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The Effect of College-Family Conflict on Academic Variables for College Student-Parents.

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THE EFFECT OF COLLEGE-FAMILY CONFLICT ON ACADEMIC VARIABLES FOR COLLEGE STUDENT-PARENTS

by

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Abstract

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A large body of research exists concerning working parents' dual-role conflict, known as Work-Family Conflict (WFC; Greenhaus & Beutell, 1985) and its adverse effect on work and non-work variables. Given the similarity to the salient life roles of academic work and parenting, this study applied the model of WFC to a college student-parent population to test a model of the harmful effects of College-Family Conflict (CFC) on academic variables. This sample included 345 graduate and undergraduate student-parents. This study used Structural Equation Modeling to provide a model of dual-role conflict that demonstrates how the roles of parent and college student conflict and adversely affect students' study quality and quantity, class attendance and lateness, academic self-efficacy, and indirectly impact their GPA. CFC leads to perceptions of disrupted study quantity and quality, as well as influences students' classroom attendance and beliefs about their ability to succeed academically. These findings should be understood to reflect only part of the effect of CFC and provide evidence for the further application of the WFC model to college student-parents. The findings highlight the importance of the additional support college student-parents need and the future research that could be done to find ways to lessen this conflict.

keywords: work-family conflict; dual-role conflict; college student-parents; academic variables; model; CFC; WFC

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Chapter 1

Introduction

A large body of research has highlighted how balancing family and work roles often leads to dual-role stress or work-family conflict (WFC; Allen, Herst, Bruck, & Sutton, 2000; Boyar, Maertz, & Pearson, 2005; Greenhaus & Beutel, 1985; Greenhaus, Collins, Singh, & Parasuraman, 1997; Kossek & Ozeki, 1998; Matthews, Conger, & Wickrama, 1996; O'Driscoll, Ilgen, & Hildreth, 1992; Van Eck Peluchette, 1993). Greenhaus and Beutell (1985) described three aspects of work-family conflict that illustrate the difficulty of maintaining dual roles: time constraints with both roles, strain from participation in the two roles, and specific behaviors expected in one role conflicting with the expected behaviors of the other. Although conceptually similar, much less is known about dual-role stress in college student-parents. However, it would seem logical that the model of dual-role conflict could be applied to college work-family conflict. Allen et al. (2000) described work-family conflict as having "dysfunctional and socially costly effects on individual work life, home life, and general well-being and health" (p. 301). Exploring the possible implications of college work-family conflict may significantly contribute to our understanding of this underserved population of college student-parents.

In the area of WFC, researchers have demonstrated that numerous work outcomes (e.g., satisfaction, turnover, work quality) are negatively affected by the stress from the combined roles (Allen et al., 2000; Boyar et al., 2005; Greenhaus et al., 1997; Van Eck Peluchette, 1993). It seems likely that there would be similar consequences for college student-parents given their dual-role conflict. College work outcomes are often equated

with academic performance and assessed by grade point averages (GPA). This study will draw from the WFC literature and focus on college-family conflict (CFC) and its effect on college work-related outcomes.

Work-Family Conflict

Greenhaus and Beutell (1985) hypothesized that given the saliency of the demanding work and family life roles, the responsibilities of one role would affect the activities in the other role. In the past 25 years, research on WFC has identified the deleterious and widespread consequences associated with this dual-role conflict (Allen et al., 2000; Boyar et al., 2005; Frone, Russell, & Cooper, 1992; Greenhaus et al., 1997; Gutek, Searle, & Klepa, 1991). WFC is correlated with work-related outcomes of poorer quality of work, nonattendance behaviors, lowered job satisfaction, and higher job turnover (Allen et al., 2000; Boyar et al., 2005; Greenhaus et al., 1997; Van Eck Peluchette, 1993). Similar research has elucidated the harmful effects of WFC on non-work related variables. These studies have related WFC with lowered levels of life and marital satisfaction, higher levels of stress, higher general psychological strain, and physical/somatic complaints (Allen et al., 2000; Greenhaus, Bedeian, & Mossholder, 1987; Kossek & Ozeki, 1998; Matthews et al., 1996; O'Driscoll et al., 1992). Thus, the Greenhaus and Beutell (1985) model of WFC measures the bi-directional effects of family-to-work conflict and work-to-family conflict (Frone et al., 1992; Gutek et al., 1991; Netemeyer, Boles, & McMurrian, 1996). Despite the large amount of research on the impact of WFC, very little research has explored the possible dual-role conflict of parent and college student roles.

Conceptualizing College Student-Parents through a College-Family Conflict Lens

Although there is little research on the dual roles of student and parent, much is known about the separate roles of a college student and parent. The role of a college student has been shown to be related to higher levels of stress and psychological distress (e.g., MacGeorge, Samter, & Gillihan, 2005; Murphy & Archer, 1996). Similarly, parenting by itself has been designated as a universal stressor (Abidin, 1995; Crnic & Low, 2002; Deater-Deckard, 1998, 2004; Putnick et al., 2010). However, the interrole stress between these roles has received only limited attention within the literature.

The sparse literature on college student-parents has focused on the challenges of balancing their dual roles. For instance, Medved and Heisler (2002) exposed faculty's propensity to be unforgiving and unwilling to assist college graduate student-parents with balancing their dual responsibilities of student and parent. Springer, Parker, and Leviten-Reid (2009) underscored the lack of policies in place to aid college student-parents. They also commented on habitual practices of faculty members that create obstacles for college graduate student-parents, such as refusing accommodations of student-parents with the justification of policy adherence.

Hammer, Grigsby, and Woods (1998) expanded the Greenhaus and Beutell (1985) WFC model to include work-family-school conflict to assess the demands of all three roles; participants from a college population reported family-school conflict as the highest conflict. Similarly, the highest level of interrole conflict in the college population existed between school and family (Giancola, Grawitch, & Borchert, 2009). Macan, Shahani, Dipboye, and Phillips (1990) found that college students who perceived they had control of their time reported "significantly greater evaluations of their performance,

greater work and life satisfaction, less role ambiguity, less role overload, and fewer job-induced and somatic tensions" (p. 760). This suggests the importance of the relationship between college students' time management and academic performance. When considering that a college student-parent is faced with the dual roles of both parent and college student, one might relate this to Greenhaus and Beutell's (1985) work that suggested that "the time devoted to the requirements of one role makes it difficult to fulfill the requirements of another" (p. 76). Time and quality of studying are requirements of the student role that are closely related to academic performance (Balduf, 2009; Gortner Lahmners & Zulauf, 2000; Lamdrum, Turrisi, & Brandel, 2006). The conflicting time requirements and expected behaviors explicated in the WFC model are likely to apply to the roles of student and parent and affect the time and quality of the students' study, their confidence in their academic performance, and their actual performance.

Although there have been studies that have extended the application of the WFC model to college student-parents, much of the research has focused on graduate students or the ineffectiveness of support services or lack of faculty understanding (Dyk, 1987; Hammer et al., 1998; Medved & Heisler, 2002; Menks & Tupper; 1987; Springer, Parker, & Leviten-Reid, 2009; Westring, 2010). Little research has addressed the experiences of college student-parents and how their conflicting academic and parenting roles impact academic variables. In light of the lack of research in this area, the proposed study will focus on the specific effect of CFC on both academic self-efficacy and academic performance, as defined by GPA.

College-Family Conflict's Effect on Academic Performance

WFC has been linked to poorer quality of work (Allen et al., 2000; Van Eck Peluchette, 1993). The academic measure most associated with work quality in college is GPA and CFC may affect this evaluative measure of academic success. Allen et al. (2000) expanded on the effect of WFC:

> Individuals experiencing a high degree of WFC may feel compelled to keep the task-related behaviors that are typically the focus of performance evaluations at an acceptable level, but they may not be willing to go above and beyond the call of duty for the organization. (p. 289)

Applying this effect to CFC suggests that students with higher degrees of CFC may perform at the required level, but not strive for the actualization of their potential in their academic pursuits. Bean and Metzner (1985) found that students often report family responsibilities as being associated with academic difficulties. However, Svanum, and Bigatti (2006) found no correlation between family activities and final grades. This discrepancy calls for further research to explain how CFC is related to academic performance.

One explanation for the conflicting findings on the impact of CFC on grades could be the presence of intervening variables that are affected by CFC and then affect academic performance. One such factor could be nonattendance in class (Caska & Prentice, 2009). Studies have demonstrated the negative relationship between nonattendance and GPA for college students (Caska & Prentice, 2009; Landrum et al., 2006). Given that time constraints and expected behaviors for the dual roles contribute to dual-role stress in WFC (Greenhaus & Beutel, 1985), it could be hypothesized that this

dual-role stress affects college attendance in the same way it affects work attendance (Boyar et al., 2004; Gignac, Kelloway, & Gottlieb, 1996).

Another factor that contributes to academic performance that may be impacted by CFC is the quantity and quality of study. The time spent studying and quality of that study time has been shown to be related to college achievement and GPA (Balduf, 2009; Gortner Lahmners & Zulauf, 2000; Lamdrum et al., 2006; Plant, Ericsson, Hill, & Asberg, 2005) and could be related to CFC. The WFC model suggests that the time required for the two roles, the constraints of both roles, and the dual obligations for expected behaviors of both roles can influence the performance or participation in the opposing role (Greenhaus & Beutell, 1985). Applying the WFC model to CFC might suggest that these conflicts may affect the frequency and length of study as well as the quality of that study time. For instance, Macan et al. (1990) found that those college students who perceived greater control over their time reported better academic work performance. Logically, those with time constraints and dual time requirements may perceive less control over their time. Thus, both variables of nonattendance and time/quality of study are hypothesized to be influenced by CFC and, in turn, influence GPA.

Further, academic self-efficacy has been shown to be a powerful predictor of academic performance and GPA (Caska & Prentice, 2009; Chemers, Hu, & Garcia, 2001; Gore, 2006; Majer, 2009). Bandura (1997) described self-efficacy as a cognitive resource that involves an individual's confidence or belief in one's ability to effectively engage in behaviors toward desired goals. It would be reasonable to assume that if an individual was burdened with dual role responsibilities, strain, and time expectations (i.e., CFC),

that their confidence in their ability to perform the activities required for their academic goals may be negatively impacted. This would decrease their academic self-efficacy and, by extension, their academic outcomes (i.e., GPA). It could then be hypothesized that CFC will affect academic self-efficacy, which has been shown to influence GPA.

In addition, class nonattendance and study behaviors may affect self-efficacy as well as GPA. Frayne and Lathum (1987) demonstrated the connection between self-efficacy and work attendance when they found that increasing self-efficacy also increased work attendance. Similarly, Davis (1998) found that college students with increased study skills also experienced increased academic self-efficacy. This study posits that study and nonattendance behaviors, in addition to CFC, have a relationship with academic self-efficacy. Specifically, this study will test a model in which study time and quality, as well as class nonattendance behaviors, partially mediate the relationship between CFC and academic self-efficacy and between CFC and GPA. In this proposed model, academic self-efficacy also mediates the relationship between CFC and GPA. CFC is not expected to have a significant, direct relationship with GPA (see Figure 1).

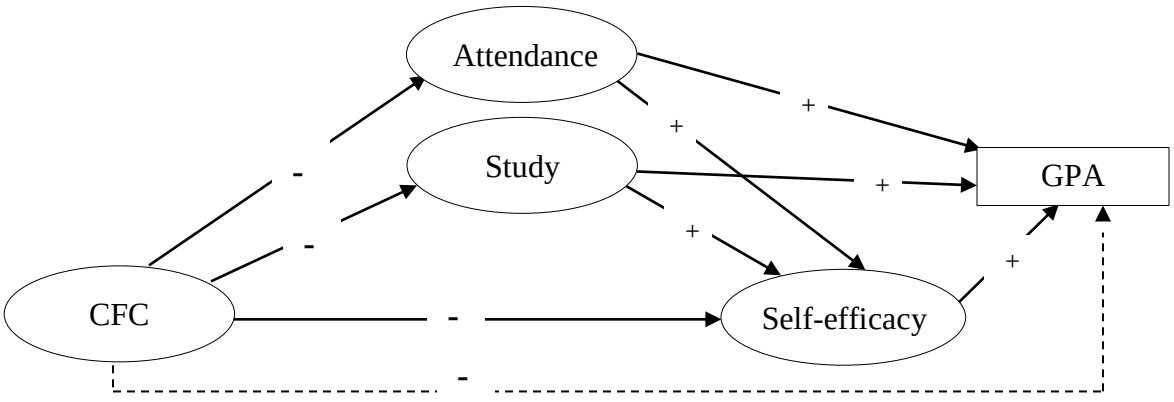

Figure 1. Hypothesized model of college-family conflict's anticipated positive (+) and negative (-) relationships with academic variables.

Statement of the Problem and Hypotheses

To date, the current literature does not reflect the unique experience of dual-role conflict in college student-parents and its impact on academic performance. Research indicates that many college students experience academic stress that can exacerbate or create both mental and physical health problems (MacGeorge et al., 2005; Murphy & Archer 1996). Mental and physical health problems are associated with poor academic outcomes (Haines, Norris, & Kashys, 1996). Similarly, parental stress, also known as child-rearing stress, is known to be a universal stressor (Crynic & Low, 2002; Deater-Deckard, 1998; Putnik et al., 2010) that affects parents' mental and physical health (Deater-Deckard, 2004). Therefore, student-parents experience dual roles that potentially adversely affect their mental and physical health, as well as their academic success. Previous studies have not explained the specific factors that may be affected by dual role conflict and how they impact academic success. The purpose of this study was to test a model of the impact of this dual-role conflict, CFC, on specific variables known to predict academic success. These specific variables were nonattendance behaviors, quantity and quality of study time, and academic self-efficacy. The results of this research may aid this population by indicating the need for better support services or other interventions that may decrease CFC and maximize the success of this group.

The hypotheses were as follows:

1) CFC will be related to academic self-efficacy, but this relation will be partially mediated by class attendance and quality and quantity of study time.

2) CFC will be negatively related to GPA, but this relation will be fully mediated by class attendance, study time and quantity, and academic self-efficacy.

Chapter 2

Literature Review

The focus of this proposed study was college student-parents' experience of interrole (college and family) conflict and its impact on academic variables. Interrole conflict, as defined by Greenhaus and Beutel (1985), is "a form of role conflict in which the sets of opposing pressures arise from participation in different roles" (p. 77). The existing literature provides extensive evidence to support the deleterious effect of the interrole conflict of worker and parent on work-related variables (Allen et al., 2000; Boyar et al., 2005; Greenhaus et al., 1997; Van Eck Peluchette, 1993). This research has illuminated the struggle of mothers and fathers in the workplace and has proven significant in demonstrating to employers the need to accommodate workers with salient family roles (Allen et al., 2000). Although there has been recent support for the existence of this interrole conflict in a college population (Giancola et al., 2009; Hammer et al., 1998), no study to date has applied this model of interrole conflict to college students who have salient family roles to determine how their experience of interrole conflict affects their academic work. This chapter will review the work-family conflict (WFC) model, the evidence for the application of WFC to college student-parents, and the existing literature that suggests a relationship between college student-parents' interrole conflict and academic variables.

Work-Family Conflict Model and its Effect on Work-Related Variables

In 1985, Greenhaus and Beutell published a seminal article that would be the impetus for decades of research on the interrole conflict of work and family life roles. In that article, they introduced a model of WFC. They noted changes in the world of work at

that time, such as a rise in the number of two-income households and "a heightened concern for employee's quality of work life" (p. 76). This led them to develop the model of interrole conflict between work and family roles that was hypothesized to impact both work and non-work variables. Greenhaus and Beutell (1985) defined this model as "a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect. That is, participation in the work (family) role is made more difficult by virtue of participation in the family (work) role" (p. 77).

Greenhaus and Beutell (1985) suggested three domains of WFC: time-based conflict, strain-based conflict, and behavior-based conflict. Time-based conflict is grounded in the idea that multiple salient life roles compete for an individual's time and that an individual only has a finite amount of time to devote to each life role. When an individual has multiple salient life roles, this causes a time-based conflict for the individual. Greenhaus and Beutell (1985) noted that it was not only the limited time allotted for each role that caused conflict. They also suggested the existence of multiple roles demanding time of an individual that could potentially cause preoccupation and role overload that contributes to time-based conflict.

Strain-based conflict is centered on the theory that stressors, such as "tension, anxiety, fatigue depression, apathy, and irritability" (Greenhaus & Beutell, 1985, p. 80), are produced by each salient life role. Strain-based conflict occurs when the strain from one role adversely impacts the other life role. For instance, a child being sick may cause anxiety in a working mother that may impact her work performance. Finally, Greenhaus and Beutell (1985) postulated that behavior-based conflict exists when behaviors expected in one role are incompatible with behaviors expected in another role. This

incompatibility may cause difficulty in balance between the roles. The authors provide the following example of behavior-based conflict:

> the male, managerial stereotype emphasizes self-reliance, emotional stability, aggressiveness, and objectivity (Schein, 1973). Family members, on the other hand, may expect a person to be warm, nurturant, emotional, and vulnerable in his or her interactions with them. If a person is unable to adjust behavior to comply with the expectations of different roles, he or she is likely to experience conflict between the roles. (pp. 81-82)

Although originally Greenhaus and Beutell (1985) considered WFC to be a unidirectional construct, later research has provided evidence that each of the three types of WFC has dual directions, work-to-family conflict and family-to-work conflict (Frone et al., 1992; Gutek et al., 1991; Netemeyer et al., 1996). Work-to-family conflict would suggest that the work role would impact the family role and family-to-work conflict would indicate the reverse. Since the model was put forth, research has supported the dual directions of work-to-family conflict and family-to-work conflict separately (Frone et al., 1992; Gutek et al., 1991; Netemeyer et al., 1996). Allen et al. (2000) described the two directions of WFC as "distinct but related constructs" (p. 278). The focus of this study will be on the family-to-work conflict or, more specifically, the family-to-college conflict direction of the interrole conflict.

Since this seminal model was published, WFC has been identified as a critical issue facing many American families. Galinsky, Bond, and Friedman (1993) found that 40% of employed parents experience WFC at least some of the time. Galinsky, Johnson, and Friedman (1993) conveyed a higher self-report of this conflict: 83% of working

mothers and 72% of working fathers reported experiencing conflict between their job demands and their family lives. It became clear that many working parents were experiencing WFC and researchers began studying what effect it had on work and non-work variables. Non-work variables, or the impact of work-to-family conflict, are not the focus of this study.

Countless studies on WFC over the last 25 years have demonstrated that high levels of WFC are correlated with numerous different domains of work variables. Some of the more salient variables reflected in the literature include: decreased job satisfaction (Adams & Jex, 1999; Boles & Babin, 1996; Coverman, 1989; Kossek & Ozeki, 1998; Lyness & Thompson, 1997; Rice, Frone, & McFarlin, 1992; Staines, Pottick, & Fudge, 1986), decreased organizational commitment (Good, Sisler, & Gentry, 1988; Lyness & Thompson, 1997; Netemeyer et al., 1996; O'Driscoll et al., 1992), increased absenteeism (Goff, Mount, & Jamison, 1990; Thomas & Ganster, 1995), and decreased career satisfaction (Kopelman, Greenhaus, & Connolly, 1983).

Allen et al. (2000) conducted a meta-analysis of the different variables that were correlated to WFC. These authors analyzed 38 diverse sample groups that correlated decreased job satisfaction and higher levels of WFC and reported the weighted mean of the correlations was -.24. The reported weighted mean for six sample groups that studied correlations between decreased organizational commitment and higher levels of WFC was -.23. The correlations between higher levels of WFC and work absenteeism were also analyzed using two sample groups and -.02 was the weighted mean. Finally, decreased career satisfaction was reportedly correlated to higher levels of WFC in two

sample groups and -.04 was the weighted mean of these correlations. Allen et al. (2000) demonstrated WFC's varying effects on work performance variables.

Mixed results have been found when examining correlations of WFC and decreased job performance. Allen et al. (2000) reported in their analysis of four sample groups that the weighted mean of these correlations was -.04, ranging from .00 to -.26. Aryee (1992) found in her study of working mothers that there was a significant correlation between work quality and job-parent conflict, but not job-spouse or job-homemaker conflict. Frone, Yardley, and Markel (1997) found significant negative relationships between work performance and family-to-work conflict and, conversely, work-to-family conflict and family performance. These studies provide support for the obligations of one role interfering with the performance in the other role. However, Netemeyer et al. (1996) did not find a significant relationship between sales records and WFC. Similarly, Greenhaus, Bedeian, and Mossholder (1987) found nonsignificant results between supervisor reported performance and WFC. These discrepant findings may illustrate the need to consider a range of work variables that are affected by WFC or that WFC is indirectly related to work performance through other work-related variables that impact quantifiable work performance.

A number of work-related variables have been correlated to high levels of WFC. Allen et al. (2000) identified that intention to turnover was the work-related variable most highly related to WFC. These authors further described these intentions as follows, "…a common response to a high degree of WFC may be a desire to flee the situation. Employees may seek alternative employment with organizations that offer environments that are supportive of work-nonwork balance" (p. 288). Van Eck Peluchette (1993) found

that with a sample of full-time faculty members, higher levels of WFC reported were correlated with lower levels of subjective career success. Allen et al. (2000) further suggest that WFC may impact work variables in a way that is more difficult to quantify:

> Individuals experiencing a high degree of WFC may feel compelled to keep the task-related behaviors that are typically the focus of performance evaluations at an acceptable level, but they may not be willing to go above and beyond the call of duty for the organization. Additionally, individuals experiencing a high degree of WFC may be less likely to engage in other work-related extrarole behaviors such as mentoring relationships. (p. 289)

Moreover, several studies have documented the relationship between increased WFC and increased job burnout (Bacharach, Bamberger, & Conley, 1991; Burke, 1988; Drory & Shamir, 1988; Greenglass & Burke, 1988; Netemeyer et al., 1996). It is clear that high levels of family-to-work conflict have demonstrated harmful effects on parents' work variables. However, little is known of the college student-parents' interrole conflict and its effect on academic variables. Given the well-documented harmful effects of the interrole conflict between family and work roles and the high percentage of affected working parents, it is important to study the similar interrole conflict between family and college work roles that may be affecting college student-parents.

Application of the Work-Family Conflict Model to College Student-Parents

College students who are also parents experience the same demanding family role that is represented in the WFC model. It is generally understood that parenting stress and parental role saliency is a common and shared experience for many parents. Crnic and Low (2002) explained, "It is critical to note that everyday parental stress, as measured in

various ways, is meant to comprise a normative process common to all families; that is, daily parenting stressors are not particular to any high-risk or problematic population…" (p. 245). It is noteworthy that the demands and stress of parenting are also universal, crossing contexts, cultures, and geography (Abidin, 1995; Crnic & Low, 2002; Deater-Deckard, 1998, 2004; Putnick et al., 2010). Despite our knowledge that this life role is demanding, little is known of college student-parents' experience of negotiating the demands of parenthood and college.

Similar to the universality of parenting stress and parent role saliency is the college experience for most students. MacGeorge et al. (2005) described attending college as "chronically stressful due to academic requirements (tests, papers, presentations)" (p. 365) for many students. They found that academic stress was positively associated with depression and symptoms of physical illness in their sample of 739 college students. Murphy and Archer (1996) conducted qualitative studies of 639 undergraduate students and reported that similar academic stressors were consistently reported (i.e., papers, essays, exams). Understanding the life role of college student as being associated with stress and heavy academic demands is imperative in comparing the role of work and college roles.

As understood by Greenhaus and Beutell's (1985) definition of interrole conflict, it is clear that these roles of college student and parent would present an individual with "sets of opposing pressures" (p. 77) that result from participation in both roles that "are incompatible with pressures arising in another role" (p. 77). In fact, college-family conflict (CFC) has been documented in the current literature. Giancola et al. (2009) studied stress, interrole conflict, appraisals, and coping behavior in a sample of 159 adult

college students and found that between work, family, and school interrole conflict, the highest level of conflict existed between school and family. Further, Hammer et al. (1998) evaluated the effectiveness of university support services using the WFC model with a sample of 375 college students at an urban university. They reported the following means on an interrole conflict scale ranging from 1 to 5, with higher scores indicating higher conflict: work-family conflict mean, 2.5; family-school conflict mean, 3.2; work-school conflict mean, 2.9; work-family-school conflict mean, 2.8. Although it is clear that work, school, and family all contributed to interrole conflict and presented barriers to success for these participants, the college student-parent-workers identified family and college roles as being the most conflicting.

Some studies elucidate the experience of college student-parents' interrole conflict. Springer et al. (2009) described graduate college student-parents' experience of CFC and time-based conflict: "The sheer time demands coupled with the unrealistic yet normative conceptions of 'idealized' mothers and '100%' academics mean that one can never truly be both" (p. 436). These authors noted that record numbers of men and women are entering graduate school in their peak childbearing years and yet lack university support. Mason (2006) reported that 24% of women and 28% of men enrolled in doctoral programs and 42% of women enrolled in masters programs had dependent children. Yet in a study conducted by sociology departments in the United States, 0% of faculty reported having training on how to support student parents, 10% of departments have family-friendly spaces (such as a lactation room), and 5% had subsidies for childcare (Springer et al., 2009). Without institutional or departmental support, it is expected that balancing school and parenting roles presents significant obstacles.

Hammer et al. (1998) provided further support for these obstacles in reporting their finding that satisfaction with one's educational experience was negatively related to work-school conflict. Their study of 375 undergraduate and graduate students at an urban university demonstrated a negative relationship between perceived effectiveness of support services and the degree of CFC experienced. Given the lack of university support and the saliency of these life demands, it is clear that college student-parents must overcome significant barriers to succeed in both family and college work roles.

Additional studies have shed light on the specific difficulties of college student-parents. Giancola et al. (2009) found that higher levels of stressors and interrole conflict among a college population were associated with lower positive and higher negative appraisals of their work, personal, and school stressors. Medved and Heisler (2002) found that college student-parents found that childcare concerns most often triggered student-parents to initiate negotiations with faculty members and that they perceived limited options and low informational support. These studies further illustrate the dual demands and interrole conflict experienced between family and college work roles. Springer et al. (2009) described the similarities between the life roles of college student and parent:

> There are salient similarities between the cultures of mothering and academia. They both, for example, place harsh demands on one's body and mind. If one were offered a purview into homes across the country in the wee hours of the night, one might find both academics and parents pacing the floors, searching and pleading for that elusive cocktail of soothing strategies to lull a crying baby to sleep or the rhetorical flourishes needed to complete that vexing chapter. (p. 435)

Despite the evidence for the existence of CFC, no research to date has measured CFC's effect on academic variables.

College-Family Conflict's Impact on Academic Variables

Although no research has studied CFC's impact on academic variables, some literature suggests that CFC creates additional challenges to college student-parents that may affect academic variables. Bean and Metzner (1985) explained that students often report family responsibilities as being associated with academic difficulties that lead to attrition. Springer et al. (2009) noted that male and female graduate students who have children have lower degree achievement than those who do not have children. Lovik (2004) substantiated this finding when reporting that men and women with children are a smaller percentage of doctoral recipients than those without children. These studies suggest that parenthood is associated with lower academic degree achievement. Medved and Heisler (2002) found that within a college student-parent sample, child illness and daycare loss/financial difficulties with daycare were among the most frequently reported reasons that triggered student-faculty negotiation for accommodation. These concerns illustrate some of the unique challenges faced by college student-parents. Given the added responsibilities, additional challenges, and dual strains of parenthood and academia, CFC experienced by college student-parents may adversely impact a number of academic behaviors that ultimately affect academic performance. This study proposes that CFC will have a direct, negative relationship with class attendance, quantity and quality of study time, and academic self-efficacy. Further, CFC is expected to have an indirect relationship with GPA through the aforementioned academic variables.

Nonattendance in Class. The WFC literature lends support to the relationship between high levels of WFC and absenteeism, tardiness, and leaving early from work (Boyar et al., 2005; Gignac, 2006; Hepburn & Barling, 1996). The academic variables that may mirror WFC findings are nonattendance in class, class tardiness, and leaving class early. Given the dual responsibilities of academia and parenthood, college student-parents would be burdened with dual time conflicts resulting from the competing roles. These competing roles would be identical to the WFC construct of time-based interrole conflict (Greenhaus & Beutell, 1985).

Providing evidence to the time-based interrole conflict of college student-parents, Mason (2006) reported that graduate student mothers spend 102 hours per week on their paid and unpaid duties and graduate student fathers spent 95 hours, whereas childless graduate students spent 75 hours. This demonstrates the additional hours spent each week by student-parents as opposed to their childless counterparts. Given the time demands of both college and parent life roles it could be expected that this time-based interrole conflict may lead to higher levels of missing, coming late, and leaving early from class similar to WFC's influence on absenteeism at work. CFC is projected to have a negative relationship with these variables.

Quantity and Quality of Study Time. Other academic variables potentially impacted by college student-parents' experience of time-based conflict are the quantity and quality of study time. There is no literature documenting the effect of CFC on the quality and quantity of study time. However, due to the time-based conflict faced by student-parents, it is logical that study time and quality may also be unfavorably influenced by CFC. That is, if college student-parents have more non-academic time

responsibilities and time-based conflict than childless students (Mason, 2006; Springer et al., 2009), this may impact the amount of time dedicated to studying.

Further, the dual strain of being a parent and college student might affect the quality of that study time, comparable to WFC's influence on work quality. Allen et al. (2000) reported that high levels of WFC may be associated with poorer work quality. Similarly, high levels of interrole conflict from being a college student-parent may affect study quality.

Academic Self-Efficacy. The literature also indirectly supports CFC impacting academic self-efficacy. Bandura (1997) described self-efficacy as a cognitive resource that involves an individual's confidence or belief in one's ability to effectively engage in behaviors toward desired goals. Academic self-efficacy is an individual's confidence or belief in his/her ability to effectively engage in academic behaviors to achieve desired academic goals (Zimmerman, 1995). College student parents' experience of interrole responsibilities, strain, and time expectations (i.e., CFC) could directly influence their confidence in their ability to perform the activities required for their academic goals. Johnson (2003) demonstrated this negative relationship between self-efficacy and levels of work-to-family conflict and family-to-work conflict in a sample of working mothers. Self-efficacy was lower when there were higher levels of interrole conflict.

CFC's potential impact on a college student-parent's confidence of performing academic tasks would be consistent with the literature's description of academic self-efficacy. Bong and Skaalvik (2003) asserted that there exists both a past-oriented, aggregated, and relatively stable judgment about one's self-perceived ability to succeed in the academic domain, which they refer to as academic self-concept, and a future-

oriented judgment about one's confidence for successfully performing an upcoming specific set of academic tasks, which is academic self-efficacy. Ferla, Valcke, and Cai (2003) substantiated that it was the latter that predicted academic achievement. It is this future-oriented judgment of one's ability to complete tasks that would be lowered when faced with additional barriers that college student-parents face. It is expected that the barriers created by CFC would lower student-parents' confidence in completing academic tasks (academic self-efficacy) and, by extension, their grade point average (GPA). CFC is proposed to have a negative relationship with academic self-efficacy; academic self-efficacy is proposed to have a positive relationship with GPA.

Further, class nonattendance and study behaviors could likely impact academic self-efficacy. Frayne and Lathum (1987) found a relationship between self-efficacy and work attendance when they found that increasing self-efficacy also increased work attendance. Indeed, Davis (1998) found that college students with increased study skills also experienced increased academic self-efficacy. This suggests that if CFC affects the academic variables of attendance and study behaviors, it may also indirectly influence academic self-efficacy through these variables.

Grade Point Average. Given the mixed results that have been found in the WFC literature on the relationship between WFC and decreased job performance (Aryee, 1992; Frone et al., 1997; Greenhaus et al., 1987; Netemeyer et al., 1996), it is unlikely there will be a direct relationship between CFC and GPA, the primary measure of academic performance. However, the aforementioned academic variables of study quality/quantity, class attendance, and academic self-efficacy have been individually correlated to GPA, suggesting that CFC may have an indirect relationship to GPA through these academic

variables. Caska and Prentice (2009) studied nonattendance in 275 undergraduate students and found that attendance significantly contributed to grades, with a final regression model explaining 41% of the variance. Although class attendance is thought to be a powerful predictor of GPA and academic success, other academic variables also significantly impact GPA.

Quantity of study time has been associated with GPA and college achievement (Balduf, 2009; Gortner Laumers & Lulauf, 2000; Plant et al., 2005). More specifically, Gortner Lahmers and Lulauf (2000) found that GPA increased 0.025 points per additional study hour per week in a sample of 79 undergraduate students. This modest increase suggests that study time would need to be substantially increased for GPA to improve noticeably. Plant et al. (2005) found study time was a significant predictor of grades only when combined with quality of study and previously attained performance. Similarly, several studies have shown that the quality of study is associated with GPA (Balduf, 2009; Gortner Lahmners & Zulauf, 2000; Lamdrum et al., 2006). For instance, Balduf (2009) conducted qualitative interviews with four females and three males who had been issued academic warnings in their undergraduate university. They attributed, in part, their underachievement to inadequate study skills (in time and quality).

Further, academic self-efficacy has been shown to be a powerful predictor of academic performance and GPA (Caska & Prentice, 2009; Chemers et al., 2001; Gore, 2006; Majer, 2009). Chemers et al. (2001) found a direct relationship between academic self-efficacy and academic performance in a longitudinal study of a sample of 373 first-year college students. Similarly, Gore (2006) found that academic self-efficacy was a significant predictor of GPA among a large sample of university students in the Midwest.

Majer (2009) studied 96 first-generation college students and found that academic self-efficacy significantly predicted increased cumulative GPA after a one year follow-up. This study expects to find the same positive relationship between academic self-efficacy and GPA.

Although CFC is expected to have an indirect relationship with GPA, the literature on this relationship is equivocal. Svanum and Bigatti (2006) found in their study of 230 urban college students that family activities were not associated with course effort or with final grades. This finding is in stark contrast to Bean and Metzner's (1985) study that student self-reports of "family responsibilities" were often associated with academic difficulties and eventual college attrition. Given that several factors influence GPA, it is unlikely that higher levels of CFC will be significant in directly predicting GPA. However, it is reasonable to assume that given the similarities between college student and worker, higher levels of CFC may impact some academic variables that might ultimately affect performance.

Summary

Although few studies have expanded the WFC model to include the interrole conflict experienced by college student-parents, the current literature supports the hypothesis that high levels of CFC may affect academic variables. The lack of literature on the experience of college student-parents might prohibit them from receiving assistance that could decrease CFC and its potentially negative impact. Support services for college student-parents are insufficient, possibly contributing to college student-parents' attrition (Bean & Metzner, 1985). Medved and Heisler (2002) shed light on college student-parents' interactions with faculty and characterized them as being

inappropriate and unforgiving of the multiple roles of student-parents. Springer et al. (2009) highlighted the lack of policies and practices to lessen the obstacles of graduate student-parents. This study attempted to elucidate the experience of college student-parents' interrole conflict and how this in turn affects their academic success.

Chapter 3

Methodology

This study explored the impact of college student-parents' college-family conflict (CFC) on variables known to predict academic success. These academic variables were classroom nonattendance behaviors, quantity and quality of study time, and academic self-efficacy. This study also explored the relationship between CFC and grade point average (GPA), as it was mediated by the aforementioned academic variables. In the hypothesized model, academic self-efficacy and the class/study academic variables were expected to completely mediate the relationship between CFC and GPA. CFC was not expected to have a significant, direct relationship with GPA.

Participants

The sample for this study was obtained through online recruitment of university students who were enrolled in at least six college course credits and had at least one child under the age of 18 years old who lived with them. Including only those students enrolled in at least six course credits ensured that participants would experience their student role as a salient life role. For similar reasons, only participants who reported their parenting role as taking up 10% of their time or more were included. The participants were required to be at least 18 years of age or older and must have had at least one prior semester of college attendance while being a parent in order to collect previous academic performance data (e.g., college GPA while being a parent).

The data collection yielded 381 completed surveys. Seven participants were not included due to their report of their parenting responsibility accounting for 0-10% of their time and similarly eight participants were excluded because they did not have a child

under the age of 18 currently living with them. Ten participants were excluded from the sample for outlying responses (e.g., 70 hours of study per week or 50 absences in a semester) and 11 other participants were not included due to having missing data. The final sample consisted of 345 participants.

Of the remaining 345 participants, the mean age was 33.8 years (*SD* = 7.5). Eighty-one percent of the participants identified as female (*n* = 281), 18 % identified as male (*n* = 63), and one participant identified as "Other." Racial identification was somewhat diverse with 29 identifying as African American (8.4%), 13 identifying as Asian American (3.8%), 224 as Caucasian (64.9%), 41 as Latino or Hispanic (11.9%), 5 identifying as Native American (1.4%), 2 as Pacific Islander (0.6%), 17 identifying as biracial or multiracial (4.9%), and 13 individuals identifying as "Other" (3.8%). The sample consisted of 146 participants seeking an undergraduate degree (42.3%), 68 master's level students (19.7%), 123 doctoral level students (35.7%), and 7 endorsing "Other." The mean GPA for this sample was 3.54 (*SD* = .455). In the sample, 171 participants had one child (49.6%), 127 had two children (36.8%), 28 had three children (8.1%), 15 had four children (4.3%), 2 had 5 children (0.6%), 1 had 6 children (0.3%) and 1 had 8 children (0.3%). Not all of these children were under the age of 18.

Participants were asked what percentage of their average day was spent in their parenting duties. Of the 345 participants in the sample, 56 reported 11-20% (16.2%), 76 endorsed 21-30% (22.0%), 53 reported 31-40% (15.4%), 52 reported 41-50% (15.1%), 35 endorsed 51-60% (10.1%), 27 reported 61-70% (7.8%), 22 endorsed 71-80% (6.4%), 15 reported 81-90% (4.3%), and 9 endorsed 91-100% (2.6%). This sample was also asked what percentage of the average day someone else spent parenting the participants'

children. There were 70 that endorsed 0-10% (20.3%), 47 reported 11-20% (13.6%), 49 endorsed 21-30% (14.2%), 40 reported 31-40% (11.6%), 39 reported 41-50% (11.3%), 33 endorsed 51-60% (9.6%), 28 reported 61-70% (8.1%), 24 endorsed 71-80% (7.0%), 7 reported 81-90% (2.0%), and 8 endorsed 91-100% (2.3%).

Additional descriptive information was obtained from this sample to provide a fuller picture of the participants' lives. Of the participants, 245 worked in addition to their parenting and academic responsibilities (71.0%), 98 did not work (28.4%), and 2 participants did not answer this question (0.6%). Of those participants who worked, the median number of hours worked per week was 25 hours. This data collection was a national survey that yielded participants from all regions of the United States. From this sample, 72 were from the West (20.9%), 49 were from the Southwest (14.2%), 124 were from the Midwest (35.9%), 41 were from the Southeast (11.9%), 48 were from the Northeast (13.9%), and 9 participants endorsed "Unsure" (2.6%), suggesting they may live in a state that could be considered to be in more than one region.

When asked about familial socioeconomic status on a 5-point Likert scale (1 = "often struggled financially to 5 = "were mostly well off"), 89 participants endorsed "1" (25.8%), 71 endorsed "2" (20.6%), 111 endorsed "3" (32.2%), 43 endorsed "4" (12.5%), and 31 endorsed "5" (9.0%). Participants were also asked how supportive they perceived their university to be for college student-parents on a Likert scale from 1-10 (1 being the least helpful and 10 being the most helpful). Thirty-five participants endorsed "1" (10.1%), 24 endorsed "2" (7.0%), 23 endorsed "3" (6.7%), 24 endorsed "4" (7.0%), 26 endorsed "5" (7.5%), 22 endorsed "6" (6.4%), 39 endorsed "7" (11.3%), 21 endorsed "8" (6.1%), 12 endorsed "9" (3.5%), 16 endorsed "10" (4.6%), and 101 endorsed "Don't

know" (29.3%). For those that endorsed a number between 1-10, the mean was 5.04 (*SD* = 2.77).

The literature indicates a range of acceptable sample sizes for the calculation of Structural Equation Modeling (SEM). Weston and Gore (2006) recommend a minimum sample size of 200 for SEMs that do not have missing data or non-normal distributions. However, other sources indicate a less stringent minimum; Loehlin (1992) recommends at least 100 cases, preferably 200. Hoyle (1995) also recommends a sample size of at least 100 - 200. Weston and Gore (2006) suggested a rule of thumb that 10 to 20 times as many cases as variables is adequate, which in this study would indicate 100 participants would be an adequate minimum. Kline (2005) suggested that samples with fewer than 100 participants are to be considered small sample sizes, those with 100 to 200 are medium, and those with more than 200 are large. Based on this literature support, the current sample size was more than adequate for the planned analysis.

Measures

Participants were asked to complete the following measures/questions as part of a larger data collection: a demographics questionnaire (see Appendix A); the nine-item subscale of the Work-Family Conflict Scale measuring family-to-work conflict that was adapted to college-student parents (Carlson & Kacmar, 2000; see Appendix B); the Beliefs in Educational Success Test (BEST; Majer, 2006; see Appendix C); GPA; number of hours of study and self-report of quality study; and frequency of absenteeism, being tardy and leaving early from class (see Appendix D).

Demographic Variables. Demographic information included age, gender, race/ethnicity, year in college, number of children they have and number of children

under the age of 18 living with the participant, number of full semesters in which the participant has been a parent, number of college credits in which currently enrolled, region in which they study, self-reported familial socioeconomic status membership, self-reported percentage of time spent in parenting role at time of participation, and percent of time someone else spent in parenting their child.

College-Family Conflict. To measure college-family conflict (CFC), a 9-item adapted subscale from the Work Family Conflict Scale (WFCS) was used. The WFCS is an 18-item measure with six dimensions, based on Greenhaus and Beutel's (1985) model of work-family conflict. The six dimensions include: two dimensions for time, two dimensions for behavior-based pressure, and two dimensions for strain. One dimension for each aspect of conflict is for work-to-family and the other is for family-to-work conflict (Carlson, Kacmar, & Williams, 2000). Only the family-to-work conflict subscale was used to ascertain the degree to which the family role influences college work. Multiple studies have demonstrated the validity of dividing the scale into family-to-work and work-to-family conflict directions (Frone et al., 1992; Gutek et al., 1991; Netmeyer et al., 1996).

Participants responded on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). The scale was adapted to reflect "college work" in place of "work." For example, instead of: "The time I spend on family responsibilities often interfere with my work responsibilities," the adapted version asked: "The time I spend on family responsibilities often interfere with my college work responsibilities." "College work," in this case, was defined as: class attendance, study time, homework, and other class responsibilities.

Carlson et al. (2000) reported internal consistency coefficients for each dimension of the measure. The reliabilities of these dimensions were: time-based conflict = .87, strain-based conflict = .85, and behavior-based conflict = .78 in a sample of 225 participants. Similarly for this sample, Cronbach alpha coefficients were also calculated and were: time-based = .75, strain-based = .91, and behavior-based = .88.

Academic Self-Efficacy. Academic self-efficacy was measured using the 10-item Beliefs in Educational Success Test (BEST; Majer, 2006). As Majer (2009) explained, "items of the BEST reflect a range of specific tasks commonly associated with the pursuit of higher education but do not focus on any one academic subject area…" (p. 245). A stem question of "How confident are you…" is used with a Likert scale ranging from 1 to 100. The higher the number reported, the more confidence the participant reports for each item. Ten hypothetical situations are used as the items, such as: "…that you will do well in future courses?" and "…that you are in control of your education?" (Majer, 2006). A score is calculated by averaging the ten item responses. Majer (2009) reported very good internal consistency with Cronbach alphas ranging from .83 to .91 in three pilot samples of 20, 74, and 97 students. The internal reliability reported in Majer's (2009) study was excellent with Cronbach's alpha of .92. For this sample, the Cronbach's alpha for this scale was .86.

GPA and Academic Variables. GPA was measured using the self-reported cumulative college GPA of the participant. Study time was measured using self-reported estimates of the hours studied in an average week. Quality of study time was measured using a self-reported rating of the quality of the participants' study time in an average week using a Likert scale from 1-10, 10 being the best quality. Additional questions

asked about the subjective experience of family commitments' impact on study quantity and quality. These items asked participants to rate the frequency of times they wished they had more time to study and wished they had better quality study but didn't due to family commitments. These questions were rated on a 5-point scale from never (1) to almost every day (5). High scores indicated frequent desire for uninterrupted study quantity and quality.

In order to assess class attendance, participants were asked how frequently in a semester they missed a class completely, came more than ten minutes late, or left more than 10 minutes early. Responses ranged from 0-12 for absences, 0-30 for tardiness, and 0-15 for leaving class early.

Procedures

Following approval from the University of Memphis' Institutional Review Board, student-parents were recruited using email requests sent to child care centers on university campuses across the United States, social networking websites (e.g., facebook.com), and through the snowball technique. Student-parent programs and organizations were also asked to email their members the recruitment email with the survey link. All student-parents were told the general purpose and length of the study and that their participation was voluntary and anonymous. All participants were told that their participation would result in one dollar being donated to Toys for Tots, up to $200.

Chapter 4

Results

Preliminary Statistics

Bivariate correlations and descriptive statistics for the model's study variables were calculated and are presented in Table 1. As hypothesized, the total College-Family Conflict (CFC) was positively associated with poorer class attendance and disrupted study variables. Additionally, CFC was negatively correlated to academic self-efficacy (r = -.474, p < .01) and Grade Point Average (GPA; r = -.326, p < .01). Although other academic variables were included in the data collection, they were excluded from the model due to non-significant relationships (reported time studied per week) or low frequency of occurrence (leaving class early).

One-way analysis of variance (ANOVA) tests were conducted to preliminarily examine differences in CFC by gender, by reporting being employed or not, and by undergraduate or graduate status. As expected there was a significant difference in CFC between genders (F (36, 308) = 1.791, p < .01). No difference in CFC existed between those participants who reported working or not (F (36, 306) = 0.911, p > .05) or between graduate or undergraduate status (F (36, 307) = 1.350, p > .05). Further, an ANOVA indicated that there was no significant difference between academic self-efficacy by graduate or undergraduate status (F (141, 202) = 1.027, p > .05); however, there was a significant difference on GPA by graduate or undergraduate status (F (19, 324) = 5.962, p < .01). Surprisingly, an ANOVA indicated that there was no significant difference on GPA by employment status (F (36, 306) = 0.911, p > .05). For those who reported working, the number of hours they worked was not correlated with GPA (r = .07, p >

.05). It is also noteworthy that the mean GPA for this sample was 3.54 (*SD* = .46), which is quite high.

Table 1

Bivariate Correlations and Descriptive Statistics for Study Variables

	1	2	3	4	5	6	7	8
1 College-Family Conflict		0.296**	0.226**	.486**	.515**	.544**	-.474**	-.326**
2 Class Absence			.417**	.184**	.146**	.185**	-.256**	-.337**
3 Class Lateness				.167**	.150**	.220**	-.243**	-.158**
4 Study Time Interrupted					.528**	.604**	-.287**	-.128*
5 Additional Desired Study Time						.785**	-.299**	-.120*
6 Improved Quality of Study Desired							-.277**	-.170*
7 Academic Self-Efficacy								.435**
8 Grade Point Average								
M	2.89	2.17	2.82	2.86	2.96	2.77	85.84	3.54
SD	0.86	2.37	4.62	0.74	0.85	8.72	11.50	0.45

Note. *$p < .05$. **$p < .01$.

Structural Equation Analyses

Constructing the Latent Variables. In structural equation modeling, latent constructs are based on their measurable indicator variables. Thus, indicator variables must be identified (subscale or dimension scores taken from assessment of a larger multidimensional construct) or created (grouping items from a unidimensional measure). The CFC latent variable consisted of three indicator variables that corresponded to Carlson et al.'s (2000) dimensions on the work-family conflict scale. These were time-based conflict, behavior-based conflict, and strain-based conflict. Reported absenteeism and late class arrival constituted the latent variable referred to as Presence in the model. Similarly, the latent variable Study was comprised of measures of interrupted study time,

additional desired study time, and desired improved quality of study. The latent variable for academic self-efficacy was comprised of the 10 items from the Beliefs in Educational Success Test (BEST; Majer, 2006) that were parceled into three indicators (3, 3, and 4 items). The indicators were parceled randomly given no theoretical basis for intentionally parceling them into groups. Items are frequently parceled into smaller numbers of indicator variables to increase measure reliability and reduce the chances of correlated residuals and dual loadings of items. Finally, the sole item of current reported GPA made up GPA for this model.

Testing the Measurement Model. As recommended by Weston, Gore, Chan, and Catalano (2008), the measurement model of how the indicator variables reflect the latent variables must be tested first to see if it is valid. Confirmatory factor analysis using Analysis of Moment Structures (AMOS; Arbuckle, 2006) indicated that the data fit the model adequately for the entire sample, with $\chi^2 = 87.620$ ($df = 38$; $p < .01$); CFI = .969; and RMSEA = .062. Although the χ^2 fit statistic indicates poor fit, this fit statistic is sensitive to sample size and is often given less weight than other measures of model fit. Guided by modification indices, one error covariance between the error terms for strain-based conflict and behavior-based conflict was added. These are both indicators for the latent variable CFC and overlap between them is theoretically consistent. This modification improved the model's fit, with $\chi^2 = 71.899$ ($df = 37$; $p < .01$); CFI = .978; and RMSEA = .052. This error covariance was retained in all of the structural models tested in this study.

Testing the Structural Model. Since there are multiple possible models based on the variables and SEM does not automatically identify the best model, two theoretically

consistent models were tested. The first model (Full Model) had a direct path from CFC to GPA as well as paths among the other variables. The model assumes the intervening academic variables only partially mediate the CFC to GPA relationship. The second model (Model 1) constrains the CFC to GPA path to zero and tests whether that relationship is completely mediated. Since Model 1 is nested within the Full Model, a comparison of the χ^2, df, and CFI for the two models allows for the determination of whether Model 1 is a better fit. The full model analysis indicated that the data fit the model adequately for the entire sample with a $\chi^2 = 98.216$ ($df = 45$; $p < .01$); CFI = .969; and RMSEA = .059.

The full model was then tested against Model 1 that excluded the path from CFC to GPA by constraining the parameter to 0. Model 1's fit indices were $\chi^2 = 98.930$ ($df = 46$; $p < .01$); CFI = .969; and RMSEA = .058). Subtracting the χ^2 value of Model 1 from the full model and evaluating the significance of that difference at 1 degree of freedom (47-46), indicated no significant difference in the fit. This suggests that removing the direct path between CFC and GPA did not alter the model fit. The more parsimonious model is preferred, so Model 1 was a better fit. There was a non-significant path between Study and GPA. This path was constrained (Model 1A) and the model was tested. Again, the fit did not change indicating Model 1A was the preferred model. See Figure 2 for the structural paths of Model 1A with standardized estimates. See Table 2 for each models' fit indices. These models were compared by subtracting the chi square and degrees of freedom from the full model and evaluating the difference in the chi-square value to determine whether it was significant.

Table 2

Structural Models with Fit Indices

	$\chi 2$	*DF*	*CFI*	RMSEA
Full Model	98.216	45	.969	.059
Model 1 - No CFC→GPA	98.930	46	.969	.058
Model 1A - No CFC→GPA / No Presence→GPA	99.483	47	.970	.057

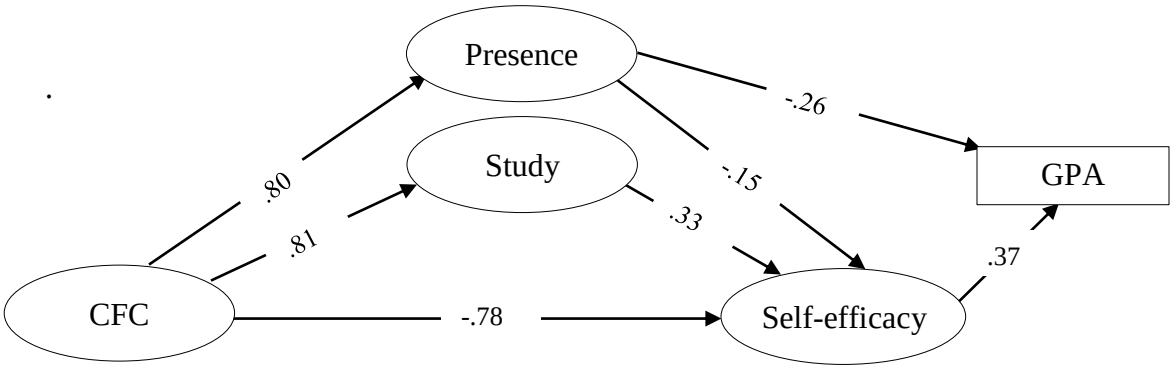

Figure 2. Structural Model 1A with standardized estimates.

As can be seen on Figure 2, CFC was negatively associated with academic self-efficacy. CFC was positively related to class attendance (i.e. Presence) and the Study variable, which consisted of the frequency of study disruption and reported desire for better time and quality of study. Surprisingly, the study variable was positively related to self-efficacy. This suggests that those participants who expressed a desire for better quality and more study time (that wasn't interrupted by family demands) reported higher academic self-efficacy. Perhaps this speaks to their general strong academic functioning such that committed students might desire as much quality study time as possible and have a high academic self-efficacy. Class attendance was negatively associated with academic self-efficacy and GPA, while academic self-efficacy was positively associated with GPA. The size of the standardized coefficients indicates the substantial impact of

college-family conflict on academic variables as well as the effect of those variables on GPA. CFC had a significant indirect effect on GPA through the academic attendance and study variables and academic self-efficacy while classroom attendance both directly and indirectly affected GPA.

Chapter 5

Discussion

The following is a discussion of the results of this study, considered within the existing body of research. First, the final model as well as other tested models is discussed, followed by a presentation of other notable findings that were derived from the data collection. Limitations of this study, implications for clinical consideration, and directions for future research are offered.

The Final Model and Other Tested Models

This study tested a model of college-family conflict's (CFC) effects on academic variables, including GPA. As hypothesized, CFC has a direct influence on study variables, class attendance variables, and academic self-efficacy. These academic variables fully mediated the association between CFC and GPA. In this model, the latent Presence variable was also associated to academic self-efficacy and GPA. The Study variable has a direct influence on academic self-efficacy; however, its effect on GPA was fully mediated by academic self-efficacy.

This model provides evidence for the importance of the college-family conflict construct for college student-parents. This conflict adversely impacts their attendance and lateness to class, their perceived quality and time of study, their academic self-efficacy, and indirectly impacts their GPA. Although the existence of this construct has been presented in prior research studies (Giancola et al., 2009; Hammer et al., 1998), CFC's effect on academic variables has not been measured before. For this sample, the mean for CFC was 2.89 (*SD* = .86), which is on a Likert scale from 1 to 5 and demonstrates the presence of moderate dual-role conflict for some college student-parents. Even at this

moderate level, the effect of CFC on academic variables, including GPA, was substantial. Given the literature demonstrating the deficiency of university support services for college student-parents and the lack of faculty understanding (Dyk, 1987; Hammer et al., 1998; Medved & Heisler, 2002; Menks & Tupper; 1987; Springer et al., 2009; Westring, 2010), the deleterious effect of CFC on academic variables illustrates the difficulties college student-parents face and suggests the need for greater attention to this population.

Further, this model demonstrates the applicability of the Work-Family Conflict (WFC; Greenhaus & Beutell, 1985) model to college student-parents. There is a vast amount of research that reports WFC's deleterious effect on both work outcomes (Allen et al., 2000; Boyar et al., 2005; Greenhaus et al., 1997; Van Eck Peluchette, 1993) and non-work related variables (Allen et al., 2000; Greenhaus et al., 1987; Kossek & Ozeki, 1998; Matthews et al., 1996; O'Driscoll et al., 1992). This study extends these findings to important behavioral and performance outcomes in the college setting. This study was the first to apply WFC to college student-parents and demonstrates the need for further application of CFC in research. Understanding that this dual-role conflict exists and negatively impacts important academic variables, confirms the difficulties college student-parents experience. These findings suggest the need for accommodations in order for this population to have the same opportunity to succeed academically, as compared to their non-parent counterparts.

More specifically, CFC leads to perceptions of disrupted study quantity and quality, as well as influences students' classroom attendance and beliefs about their ability to succeed academically. Ultimately, this affects their GPA, which is the chief evaluative measure of academic success in our educational system. Given this significant

impact, college student-parents must find methods of counterbalancing this conflict and capitalizing on their strengths and resources. Given CFC's effect on the academic variables specified in the model, it could be assumed that CFC may be associated with other important academic variables, as well, such as social support/parental support and study skills.

Although this model was designed to assess for CFC's effect on academic variables, the model provides further understanding of the relationships among several important academic variables as well. The current research literature reports discrepant findings on the direct influence between GPA and study, absences, and class lateness (Balduf, 2009; Caska & Prentice, 2009; Gortner Lahmners & Zulauf, 2000; Landrum et al., 2006; Plant et al., 2005). This may be due to several intervening variables influencing GPA. This model allowed for the testing of the relationships between these variables and GPA when academic self-efficacy was also considered. In this data collection, when taken individually GPA was significantly correlated to the number of hours of study per week (r = .147, p = .006), the self-reported quality of study (r = .339, p = .000), the frequency of absences in a semester (r = -.337, p = .000), the frequency of being 10 minutes or more late for class (r = -.158, p = .003), the frequency of study time being interrupted by family demands (r = -.128, p = .017), the frequency of wanting more time to study but being unable to due to family demands (r = -.120, p = .026), and the frequency of wanting a better quality of study but being unable to due to family demands (r = -.170, p = .002). The three latter measures were combined for this model's latent Study variable. Even though there were significant bivariate correlations between the Study variable's individual items and GPA, when academic self-efficacy was in the

model, then there was no direct relationship between Study and GPA. This may be due to the effect that perceived study disruption has on academic self-efficacy and the significant impact that academic self-efficacy has on GPA causing this direct relationship between Study and GPA to diminish when academic self-efficacy is included in the model.

Notable Findings

In addition to the model being supported, there were several noteworthy findings from this data collection. As anticipated, gender differences existed in this sample. Men experienced significantly less CFC (M = 2.56, SD = 0.93) than women (M = 2.96, SD = 0.82) as well as reported a significantly lower percentage of time in their parenting role. Men did not differ significantly from women in their attendance, class lateness, or academic self-efficacy, but did report less interruption in their study time and less frequent desire for uninterrupted or better quality study than women reported. A choice was made to test the model with all parents, but future research might focus on male parents separately from female parents.

Not surprisingly, there were differences between graduate and undergraduate parents on some academic variables. Given the different nature of graduate and undergraduate programs, expected differences were found between absences (undergraduate M = 2.68, SD = 2.55; graduate M = 1.82, SD = 2.18) and GPA (undergraduate M = 3.30, SD = 0.47; graduate M = 3.72, SD = 0.36). However, undergraduates and graduates did not differ significantly on CFC, academic self-efficacy, attendance, tardiness, or desire for more uninterrupted study time and quality.

Remarkably from this sample, when asked about their perceived quality of university support for college student-parents, 29% of the sample endorsed "don't know" indicating that they did not know about services at their universities. This may indicate that universities with assistance for college student-parents may need to provide for more extensive outreach to make these services known. This finding may also supplement other studies' sole focus on the lack of university support services (Dyk, 1987; Hammer et al., 1998; Medved & Heisler, 2002; Menks & Tupper; 1987; Springer et al., 2009; Westring, 2010) and indicate that student-parents need to be targeted to be made aware of services that are provided.

Lastly, although employment was not included in this model, it is worthy to note that 71% of the participants worked in addition to their parenting and school responsibilities. This data is in line with other studies that have demonstrated the work-family-college conflict that many student-parents manage (Giancola et al., 2009; Hammer et al., 1998). These figures shed light on the multiple conflicting roles that exist for many student-parents and indicate the need for a multiple role conflict model for this population that also includes work.

Limitations

One limitation to this study was the collection of data through self-report of variables. Given the face validity of the construct being measured by the instruments, this may have resulted in the data being skewed. Further, some responses may have been interpreted as evaluative (e.g., GPA, self-efficacy), which may have resulted in participants responding in a manner that more positively reflects on them. However, responses were anonymous and, thus, participants were more likely to answer honestly.

The proposed study was designed to examine college student-parents' CFC and its impact on academic variables. Although there are likely several factors that influence the level of CFC in college-student parents, this study was not designed to assess these variables' contribution to CFC. Although this limited the scope of inferences that could be made about the source of college student-parents' experience of CFC, this study laid the groundwork for further research of college student-parents' CFC.

Another limitation to this study was this study's inability to measure all variables related to academic performance and success. The current literature suggests that numerous factors affect academic performance and GPA (Cruise & Lewis, 2009; Harackiewicz, Barron, Tauer, & Elliot, 2002; Honour, 1998), yet not all of these factors were applied to this path analysis. Examples of such additional factors that could account for academic performance and success are social support, parental support, university learning support services, study skills, intelligence quotient, and academic discipline aptitudes (i.e., math or linguistic giftedness).

Also, GPA scores were restricted in range and positively skewed. It is possible that associations between model variables and GPA might have been even stronger had GPA been more normally distributed.

Lastly, the sample was comprised of a disproportionate number of graduate students. Although 42.3% of the sample was made up of undergraduate students, graduate student responses to academic questions are likely different than undergraduate students and may have skewed the data making the results less generalizable to undergraduate students. As mentioned above, graduate students differed significantly on absences and GPA. Nevertheless, this study's aim was to examine CFC's effect on

academic variables regardless of academic development or graduate/undergraduate status. Further, no significant difference was found on CFC between graduate and undergraduate students. Comparing graduate student-parents experience of CFC to undergraduate student-parents' in future studies may provide for a fuller picture of CFC's effects. Also the mean age for the total sample (33.8 years, 31.3 years for the undergraduates) was considerably older than the traditional 18-22 year-old student, suggesting the findings may not generalize to young college student-parents.

Clinical Considerations

This study highlights the multiple roles that college student-parents face and the conflict this creates. Clinicians working with college student-parents should be aware of this conflict and the multiple expectations assigned to college student-parents to function highly in both roles. In light of the time-based conflict of this population, it would be helpful for clinicians to work to improve the skill of time management (Chen, Sun, Wang, & Fang, 2011). Identifying and implementing behavioral techniques to decrease procrastination and anxiety-related feelings of being overwhelmed could reduce time-based conflict (Zhang & Cai, 2010). Specifically, Zhang and Cai (2010) demonstrated the relationship between self-esteem, coping style, and procrastination for college students. Therapists are in a unique position to work with student-parents on their coping skills, time management, academic responsibilities, and subsequent stress and mental health symptoms that come from balancing multiple roles.

Stress due to academic problems is one of the most common problems that brings college students to counseling (Beard, Elmore, & Lange, 1982). Given that this study demonstrates the additional burden that college student-parents may face, clinicians

should assess for this stress and capitalize on resources and strengths that are known to assist students with academic difficulties (e.g., social support, ability to multi-task). Practitioners should assess the clients' self-efficacy in managing these roles and work toward increasing their self-efficacy (Pantel, 2008). University counselors and psychologists should be aware of the referral options for tutoring and academic assistance, particularly if there are accommodations for student-parents on campus. Additionally, Hammer et al. (1998) encouraged clinicians to aid student-parents in developing coping skills for this difficult time.

More specifically, this study illustrates the difficulty that CFC creates for attending class, studying effectively, being confident in their ability to succeed in their academic pursuits, and ultimately in attaining good grades. A clinician working with a college student-parent may assess for their level of CFC and understand that those clients reporting more conflict may also experience difficulties in one or several of these areas. Particular attention to methods of mitigating this conflict may assist in their academic functioning and decrease subsequent stress. These may include behavioral interventions to improve on an area that is particularly troubling. For instance, spending time discussing a college student-parent's options for finding a place and time to improve their study quality could be of benefit to a college student-parent and may improve other areas of their life, as well.

Given that WFC was shown to have harmful effects on non work-related variables (Allen et al., 2000), clinicians should be aware of the potential for additional life stressors among this population. Some areas in which CFC may have a similar negative impact are interpersonal and romantic relationships, generalized stress and psychological strain, and

physical/somatic symptoms (Allen et al., 2000; Greenhaus et al., 1987; Kossek & Ozeki, 1998; Matthews et al., 1996; O'Driscoll et al., 1992). Developing interventions to decrease this stress, while understanding the responsibilities that exist due to their multiple roles, will allow provide for more plausible behavioral changes that are sensitive to the client's reality conditions.

Future Research

This study substantiates the application of the WFC model (Greenhaus & Beutell, 1985) of dual role conflict to college student-parents. The model put forth in this study only includes a limited number of academic variables that could be affected by CFC. Future researchers may expand this model to include a more full set of academic variables, such as social support/parental support and study skills. Also, this study only explored one direction of the bidirectional effect of CFC. Future researchers may also study CFC's effect on non-college related variables, in the same way that the literature has found numerous harmful consequences of WFC on non-work variables such as levels of life and marital satisfaction, levels of stress, higher general psychological strain, and physical/somatic complaints (Allen et al., 2000; Greenhaus et al., 1987; Kossek & Ozeki, 1998; Matthews et al., 1996; O'Driscoll et al., 1992).

Of great importance would be the exploration of mitigating influences of CFC. Given this model's indications of the negative effects on academic variables and the other potential deleterious effects CFC could have on other areas of college student-parents' lives, understanding how to reduce the conflict for this population could aid student-parents and provide universities with strategies to support this population. Current research supports possible mitigating factors such as social support, university support

services, and faculty flexibility (Lovik, 2004; Medved & Heisler, 2002; Springer et al., 2009). Future studies could attempt to identify which university services or faculty accommodations may reduce CFC and, thus, aid college student-parents in succeeding academically. Similarly, researchers could attempt to identify which coping mechanisms or support student-parents receive in their personal life may diminish the conflict that this population deals with. In so doing, interventions could be implemented to either capitalize on resources of student-parents or teach important skills to cope with CFC.

Additionally, from this sample 71% of participants worked an average of 28 hours per week. This astonishing finding lends support to extending the model of CFC to include a work role and is in line with the current research literature. Hammer, Grigsby, and Woods (1998) also studied the existence of the work-family-school model of conflict and found work-family conflict and school-family conflict to be significant areas of concern for college student-parents who work. These findings indicate the potential benefit of creating a model that includes all three roles for those college students balancing these roles and their subsequent conflict.

Lastly, comparing graduate student-parents experience of CFC to undergraduate student-parents in future studies may provide for richer understanding of CFC's effects. In this study, graduate students had significantly higher GPA and fewer absences. Understanding the differences in the effects of CFC between undergraduate and graduate students along with the different assistance they may require could be helpful in developing interventions for student-parents, especially undergraduates who may have less of the protective academic self-efficacy.

Conclusion

The results of this study provide a model of dual-role conflict for college student-parents. The results demonstrate how their roles of parent and college student conflict and adversely affect their study, class attendance and tardiness, academic self-efficacy, and indirectly impact their GPA. These findings should be understood to reflect only part of the effect of CFC and provides evidence for the further application of the WFC model to college student-parents. The findings highlight the importance of the additional support college student-parents need and the future research that could be done to find ways to lessen this conflict.

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Appendix A

Demographics

1. Age: _____
2. Gender
    a. Male
    b. Female
    c. Other:_____
3. Race/Ethnicity
    a. African American, Black
    b. Asian American
    c. Caucasian, White
    d. Latino, Hispanic
    e. Native American
    f. Pacific Islander
    g. Biracial, Multiracial
    h. Other:_____
4. Current Year in College
    a. Freshman
    b. Sophomore
    c. Junior
    d. Senior
    e. 5th or higher year in undergraduate
    f. Master's level student
    g. Doctoral level student
    h. Other:_____
5. Number of Children under the age of 18 that live in your household_____
    Children's ages:_____
    Percentage of an average day that someone else in your household (spouse, parent, grandparent) takes care of your child(ren):_____
6. Number of full semesters in which you have been both a parent of a child under the age of 18 and a student_____
7. US region in which you study:_____
8. Growing up in my family we:
    a. Often struggled financially
    b. Mostly did ok financially
    c. Were mostly well off
9. Percentage of your average day spent in parenting duties (e.g. childcare, driving child to events, etc.) _____
10. On a scale from 1-10 (10 is the most helpful and 1 is the least helpful), how helpful do you think your university is in supporting college student-parents? _____ or Don't know_____

Appendix B

Work-Family Conflict Scale – *Adjusted* (Carlson & Kacmar, 2000)

Participants will answer the following questions on a Likert scale from 1-5, 5 being the most true for their situation and 1 being the least true for their situation.

Time-based family interference with college:

1. The time I spend on family responsibilities often interfere with my college responsibilities.
2. The time I spend with my family often causes me not to spend time in activities at college that could be helpful to my academic success.
3. I have to miss college activities due to the amount of time I must spend on family responsibilities.

Strain-based family interference with college:

4. Due to stress at home, I am often preoccupied with family matters when at college.
5. Because I am often stressed from family responsibilities, I have a hard time concentrating on my college work.
6. Tension and anxiety from my family life often weakens my ability to do my college work.

Behavior-based family interference with college:

7. The behaviors that work for me at home do not seem to be effective in college.
8. Behavior that is effective and necessary for me at home would be counterproductive in college.
9. The problem-solving behavior that works for me at home does not seem to be as useful in college.

Appendix C

Beliefs in Educational Success Test (BEST; Majer, 2006)

Participants will respond to the following questions with a score between 1-100 rating their belief in their ability to succeed in their education.

How confident are you…

_____ 1. …that you will do well in future courses?
_____ 2. …in your ability to learn new information?
_____ 3. …in completing your homework assignments?
_____ 4. …in understanding reading assignments?
_____ 5. …in your ability to study notes?
_____ 6. …that you will pass your courses?
_____ 7. …that you will complete all required coursework for your degree/program?
_____ 8. …in your ability to work with others on class projects?
_____ 9. …to seek your professors' help during office hours?
_____ 10. …that you are in control of your education?

Appendix D

GPA – Study Time/Quality – Absenteeism, Being Tardy, Leaving Class Early

1. What is your current, cumulative college Grade Point Average (GPA)? _____
2. On average, how many hours do you study each week for your classes? _____
3. How would you rate the quality of that study time, on a scale from 1-10 (one being the lowest quality and 10 being the highest quality)? _____
4. In an average semester, how many times will you miss or skip your classes completely?_____
5. In an average semester, how many times will you be 10 or more minutes late for your classes?_____
6. In an average semester, how many times will you leave your classes ten or more minutes before the class has finished?_____
7. How often is your study time interrupted by family demands?
   Never/Sometimes/Frequently/Almost Every Time
8. How often do you wish you had more time to study, but just don't have more available time because of family commitments?
   Never/Sometimes/Frequently/Almost Every Day
9. How often do you feel that you would have liked to have had higher quality study time, but couldn't because of family commitments?
   Never/Sometimes/Frequently/Almost Every Time I Study