings related to my first research question are tied to my participants' evaluation of both community and potential resources. For example, I was not able to identify another study that explored the usefulness of community resources to graduate student parents. This may reflect the current state of higher education in that universities maybe more focused on offering resources on campus, but may place less importance on connecting students to existing community, state, or federal resources that

are not directly linked to their education. This may be due to a situation where student recruitment for a university could be in jeopardy if the university suggested students would need governmental aid while attending school there. However, my findings do suggest that it would be helpful to students if universities informed them of these existing community resources. In particular, my participants placed high value on the WIC program.

Universities could easily provide information about WIC on their graduate school website, or provide a link to the WIC website from a university sponsored website of resources for student parents.

The highest valued potential resource was supportive faculty who are aware of the challenges that graduate student parents face. Interestingly, this was also the highest valued resource overall, with well over three-fourths of the participants reporting they would use this resource if it were available to them. This finding reveals that students value the support of faculty and believe it to be extremely influential to their success within graduate school. This finding is relevant to prior research indicating that students often do not feel comfortable talking with faculty about family obligations and/or worklife balance issues (CGS, 2007; Lynch, 2008; Serrano, 2008; Springer et al., 2009; van Anders, 2004). Thus, my findings add to the previous research, highlighting the importance of a family friendly work atmosphere and in particular, the role faculty members play in fostering such an atmosphere. The importance of acknowledging and validating the experiences with the family realm is also supported by the tenants of feminism, which suggest that in order to promote equality, family obligations and worklife balance must also be acknowledged (Baber & Allen, 1992). Thus when faculty are open to discuss students' home lives they are validating that the family realm is important and worthwhile.

In contrast to the support of faculty, students rated the support that could be provided by a Graduate Student Parent Support Group and an electronic discussion forum as least valuable and potentially least utilized. This is an interesting finding, which suggests that student parents value emotional support, yet value it exclusively from faculty and not from other graduate students. There are at least two possible explanations for this finding. First, I wonder if this lack of interest in a student support group or electronic discussion forum is tied not having a enough time to balance what they are currently balancing and thus not having time to add attending a support group or posting to an on-line forum. It is also possible that my participants are already receiving the peer support that they need from other students and/or social networks outside the university.

The next theme I noticed regarding potential resources was childcare related. Again, this highlights the importance of childcare to the graduate student parent. Subsidized on-campus childcare is seen as important indicating value in both childcare and financial supports to the graduate student parent. Back-up care (i.e., childcare when usual childcare arrangements do not work), childcare for children with developmental delays or disabilities and extended hour childcare were all seen as highly valued. Not only are these highly valued, the percentage of students that would use these resources are high with over half indicating they would use both the back-up care and extended hour care. Although a lower percentage indicated they would use the childcare for children with developmental delays or disabilities, not all families would necessitate this resource. Overall, there is still clearly a need for childcare that falls outside the ordinary one-size-fits all care that is currently being provided. Finally, the second, fourth and fifth most valued potential resources are all financially related. Subsidized on-campus childcare, subsidized health

insurance and guaranteed graduate assistantships would all appear to alleviate the financial burden placed upon graduate student parents.

Research Question Two: Gender Differences in Perceptions of Resources

My second research question focused on gender differences in how resources were valued. In particular, when considering the differences between women's and men's perceptions of campus, community and potential resources, women placed greater value on fifteen of the thirty-nine resources. These findings specify that the desire for resources significantly varies by gender. In particular, all of the 10 community resources were valued significantly more by women than by men. This finding suggests that women may use resources more because of caretaking responsibilities placed upon them, which aligns with previous findings that women are more likely to be primary caretakers for both children and the home (Frisco & Williams, 2003; Glass & Fujimoto, 1994; Hochschild & Machung, 1989; Mason, 2010; Ross, Morowsky, & Huber, 1983; Viers & Prouty, 2001). For example, women may have to rely on community resources in lieu of monetary resources (i.e., money produced from a job) because time is spent on caregiving as opposed to working. In addition, women also ranked community information links on the NDSU Graduate School Website significantly higher than men, indicating mothers appear to value knowledge and access to the community resources more than my participants who were fathers. It also suggests that women may be in need of community information and may receive the majority of their support(s) through various community resources.

Additionally, I found that mothers, when compared with fathers, placed greater value on several resources that indicate time is a barrier for them. Specifically, the ability to become a part-time student, parental leave after birth or adoption of a child, back-up

childcare and extended hours childcare were all rated higher by women. The desire for these resources may indicate that women are not experiencing the degree of worklife balance they desire. This is in congruence to the previous literature indicating women were more likely to experience a level of domestic responsibility that leads to role strain (Griffiths, 2002) and often struggle with issues concerning childcare and parental leave (van Anders, 2004). These findings highlight the need for policies that allow students to pursue a part-time graduate degree and provide parental leave after the birth or adoption of a child. Part-time status may appear to be a positive solution to the time constraints produced through role strain, but as explained previously, this situation may disadvantage students who pursue this option. When looking at this through a feminist lens, the student may be perceived as less competent because of the length of time taken to degree completion. Women may value this resource more due to higher levels of role strain than men, yet it is outside factors that influence a women's "choice" of the reduced credit load. In turn, this pseudo choice influences timeliness to degree completion, which in turn may influence perceptions of women students who "choose" this option. In addition, providing the opportunity for back-up and extended hours childcare could help ease the burden of worklife balance issues and role strain experienced by women.

Oppressive tendencies and social inequities are apparent within the graduate student population. Women desire more resources than men, which could indicate it is difficult for mothers to be successful within the social realm of academia the way things are structured currently. More specifically, within the social realm of academia, this arrangement is oppressive to women because of (1) gender schemas, which are the sexism of domestic responsibilities in which women take on the brunt of housework and caregiving

responsibilities, (2) struggles to maintain worklife balance that affects women more than men, (3) time as a greater barrier for women, and (4) pseudo choices that women may feel forced to make. Thus, based on my findings, having extra supports and resources available for mothers may provide them with more of a "choice" to stay in graduate school. In this way, time and financial constraints may be lessened, and subsequent stress may be reduced.

Research Question Three: Differences in Perceptions of Master's and Doctoral Students

Although women and men differ in the value they placed on resources, master's and doctoral students rated resources in a similar way. This may be because both of these groups are comparable in such a way that they require similar resources for optimal success. Master and doctoral programs are comparable in many ways, less the number of credits, and thus the time to degree completion. In this way they can be considered one group when conducting studies such as this one. It may be for this reason that I did not find the term 'master's students' mentioned and/or differentiated in the previous literature regarding graduate students who were parenting. Subsequently, the terms 'doctoral' and 'graduate' students may have been used as umbrella terms to describe all students obtaining post-bachelor degrees.

Implications of the Findings

Given the results of this study, there are a number of important implications that universities concerned about graduate student parents should consider. These implications involve expanding or continuing to offer services to this population of graduate students. For example, given my finding that monetary resources such as scholarships, graduate assistantships, and subsidized healthcare are helpful in degree completion, universities

could offer or continue offering these resources to graduate student parents. Allowing and guaranteeing every graduate student the opportunity for a graduate assistantship could be a great asset for graduate programs as well as their students. Because role strain appears to affect student parents, especially mothers, offering a policy that allows for a leave of absence could be especially helpful. Universities that not only allow, but also value part-time status could be extremely supportive for those students experiencing role strain and worklife balance issues.

In addition to the previous resources mentioned, universities could adopt childcare services and policies that fit the needs of students. This could include, but would not be limited to: offering on-campus childcare, offering drop-in childcare, back-up and flexible care for non-traditional hours, offering childcare for children with developmental delays and disabilities, and providing subsidized childcare and/or childcare assistance. All of these were perceived as important to graduate student parents, indicating the offering of such accommodations is helpful to degree completion.

Community resources were perceived as highly useful to graduate student parents, especially mothers, indicating that students could benefit from having access to information about these resources that is provided by the university. This could be done through a link on the graduate school website and/or providing faculty that work with graduate students the information so they can share it with their advisees. Because supportive faculty was shown to be the highest valued resource overall, providing faculty with information and resources pertinent to mentoring graduate student parents could be helpful to both faculty and students.

Limitations

Several limitations exist within this study that may have influenced the findings and generalizeability of the results. First, since this study was voluntary, there could be a selection bias related to who chose to participate. With any voluntary study, those who chose to take the survey may have different characteristics than individuals who chose not to take the survey. For example, women are more likely to participate in survey research and given the topic of this study, women may have been even more likely to respond. Second, this was a self-report survey, which could produce different results than an observational study because of biases that can be inherent with self-reporting surveys. For instance, there was the possibility of participants answering in socially desirable ways; notably, participants may have answered in a way that they perceived as less socially stigmatizing. For instance, participants may not have indicated that TANF would be helpful because the use of this program has negative social consequences. To minimize this effect, all participants were guaranteed confidentiality at the beginning of the survey. On the other hand, given the fact that confidentiality was promised within this study, concerns that participants had a need to answer in social desirable ways may not even apply to this study. Finally, the results of this study may not generalizable to other campuses because of the student composition at NDSU. In particular, being a Midwestern, land grant campus with an agricultural engineering focus, the population may not be as diverse as other college campuses. However, we did have students complete the survey who were not located at NDSU but were located at other universities but were completing at least one on-line class through NDSU. In addition, since this is a public institution, there may be differences in

private institutions. My hope, however, is that this study will lead to the survey being replicated on other campuses.

Although there are limitations, it is important to note that this study provides a great contribution to the existing literature. It is the first study of its kind to explore in depth the differences between men's and women's perceptions of academic resources to support successful completion of graduate degrees. In addition, it adds to the literature regarding the leaking pipeline and is one of few studies that links students to the phenomena of the pipeline.

Suggestions for Future Research

The results of this study provide many suggestions or insight for future research on the experiences of graduate student parents. First, STEM and non-STEM student parents could be compared to see if findings are consistent with the leaking pipeline literature (Blickenstaff, 2005; van Anders, 2004; West & Curtis, 2006; Wolfinger, Mason, & Goulden, 2008). The previous literature notes that women have harder times in the STEM fields when compared with men (Blickenstaff, 2005; Holmes & O'Connell, 2007; Sax, 2007). Combining STEM status with parenting would allow us to see the role that STEM status has with the perceptions of resources. Another suggestion for future research would be to examine the role of relationship to see, for example, if single parents have a different experience in graduate school and thus need different resources when compared to partnered parents. As noted previously, married men have quicker time to degree completion (Price, 2005, 2006). It would be interesting to explore how relationship status, parental status and gender influence success in graduate school. Additionally, the number and age of participants' children could be examined. This would help create a clearer

picture of the influence that children's age has on the experience of parenting while in graduate school.

Also, given the importance that students placed on emotional support from faculty, more research could be performed to explore the relationship between students and faculty. Perhaps expanding research on graduate student parents to include a specific focus on mentoring would help explain this finding in more depth. It would also be helpful to explore in greater detail what students define as supportive and helpful faculty mentoring. Additionally, characteristics of successful faculty mentors (e.g., gender, parental status, family of origin) could be examined in greater depth as well as specific supports provided to students (e.g., overall flexibility, assignment extension, ability to miss class to care for children).

The feminist idea of intersectionality could also inform future research.

Intersectionality is the idea that people can experience multiple levels of oppressions (Crenshaw, 1994; Davis, 2008; McCall, 2005; Shields, 2008). For example, an African American woman graduate student would experience both racism and sexism, which leads to layers of oppression being place upon each other. Some examples of social identities that could shape and influence graduate student parents' experiences are race, class, gender, abilism, and sexual orientation (Crenshaw, 1994; Davis, 2008; McCall, 2005; Shields, 2008). This helps us understand that there are many dimensions working together that create a person's experience of exclusion and subordination (Crenshaw, 1994; Davis, 2008; McCall, 2005; Shields, 2008). Exploring the idea of intersectionality in tandem with parental status can help to explain how gender, race, sexual orientation, abilism and social class can all impact graduate student parents ability to complete their graduate degree.

Conclusion

In conclusion, the present study explored graduate students' perceptions of helpful resources while parenting in graduate school. Differences between women and men were examined as well as master's and doctoral students. Findings suggest that women value many of the resources studied more than men, and master's and doctoral students value resources similarly. One reason for the differentiation between genders could be linked to sexism, in that gender schemas are socially imposed. This could lead to role strain for women, indicating the importance placed on outside resources for support during graduate school by women. More clearly, role strain could help explain the interaction of expectations imposed upon women to take care of the home and family, in addition to the expectations required of a graduate degree. Most importantly, this study illustrates the dynamic interaction between gender, parental status and the importance placed on resources, therefore giving reason to take this into consideration when both researching this group and providing supports to this group.

REFERENCES

- Baber, K. M. & Allen, K. R. (1992). Women and families: Feminist reconstructions. New York: The Guilford Press.
- Blickenstaff, J. C. (2005). Women and science careers: Leaky pipeline of gender filter? Gender and Education, 17(4), 369-386. doi:10.1080/09540250500145072
- Brown, R. L., & Amankwaa, A. A. (2007). College females as mothers: Balancing the roles of student and motherhood. *The ABNF Journal*, 18(1), 25-29. Retrieved from: www.tuckerpub. com/abnf.htm
- Council of Graduate Schools. (2007). Graduate student parents: The underserved minority.

 Communicator, 40(4), 1-5. Retrieved from: www.gsnet.org
- Council of Graduate Schools. (2008). Ph. D. completion and attrition: Analysis of the baseline demographic data from the Ph. D. completion project. Washington, DC: Council of Graduate Schools.
- Crenshaw, K. W. (1994). Mapping the margins: Intersectionality, identity politics and violence against women of color. In M. A. Fineman, & R. Mykitiuk (Eds.), *The public nature of private violence* (pp. 93-118). New York: Routledge.
- Crittenden, A. (2001). The price of motherhood: Why the most important job in the world is still the least valued. New York: Henry Holt and Company.
- Davis, K. (2008). Intersectionality as buzzword: A sociology of science perspective on what makes a feminist theory successful. *Feminist Theory* 9(1), 67-85. doi:10.1177/1464700108086364
- Enns, C. Z. (1997). Feminist theories and feminist psychotherapies: Origins, themes, and variations. New York: Haworth Press.

- Ferreira, M. M. (2002). Context factors related to women attrition from a graduate science program: A case study. *Advancing Women in Leadership Journal*. Retrieved from: www.advancingwomen.com
- Frisco, M. L., & Williams, K. (2003). Perceived housework equity, marital happiness, and divorce in dual earner families. *Journal of Family Issues*, 24, 51-73. Retrieved from: www.jfi.sagepub.com
- Glass, J., & Fujimoto, T. (1994). Housework, paid work, and depression among husbands and wives. *Journal of Health and Social Behavior*, 35, 179-191. doi:10.2307/2137364
- Gonchar, N. (1995). College-student mothers and on-site child care: Luxury or necessity? Social Work in Education, 17(4), 226-234. Retrieved from: www.ejsw.net/
- Goodman, D. J. (2001). *Promoting diversity and social justice*. London: Sage Publications, Inc.
- Graduate Division UC Berkeley. (2007). Graduate council student parent policies. [Memo].

 Retrieved from: www.grad.berkeley.edu/policies/memo_doctoral_parent.shtml
- Graduate Division UC Berkeley. (2008). Families matter: A quick guide for graduate student parents at UC Berkeley. [Brochure]. Berkeley, CA.
- Griffiths, V. (2002). Crossing boundaries: The experiences of mature student mothers in initial teacher education. *Inclusive Education*, 6(3), 267-285. doi:10.1080/1360311 0110091607
- Hochschild, A., & Machung, A. (1989). The second shift: Working parents and the revolution at home. New York: The Penguin Group.

- Holmes, M. A., & O'Connell, S. (2007). Leaks in the pipeline: Why do women remain curiously absent from the ranks of academia? *Nature*, 446, 346. doi:10.1038/nj 7113-346a
- hooks, b. (1984). Feminist theory: From margin to center. Boston: South End Press.
- hooks, b. (2000). Feminism is for everybody: Passionate politics. Cambridge: South End Press.
- Lynch, K. D. (2008). Gender roles and the American academe: A case study of graduate student mothers. *Gender and Education*, 20(6), 585-605. doi:10.1080/095402508 02213099
- Mason, M. A. (2010). Still earning less. *The Chronicle of Higher Education*. Retrieved from: www.chronicle.com
- Mason, M. A. (n.d.). *University of California Faculty Work and Family Survey*. http://ucfamilyedge.berkeley.edu/workfamily.htm
- Mason, M. A., & Goulden, M. (2002). Do babies matter: The effect of family formation on the life long careers of academic men and women. *Academe*, 88(6), 21-28. doi: 10.2 307/40252436
- Mason, M. A., Goulden, M., and Frasch, K. (2009). Why graduate students reject the fast track: A study of thousands of doctoral students shows that they want balanced lives. *Academe*, 95 (1), 11-16. Retrieved from: www.aaup.org
- McCall, L. (2005). The complexity of intersectionality. *Signs*, 30(3), 1771-1800. doi: 10.1086/426800
- McGeorge, C. (2005). Needs Assessment of Single Parents. Unpublished

- Millman, S. (2007). Princeton expands family-friendly benefits for graduate students with children. *Chronicle of Higher Education*, *53*(32), A13. Retrieved from: www.chronicle.com
- Mottarella, K. E., Fritzsche, B. A., Whitten, S. N., & Bedsole, D. (2009). Exploration of "good mother" stereotypes in the college environment. *Sex Roles*, 60, 223-231. doi:10.1007/s11199-008-9519-y
- National Center for Education Statistics. (2009, March). *Digest of Education Statistics:*2008. Retrieved from www.nces.ed.gov/programs/digest/d08/
- Nomaguchi, K. M., Milkie, M. A., & Bianchi, S. M. (2005). Time strains and psychological well-being: Do dual-earner mothers and fathers differ? *Journal of Family Issues*, 26, 756-792. Retrieved from: www. jfi.sagepub.com
- Price, J. (2005). Marriage and graduate student outcomes. (Working Paper 75) *Cornell Higher Education Institute*. Retrieved from the Cornell University ILR School website: www.ilr.cornell.edu/cheri/workingPapers/2005.html
- Price, J. (2006). Does a spouse slow you down? Marriage and graduate student outcomes.

 (Working Paper 94) Cornell Higher Education Institute. Retrieved from the Cornell
 University ILR School website: www.ilr.cornell.edu/cheri/workingPapers/
 2006.html
- Pyrczak, F. (2003). *Making sense of statistics: A conceptual overview* (3rd ed.). Los Angeles, CA: Pyrczak Publishing.
- Ross, C. E., Mirowsky, J., & Huber, J. (1983). Dividing work, sharing work, and inbetween: Marriage patterns and depression. *American Sociological Review*, 89, 670-682. doi:10.2307/2095327

- Sax, L. J. (2007). College women still face many obstacles in reaching their full potential.

 *Chronicle of Higher Education, 54(5), B46-B47. Retrieved from:

 www.chronicle.com/
- Sheridan, J., & McGeorge, C. (2008). Faculty Worklife Survey. Unpublished.
- Shields, S. (2008). Gender: An intersectionality perspective. *Sex Roles*, *59*, 301-311. doi: 10.1007/s11199-008-9501-8
- Serrano, C. M. (2008). Leaking pipelines: Doctoral student family formation. *The Berkeley Undergraduate Journal*, 20(2), 1-20. Retrieved from: www.learning.berkeley.
- Shaw, S. M., & Lee J. (2007). Women's voices feminist visions: Classic and contemporary readings (3rd ed.). New York: McGraw Hill.
- Springer, K. W., Parker, B. K., & Leviten-Reid, C. (2009). Making space for graduate student parents: Practice and politics. *Journal of Family Issues*, *30*, 435-457. doi:10.1177/0192513X08329293
- Thrane, C. (2000). Men, women, and leisure time: Scandinavian evidence of gender inequality. *Leisure Sciences*, 22(2), 109-122. Retrieved from: www.tandf.co.uk/journals/ULSC
- U.S. Department of Education (2009). 2007-08 national postsecondary student aid study (NPSAS:08). National Center for Education Statistics, NCES QuickStats: 5/18/2010.
- Valian, V. (2005). Beyond gender schemas: Improving the advancement of women in academia. *Hypatia*, 20(3). doi: http://dx.doi.org/10.2979/HYP.2005.20.3.198

- van Anders, S. A. (2004). Why the academic pipeline leaks: Fewer men than women perceive barriers to becoming professors. *Sex Roles*, *51*(9/10), 511-521. doi:0360-0025/04/1100-0511/0
- Viers, D., & Prouty, A. M. (2001). We've come a long way? An overview of research of dual-career couples' stressors and strengths. *Journal of Feminist Family Therapy*, 13(2/3), 169-190. doi:10.1300/J086v13n02_09
- Wallace, J. E., & Young, M. C. (2010). Work hard, play hard?: A comparison of male and female lawyers' time in paid and unpaid work and participation in leisure activities.
 Canadian Review of Sociology, 47(1), 27-47. doi:10.1111/j.1755-618X.2010.012
 21.x
- West, M. S., & Curtis, J. W. (2006). AAUP faculty gender equity indicators, 2006

 (Accession Number ED500588). Retrieved from http://www.aaup.org/NR/rdonlyres/356548BE-AF67-4D79-928C-03DDC73C8EEF/0/Organizing

 AroundGenderEquity.pdf
- Wolfinger, N. H., Mason, M. A., Goulden, M. (2008). Problems in the pipeline: Gender, marriage, and fertility in the ivory tower. *The Journal of Higher Education*, 79(4), 388-405. doi:10.1353/jhe.0.0015

APPENDIX A

INVITATION TO PARTICIPATE

ARE YOU PARENTING WHILE ATTENDING GRADUATE SCHOOL?

If yes, we would love for you to participate in our study!

This study will explore the perceptions of parents who are attending graduate school. In particular, you will be asked about the resources you use and would like to have access to that help you successfully complete your degree.

- ✓ This is an anonymous online survey
- ✓ The survey takes approximately 15 minutes to complete
- ✓ Both fathers and mothers are encouraged to participate
- ✓ Both master's and doctoral students are invited to participate

To participate:

Email Christi McGeorge at christine.mcgeorge@ndsu.edu or call her at 231-7335

APPENDIX B. ELECTRONIC SURVEY

1. Wł	nat is your sex?				
	Female				
	Male				
	Transgender				
	Č				
2. Wł	nat type of degree are you currently world	king on obtaini	ng?		
	M.Arch.				
	M.A.				
	M.B.A.				
	M.Ed.				
	M.M.L.				
	M.S.				
	D.M.A.				
	D.N.P.				
	Ed.D.				
	Ph.D.				
	Graduate Certificate				
	Other (please specify):				
Chi	ld Care				
	you currently use or need any day care	corvious or pro	aroms to care f	or a denendent	child?
J. DC	you currently use of freed ally day care	services or pro	igrains to care it	n a dependent	. Cillia:
	□a. Yes — □b.	No (Go to Qu	uestion 7)		
		(22 <u>2</u>	,		
		5 How sotiof	ied are you with	valle allemant	ohildooro
			•	i your <u>current</u>	Cilliucare
4 117	high of the following shildsons	arrangements		Companibat	Vor
	hich of the following childcare	Very	Somewhat	Somewhat	Very
	gements do you use? Check all that	Dissatisfied	Dissatisfied	Satisfied	Satisfied
apply	/ .	1 1	2	3	4

	5. How satisfied are you with your <u>current</u> childcare arrangements?							
4. Which of the following childcare	Very	Somewhat	Somewhat	Very				
arrangements do you use? Check all that	Dissatisfied	Dissatisfied	Satisfied	Satisfied				
apply.	1	2	3	4				
a. □NDSU Wellness Center Childcare facility	1	2	3	4				
b. □NDSU Center for Child Development (in the FLC building)	1	2	3	4				
c. \(\sigma\) Non-university childcare center	1	2	3	4				
d. Childcare in the provider's home	1	2	3	4				
e. In-home provider (nanny/babysitter in your home)	1	2	3	4				
f. After-school program (YMCA, Youth Commission)	1	2	3	4				
g. DFamily members (spouse/partner, grandparent)	1	2	3	4				
h. Child takes care of self	1	2	3	4				
i. □Other (please specify):	1	2	3	4				

6. Which of the following are childcare issues for you? Check all that apply.

a. Availability of on-campus childcare	
b. Availability of infant/toddler care	
c. Availability of after-school or summer programs for older children	
d. Affordability of childcare	
e. Knowing where to find quality childcare	
f. Other (please specify):	

Housing

7. Which of the following are housing issues for you? Check all that apply.

a. Affordability of housing	33.	
b. Wait list on campus too long		
c. Not finding housing close to campus		
d. Other, please specify:	_	

Existing NDSU Resources

	8. How val scale of 0 to		9. Hav you ev used the resour	er his			
	Never Heard of					e i i i i i i i i i i i i i i i i i i i	
	this Program 0	Not at all Valuable	Somewhat Valuable 2	Quite Valuable 3	Very Valuable 4	Yes	No
a. On campus childcare	0	I	2	3	4		
b. Dependent health							
insurance available through NDSU	0	1	2	3	4	۵	
c. Spousal/domestic partner	·						
health insurance available through NDSU	0	1	2	3	4		
d. NDSU family housing e. Community information	0	1	2	3	4		
links on the NDSU Graduate School website	0	1	2	3	4		
f. Graduate Assistantships	0	1	2	3	4		
g. Policies that allow for taking a leave of absence	0	1	2	3	4	۵	
h. The option to become a part-time student	0	1	1	3	4. %	O	
i. Lactation rooms available in campus buildings	0	1	2	3	4	۵	
j. Scholarships/Fellowships	0	1	2	3	4		
k. Other (please specify)	o	1	2	3	4		

Existing Community Resources

10-11. For each program available in the community, please indicate how valuable you perceive the resource to be and whether or not you have used it.

	10. How valuable is each program? Please rate on a scale of 0 to 4 (even if you have not used the program).						ave you used am?
	Never Heard of Program 0	Not at all Valuable 1	Somewhat Valuable 2	Quite Valuable 3	Very Valuable 4	Yes	No
a. Medical Assistance – Medicaid	0	1	2	3	4		
b. Healthy Steps Children's Health Insurance	0	1	2	3	4 4		•
c. Low Income Home Energy Assistance Program	0	1	2	3	4		
b. Temporary Assistance for Needy Families (TANF) c. Supplemental	0	1	2	3	4	. 0	
Nutrition Assistance Program (SNAP)/Food Stamps	0	1	2	3	4		
d. Women Infants and Children (WIC)	0	1	2	3	4 · · · 4		
e. Housing Assistance	0	1	2	3	4		
f. Childcare Resource and Referral	0	1	2	3	4		
g. Drop-in childcare centers (off-campus)	0	1	2	3	4		
h. Childcare Assistance Program k. Other (please	0	1 2000,	2	3	4		
specify)	0	1	2	3	4		

Prospective Resources

	be if they exist Moorhead Co	sted at NDSU ommunity? Ple	or in the larg	er Fargo-	13. Would y use this pro or resource:	gram
	Not at all Valuable	Yes	No			
a. On-Campus Parental Resource Center	1	2	3	4	٥	

1	1					1 191	
b. Graduate Student Parent	271	1	2	3	4	ā	
Support Group		•	_	5			
c. NDSU Blog or electronic							j
discussion forum for		1	2	3	4		
parents attending graduate		٠	~	3	•	_	_
school							
d. An informational							
brochure listing available	·:.						
campus and community	1	1	2	3	4		
resources for student							
parents							
e. List of available housing							
in the surrounding		1	2	3	4		
community area							ŀ
f. List of community							-
daycares with current		1	2	3	4		
openings							
g. Campus wide policy for							
unpaid maternal/paternal		,	2	2	4		
leave with the birth or		1	2	3	. 4		u
adoption of a child							
h. Campus wide policy for	1.0						
PAID maternal/paternal			•	•		-	_
leave with the birth or		l	2	3	4	· U	
adoption of a child							
i. Campus wide policy							
providing extensiions for							
incompletes due to		1	2	3	4		
exentuating caregiving		•	_		·	_	_
responsibilities							į
j. Supportive faculty who							
are aware of the challenges							
that graduate student		l	2	3	4		
parents face							
k. Guaranteed graduate							
assistantships		I	2	3	4		
l. Subsidized health							
insurance		1	2	3	4		
m. Subsidized on-campus							1
childcare		1	2	3	4		
n. Childcare for when your							
children are sick (i.e.,							.
unable to attend their	100	1	2	3	4		
regular childcare due to	ļ	1	2	3	4	_	
illness)							-
o. Childcare for children							
under 6 weeks and/or over		1	2	3	4		
6 years		1	2	3	4	ч	_
p. Back-up or drop-in							
childcare when your usual	- 1	1	2,	3	4		
cinideate when your usual							

childcare arrangements do not work						
q. Childcare for children with developmental delays or disabilities	1		2	3	4	
r. Childcare with extended hours for when you must work evenings, nights, or	1		2	3	4	
weekends s. Childcare for when you	in stan				To the North	
are away at conferences and/or special events held	1		2	3	4	
off campus t. Other (please specify):	1	- 42° - 1	2	3	3	

Support from Others

14. Please mark (X) next to the type of support you get from the following sources. Please (X) as many as apply. Please note that some sources may provide multiple types of support, and some sources may not be applicable to you.

Sources of Support	Financial	Emotional	Childcare	Other (please specify)
a. Family and/or Extended family				
b. Friends				
c. Your child's other parent's family				
d. Spiritual/Religious Community				
e. Professional Services (therapist, parent educator, support groups, etc.)				
f. Academic Mentor				
g. Romantic Partner				
h. Academic Peers	# 1			
i. Other (please specify):				

Academic Peer Support

15. Rate how often each of these statements accurately reflects your experience with your peers in graduate school.

	Almost		Fairly	Very
Never	Never	Sometimes	Often	Often
0	1	2	3	4

	Never 0	Almost Never	Sometimes 2	Fairly Often 3	Very Often 4
a. You make a friend(s) within your graduate program.	0	1	2	3	4
b. You can count on your peers to help you with questions about school.	0	. 1	2	3	4.
c. You feel isolated from others in your graduate program.	0	1	2	3	4
d. You talk with peers in your program about graduate school frustrations.	0	1	2	3	4
e. You do things that are school related with your graduate school peers.	0	1	2	3	4
f. You do things for leisure with your graduate school peers.	0	1	2	3	4
g. You feel out of place on campus.	0	1	2	3	4
h. You talk with your graduate school peers					
about frustrations you are facing as a graduate	0	i	2	3	4
student parent.					
i. There is a competitive atmosphere among graduate students in your graduate program.	0	1	2	3	4

Faculty and Department Support 16. Rate how often you believe the following statements to be true.

10. Nate now often year senere the following states	Never	Almost Never	Sometimes	Fairly Often	Very Often
	0	1	2	3 .	4
a. Your advisor understands the special needs and situations that graduate student parents may face.	0	1	2	3	4
b. Faculty members in your department understand the special needs and situations that graduate student parents may face.	0	1	2	3	4
c. Within your graduate program, faculty members' perception of your competence is negatively impacted due to your status as a parent.	0	1	2	3	4
d. You feel a sense of connection with faculty in your graduate program.	0	. 1	2	3	4
e. Your department gives support to those students choosing to be part-time students.	0	1	2	3	4
f. Graduate students are expected to complete their degree as fast as they can within your department.	0	1	2	3	4
g. You feel out of place within your department due to your parenting status.	0	1	2	3	4
h. Faculty have referred you to resources on or off campus that have helped you as a parent.	0	1	2	3	4
i. You know the rules and expectations of your graduate program.	0	1	2	3	4
j. You can talk with faculty about frustrations you	0	1	2	3	4

	Never 0	Almost Never 1	Sometimes 2	Fairly Often 3	Very Often 4
experience as a graduate student parent.					
k. You are offered encouragement to complete					
your degree and be successful in your academic	0	1	2	3	4
pursuits by the faculty in your department.					
l. Faculty members in your department are	0		2	3	4
flexible with you when parenting demands arise.	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				
m. Your advisor is flexible with you when	0	1	2	3	4
parenting demands arise.		<u> </u>	<u> </u>		•

- 17. Please describe any significant positive situations you have encountered while in graduate school pertaining to your status as a parent.
- 18. Please describe any significant negative situations you have encountered while in graduate school pertaining to your status as a parent.

Acceptability of Parenting

19. How acceptable do you think your parenting is to each group or individual within your department?

	Do not know that I am a parent 0	Completely unacceptable l	Unacceptable 2	Acceptable 3	Completely acceptable 4
a. Other students	0	1	2	3	4
b. Faculty members	0		2	3	4
c. Your academic advisor	0	1	2	3	4
d. Administrators	0		2	3	4
e. The department as a whole	0	1	2	3	4

Impact of Parenting on your Graduate School Experience

20-21. Please think about experiences you have had while in graduate school that are directly linked to your status as a parent.

	experiences occurred due to your parenting responsibilities?				21. Have these experiences negatively impacted your graduate school progress?		
	Never 0	Rarely	Once in a While 2	Sometimes 3	Quite often 4	Yes	No
a. Turning an assignment in late	0	1	2	3	4		
b. Missing class due to	0	1	2	3	4		

a sick child or not having childcare						
c. Dropping a class	0	1	2	3	4	
d. Missing a professional						
development and/or	0	1	2	3	4	-
networking opportunity at NDSU						
e. Inability to travel to						
a research conference						
or professional	0	1	2	3	4	
development						
conference						
f. Worrying about						
meeting financial	0	1	2	3	4	
needs						
g. Other (please specify):	0	Ī	2	3	4	

22. Have you ever experienced any of the following? Yes or No
Yes No

Possible Limitations in Completing Your Graduate Degree
23. Please rate to what extent each of the listed items are a limitation to you completing your degree.

	Never a limitation 0	Rarely a limitation 1	Sometimes a limitation 2	Often a limitation 3	Very often a limitation 4
a. Daycare (e.g., not having					
daycare, poor quality,	0	1	2	3	4
inadequate hours)					
b. Lack of time	0	1	2	3	4
c. Lack of financial means	0	1	2	3	4
d. Lack of support from advisor	0	1	2	3	4
e. Lack of peer support	0	I	2	3	4
f. Lack of family support	0	1	2	3	4
g. Housing (e.g., location,	0	1	2	3	4

	Never a limitation 0	Rarely a limitation 1	Sometimes a limitation 2	Often a limitation 3	Very often a limitation 4
cost)					
h. Inadequate access to health insurance	0	1	2	3	4
i. Lack of personal motivation	0	1	2	3	4
j. Stress	0	1 .	2	3	4
k. Other (please specify):	0	1	2	3	4

24a. If in a doctoral program, have you ever considered switching from your doctoral program to a master's program? Yes or No.

24b. If so, why did you considering switching to a master's program?

24c. If you considered switching, did you actually switch to a master's program? Yes or No

Personal Well-being

25. How often do you feel:	Never 0	Almost Never 1	Sometimes 2	Fairly Often 3	Very Often 4
а. Нарру	0	1	2	3	4
b. Fatigued	0	1	2	3	4
c. Stressed	0	1	2	3	4
d. Nervous/Anxious	0	1114	2	3	4
e. Overwhelmed	0	1	2	3	4
f. Physically fit	0	1	2	3	4
g. Well-rested	0	1	2	3	4
h. Like dropping out of school (leaving school)	0	1	2	3	4
i. Competent at completing all tasks for the day	0	1	2	3	4
j. Content	0	1	2	3	4
k. III	0	i	$\overline{2}$	3	4
1. Pressured	0	1		3	4
m. Exhausted	0	1	2	3	4
n. Full of energy	0	1	2	3	4

Time Allocations

26. On average, how many hours of sleep do you get each night?

27. In the past academic year, what is the average number of hours per week you have spent on each of the following activities? Rough estimates are fine (there are 168 hours in a week).

			Weekly	Activities		. :	Average hours per
					- 44		week?
a.	Graduat	e Scho	ool Work (e.g	,, attending cla	asses, v	riting	

	papers, reading, research, assistantship)	
b.	Outside employment (employment not related to your graduate studies)	
c.	Housework and home maintenance (e.g., cooking, cleaning, paying bills, laundry, lawn work)	
d.	Parenting (e.g., meeting the needs of children)	
e.	Caregiving besides for children (e.g., meeting the needs of partner/spouse, elders, friends, other family members)	
f.	Leisure Time (e.g., self-care activities, hobbies, time with friends, watching television, sporting activities, exercise)	

28. How often do you feel the following pertain to you?

	Never 0		Sometimes 2	Fairly Often 3	Very Often 4
a. I am satisfied with the way in which I balance my professional and personal life.	0	1	2	3	4
b. I feel there are not enough hours in the day to meet my home and school responsibilities.	0	1	2	3	4

Division of labor in housework

29. Do you share housework and home responsibilities with another adult? Yes or No

29a. If yes, how would you describe your division of housework?

- a. I do the majority of the housework
- b. We share the housework equally
- c. The other adult does the majority of the housework

d. Other (pleas	se specify):
-----------------	--------------

Children and Parental Status

Please provide information about your child(ren)	30.Child's Birthday	31. Relationship to you? Biological child Adopted child Stepchild Foster child	32. How often does this child sleep at your home? 100% 90% 75% 50% 25%	33. Your age when this child entered your life
a. First Child b. Second Child				
c. Third Child e. Fourth Child f. Fifth Child				V
g. Sixth Child h. Seventh Child				

- 34. Do you co-parent with someone else? Yes or No
- 34b. If Yes, how do you share the co-parenting responsibilities?

a. b. c. d.	We share the parenting responsibilities equally The other adult is responsible for the majority of the parenting
35. Ha	ave you had and/or adopted a child while in graduate school? Yes or No
	35a. If so, what was that experience like for you?
	35b. What strategies did you use to cope with the demands of a newborn and graduate school?
	35c. What challenges or difficulties did you experience?
36. W	ould you or are you considering having another child while in graduate school? Yes or No
	36a. If so, what factors are influencing your decision?
	Phographics That college are you obtaining your current graduate degree in? Science and Mathematics Pharmacy, Nursing and Allied Sciences Human Development and Education Engineering and Architecture Business Arts, Humanities and Social Sciences Agriculture, Food Systems and Natural Resources
38. H	ow many credits are you enrolled in currently? 1-4 credits 5-8 credits 9 credits More than 9 credits (please specify):
39. D	No Yes, I have a 10 hours/week assistantship Yes, I have a 20 hours/week assistantship Other (please specify):
40. W	/hat is your relationship status? Single/not living with a partner Cohabitating/living with a partner Married Dating Other (please specify):
41. W	Vho do you live with? Check all that apply. Children Romantic partner/spouse

	Roommate Parent(s) Siblings or other family members Living alone Other (please specify):
42. W	hat is your current age?
43. H	ow old were you when you obtained your bachelor degree?
44. H	ow old were you when you were accepted into your current graduate program at NDSU?
45. W	hat is your current GPA? (Rough estimate is fine)
46. W	/hat is your race/ethnicity? Asian/Pacific Islander Black/African American Latino(a)/Hispanic/Chicano(a) White/Caucasian/European American Native American/American Native Middle Eastern Biracial/Multiracial Other (please specify):
	re you a U.S. citizen? No Yes
48. W	What is your annual household income from all sources (excluding school loans)? \$0 to \$24,999 \$25,000 to \$49,999 \$50,000 to \$74,999 \$75,000 to \$99,999 \$100,000 or higher I prefer not to answer
	are you a first generation college student (i.e., the first person in your family to graduate from ge with a bachelor's degree? No Yes
	Do you have a parent that has graduated with a masters, doctorate or professional degree (e.g., MD)? No Yes
51. <i>A</i>	Any additional comments you may have for us.