Data Interpretation

Data collected through the survey, artifact analysis, and interviews suggest numerous supports and challenges that graduate students with children encounter at a private, highly selective research university. The findings also imply ways in which the institution can promote the academic success of these students. These findings will be explored in connection to the existing literature on the topic of students with children through the following themes: (1) financial challenges (2) time-based work-family conflict and (3) institutional support.

Limitations of this study are also addressed. Lastly, in light of the major themes and in conjunction with the literature, the study demonstrated that graduate students with children are a diverse group of individuals and thus their challenges and necessary supports vary widely across this group.

Financial Challenges and the Costs of Childcare and Health Insurance

Graduate students with children cited financial issues as a primary challenge, specifically the cost of childcare and health insurance. As the artifact analysis demonstrated, the institution provided information about childcare resources and healthcare coverage through publicly available websites; however, the interviews, student testimonies, and Graduate Leadership Council survey suggest the resources in place for childcare and health insurance are not currently meeting the needs of this student population.

Finding affordable childcare. In the survey, interviews, and student testimonies, graduate students with children spoke of their issues finding, securing, and paying for reliable childcare. The two most common issues reported on the survey were related to childcare; 76% of graduate students with children reported experiencing problems with paying for childcare and

66% cited problems with finding childcare. Seven of the eight interview participants and 14 out of 19 student testimonies referred to the cost of childcare as a challenge they have encountered during their time in graduate school. The only interview participant that did not discuss childcare as an issue had three children who were all over the age of 16. In both the interviews and student testimonies, participants described spending half of their incomes or more on childcare costs alone, which placed a greater strain on the family's financial situation as a whole. In their survey responses, 71% of female graduate students with children and 61.6% of male graduate students with children reported spending more than \$200 per week on childcare expenses. As the artifact analysis demonstrated, students typically receive less than \$24,000 per year from their stipends, and some students do not receive stipends at all.

The students also explained the impact that childcare challenges have had on their academic and professional lives. In the 2012 survey, 71% of female graduate students with children and 54% of male graduate students with children indicated that they had been late to class or work or had to leave early because of childcare issues. Additionally, 38% of women and 23% of men said that they had missed a meeting and/or a lecture due to challenges with childcare. These responses may explain why students with children were almost twice as likely as their peers without children to say that they had experienced difficulties with the academic requirements of graduate school. In their individual interviews, students spoke of the lack of childcare options particularly in the evenings. This led the students to miss important on-campus lectures, events, and other networking opportunities. This aspect will be explored in greater detail through the exploration of competing time demands in a later section.

Specifically, for women and for students with young children, childcare is a major issue and the data suggests this challenge can have a negative effect on the overall experience of these

students at the university. The findings in this research project regarding the difficulties of securing reliable, affordable childcare are supported by the literature. As Springer's (2009) findings suggest, quality childcare is expensive and graduate students typically earn modest stipends. As Engelhard (2012) proposed as well, financial limitations can lead to a greater degree of work-family conflict. Additionally, the survey data proposes that women are more likely than men to be late to class, miss class, or miss a job or internship as a result of childcare issues. These findings are in accordance with the literature regarding the disadvantages women face as graduate students with children in comparison with their male peers (Kennelly & Spalter-Roth, 2006; Williams et al., 2009; Wolfinger et al., 2009). The impact of childcare on academics and an individual's career may help to explain why women with children are less likely than men with children to attain tenure-track faculty positions after graduate school (Mason et al., 2013). As Mason (2013) explains, there are disproportionately more women at the bottom of the academic lander as contingent and part-time faculty. Accordingly, it appears from this study that women and men face similar challenges with childcare but are impacted differently.

Cost of dependent health insurance. In addition to issues with the cost of childcare, the cumulative findings of this study suggest that graduate students with children at a private, highly selective research university encounter challenges with the cost of healthcare. In the 2012 survey, 46% of students with children reported difficulties with student health insurance whereas only 34% of students without children stated this was an issue they faced. The survey also demonstrated 46% of students with children spend 11% or more of their stipend on healthcare costs for themselves and their dependents.

The institution's website explained that the student health insurance plan can be extended to include spouses and children, however, through testimonies and interviews, students shared

that they found the university health insurance to be cost prohibitive. The literature explains that when student health coverage is not available at an affordable rate, students may try to pursue employment outside of the university and slow down or discontinue their degree program. In this study, students explained that they were able to make arrangements for insurance through either a spouse's insurance plan if this was a possibility, or they applied to Medicaid for their children's coverage. The students explained in the interviews and the testimonies that governmental aid through the Medicaid/ All Kids program was an option due to their modest income as graduate students. Students mentioned that in addition to Medicaid/ All Kids for dependent health insurance, some students were also able to receive food stamps to provide food for themselves and their families. The university website included a link to the All Kids program with the application, however, the university website did not contain a great amount of detail about how students should consider this program as an alternative to the university health plan. Students primarily spoke of finding about the All Kids program through other student parents, or after doing independent research about the options available.

Childcare and healthcare costs thus help to explain the overall financial concerns and difficulties that graduate students with children experienced. In comparison with the students without children, students with children were more likely to seek additional employment and take out student loans to offset the cost of living. Furthermore, through the student interviews, it was apparent that these students are worried about their financial situation for themselves and their families. In the interviews as well some students spoke of student loan debt, outside employment, or relying on the financial contributions from a spouse or another family member.

Time-based Work-Family Conflict

This research project implies graduate students with children experience work-family conflict primarily in the form of time-based conflict as they try to fulfill the responsibilities of a student and a parent. The findings suggest that students with children spend less time on their academics, including course work, studying, teaching, research, as 66% of students with children indicated they spend more than 40 hours per week on academics compared to 81% of students without children who spend more than 40 hours per week on these commitments. As Mason, Goulden, and Frasch (2009) found, graduate students without children spend approximately 75 hours each week on academics, employment, housework, and caregiving, students who are fathers typically spend about 90 hours on these tasks, and students who are mothers spend 100 hours or more.

Data gathered through the artifact analysis of the student testimonies and individual interviews provide a more complete picture of this time challenge. The findings demonstrate that it is not simply the amount of responsibilities associated with being a graduate student at a highly selective, research university, it is also the timing of various academic, career, and extracurricular activities on campus. In the testimonies and interviews, students explained that many required or suggested campus activities take place after five o'clock in the afternoon. This issue is compounded by the fact that many childcare facilities close at approximately this time each day. Additionally, students expressed difficulty in finding childcare on the weekends and for longer periods of time, which was necessary if they wanted to attend a conference or an oncampus interview at another institution. Given the limited availability of evening and weekend childcare, students with children are often not able to attend the same lectures and events that students without children can attend. Students perceived this challenge as having a negative as

well as stressful impact on their lives. The issue of stress will be expanded upon in the following section.

Time-based conflicts and stress. The findings of this research study also suggest a connection between these timing issues and the stress graduate students with children face. When asked about how often they feel stressed as a student with children, the students spoke of feeling stressed or overwhelmed often or daily. While students spoke of how rewarding it was to be a graduate student at the university as well as how rewarding it was to be a parent, the students spoke of the constant demand of these two spheres of their lives. These findings are supported be existing literature on students with children and the time issues they encounter. As Dyk (1987) shared, time-based conflict is present when the demands of one role, either school or family responsibilities, make it so that it is impossible to successful achieve the expectations of the other role. The literature as well as this research project found that conflict could arise due to inflexibility in school and or home schedules, childcare duties, and other time constraints of school and/or home life (Dyk, 1987; Greenhaus & Beutell, 1985) As Elliot (2008) suggested, it is also the sheer amount of responsibility and the time demands that bring about this conflict between work and family.

In addition to having academic and career implications, students also mentioned in the testimonies and interviews, that there were some social implications as well to the time constraints associated with being a graduate student with children. In comparison to the students without children, those with children shared that they were not able to form the same connections with their peers, cohorts, or university. As Springer et al., (2009) explained, it is common for graduate students with children to feel isolated or disconnected from the institution. This study supported these findings, as students referred to the stress, alienation, or sense of isolation they

experienced during their time at the university. As the literature proposed, this is significant as high levels of stress and isolation can be associated with a wide array of mental and physical health issues (Engelhard, 2012; Dyk, 1987).

It is important to note, however, that time constraints were not perceived as exclusively negative. In their individual interviews, some participants referred to the positive influences that being a parent and a student have had on their overall stress level and time management. While there exists some disparity in the research on this topic, the positive affect of time management issues is supported by some existing literature. As Wolf-Wendel and Ward (2006) explained, having children actually could help put the stress of graduate school into perspective as the child becomes the most important thing in a person's life. Students spoke of not being able to complete every assignment or read every article, but that this contributed to what they perceived as more balance between their academic and personal lives. Some students even referred to instances in which their peers without children who would become more overwhelmed about academics because they did not have another area of their life that required the same amount of attention as parenting.

Institutional Support

In addition to the challenges that graduate students with children encounter at the institution, this study also sought to examine the ways in which students are supported. In light of the data, the findings demonstrate students with children generally perceive their peers and academic departments to be supportive. They do not, however, feel that the institution as a whole is supportive of students with children. Specifically, the students perceived a campus climate that was not friendly to families, observed a lack of communication regarding the existing supports, and encountered confusing policies.

Campus climate. Across the interviews, student testimonies, and the 2012 Graduate

Leadership and Advocacy Council Survey, graduate students with children generally perceived

that the university did not have a family friendly culture. The literature explained that many
graduate students with children face a "no children allowed" atmosphere at their institution

(Springer et al., 2009; Reddick et al., 2011). Elliot (2008) described a "family friendly" culture

as one where an institution supports the childrening responsibilities as well as the academic and
career goals of graduate students with children. In the interviews and testimonies, the students
described their perception of the university as a place where few people understand what it is like
to be a parent and a student, and that their family duties are simply tolerated as long as they are
meeting the basic academic benchmarks. The students also shared that they feel as though they
should refrain from telling colleagues and faculty that they have children. Specifically, some
women shared that they were nervous to inform their departments of their pregnancy out of
concern for how it may impact their perception.

The interviews and student testimonies also revealed that these sentiments differed based on gender. For instance, lactation space was identified as a major challenge on campus, and this issue disproportionately affects women. The artifact analysis revealed there are currently a total of seven designated spaces on the university's two campuses for nursing mothers. In the testimonies and interviews, students described the frustrations and inconveniences caused by too few rooms for lactation. They spoke of having to go to another building on campus or often needing to designate their own lactation space within their academic building if they did not have time to travel to a different campus location. Beyond simply an inconvenience, the issue with lactation spaces was also a daily source of embarrassment and awkward interactions for nursing mothers. The interview participants described this problem when sharing stories about having to

pump in public spaces such as conference rooms that had large windows and no locks on the doors. These negative experiences related to breast pumping may help to explain why many students felt that the institution did not have a culture that was conducive to families.

Additionally, due to the time commitment associated with having to travel to a lactation space, this also seemed to be an additional source of stress for students with children.

Sources of support. In the interviews and student testimonies, students shared their experiences of support on institutional and personal levels. The graduate students with children receive support from a variety of individuals and services. As the literature suggests, the amount of support to which an individual has access to is an important coping mechanism for workfamily conflict (Reddick et al., 2011). As Elliot (2008) explained, graduate students with children who feel most supported will generally have access to spousal support, social or peer support, and organization support, and positive support can help to mitigate the negative effects of work-family conflict.

The interviews, testimonies, and survey data suggested that students received peer support through other students with children at the university. Students shared how valuable it had been to have other students in similar situations who had helped connect them to helpful resources at the institution or in the community. As Bair and Haworth (1999) suggested, peer support can not only be helpful on an emotional and social level, but there was a positive relationship in fact between peer integration and graduate degree attainment. The students explained, however, that it was not necessarily easy to form these connections with other students with children. Some students spoke of not finding out about other student parents in their individual school or department until months or years after they started the program. The findings suggest that the NU Student Parent Alliance had helped to mitigate some of these issues

with forming these important peer relations, however, students still felt that there should be more institutional support in connecting students with children with one another.

In testimonies and interviews, the students also spoke of positive relationships with individual advisors, faculty members, and administrators, and the impact that this support had on their overall experience at the university. Seven of the eight interview participants said that their professors had been supportive, specifically they referred to interactions with individual professors or administrators who expressed an understanding of their circumstances, and who were willing to be flexible and make some minor accommodations. Some students referred to their advisor as being supportive and connecting them to resources at the institution or elsewhere. As Bair and Haworth (1999) explain, "The degree and quality of the relationship between doctoral student and advisor or faculty has a strong, positive relationship to successful completion of the doctorate" (p. 32). The students demonstrated that sometimes seemingly small actions, such as an advisor initiating a conversation about work-family balance could make a large difference in their overall experience at the institution and could contribute to a greater sense of belonging.

The students generally felt that while they received support from peers and some individual faculty members and/or advisors, the current forms of institutional support and the services and resources available to students with children are not sufficient. Through the testimonies and interviews, graduate students with children described their difficulties with locating support at the institution as well as institutional policies, including maternity and family leave procedures, as causing additional barriers to their success. Five of the eight student interviews and five of the 19 testimonies discussed the confusing policies. It is important to note that they also felt like policies for students were not as helpful or inclusive as the parallel policies

for faculty and staff. This study suggests this issue contributed to a greater degree of frustration among this student population and a more overall negative experience at the institution. The artifact analysis revealed that there are multiple university websites including The Graduate School, The Office of the Provost, Human Resources, and The Division of Student Affairs contain relevant information for students with children about support, services, and resources on campus and in the larger community The testimonies, survey data, and individual interviews shed light on the issue that while some support is in place, it is difficult to locate, and does an inadequate job of helping these students to be successful at the university.

Limitations

There were limitations to this research study about graduate student parents that are important to address. The existing literature on the challenges and support of graduate students with children suggests important differences in the experiences of males, females, and international students (Dyk, 1987; Mason et al., 2013; Springer et al., 2009; Williams et al., 2006). The limited population of this research study, however, made it difficult to discern differences based on gender and domestic versus international student status. The survey provided some insight, however demographics were unknown for the testimonies, and the interview population was limited, and specifically included only one male participant and no international students. Additionally, the population of this study was limited to Northwestern University master's and doctoral students. As a highly selective, private, research university, the results may not be generalizable to other higher education institutions.

The researcher also recognized that the interview questions may have been limited in some ways. While the researcher asked interview participants to share institutional and personal forms of support, the researcher neglected to include specific questions about how available

support connected to academic success and career aspirations. Pointed questions about academics program requirements and career goals would have been helpful in understanding the impact that challenges and support have had on these student's lives and in tying the academic experiences of graduate students with children to the existing literature on this topic.

The researcher for this study was also not a parent, and this may have led the study participants to withhold some information. It is possible that the interview participants may not have felt comfortable sharing some details of their experience, because they did not perceive the researcher as understanding of their challenges.

Lastly, the researcher had contact with this student population prior to this research study, and prior information regarding the challenges of graduate students with children may have influenced the way in which data was analyzed and interpreted. The researcher attempted to remain unbiased throughout the data collection and analysis process, however, it is possible that previous notions of the experience of these students may have played a role in how this study was conducted.

Conclusion

The data gathered through this study and the existing literature on the topic of graduate students with children suggest that these students face financial challenges with the costs of childcare and health insurance, time-based work-family conflict and stress, peer and faculty support, and insufficient institutional support. There were also limitations that were acknowledged for this study. The following Conclusions section will summarize this study's themes and recommend next steps and questions.

Conclusions

This research was helpful in understanding the challenges and support that graduate students with children encounter at Northwestern University. First, financial issues related to the costs of childcare and health care emerged as the major challenges faced by graduate students with children. Students experienced difficulties with finding reliable childcare that met their needs as well as securing childcare that was affordable on the limited income that graduate students receive. These students also faced challenges with the expense of healthcare, as the students did not perceive the university provided health care plan for dependents as being affordable. This led many students with children to seek healthcare coverage for their children through either a spouse's health plan, if that was an option, or the governmental program All Kids under Medicaid.

In addition to financial issues, graduate students with children at this private, highly selective, research university faced a series of challenges relating to time. This included insufficient time to complete academic and familial responsibilities, the inconvenient timing of on-campus events and activities, and the constant stress induced by competing time demands.

As the students tried to manage the responsibilities and roles of simultaneously being a student and a parent, both institutional and personal forms of support were cited as beneficial. Students referred to the support they had received from their peers, advisors, and individual faculty members, however they did not perceive the institution as a whole to be particularly supportive of graduate students with children. This was due in part to a lack of communication about available support, services and resources that did not meet the needs of this student population, as well as a campus climate that was not overall understood to be "family friendly."

Next Steps

This research project suggests various ways in which the institution can improve its support for graduate students with children. First, this study discovered a significant gap between the resources and services available to graduate students with children and the students' awareness of these resources, services, and support. Students shared their experiences of searching many university websites, contacting numerous departments in search of information about on-campus and off-campus support, and sometimes not finding relevant information.

Creating a comprehensive packet of information and designating a staff member, student, or volunteer as a point of contact to answer questions related to being a parent and student could be possibilities for increasing communication about resources.

A clear point of contact and a comprehensive collection of resources, support, and advice from other graduate students would reduce the amount of time students spend searching for information. It may also decrease the amount of stress these students experience as they try to locate support. This study suggests that clear communication may even contribute to a change in the perception of campus climate to be more family friendly.

Furthermore, this research project suggests that childcare and healthcare costs are among the primary issues affecting graduate students with children, in particular graduate students with infants or young children. The institution could reevaluate existing information about childcare centers and providers, as well as the current discount offered to students with children. While the university offered a fee assistance program, the students did not perceive this program as being supportive or meeting their needs. The university could consider allocating more funds to making childcare more affordable, trying to connect students with outside funding sources such

as grants or governmental aid, or creating an on-campus childcare center on the institution's campus.

Additionally, the students did not perceive the health insurance plan as being accessible for students with children given the modest stipend these students receive. Even in situations where students were receiving additional income from outside work, family contributions, or income from a spouse, health insurance was felt to be cost prohibitive. The university could evaluate whether it would be possible to make dependent coverage more affordable, or provide more information about the application process for the Medicaid All Kids program. Students had generally positive experiences with the All Kids aid program, and thus increased communication about this alternative health insurance policy may be beneficial.

Lastly, while students perceived their peers and faculty of being mostly supportive, the students did note an overall lack of understanding of the graduate student parent experience throughout the campus. The institution could perhaps implement some trainings or educational programming to increase awareness of the student parent experience among other students, faculty, staff, and administrators. Many students shared instances in which they had to educate their department about the policies for students with children. The university could specifically focus on providing information to academic department administrators and faculty about policies such as maternity leave, and how to support these students with children throughout their time at Northwestern.

Future Research

The study suggested additional areas for exploration and research on the topic of graduate students with children. First, it would be helpful to study the experiences of alumni of the institution who had been parents during the time they were in graduate school. The literature

noted some longer term effects of having children in graduate school including difficulty attaining tenure-track faculty positions. It would be interesting to explore the barriers these students may encounter after degree attainment.

Additionally, another group of individuals to include in a future study would be students with children who decided or were forced to discontinue their degree programs. It would be beneficial to interview, survey, or conduct focus groups with students who had not been able to persist in graduate school to better understand the challenges and lack of support these students face.

Lastly, it would be informative to conduct a study similar to this one at multiple institutions or different institutional type. A study at different sites may demonstrate how different environments and/or various forms or support might affect the challenges and academic success of these students.

This research study was helpful in understanding the specific challenges and support graduate students with children encounter at a private, highly selective, research university, and in suggesting ways in which the university can encourage the academic success of these students. If these challenges become too difficult, or the students encounter too little support, the students may choose to or be forced to leave the institution. As the university seeks to retain the talent of graduate students, it is important that the institution considers work-family balance to help students to complete their degree programs and reach their degree objectives.